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Harder Won and Easier Lost? Testing the Double Standard in Gender Rules in 62 Countries

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Abstract

Precarious manhood theory posits a double standard in gender rules such that prescriptions ("shoulds") and proscriptions ("should nots") are endorsed more strongly for men than for women. Here, we tested this hypothesis by asking whether people view agency as more desirable in men than communion is in women, and weakness as less desirable in men than dominance is in women. Data from college undergraduates in 62 countries ($N = 27{,}343$) indicated that: (1) measures of agency, communion, weakness, and dominance are psychometrically comparable across countries; (2) prescriptions (agency for men, communion for women) are variable across countries, whereas proscriptions (weakness for men, dominance for women) appear universal; (3) double standards in prescriptions (men's agency as more desirable than women's communion) are larger in countries lower in gender equality and human development, whereas double standards in proscriptions (men's weakness as less desirable than women's dominance) do not covary with country-level factors; and (4) these patterns are moderated by participant gender in nuanced ways, and are robust to control by individual-level gender beliefs. Discussion considers the theoretical and practical significance of these findings for understanding how young adults – as cultural agents of gender socialization – hold men to asymmetrically rigid gender rules.

Keywords Precarious manhood · Sex roles · Gender stereotypes · Gender equality · Cross-cultural differences · Gender socialization

Gender theorists have long proposed that the male (versus the female) gender role comprises a set of relatively rigid rules (Archer, 1992; Gilmore, 1990; Pleck, 1981). And yet, no research tests this assumption directly by comparing the strength with which perceivers endorse gender rules for men versus women. Here, using precarious manhood theory as a frame (Vandello et al., 2008), we test the double standard in gender rules by asking whether people endorse trait-based gender prescriptions and proscriptions (i.e., rules conveying the traits that people of different genders should and should not have) more strongly for men than women. Specifically, this preregistered study (https://osf.io/6739n) examines the universality of trait-based binary gender prescriptions and proscriptions among college students in 62 countries ($N = 27{,}343$); compares the strength of endorsement of these rules for men versus women; and tests whether the double standard in gender rules is larger in less gender equal countries.

Precarious Manhood and the Double Standard in Gender Rules

Precarious manhood theory states that manhood, relative to womanhood, is widely conceptualized as a social status that is hard to win, easy to lose, and must be proved repeatedly via action (Vandello et al., 2008). Evidence from diverse cultures indicates that people around the world recognize the belief that "real men are made, not born" (Bosson et al., 2021; Gilmore, 1990). In contrast, in many cultural contexts, womanhood is conceptualized more readily as a biological certainty that need not be earned or proved as regularly as manhood.

Boys and men presumably learn about the precarity of manhood status via socialization experiences, including

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pressures to internalize and uphold relatively strict gender rules. Gender rules are injunctive aspects of gender stereotypes: Whereas gender stereotypes describe qualities associated with people of different genders, gender rules indicate traits that people of different genders should (and should not) display (Burgess & Borgida, 1999; Prentice & Carranza, 2002). Although all cultures socialize children to follow gender rules, precarious manhood theory posits a double standard such that rules for boys and men are stricter than rules for girls and women. This assumption reflects the higher social status that men versus women enjoy in most societies (Correll & Ridgeway, 2003; Sidanius & Pratto, 2001). Membership in the higher status gender group grants men more respect, esteem, and social influence, but these advantages come with a cost: The boundaries protecting group membership are policed more heavily for high-status than low-status groups (e.g., Mize & Manago, 2018). In this sense, manhood relative to womanhood is "harder won, easier lost." Assiduous policing of group boundaries, in turn, functions to protect men's privileged status and justify their advantaged social position.

As noted, people around the world recognize the notion that manhood is a relatively precarious social status. Illustrating this, a four-item scale of precarious manhood beliefs ("Other people often question whether a man is a 'real man,'"; "It is fairly easy for a man to lose his status as a man") displayed adequate psychometric isomorphism, indicating that scores collected at the individual level reflect a meaningful country-level attribute (Bosson et al., 2021). And yet, no studies have examined whether people also endorse trait-based gender rules more strongly for men than women. However, some findings – from predominantly Western cultures – offer indirect evidence of a double standard in broadly-defined gender rules. For instance, boys report feeling more external pressure to exhibit gender-typical behaviors, and to avoid gender-atypical behaviors, than girls do (Jackson & Bussey, 2020; Jackson et al., 2021). Moreover, boys (compared to girls) who flout gender rules encounter more rejection, bullying, and negative evaluations from peers (Pauletti et al., 2014) and adults (Roberts et al., 2013; Sullivan et al., 2018), and more censure and punishment from parents (Lytton & Romney, 1991; Spivey et al., 2018). In adolescence, gender nonconformity is more strongly associated with peer victimization among young men than women (van Beusekom et al., 2020). These findings indicate that boys and men versus girls and women face harsher sanctions for violating gender rules, but they do not demonstrate that perceivers themselves necessarily endorse this double standard. After all, it is possible that boys and men who violate gender rules face relatively harsh sanctions because their rule violations are particularly transgressive or disruptive, and not because perceivers and other socializing agents desire or expect more rigid gender rule adherence from them.

More germane to the current investigation, one set of studies examined the number and strength of male and female prescriptive and proscriptive gender rules across different age groups and found that gender rules for men were generally more restrictive than gender rules for women (Koenig, 2018). While these findings are consistent with the assumption of a double standard in gender rules, the study lacked a direct comparison of the strength with which perceivers endorsed gender rules for men versus women. Moreover, the samples were limited to U.S. respondents, thereby limiting the generalizability of the findings.

Contents of Gender Prescriptions and Proscriptions

The current study fills a gap in our knowledge by directly comparing the strength with which college-aged, educated perceivers in 62 countries endorse trait-based gender prescriptions (*agency* for men versus *communion* for women) and proscriptions (*weakness* for men versus *dominance* for women). Note that gender prescriptions and proscriptions are not mirror images, but instead reflect distinct dimensions of evaluation. Prescriptions – i.e., agency and communion – reflect two broad dimensions underlying many social evaluations (Bakan, 1966; Fiske et al., 2007). Whereas agency includes traits signifying independence and mastery, communion includes traits signifying connectedness and warmth. Mapping these dimensions onto binary gender, men are prescribed agentic qualities such as leadership, ambition, and competitiveness, and women are prescribed communal qualities such as helpfulness, nurturance, and sensitivity to others (Rudman et al., 2012b).

In contrast, proscriptions of weakness for men and dominance for women map onto a third dimension, called *potency* (Kervyn et al., 2013) or *dominance* (Rudman et al., 2012b), that is distinct from agency and communion. Potency includes traits, such as "strength" versus "weakness" and "heavy-handedness" versus "gentleness," that convey how much control and influence a person can exert. Although potency correlates positively with agency and negatively with communion, it captures a specific subset of traits with relevance for gender proscriptions: Men are proscribed low potency traits such as weakness and naivete, and women are proscribed high potency traits such as dominance and arrogance. According to the status incongruity hypothesis (Moss-Racusin et al., 2010; Rudman et al., 2012b), this is because potency traits directly implicate status. Thus, men ought not display weakness, and women ought not display dominance, because such traits are incongruous with men's and women's placement within the gender hierarchy.

Here, we apply a precarious manhood lens to the literature on trait-based gender prescriptions and proscriptions by testing whether people endorse a double standard in gender rules. We expect people to report that agency is more desirable for men than communion is for women, and that weakness is less desirable for men than dominance is for women.

Links to Country-Level and Individual-Level Variables

Across cultures, women are described as more communal than men and men are described as more agentic than women (Williams & Best, 1990). However, no research has examined the cross-country universality of gender prescriptions and proscriptions. Moreover, with some exceptions (e.g., Breda et al., 2020; Cuddy et al., 2015), few studies examine how gender stereotypes covary with country-level factors. Thus, this study tests whether people universally endorse men's versus women's trait prescriptions and proscriptions more strongly, and whether the size of this double standard covaries with country- and individual-level factors.

We theorized that gender differences in trait prescriptions and proscriptions should be larger in countries lower in gender equality. Our measure of gender equality was the Global Gender Gap Index (GGGI; World Economic Forum, 2020), which benchmarks women's country-level disadvantages relative to men's in education, economic opportunity, politics, and health. Countries lower in GGGI have more patriarchal social structures and traditional sex-based labor divisions, and residents of less gender equal countries endorse more traditional gender ideologies (Glick et al., 2000, 2004). Given that gender rules socialize people into binary labor roles (Wood & Eagly, 2002, 2012), it is unsurprising that people in less gender equal countries endorse stronger gender rules. Here, however, we theorized that increases in the strength of men's gender rules in less gender equal countries should outstrip increases in the strength of women's gender rules. That is, the size of the double standard in gender rules should increase with decreases in gender equality. Our logic is that men, on average, experience more intragroup competition and hierarchical social stratification than women (Wilson & Daly, 1992), and the hierarchical nature of male-male social relations is more intense in more patriarchal contexts (Betzig, 1992; Smuts, 1995). In contrast, women's intragroup status and status-related outcomes are less variable, hierarchical, and competitive than men's (Vandello et al., 2008; Wilson & Daly, 1992). If men's intragroup competition for status and resources is especially fierce in less gender equal countries, then people in such countries should view it as especially desirable for men to embody agency and eschew weakness. This pattern of gender rule endorsement would presumably socialize boys and men to internalize traits that facilitate success in competitive contexts characterized by risk and uncertainty.

Consistent with this logic, people in lower GGGI countries endorse stronger male role prescriptions of protection and provision for women and family (Glick et al., 2000; Wood & Eagly, 2012), and they stereotype men as tougher, more power-hungry (Glick et al., 2004), and better suited for leadership roles (Brandt, 2011). Moreover, people in lower GGGI countries endorse precarious manhood beliefs more strongly (Bosson et al., 2021; Valved et al., 2021), indicating awareness of men's intragroup struggles in more patriarchal contexts. Thus, we expected to find larger gender differences in trait prescriptions and proscriptions – that is, larger double standards – in countries lower versus higher in GGGI.

As control variables, we included country-level wealth and human development (The Inequality-Adjusted Human Development Index [IHDI]; United Nations Development Programme, 2020) and acceptance of LGBT people (the Global Acceptance Index [GAI]; Williams Institute, 2019). The IHDI measures countries' average income, health, and education, adjusted for the inequality associated with each dimension, and we included it because wealthier and more developed countries are higher in gender equality (Ingelhart et al., 2003; Kuppens & Pollet, 2015). The GAI measures positive, inclusive attitudes toward LGBT individuals and policies, and we included it to account for variance in gender rule endorsement that reflects attitudes toward sexual minority individuals, who are often seen as violating gender rules (Berent et al., 2016; Lehavot & Lambert, 2007).

We also controlled two individual-level variables: awareness of gender inequality and precarious manhood beliefs. This should allow a strong test of the role of GGGI in prescription and proscription endorsement by asking if this objective gender index predicts individuals' endorsement above and beyond their personal gender beliefs. We controlled awareness of gender inequality because it is an individual-level proxy for country-level gender equality, and precarious manhood beliefs because of their theoretical relevance for people's endorsement of gender rules.

Finally, we explored the moderating role of binary participant gender in the links between GGGI and double standards in gender rules. On the one hand, men often report more traditional gender beliefs than women (Brewster & Padavic, 2000; Larsen & Long, 1988), and men are often harsher critics of boys' and men's gender violations than women are (Kane, 2006; Pryor & Whalen, 1997). If so, then we might expect men, relative to women, to be the primary drivers of double standards in gender rules, and especially in less gender equal countries where men's intra-group status is more competitive. On the other hand, around the world, undergraduate men do not consistently endorse precarious manhood beliefs more strongly than undergraduate women (Bosson et al., 2021), and in experiments, women and men

tend to respond similarly to targets who violate gender rules (cf. Rudman et al., 2012a). Given these mixed findings, we lack strong justification for confirmatory predictions regarding binary participant gender, so we preregistered analyses with participant gender as exploratory.

Study Overview and Hypotheses

Although scholars have long characterized the male (versus the female) gender role as relatively rigid, we lack direct evidence that perceivers endorse trait-based prescriptions and proscriptions more strongly for men than women. We also lack knowledge of the cross-country universality of gender rules. The current study fills these gaps by comparing the strength with which college undergraduate women and men, in 62 countries, endorse trait prescriptions and proscriptions for men versus women. This is important, because it asks whether young adults – as cultural agents of gender socialization – endorse a double standard in gender rules. Such a finding would not only validate men's felt pressures toward gender conformity, but it might also suggest a mechanism by which cultures perpetuate beliefs in the precarity of manhood.

We first asked, across countries, whether agency and weakness are prescriptions and proscriptions for men, and communion and dominance are prescriptions and proscriptions for women (*Hypothesis 1*). This hypothesis was not preregistered and is thus treated as exploratory. Next, we tested the following preregistered confirmatory hypotheses and exploratory questions (https://osf.io/6739n). *Hypothesis 2*: College students will rate agency as more desirable for men than communion is for women, and they will rate weakness as less desirable for men than dominance is for women. That is, we should observe significant target gender differences (i.e., double standards) in prescriptions and proscriptions. *Hypothesis 3*: Double standards in prescriptions and proscriptions will be larger in countries that are lower in gender equality (GGGI). *Exploratory questions*: Does participant gender moderate the association between GGGI and double standards in prescriptions and proscriptions? Are associations between GGGI and double standards in prescriptions and proscriptions robust to controls including country-level LGBT acceptance (GAI) and human development (IHDI), and individual-level awareness of gender inequality and precarious manhood beliefs?

Before testing hypotheses and questions, we examined the measurement invariance of the prescriptions and proscriptions scales. Measurement invariance is the psychometric equivalence of a construct across different groups, allowing meaningful cross-group comparisons (Boer et al., 2018; van de Vijver & Leung, 2021). We tested here for configural (factor structure) invariance, metric (factor loading)

invariance, and scalar (item intercept) invariance (Milfont & Fisher, 2010; Millsap, 2011) using multiple-group confirmatory factor analysis (MG-CFA). Because MG-CFA has disadvantages when the number of groups is large (Kim et al., 2017), we followed other cross-cultural investigations (cf. Rogoza et al., 2021) and grouped the 62 countries into 13 world regions (United Nations Statistics Division, 2021) in measurement invariance tests.

Method

Participants and Procedure

Data for the current study were collected from January 2018 to February 2020 as part of a larger project (https://osf.io/mq48y). Participants were college undergraduates in 62 countries who volunteered and (in most countries) received no compensation. Prior to data collection, researchers' respective IRBs reviewed and approved all methods for compliance with standards for the ethical treatment of human participants. All participants gave informed consent before completing a survey online or on paper that included more scales than described here (see https://osf.io/mq48y); the order of measures was randomized. From the initial sample ($N = 33,313$), we removed records from individuals who provided incomplete data ($N = 2,770$), reported nonbinary gender identity ($N = 637$), or did not report gender ($N = 1,109$). This left a total of $N = 27,343$ respondents (63% women). See Table 1.

Measures

Bilingual scholars translated all items from English to the target language, and an independent translator back-translated them. Descriptive statistics (internal consistency reliabilities, means, standard deviations, and country-level scores) for all measures appear in Tables 1 and 2, as well as Tables S1 and S2 in the online supplement.

Gender Prescriptions and Proscriptions

For each of 32 traits, participants rated "How desirable is it in your society for a woman [man] to possess this trait?" Traits, selected from research on gender stereotypes and rules (Prentice & Carranza, 2002; Rudman et al., 2012b; Williams & Best, 1990), assessed agency (*competent*, *confident*, *has leadership abilities*, *determined*, *courageous*, *active*, *capable*, *independent*), weakness (*weak*, *timid*, *submissive*, *fearful*, *cowardly*, *dependent*, *uncertain*, *insecure*), communion (*compassionate*, *helpful to others*, *sympathetic*, *understanding of others*, *aware of others' feelings*, *devoted to others*, *warm*, *supportive*), and dominance (*bossy*, *dominant*,

Table 1 Sample Composition and Country-Level Variables for Each World Region and Country

Region/Country	N	M_{Age}	SD_{Age}	% Female	% Male	GGGI	IHDI	GAI
Africa	1158	22.42	6.02	57.7	42.3	–	–	–
Ghana	256	20.27	2.65	57.4	42.6	.673	.440	3.0
Morocco	226	29.00	9.77	53.5	46.5	.605	–	3.4
Nigeria	349	21.31	3.28	58.2	41.8	.635	.348	2.9
South Africa	327	20.62	2.49	60.2	39.8	.780	.468	6.2
Anglo America	1498	20.13	3.88	69.2	30.8	–	–	–
Canada	851	19.92	3.34	68.5	31.5	.772	.848	8.2
USA	647	20.41	4.49	70.0	30.0	.737	.808	7.2
Central Europe	3885	25.44	8.08	60.8	39.2	–	–	–
Czechia	347	27.83	8.28	25.6	74.4	.706	.860	6.0
Germany	1213	30.03	10.50	64.4	35.6	.787	.869	7.4
Hungary	601	22.39	4.34	82.0	18.0	.677	.791	4.9
Poland	716	22.99	4.74	56.4	43.6	.736	.813	4.8
Slovakia	476	22.00	4.48	53.6	46.4	.718	.807	5.0
Switzerland	532	23.38	5.34	63.7	36.3	.779	.889	7.4
East Asia	1087	20.88	4.62	66.9	33.1	–	–	–
China	567	19.48	1.98	65.1	34.9	.676	.639	3.9
Japan	191	21.54	2.49	57.6	42.4	.652	.843	4.9
Vietnam	329	22.69	7.15	75.4	24.6	.700	.588	4.6
Eastern Europe	1339	21.87	6.01	66.5	33.5	–	–	–
Lithuania	281	23.93	6.73	69.0	31.0	.745	.791	4.1
Romania	210	22.75	4.44	59.5	40.5	.724	.730	4.1
Russia	604	21.72	6.77	68.4	31.6	.706	.740	3.4
Ukraine	244	19.09	1.37	65.2	34.8	.655	.728	3.3
Euroasia	666	20.49	3.32	51.5	48.5	–	–	–
Armenia	185	20.02	1.91	42.7	57.3	.684	.699	2.2
Georgia	145	21.76	3.14	51.7	48.3	.708	.716	2.7
Kazakhstan	336	20.21	3.83	56.3	43.8	.710	.766	3.1
Latin America	2529	24.34	8.52	61.5	38.5	–	–	–
Argentina	370	32.60	12.15	52.2	47.8	.746	.729	6.9
Brazil	881	23.94	7.57	69.1	30.9	.691	.570	6.8
Chile	197	21.74	5.35	65.0	35.0	.723	.709	6.7
Colombia	491	21.52	5.01	60.5	39.5	.758	.595	5.9
Mexico	297	23.66	8.81	52.5	47.5	.754	.613	6.3
Suriname	142	23.01	5.52	56.3	43.7	.707	.535	5.4
Uruguay	151	22.68	6.23	61.6	38.4	.724	.712	7.6
Middle East	1948	22.18	4.58	67.0	33.0	–	–	–
Iran	144	29.50	8.26	59.7	40.3	.584	.693	2.4
Lebanon	103	19.56	.90	70.9	29.1	.599	–	4.1
Turkey	1298	22.26	3.92	68.1	31.9	.635	.683	4.4
UAE	403	20.04	1.50	65.0	35.0	.721	–	–
Northern Europe	1257	25.66	6.56	61.7	38.3	–	–	–
Denmark	233	25.22	4.35	59.2	40.8	.782	.883	7.9
Finland	261	26.10	7.10	88.5	11.5	.832	.888	7.4
Norway	173	23.00	3.94	54.3	45.7	.842	.899	8.2
Sweden	590	26.41	7.39	52.9	47.1	.820	.882	7.9
Oceania	808	26.92	10.82	67.3	32.7	–	–	–
Australia	595	29.83	11.25	66.1	33.9	.731	.867	7.3
New Zealand	213	19.00	2.33	70.9	29.1	.799	.859	7.5
South Asia	1474	21.39	4.28	55.0	45.0	–	–	–
India	285	22.07	5.46	60.7	39.3	.668	.475	4.5

Table 1 (continued)

Region/Country	N	M_{Age}	SD_{Age}	% Female	% Male	GGGI	IHDI	GAI
Indonesia	217	21.02	3.96	53.0	47.0	.700	.590	2.8
Nepal	168	22.84	5.60	61.3	38.7	.680	.446	7.8
Pakistan	414	22.15	3.88	53.4	46.6	.564	.384	2.4
Philippines	390	19.83	2.15	51.0	49.0	.781	.587	6.6
Southern Europe	5284	23.44	6.59	67.2	32.8	–	–	–
Albania	197	23.19	5.24	62.4	37.6	.769	.708	3.5
Bosnia	170	23.02	5.65	50.6	49.4	.712	.667	3.1
Croatia	286	23.28	5.90	78.7	21.3	.720	.783	5.2
Greece	250	26.24	8.97	71.2	28.8	.701	.791	5.0
Italy	2146	22.79	5.18	66.3	33.7	.707	.783	6.4
Kosovo	336	20.34	4.10	59.5	40.5	.769	.708	2.9
Malta	225	26.63	9.97	67.1	32.9	.693	.823	7.6
Portugal	150	22.32	5.19	82.0	18.0	.744	.761	6.4
Serbia	597	22.23	5.26	76.7	23.3	.736	.705	4.2
Spain	927	25.70	8.61	63.0	37.0	.795	.783	8.1
Western Europe	4410	21.87	6.34	60.2	39.8	–	–	–
Belgium	1562	21.55	6.02	52.8	47.2	.750	.859	7.9
England	604	22.40	7.87	61.4	38.6	.767	.856	7.7
France	316	22.21	6.87	82.3	17.7	.781	.820	7.1
Ireland	537	19.77	3.63	53.6	46.4	.798	.885	7.9
Luxembourg	174	24.56	5.32	64.9	35.1	.725	.826	7.7
Netherlands	766	20.63	3.48	67.6	32.4	.736	.878	8.6
Northern Ireland	263	22.18	5.81	60.8	39.2	.767	.856	7.7
Wales	188	30.44	10.38	62.8	37.2	.767	.856	7.7
Total	**27,343**	**23.08**	**6.86**	**63.0**	**37.0**	**–**	**–**	**–**

GGGI global gender gap index, *IHDI* income-adjusted human development index, *GAI* global acceptance index

intimidating, *feels superior*, *dictatorial*, *aggressive*, *arrogant*, *boastful*). Traits were rated on scales of 1 (*not at all desirable*) to 7 (*very desirable*) and recoded to a –3 to + 3 scale for analyses. We created composites for each prescription and proscription by averaging items (αs = .74–.98). Across countries, prescription *M*s ranged from –.53 to + 2.52 (*SD*s from .65 to 2.60), and proscription *M*s ranged from –2.52 to + .28 (*SD*s from .54 to 2.62).

Precarious Manhood Beliefs

Participants indicated their agreement with four items (Bosson et al., 2021) conveying beliefs that manhood is hard to earn ("Some boys do not become men no matter how old they get," "Other people often question whether a man is a 'real man'") and easy to lose ("It is fairly easy for a man to lose his status as a man," "Manhood is not assured – it can be lost"). Items were rated on scales of 1 (*strongly disagree*) to 7 (*strongly agree*) and we averaged them (αs = .45–.90). Country-level precarious manhood scores ranged from 3.07 to 5.18 (*SD*s from 0.98 to 1.89).

Awareness of Gender Inequality

Participants rated agreement, on a scale of 1 (*strongly disagree*) to 7 (*strongly agree*), with an item ("Overall, our society currently treats women less fairly than it treats men") from Glick and Whitehead (2010). We reverse-coded it so higher scores reflect less awareness of gender inequality. Country-level awareness of gender equality ranged from 3.41 to 5.72 (*SD*s from 1.48 to 2.27).

Global Gender Gap Index (GGGI)

The GGGI (World Economic Forum, 2020) indexes the size of women's disadvantage, relative to men's, in economic, education, health, and political arenas. Scores range from 0 (*disparity*) to 1 (*parity*). Across countries, GGGI scores ranged from 0.564 to 0.842.

Inequality Adjusted Human Development Index (IHDI)

The IHDI (United Nations Development Programme, 2020) measures countries' development, based on income (Gross

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Table 2 Descriptive Statistics, t-tests, and Effect Sizes (Cohen's *d*s) for Gender Differences in Prescriptions and Proscriptions

	Weakness		Dominance		Communion		Agency		Gender differences in prescriptions			Gender differences in prescriptions		
	Female M_{SD}	Male M_{SD}	Female M_{SD}	Male M_{SD}	Female M_{SD}	Male M_{SD}	Female M_{SD}	Male M_{SD}	M_{SD}	t	d	M_{SD}	t	d
Africa	-62(1.31)	-1.58(1.28)	-1.29(1.46)	-0.20(1.60)	1.93(1.29)	1.24(1.53)	1.51(1.46)	2.17(1.34)	0.24(0.91)	9.14***	0.27	-0.28(1.08)	-8.85***	0.26
Ghana	-72(1.20)	-1.69(0.86)	-1.52(1.15)	-0.28(1.50)	2.15(0.94)	1.52(1.19)	1.81(1.20)	2.52(0.73)	0.38(0.80)	7.55***	0.47	-0.17(1.09)	-2.45*	0.15
Morocco	-44(1.53)	-1.37(1.97)	-1.30(2.04)	-0.23(1.77)	1.47(2.10)	0.79(2.16)	0.79(2.12)	1.47(2.31)	0.00(1.04)	0.02	0.00	-0.07(0.97)	-1.08	0.07
Nigeria	-45(1.24)	-1.26(1.13)	-0.90(1.41)	-0.04(1.47)	1.88(1.13)	1.59(1.23)	1.75(1.23)	2.26(1.09)	0.38(1.03)	6.98***	0.37	-0.36(1.20)	-5.53***	0.30
South Africa	-85(1.26)	-1.96(0.93)	-1.53(1.13)	-0.28(1.69)	2.12(0.76)	0.98(1.38)	1.52(1.10)	2.28(0.74)	0.16(0.67)	4.19***	0.23	-0.44(0.98)	-8.08***	0.45
Anglo America	-89(1.24)	-2.03(0.92)	-1.76(1.03)	-0.58(1.47)	2.18(0.82)	1.18(1.35)	1.34(1.19)	2.19(0.85)	0.00(0.77)	0.25	0.01	-0.27(0.97)	-10.61***	0.27
Canada	-1.03(1.15)	-2.06(0.90)	-1.85(0.97)	-0.72(1.39)	2.17(0.80)	1.19(1.34)	1.41(1.15)	2.19(0.85)	0.02(0.80)	0.64	0.02	-0.20(0.93)	-6.35***	0.22
USA	-71(1.33)	-1.99(0.94)	-1.64(1.09)	-0.38(1.55)	2.19(0.86)	1.17(1.37)	1.25(1.24)	2.18(0.86)	-0.01(0.73)	-0.41	0.02	-0.35(1.00)	-8.78***	0.35
Central Europe	-1.33(1.15)	-2.30(0.70)	-1.87(0.85)	-1.14(1.22)	1.93(0.84)	1.14(1.17)	1.27(1.06)	2.05(0.76)	0.12(0.77)	9.77***	0.16	-0.43(0.84)	-31.58***	0.51
Czechia	-1.31(.98)	-2.11(0.75)	-1.92(0.77)	-1.39(1.03)	1.78(0.80)	1.31(0.99)	1.33(0.93)	1.92(0.80)	0.14(0.66)	3.94***	0.21	-0.19(0.62)	-5.75***	0.31
Germany	-1.42(1.18)	-2.34(0.67)	-1.91(0.83)	-1.11(1.31)	1.87(0.82)	0.97(1.17)	1.41(1.03)	2.09(0.71)	0.22(0.75)	10.06***	0.29	-0.42(0.76)	-19.42***	0.56
Hungary	-82(1.21)	-2.38(0.70)	-2.13(0.85)	-1.00(1.27)	2.13(0.77)	0.99(1.20)	0.88(1.13)	2.11(0.76)	-0.02(0.78)	-0.73	0.03	-0.24(0.82)	-7.33***	0.30
Poland	-1.14(1.06)	-2.35(0.66)	-1.55(0.80)	-0.75(1.04)	1.99(0.81)	1.21(1.11)	1.08(1.00)	2.14(0.65)	0.16(0.74)	5.64***	0.21	-0.79(0.86)	-24.81***	0.93
Slovakia	-1.62(1.04)	-2.28(0.68)	-1.95(0.82)	-1.49(1.06)	1.67(1.01)	1.07(1.23)	1.17(1.02)	1.81(0.90)	0.14(0.89)	3.40***	0.16	-0.33(0.85)	-8.47***	0.39
Switzerland	-1.72(1.06)	-2.21(0.76)	-1.84(0.89)	-1.45(1.23)	2.06(0.77)	1.54(1.10)	1.70(1.01)	2.05(0.80)	-0.01(0.76)	-0.28	0.01	-0.37(0.96)	-8.95***	0.39
East Asia	-1.11(1.21)	-1.92(0.90)	-1.40(0.94)	-1.16(1.05)	1.69(0.91)	1.70(0.98)	1.50(1.12)	2.03(0.89)	0.33(0.84)	13.19***	0.40	-0.52(0.94)	-18.19***	0.55
China	-0.89(1.27)	-1.82(1.00)	-1.41(1.06)	-1.13(1.17)	1.49(0.94)	1.53(1.02)	1.51(1.10)	1.97(0.95)	0.49(0.83)	13.99***	0.59	-0.41(0.98)	-10.04***	0.42
Japan	-1.08(1.10)	-1.59(0.73)	-1.43(0.89)	-1.34(1.05)	1.88(0.85)	1.87(1.03)	1.32(1.24)	1.80(0.88)	-0.08(0.79)	-1.36	0.10	-0.16(0.86)	-2.60*	0.19
Vietnam	-1.51(1.04)	-2.28(0.65)	-1.38(0.72)	-1.10(0.79)	1.95(0.82)	1.89(0.81)	1.59(1.08)	2.26(0.73)	0.31(0.79)	7.13***	0.39	-0.91(0.77)	-21.40***	1.18
Eastern Europe	-1.19(1.07)	-2.12(0.79)	-1.61(0.92)	-0.87(1.17)	1.87(0.91)	1.35(1.16)	1.11(1.10)	1.89(0.90)	0.02(0.94)	0.76	0.02	-0.51(0.88)	-21.20***	0.58
Lithuania	-1.16(1.13)	-1.95(0.83)	-1.56(0.90)	-0.97(1.05)	1.95(0.86)	1.22(1.27)	1.38(1.09)	1.98(0.82)	0.03(0.90)	0.49	0.03	-0.39(0.86)	-7.52***	0.45
Romania	-1.02(1.07)	-1.98(0.89)	-1.66(1.07)	-0.78(1.41)	2.03(1.05)	1.31(1.30)	1.44(1.20)	2.16(1.03)	0.13(0.74)	2.56*	0.18	-0.32(0.98)	-4.73***	0.33
Russia	-1.31(1.00)	-2.12(0.76)	-1.62(0.88)	-0.95(1.15)	1.94(0.83)	1.63(1.03)	0.90(1.01)	1.60(0.84)	-0.34(0.83)	-10.22***	0.42	-0.50(0.83)	-14.72***	0.60
Ukraine	-1.11(1.14)	-2.42(0.62)	-1.58(0.91)	-0.65(1.12)	1.47(0.95)	0.84(0.96)	1.03(1.08)	2.28(0.73)	0.82(0.88)	14.43***	0.92	-0.84(0.83)	-15.80***	1.01
Euroasia	-1.38(1.05)	-2.09(0.89)	-1.26(1.03)	-0.72(1.16)	1.73(1.01)	1.66(1.11)	1.34(1.15)	1.91(0.95)	0.17(0.97)	4.62***	0.18	-0.83(1.07)	-19.94***	0.77
Armenia	-1.51(0.90)	-2.30(0.81)	-1.31(0.96)	-0.61(1.04)	1.40(1.16)	1.45(1.23)	1.46(1.16)	2.05(0.96)	0.65(1.02)	8.74***	0.64	-0.99(1.08)	-12.45***	0.92
Georgia	-1.47(1.40)	-2.03(1.03)	-1.42(2.14)	-1.34(1.30)	1.66(1.07)	1.66(1.11)	1.77(1.29)	2.13(1.00)	0.47(0.89)	6.37***	0.53	-0.61(1.03)	-7.04***	0.58
Kazakhstan	-1.28(0.93)	-1.99(0.86)	-1.15(1.02)	-0.51(1.06)	1.94(0.83)	1.77(1.01)	1.09(1.02)	1.73(0.88)	-0.22(0.80)	-5.02***	0.27	-0.84(1.07)	-14.33***	0.78
Latin America	-0.81(1.55)	-2.15(0.85)	-1.73(1.05)	-0.60(1.82)	1.96(0.91)	1.12(1.43)	1.17(1.54)	2.28(0.81)	0.31(0.84)	18.86***	0.38	-0.42(1.01)	-21.17***	0.42
Argentina	-1.23(1.45)	-2.30(0.70)	-1.98(0.95)	-1.16(1.69)	1.86(0.94)	1.38(1.18)	1.27(1.48)	2.29(0.72)	0.43(0.85)	9.86***	0.51	-0.31(0.98)	-6.19***	0.32
Brazil	-0.45(1.70)	-2.22(0.88)	-1.76(1.14)	-0.03(2.03)	1.89(0.93)	0.57(1.61)	0.81(1.77)	2.36(0.80)	0.48(0.87)	16.21***	0.55	-0.46(1.04)	-13.17***	0.44
Chile	-0.74(1.48)	-1.94(0.93)	-1.51(1.11)	-0.83(1.72)	2.16(0.87)	1.49(1.31)	1.41(1.32)	2.15(0.80)	-0.02(0.73)	-0.35	0.03	-0.44(1.06)	-5.81***	0.41
Colombia	-0.96(1.44)	-2.10(0.87)	-1.80(0.95)	-0.99(1.60)	2.00(0.96)	1.46(1.24)	1.43(1.43)	2.30(0.86)	0.29(0.83)	7.86***	0.35	-0.30(1.01)	-6.56***	0.30
Mexico	-0.86(1.36)	-2.10(0.86)	-1.44(0.99)	-0.51(1.50)	2.12(0.80)	1.43(1.14)	1.35(1.29)	2.32(0.75)	0.20(0.75)	4.67***	0.27	-0.66(0.94)	-11.99***	0.70

Table 2 (continued)

	Weakness		Dominance		Communion		Agency		Gender differences in prescriptions			Gender differences in proscriptions		
	Female M_{SD}	Male M_{SD}	Female M_{SD}	Male M_{SD}	Female M_{SD}	Male M_{SD}	Female M_{SD}	Male M_{SD}	M_{SD}	t	d	M_{SD}	t	d
Suriname	-1.50(1.10)	-1.89(0.96)	-1.52(1.00)	-1.10(1.41)	1.88(0.87)	1.61(1.13)	1.64(1.03)	1.94(0.91)	0.06(0.78)	0.94	0.08	-0.37(1.02)	-4.36***	0.37
Uruguay	-0.77(1.47)	-2.17(0.68)	-1.71(0.92)	-0.67(1.67)	2.03(0.77)	1.01(1.32)	1.03(1.36)	2.07(0.80)	0.04(0.71)	0.61	0.05	-0.45(0.83)	-6.75***	0.55
Middle East	-0.30(1.48)	-1.95(1.19)	-1.89(1.26)	-0.36(1.59)	1.89(1.17)	1.06(1.39)	0.28(1.56)	1.95(1.24)	0.06(0.85)	3.07**	0.07	-0.06(0.86)	-3.05**	0.07
Iran	-0.03(1.69)	0.26(2.62)	0.28(2.24)	0.22(1.61)	-0.38(2.13)	-0.52(1.62)	-0.46(1.57)	-0.53(2.60)	-0.15(1.22)	-1.48	0.12	-0.02(0.96)	-0.27	0.02
Lebanon	-0.11(1.43)	-1.88(1.07)	-1.57(1.02)	0.49(1.45)	2.01(0.79)	0.73(1.42)	0.70(1.47)	2.32(0.72)	0.31(0.76)	4.14***	0.41	-0.31(0.91)	-3.42***	0.34
Turkey	-0.30(1.51)	-2.19(0.68)	-2.24(0.81)	-0.60(1.58)	2.08(0.82)	1.30(1.28)	0.15(1.57)	2.10(0.78)	0.02(0.84)	0.81	0.02	0.06(0.78)	2.59**	0.07
UAE	-0.43(1.27)	-1.98(0.85)	-1.60(1.13)	-0.00(1.47)	2.07(0.81)	0.93(1.23)	0.85(1.33)	2.27(0.72)	0.20(0.68)	5.92***	0.29	-0.38(0.96)	-8.00***	0.40
Northern Europe	-1.54(1.07)	-2.30(0.68)	-2.08(0.79)	-1.43(1.15)	2.06(0.78)	1.22(1.16)	1.30(0.98)	1.89(0.80)	-0.17(0.75)	-8.01***	0.23	-0.23(0.70)	-11.49***	0.32
Denmark	-1.84(0.81)	-2.33(0.55)	-2.11(0.60)	-1.55(1.00)	2.17(0.66)	1.39(1.15)	1.52(0.92)	2.07(0.66)	-0.10(0.58)	-2.64**	0.17	-0.22(0.56)	-6.04***	0.40
Finland	-1.49(1.16)	-2.52(0.54)	-2.13(0.65)	-1.37(1.14)	1.97(0.77)	0.94(1.06)	1.31(1.01)	2.09(0.74)	0.12(0.72)	2.60**	0.16	-0.39(0.63)	-9.85***	0.61
Norway	-1.73(0.79)	-2.02(0.71)	-1.89(0.83)	-1.69(0.91)	2.06(0.74)	1.62(0.95)	1.53(0.89)	1.75(0.78)	-0.31(0.74)	-5.47***	0.42	-0.14(0.78)	-2.30*	0.17
Sweden	-1.39(1.17)	-2.28(0.73)	-2.09(0.89)	-1.34(1.26)	2.05(0.84)	1.16(1.23)	1.15(1.00)	1.77(0.85)	-0.28(0.79)	-8.71***	0.36	-0.19(0.74)	-6.06***	0.25
Oceania	-1.14(1.26)	-2.09(0.91)	-1.83(1.00)	-1.05(1.51)	2.18(0.83)	1.37(1.26)	1.49(1.12)	2.16(0.85)	-0.02(0.81)	-0.78	0.03	-0.25(0.92)	-7.86***	0.28
Australia	-1.20(1.23)	-2.09(0.91)	-1.88(0.99)	-1.05(1.51)	2.18(0.84)	1.35(1.25)	1.47(1.08)	2.15(0.86)	-0.02(0.82)	-0.73	0.03	-0.21(0.92)	-5.65***	0.23
New Zealand	-1.00(1.33)	-2.06(0.91)	-1.70(1.01)	-1.02(1.50)	2.20(0.80)	1.44(1.31)	1.55(1.24)	2.18(0.83)	-0.02(0.76)	-0.29	0.02	-0.37(0.91)	-5.93***	0.41
South Asia	-0.44(1.29)	-1.62(1.03)	-1.25(1.24)	-0.12(1.59)	1.95(0.90)	1.34(1.27)	1.29(1.30)	2.21(0.86)	0.26(0.75)	13.03***	0.34	-0.37(1.01)	-13.97***	0.36
India	-0.49(1.44)	-1.72(0.97)	-1.47(1.25)	0.04(1.74)	2.05(0.87)	1.14(1.26)	1.24(1.28)	2.28(0.73)	0.23(0.85)	4.63***	0.27	-0.25(1.03)	-4.07***	0.24
Indonesia	-0.70(1.15)	-1.88(0.92)	-1.61(1.13)	-1.15(1.26)	2.15(0.70)	2.05(0.85)	1.75(1.01)	2.46(0.73)	0.31(0.63)	7.24***	0.49	-0.26(0.99)	-3.92***	0.27
Nepal	-0.52(1.22)	-1.60(0.95)	-1.28(1.13)	0.15(1.56)	1.85(0.94)	1.17(1.14)	1.20(1.30)	2.16(0.93)	0.31(0.78)	5.20***	0.40	-0.32(0.95)	-4.39***	0.34
Pakistan	0.02(1.30)	-1.28(1.21)	-0.81(1.38)	0.63(1.37)	1.58(1.02)	0.93(1.35)	0.73(1.38)	1.95(1.01)	0.37(0.80)	9.39***	0.46	-0.47(1.09)	-8.74***	0.43
Philippines	-0.73(1.13)	-1.76(0.84)	-1.34(1.06)	-0.58(1.43)	2.21(0.73)	1.60(1.21)	1.69(1.14)	2.31(0.74)	0.10(0.65)	2.98**	0.15	-0.42(0.93)	-9.04***	0.46
Southern Europe	-1.13(1.36)	-2.18(0.73)	-1.92(0.93)	-1.20(1.49)	1.90(0.88)	1.21(1.34)	1.29(1.40)	2.19(0.76)	0.29(0.82)	25.34***	0.35	-0.26(0.93)	-20.60***	0.28
Albania	-1.41(1.48)	-2.35(0.83)	-1.80(0.95)	-1.26(1.43)	1.98(0.75)	1.61(1.07)	1.48(1.39)	2.17(0.71)	0.19(0.72)	3.70***	0.26	-0.55(0.95)	-8.20***	0.58
Bosnia	-1.13(0.98)	-1.71(0.94)	-1.19(1.14)	-0.75(1.12)	1.70(0.98)	1.41(1.14)	1.46(1.09)	1.86(1.00)	0.16(0.84)	2.50*	0.19	-0.51(1.02)	-6.55***	0.50
Croatia	-1.01(1.33)	-2.32(0.61)	-1.87(0.89)	-0.96(1.42)	2.18(0.76)	1.39(1.22)	1.20(1.27)	2.19(0.69)	0.01(0.79)	0.31	0.02	-0.46(0.94)	-8.28***	0.49
Greece	-0.37(1.42)	-2.02(0.80)	-1.88(0.93)	-0.63(1.35)	2.20(0.76)	1.07(1.29)	0.99(1.37)	2.36(0.65)	0.16(0.61)	4.29***	0.27	-0.14(0.72)	-3.10**	0.20
Italy	-1.12(1.28)	-2.19(0.69)	-2.17(0.81)	-1.44(1.50)	1.79(0.89)	0.97(1.42)	1.19(1.40)	2.16(0.75)	0.37(0.85)	20.21***	0.44	-0.02(0.86)	-1.10	0.02
Kosovo	-1.18(1.55)	-2.29(0.78)	-1.84(0.88)	-0.93(1.59)	1.90(0.88)	1.29(1.28)	1.26(1.54)	2.29(0.76)	0.39(0.80)	8.89***	0.49	-0.45(0.89)	-9.35***	0.51
Malta	-1.03(1.31)	-2.21(0.69)	-1.89(0.93)	-1.14(1.44)	2.21(0.77)	1.24(1.40)	1.48(1.27)	2.33(0.71)	0.13(0.77)	2.46*	0.16	-0.32(0.91)	-5.27***	0.35
Portugal	-1.16(1.35)	-2.16(0.84)	-1.77(0.88)	-0.91(1.49)	2.12(0.75)	1.32(1.21)	1.43(1.33)	2.19(0.83)	0.07(0.57)	1.50	0.12	-0.39(0.91)	-5.23***	0.43
Serbia	-1.55(1.17)	-2.16(0.65)	-1.42(1.08)	-1.01(1.26)	2.01(0.85)	1.67(1.18)	1.69(1.16)	2.25(0.74)	0.24(0.85)	6.99***	0.29	-0.74(1.10)	-16.48***	0.67
Spain	-1.08(1.53)	-2.18(0.74)	-1.90(0.87)	-1.22(1.59)	1.84(0.90)	1.25(1.28)	1.22(1.55)	2.15(0.77)	0.31(0.82)	11.60***	0.38	-0.28(0.82)	-10.45***	0.34
Western Europe	-1.38(1.06)	-2.04(0.76)	-1.70(0.90)	-1.19(1.30)	1.87(0.81)	1.31(1.11)	1.45(1.03)	1.92(0.80)	0.06(0.76)	4.92***	0.07	-0.33(0.87)	-25.66***	0.39
Belgium	-1.61(0.95)	-2.06(0.70)	-1.60(0.85)	-1.33(1.21)	1.72(0.86)	1.39(1.05)	1.59(0.99)	1.86(0.78)	0.15(0.77)	7.55***	0.19	-0.46(0.87)	-20.71***	0.52

Table 2 (continued)

	Weakness		Dominance		Communion		Agency		Gender differences in prescriptions			Gender differences in proscriptions		
	Female M_{SD}	Male M_{SD}	Female M_{SD}	Male M_{SD}	Female M_{SD}	Male M_{SD}	Female M_{SD}	Male M_{SD}	M_{SD}	t	d	M_{SD}	t	d
England	-1.13(1.13)	-2.06(0.79)	-1.81(0.96)	-0.92(1.37)	2.05(0.78)	1.25(1.19)	1.24(1.10)	2.02(0.82)	-0.02(0.77)	-0.76	0.03	-0.25(0.89)	-6.84***	0.28
France	-1.64(1.06)	-2.03(0.75)	-1.61(0.94)	-1.55(1.30)	1.79(0.85)	1.73(1.01)	1.75(1.06)	1.94(0.85)	0.15(0.82)	3.17**	0.18	-0.42(0.98)	-7.64***	0.43
Ireland	-1.18(1.03)	-1.88(0.90)	-1.68(0.95)	-1.13(1.30)	1.98(0.76)	1.30(1.15)	1.53(0.98)	2.03(0.82)	0.05(0.75)	1.40	0.06	-0.19(0.86)	-5.15***	0.22
Luxembourg	-1.16(1.11)	-1.93(0.90)	-1.57(1.02)	-0.94(1.46)	1.87(0.77)	1.25(1.14)	1.60(1.08)	2.14(0.80)	0.27(0.84)	4.22***	0.32	-0.36(1.00)	-4.75***	0.36
Netherlands	-1.34(0.93)	-2.00(0.67)	-1.79(0.75)	-1.26(1.06)	1.81(0.67)	1.13(0.90)	1.21(0.81)	1.68(0.67)	-0.13(0.62)	-5.85***	0.21	-0.21(0.69)	-8.36***	0.30
Northern Ireland	-1.07(1.23)	-2.19(0.74)	-1.81(0.97)	-0.85(1.46)	2.12(0.84)	1.16(1.34)	1.29(1.25)	2.14(0.83)	0.03(0.78)	0.57	0.03	-0.38(0.83)	-7.49***	0.46
Wales	-1.11(1.38)	-2.34(0.90)	-2.05(1.04)	-0.85(1.77)	2.20(0.88)	1.04(1.48)	1.35(1.15)	2.25(0.78)	0.05(0.80)	0.86	0.06	-0.29(0.94)	-4.15***	0.30
Total	-1.07(1.31)	-2.08(0.88)	-1.74(1.03)	-0.92(1.48)	1.93(0.92)	1.24(1.27)	1.25(1.29)	2.07(0.88)	0.15(0.82)	29.98***	0.18	-0.34(0.93)	-60.50***	0.37

Prescriptions and proscriptions can range from −3 to +3. Gender differences were calculated by subtracting scores for female targets from scores for male targets; thus, higher (more positive) scores for prescriptions mean more liking for male agency over female communion, and lower (more negative) scores for proscriptions mean more disliking for male weakness over female dominance

$^{*}\ p<.05$; $^{**}\ p<.01$; $^{***}\ p<.001$

National Income), health (life expectancy), and education (years of schooling), each adjusted for the inequality of its distribution within the country. Across countries, IHDI scores ranged from .348 to .899.

Global Acceptance Index (GAI)

The GAI (Williams Institute, 2019) measures country-level LGBT acceptance, modeled as a latent dimension reflecting positive, inclusive attitudes about LGBT individuals and rights. Scores range from 0 (*low acceptance*) to 10 (*high acceptance*). Across the 62 countries in our sample, GAI scores ranged from 2.2 to 8.6.

Results

Measurement Invariance of Gender Prescriptions and Proscriptions

To test the measurement invariance of the four-factor model of prescriptions and proscriptions (agency, communion, weakness, dominance), we conducted CFAs on the total sample and then each country. Fit criteria included the Bayesian information criterion (BIC; lower BIC indicates better fit), comparative fit index (CFI ≥ .90), and root mean square error of approximation (RMSEA < .08) (Kline, 2016). We used the lavaan package (Rosseel, 2012) in R (R Core Team, 2021) for analyses.

Results of these analyses are presented in Tables S1, S3-S4, and Figure S1 in the online supplement and summarized here. As shown in Table S1, the four-factor model demonstrated good fit to the data in the total sample and in most (48 of 62) countries (see also Figure S1). Although model fit did not meet the CFI criterion in 14 countries, and the RMSEA exceeded criterion in one country, all four prescription and proscription composites had good internal consistency reliabilities (αs > .70; see Table S1) in all countries. Given the good fit indices for the four-factor model in the total sample, and the good α values for the composites, we evaluated the measurement invariance of the four-factor model using MG-CFA.

As noted, we conducted MG-CFA on 13 world regions. First, we measured the configural invariance of the four-factor model using common criteria to assess goodness of fit (CFI ≥ .90, RMSEA < .08; Kline, 2016), and then we tested for metric and scalar invariance using criteria for more than 10 groups (ΔCFI ≤ .02, ΔRMSEA ≤ .03; Rutkowski & Svetina, 2014). As shown in Table S3 in the online supplement, the four-factor model demonstrated strong configural and metric invariance, and partial scalar invariance (with three intercepts released per composite), across world regions. Moreover, the four-factor model demonstrated strong

configural and metric invariance, and partial scalar invariance, across male versus female targets (see Table S4 in the online supplement).

To test Hypothesis 1, that agency and communion are prescriptions for men and women, and weakness and dominance are proscriptions for men and women, we conducted paired sample t-tests comparing the four gender rules across men versus women targets using the total sample. Consistent with past findings (Prentice & Carranza, 2002; Rudman et al., 2012b), agency was prescribed more strongly for men than women ($t = -101.45$, $p < .001$, $d = .75$); communion was prescribed more strongly for women than men ($t = 84.77$, $p < .001$, $d = .62$); weakness was proscribed more strongly for men than women ($t = 116.17$, $p < .001$, $d = .91$); and dominance was proscribed more strongly for women than men ($t = -83.84$, $p < .001$, $d = .65$). See Table 2, bottom row, for means and standard deviations. Subsequently, we operationalized prescriptions as agency for men and communion for women and proscriptions as weakness for men and dominance for women.

Hypothesis 2 states that college students will display a double standard in trait-based gender rules by endorsing gender prescriptions and proscriptions more strongly for men than for women. Consistent with this hypothesis, as shown in Table 2 (bottom row), agency was rated as more desirable for men than communion was for women ($p < .001$), and weakness was rated as less desirable for men than dominance was for women ($p < .001$). Looking at each country separately, gender differences in proscriptions reached significance in almost all (59 of 62) countries, except for Morocco, Iran, and Italy (see Table 2). However, gender differences in prescriptions failed to reach statistical significance in 20 countries, and the effect was opposite to predictions in six countries (Russia, Kazakhstan, Denmark, Norway, Sweden, Netherlands), with agency rated as less desirable for men than communion was for women. In these six countries, endorsement of agency for men was relatively lower than in other countries; we return to this issue in the Discussion. (See Figures S2-S5 in the online supplement for more details.) Thus, Hypothesis 2 received moderate support.

Hypothesis 3 states that gender differences (i.e., double standards) in prescriptions and proscriptions will be larger in countries lower in gender equality (GGGI). To test this, we calculated prescription difference scores (men's agency minus women's communion) and proscription difference scores (men's weakness minus women's dominance) and used these as outcome variables. Note that, because the rating scale ranged from -3 to $+3$, stronger prescriptions for men than women are indicated by *higher* (i.e., larger positive) values, and stronger proscriptions for men than women are indicated by *lower* (i.e., larger negative) values.

We used the lme4 R package (Bates et al., 2015) to calculate intraclass correlations coefficients (ICCs) estimating variance in outcomes explained by country, and to fit multilevel models (Finch et al., 2019) that estimated the effects of GGGI on gender differences in prescriptions and proscriptions. We also explored whether participant gender moderated the association of GGGI with gender differences in prescriptions and proscriptions, and thus added main and interactive (gender-by-GGGI) effects of participant gender in the models. To minimize Type I error rates in cross-level interaction models, we included random slopes for gender (Barr et al., 2013). Output and fit indices from these multilevel models appear in Tables 3 and 4.

In Model 1_{PRE} (examining double standards in prescriptions) the ICC was 0.07, meaning 7% of the variance in this variable was explained by country, and in Model 1_{PRO} (examining double standards in proscriptions) the ICC was 0.05, meaning 5% of the variance in this variable was explained by country. Thus, country accounted for somewhat less variance in proscription differences than prescription differences. Nonetheless, both ICC values indicated that a multilevel approach was suitable. Supporting Hypothesis 3, as GGGI increased, the size of gender differences in prescriptions decreased (see Table 3, Model 2_{PRE}). However, we found insufficient evidence that GGGI correlated with the size of gender differences in proscriptions (see Table 3, Model 2_{PRO}). Thus, Hypothesis 3 received partial support. Note also that in these models (2_{PRE} and 2_{PRO}) participant gender was a significant predictor, with men endorsing larger gender differences in prescriptions than women, and women endorsing larger gender differences in proscriptions than men.

Turning to exploratory analyses, the participant gender-by-GGGI interaction was significant in the model predicting gender differences in prescriptions, but it did not reach significance in the model predicting gender differences in proscriptions (see Table 3, Models 3_{PRE} and 3_{PRO}). Figure 1 (Model 3_{PRE}) shows that both men and women college students endorse smaller gender differences in prescriptions in more gender equal countries, but the slope is steeper among women ($B = -1.10$, $\beta = -.07$, $p < .01$) than men ($B = -.77$, $\beta = -.05$, $p < .01$). For comparison, Fig. 2 (Model 3_{PRO}) shows that the gender-by-GGGI interaction pattern failed to reach significance for gender differences in proscriptions.

Subsequent models explored whether findings were robust to control variables including awareness of gender inequality and precarious manhood beliefs (Models 4_{PRE} and 4_{PRO}), and human development (IHDI) and acceptance of LGBT people (GAI), (Models 5_{PRE} and 5_{PRO}). As shown in Table 3, including the two individual-level variables did not change the significant association between GGGI and prescription differences. Moreover, both awareness of gender inequality and precarious manhood beliefs accounted for unique variance in prescription differences, and precarious manhood beliefs accounted for unique variance in

Table 3 Multilevel Models Predicting Gender Differences in Prescriptions and Proscriptions

Model Type	Predictor	Gender Differences in Prescriptions					Gender Differences in Proscriptions				
		Model 1_{PRE}	Model 2_{PRE}	Model 3_{PRE}	Model 4_{PRE}	Model 5_{PRE}	Model 1_{PRO}	Model 2_{PRO}	Model 3_{PRO}	Model 4_{PRO}	Model 5_{PRO}
Baseline	*Intercept*	0.14**	0.83**	1.20**	1.14**	0.96*	-0.37**	-0.06	-0.53	-0.28	-0.08
Individual-level variables (L1)	Gender (Male)	–	0.06**	-0.59**	-0.54*	-0.48*	–	0.10**	0.62*	0.58	0.80*
	Awareness gender inequality	–	–	–	0.01**	-0.01**	–	–	–	<0.01	<0.01
	Precarious manhood beliefs	–	–	–	0.01**	0.01**	–	–	–	-0.04**	-0.03**
Country-level variables (L2)	GGGI	–	-0.98*	-1.49**	-1.42**	-0.42	–	-0.49	0.16	<0.01	-0.69
	GAI	–	–	–	–	-0.01	–	–	–	–	0.04*
	IHDI	–	–	–	–	-0.63**	–	–	–	–	0.10
Cross-levels interaction component	Gender x GGGI	–	–	0.90**	0.82**	0.73*	–	–	-0.72	-0.65	-0.96*
Random effects	Residual	0.64	0.63	0.63	0.63	0.63	0.81	0.80	0.80	0.80	0.80
	Gender (Male)	–	0.01	0.01	0.01	0.01	–	0.03	0.02	0.02	0.02
	Intercept	0.05	0.05	0.05	0.05	0.04	0.04	0.06	0.06	0.06	0.05

Number of observations = 27,343; Number of countries = 62. Models 4_{PRE} and 4_{PRO} were tested on 62 countries and 26,028 observations. Participant gender was coded 0 = Female, 1 = Male. Models 5_{PRE} and 5_{PRO} were tested on 59 countries and 26,743 observations.

GGGI global gender gap index, *IHDI* income-adjusted human development index, *GAI* global acceptance index

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

Table 4 Multilevel Models' Fit Indices

Model	Type	Description	Gender Differences in Prescriptions (Models PRE)				Gender Differences in Proscriptions (Models PRO)			
			Δ df	- 2 log likelihood	AIC	L. Ratio	Δ df	- 2 log likelihood	AIC	L. Ratio
1 PRE/PRO	Baseline	Individuals nested within their country with no other predictors	–	65,428	65,433	–	–	72,030	72,037	–
2 PRE/PRO	Random coefficient	Individual and country level variables: Gender, GGGI	2	65,332	65,346	96**	2	71,868	71,881	162**
3 PRE/PRO	and fixed predictors	Individual (Gender) and country level (GGGI) predictors and cross-levels interaction (Gender x GGGI)	1	65,324	65,339	12**	1	71,864	71,880	4*
4 PRE/PRO		Model 3 replication controlling for individual-level variables: Awareness of gender inequality and Precarious manhood beliefs	2	63,874	63,894	1450**	2	70,194	70,214	1670**
5 PRE/PRO		Model 4 replication controlling for country-level variables: GAI and IHDI	2	62,122	62,146	[a]	2	68,214	68,239	[a]

Number of observations = 27,343; Number of countries = 62. Models 4PRE and 4PRO were tested on 62 countries and 26,743 observations. Models 5PRE and 5PRO were tested on 59 countries and 26,028 observations. L. Ratio = -2 log likelihood differences with previous model

GGGI global gender gap index, *IHDI* income-adjusted human development index, *GAI* global acceptance index, *AIC* Akaike information criterion

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

[a] Since the model is not nested, the difference between the models cannot be computed

proscription differences. Next, when country-level variables (IHDI and GAI) were included, GGGI was no longer a significant predictor of prescription differences. Note also that GAI accounted for unique variance in gender differences in proscriptions (but not in prescriptions), and IHDI accounted for unique variance in gender differences in prescriptions (but not in proscriptions).

Finally, including the individual-level and country-level control variables did not change the significant participant gender-by-GGGI interaction on gender differences in prescriptions (see Table 3, Models 4PRE and 5PRE). However, the gender-by-GGGI interaction on gender differences in proscriptions reached significance when GAI and IHDI were in the model (see Table 3, Model 5PRO). This likely reflects a suppressor effect, given the strong correlations between the country-level predictors: $r_{GGGI\ \&\ GAI} = .66$, $r_{GGGI\ \&\ IHDI} = .55$, and $r_{GAI\ \&\ IHDI} = .52$. Given that this finding only reached significance when the country-level controls were in the model, we hesitate to overinterpret its importance.

Discussion

We sought evidence of a double standard in trait-based gender rules – i.e., stronger endorsement of prescriptive and proscriptive rules for men than women – among college undergraduates in 62 countries and tested whether this double standard is larger in less gender equal countries. Findings generally supported hypotheses, with some exceptions. Focusing first on gender prescriptions, college students overall rated agency as more desirable for men than communion is for women, but this double standard was not evident universally: In only 58% of countries in our sample was men's agency rated as more desirable than women's communion. However, the magnitude of double standards in prescriptions correlated with country-level gender equality (GGGI) as predicted, such that people in less gender equal countries want men to be competent, determined, and independent more strongly than they want women to be compassionate, understanding, and warm. Moreover, women (compared to men) showed smaller double standards in prescriptions in more gender equal countries. Turning next to gender proscriptions, we found evidence of a near-universal double standard: In 95% of countries studied, college students rated men's weakness as less desirable than women's dominance. However, findings did not support the hypothesis that double standards in proscriptions would correlate with GGGI. We also found no evidence that participant binary gender interacts with GGGI to predict double standards in proscriptions. Thus, college undergraduates almost universally want men to avoid weakness, fearfulness, and uncertainty more strongly than they want women to avoid dominance, arrogance, and aggressiveness.

Fig. 1 Association between GGGI and Gender Differences in Prescriptions, Moderated by Participant Gender
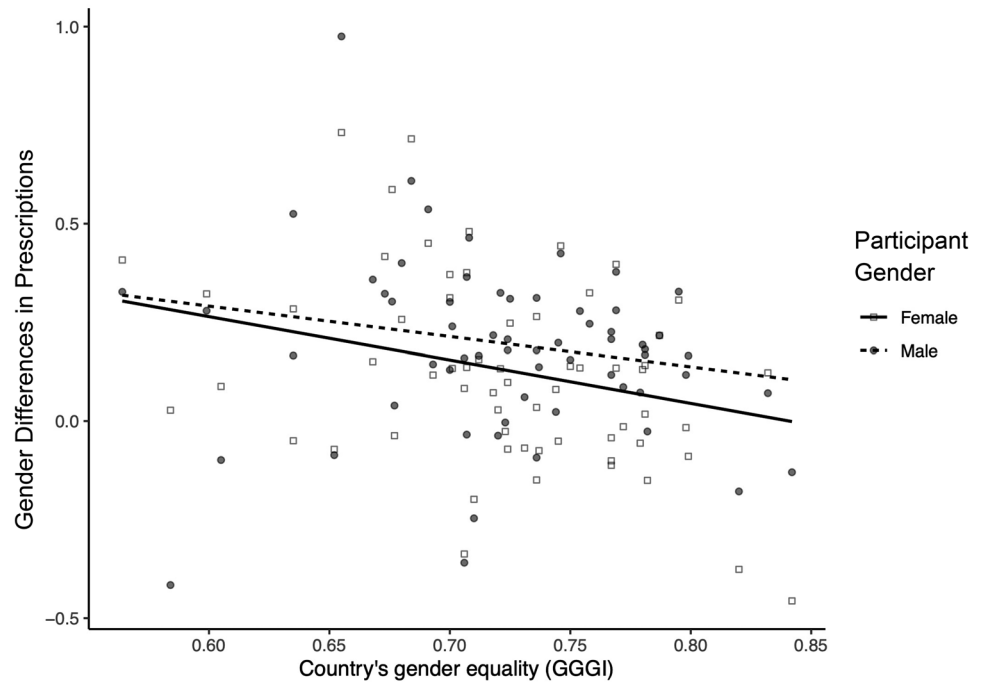

Our findings also replicated and extended past studies on gender prescriptions and proscriptions (Koenig, 2018; Prentice & Carranza, 2002; Rudman et al., 2012b) in two important ways: First, we found near-universal evidence for agency and communion as gender prescriptions for men and women, respectively, and weakness and dominance as gender proscriptions, respectively (with large effect sizes in the total sample). Second, we established the measurement invariance of four brief scales for measuring gender prescriptions and proscriptions. Thus, these scales can be used by cross-cultural and gender researchers to draw meaningful comparisons across countries and world regions – a practical contribution of this research.

That double standards in trait prescriptions are larger in less gender equal countries is consistent with the logic that men's agentic traits are especially desirable in places where they face stronger pressures to fill traditional protector-provider roles (Bosson et al., 2021; Gilmore, 1990).

Fig. 2 Association between GGGI and Gender Differences in Proscriptions, Moderated by Participant Gender
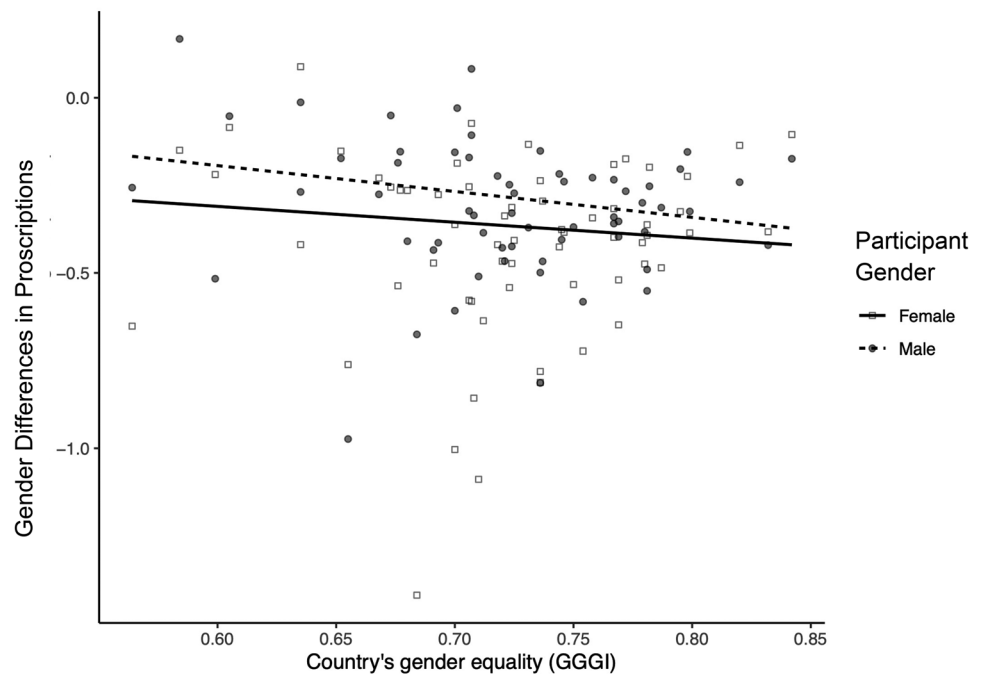
Endorsing especially strong prescriptions for men in more patriarchal contexts presumably assists in socialization by preparing boys to compete for leadership positions, embrace challenges, and fulfill physically risky roles (Wood & Eagly, 2002). As Gilmore (1990) notes, the roles expected of men in more traditional cultures are often more acutely dangerous and risky (e.g., hunting, warfare, physical labor) than those expected of women (e.g., infant caregiving, domestic tasks, emotional labor), and men's success in such roles is less assured than women's success. Moreover, men's intragroup competition for status and resources is especially fierce in more patriarchal contexts (Betzig, 1992; Smuts, 1995), whereas women's outcomes – in terms of survival and reproduction – have been less variable than men's throughout evolutionary history (Wilson & Daly, 1992). Thus, larger double standards in trait prescriptions in more patriarchal contexts perhaps reflect the additional social pressure required to push men into grueling, high-risk, and competitive activities and occupations.

Moreover, as noted, the links between gender equality and double standards in prescriptions were moderated by participant binary gender. Specifically, college women in more gender equal contexts hold men and women to similar prescriptive rules, whereas college men in such contexts find men's agency more desirable than women's communion. This pattern fits with other findings – obtained largely in Western, more egalitarian contexts – indicating that men are especially harsh critics of other men's gender nonconformity (Pryor & Whalen, 1997; Rudman et al., 2013). Mirroring these findings, perhaps men in more gender equal countries are also especially enthusiastic endorsers of other men's conformity to agentic prescriptions. Such a pattern might reflect a defensive response to increasing gender equality: As members of the dominant gender group, men (relative to women) in more gender equal contexts may desire greater gender conformity from other men as a way of reinforcing ingroup-outgroup boundaries (cf. Breda et al., 2020). However, this explanation cannot illuminate why participant gender failed to interact with gender equality to predict double standards in gender proscriptions. This question must thus await further investigation.

Next, we found that the links between GGGI and double standards in prescriptions remained significant when controlling for participants' awareness of gender inequality and beliefs that manhood is precarious. This demonstrates that an objective, country-level indicator of gender equality predicts individual-level endorsement of prescriptions, above and beyond people's personal gender beliefs. However, controlling for country-level human development and LGBT acceptance made the link between GGGI and prescriptive double standards fall below significance. At the same time, when these two country-level controls were in the model, the interaction of participant gender and GGGI

on proscriptive double standards became significant. These shifting patterns likely reflect the strong correlations (rs from .52 to .66) among the country-level predictors. Specifically, countries characterized by greater wealth, health, and education tend also to be more egalitarian across gender and sexual orientation groups. Thus, researchers interested in correlates of country-level gender equality should control for country-level wealth and human development, to parse out the unique effects of gender equality. Alternatively, it may be reasonable to view country-level indices of wealth, development, and equality as joint measures of the same, underlying dimension (Breda et al., 2020; Fog, 2021).

Interestingly, individual-level precarious manhood beliefs accounted for unique variance in double standards, for both prescriptions and proscriptions. This validates our theorizing that double standards in gender rules reflect beliefs about the precarity of the male gender role. Regardless of their country's gender equality, people who more strongly believe that men must earn and prove their status as "real men" are also more inclined to view men's agency as especially desirable, and men's weakness as especially undesirable. In turn, relatively strong personal endorsement of double standards in gender rules may translate into more powerful socialization pressures on male (versus female) peers and children. In this way, precarious manhood beliefs might be passed along via beliefs about the greater importance of men's, versus women's, conformity to trait-based gender rules.

Limitations and Future Directions

Despite the novelty and promise of our findings, there are several limitations of the current study. First, we lack evidence of a mechanism through which perceivers' personal endorsement of prescriptions and proscriptions might contribute to gender socialization. On a related note, the correlational nature of our data prevents us from drawing causal conclusions about any theorized paths. We cannot assume that unequal gender hierarchies cause people to endorse double standards in gender prescriptions, nor can we conclude that individuals' endorsement of prescriptive double standards sustains and bolsters patriarchal social structures at the country level. It is possible that other country-level variables, such as national wealth or human development, account for the observed links between GGGI and double standards in prescriptions. Longitudinal and experimental designs are needed to test whether country-level factors cause increases in people's support for gender rules, and whether (and how) individuals' internalized prescriptions and proscriptions ultimately function to socialize others. Longitudinal designs may also illuminate bidirectional links between country-level gender factors and individual-level endorsement of gender rules.

Next, our participants were all convenience samples of university students. While an exclusive reliance on undergraduates helps standardize the samples, it limits our ability to generalize our findings to all or most residents of the countries we studied. At the very least, college students differ from national adult populations on demographic factors including age, social class, and education level, all of which may relate to gender attitudes and beliefs. For instance, college students are on average more socially progressive than general populations (Flere & Lavrič, 2008), which might translate into weaker endorsement of gender rules. At the same time, young adults endorse some stereotypical gender beliefs more strongly than older adults (Hammond et al., 2018), perhaps reflecting developmental differences in identity, mating, and parenting goals. Unfortunately, the sheer size of this cross-cultural study precluded us from accessing community samples, non-students, nationally representative adults, and hard-to-reach populations. However, we are heartened by cross-cultural findings suggesting that when college students' attitudes and values differ from those of general populations, these differences at least appear systematic in size and direction across countries (Flere & Lavrič, 2008). Thus, we believe that our findings can be interpreted as reliable indicators of real differences between countries. Nonetheless, future researchers should use qualitative and mixed-method approaches to add nuance and depth to our understanding of how gender rules differ across countries. Moreover, research should examine more systematically the extent to which these findings generalize to people of different ages, social classes, and educational backgrounds.

Another shortcoming of this study is our use of difference scores to index double standards in gender rules for use in tests of Hypothesis 3. Use of difference scores as outcome variables is problematic from a statistical standpoint (Edwards, 2001). Further, our difference scores were linear combinations of conceptually distinct variables (e.g., desirability of men's agency minus desirability of women's communion), raising questions about the suitability of subtracting "apples" from "oranges." However, we used difference scores because they offer the most direct means of testing our hypothesis: That the magnitude of the difference between endorsement of gender rules for men versus women would differ along with country-level gender equality. Thus, our interpretation focuses on differences in endorsement strength for men's versus women's rules, bearing in mind that the contents of these rules are, by necessity, different. Other investigations of trait-based gender rules (e.g., Koenig, 2018; Rudman et al., 2012b) have established that agency is prescribed more strongly for men than women, dominance is proscribed more strongly for women than men, and so on. However, these studies have left unanswered the question of primary interest here – that is, whether men are held to a higher standard than women on trait dimensions that are uniquely pre- and proscribed for their respective genders. Only by comparing "apples" to "oranges" could we test this hypothesis. In defense of our use of the difference score approach, note that participants rated all items for each dimension (agency, communion, weakness, dominance) for each target group (women, men) on identical scales, with the same instructions, in a repeated-measures fashion. We also properly described these variables (e.g., by explicitly calling them "gender differences in prescriptions [proscriptions]") and interpreted them appropriately. Note also that comparing differences between means (as in the t-tests used to test Hypotheses 1 and 2) is mathematically identical to comparing mean differences. Nonetheless, we caution readers to consider the statistical and conceptual issues associated with differences scores when interpreting our findings.

One important direction for future research involves examining directly whether double standards in gender rules predict the relative severity of sanctions that women and men face for violating these rules. According to the status incongruity hypothesis (Rudman et al., 2012a), men face backlash for violating two primary gender rules (lacking agency and displaying weakness), whereas women face backlash for violating one primary gender rule (displaying dominance). Thus, in this framework, men lose status when they violate gender rules, whereas women gain status when they violate gender rules. Following this logic, we may expect that men who lack agency or display weakness will face harsher sanctions than women who display dominance. And yet, there may be gender role domains not measured here – such as physical appearance / grooming, parenting, and sexuality – in which women may face both stricter gender rules and harsher sanctions than men (e.g., Chrisler, 2013). Consider the sexual double standard (Sagebin Bordini & Sperb, 2013), which is the tendency to stigmatize women and reward men for sexual promiscuity. This may be a domain in which the female proscription (avoid promiscuity) outstrips the male proscription (avoid chasteness) in strength and consequence. The larger point, however, is that gender rules encompass a range of dimensions – e.g., traits, role behaviors, occupations, appearance – and our findings can only speak to double standards in trait-based gender rules. Future research should investigate the strictness of gender rules for men versus women across a wider range of domains and examine how these rules translate into consequences for men and women who violate such rules.

Finally, research should examine additional cultural variables that can illuminate why double standards in prescriptions are so variable across countries (as compared to double standards in proscriptions, which appear relatively universal). One possibility is that gender differences in prescriptions reflect cultural differences in collectivism. Some posit that men are stereotyped as more communal than women in highly collectivistic cultures because, as the dominant

group, men are ascribed the most culturally valued traits (Cuddy et al., 2015). If so, then people should find it desirable for men in highly collectivistic cultures to display communal traits. Indeed, we found that men in East Asia – a region high in collectivism (Oyserman et al., 2002) – are prescribed communion just as strongly as women are, and almost as strongly as men are prescribed agency (with slight variations across East Asian countries; see Table 2). Thus, cultural values of collectivism, which drive increases in the desirability of communal traits, may explain why the anticipated gender differences in prescriptions did not emerge in some countries. However, collectivism cannot explain other countries that failed to display the expected pattern of gender prescriptions – such as the U.S., Canada, Australia, New Zealand, Denmark, Norway, and Sweden – as these countries are higher in individualism (Hofstede, 1980). In these countries, it appears that prescriptions of communion for women are routinely as strong as, or stronger than, prescriptions of agency for men (see Table 2). Thus, it appears that country-level factors covary with gender prescriptions in complex ways, highlighting the need for further research.

Practice Implications

Boys and men feel stronger pressures than girls and women to conform to gender rules (Jackson et al., 2021), and men display more anxiety and compensatory responses than women when they violate such rules (Bosson & Vandello, 2011). The current findings corroborate boys' and men's perceptions by revealing that college students around the world endorse a double standard in gender rules, viewing men's agency as more desirable than women's communion and men's weakness as less desirable than women's dominance. Therapists working with male clients can use this knowledge to affirm clients' lived experiences and assist them in coping adaptively with anxiety arising from external gender conformity pressures. Likewise, educators and guidance counselors may use this knowledge to combat the effects of asymmetric gender pressures that can potentially foreclose young men's life options by placing unfair restrictions on what they can and cannot be or do. For instance, some evidence suggests that college men's disinterest in communal HEED (Health, Elementary Education, and Domestic) careers reflects beliefs that they would not fit in socially with other HEED majors, rather than beliefs that they would not excel in such majors (Tellhed et al., 2017). Such expectations of low belongingness likely arise from prescriptive and proscriptive pressures that young men face from peers. Thus, interventions that illuminate and confront double standards in gender rules may free men to pursue communal careers for which they may be well-suited. Finally, parents, teachers, adult role models, and college student peers may use the current findings as inspiration to interrogate their own (perhaps implicit) double standards in gender rules. The cross-country robustness of the rule that forbids weakness in men more than dominance in women suggests that this message is one boys and men face regularly. Individuals who value gender equality may challenge themselves to unpack the bases of this proscriptive double standard in their own beliefs, values, and actions.

Conclusions

Consistent with precarious manhood theory, we found direct evidence that college students around the world endorse a double standard in gender rules, viewing men's agency as more desirable than women's communion, and men's weakness as less desirable than women's dominance. The double standard in prescriptions (men's agency versus women's communion) is stronger in less gender equal countries, whereas the double standard in proscriptions (men's weakness versus women's dominance) is relatively stable across 62 countries. These findings establish the cross-country universality of trait-based gender rules and suggest a possible mechanism by which cultures perpetuate beliefs in the precarity of manhood: Perceivers generally hold men to stricter gender rules than women, and especially in cultures characterized by greater male-male status struggles. Future research should examine the causal paths among these variables and examine how double standards in gender rules translate into socialization pressures and sanctions for gender non-conforming boys and men.

Declarations

Ethics Approval All research involving human participants received approval from each primary researcher's university IRB (or relevant ethical oversight committee) and was conducted following all guidelines for ethical treatment of human participants.

Consent to Participate All participants gave their informed consent to participate.

Conflicts of Interest The authors have no relevant financial or non-financial interests, nor any present or anticipated employment interests, to disclose.

References

Archer, J. (1992). Childhood gender roles: Social context and organisation. In H. McGurk (Ed.), *Childhood social development: Contemporary perspectives* (pp. 31–61). Lawrence Erlbaum Associates, Inc. https://doi.org/10.4324/9781315785042-3

Bakan, D. (1966). *The duality of human existence: An essay on psychology and religion*. Rand McNally. https://psycnet.apa.org/record/1967-02200-000

Barr, D. J., Levy, R., Scheepers, C., & Tily, H. J. (2013). Random effects structure for confirmatory hypothesis testing: Keep it maximal. *Journal of Memory and Language, 68*, 255–278. https://doi.org/10.1016/j.jml.2012.11.001

Bates, D., Mächler, M., Bolker, B., & Walker, S. (2015). Fitting linear mixed-effects models using lme4. *Journal of Statistical Software*, *67*(1), 1–48. https://doi.org/10.18637/jss.v067.i01

Berent, J., Falomir-Pichastor, J. M., & Chipeaux, M. (2016). Masculinity and sexual prejudice: a matter of heterosexual men's need to differentiate themselves from women and gay men. In K. Faniko, F. Lorenzi-Cioldi, O. Sarrasin, & E. Mayor (Eds.), *Gender and social hierarchies: Perspectives from social psychology* (pp. 175–187). Routledge/Taylor & Francis Group. https://psycnet.apa.org/record/2015-17213-012

Betzig, L. (1992). Roman polygyny. *Ethology and Sociobiology, 13*(5–6), 309–349. https://doi.org/10.1016/0162-3095(92)90008-R

Boer, D., Hanke, K., & He, J. (2018). On detecting systematic measurement error in cross-cultural research: a review and critical reflection on equivalence and invariance tests. *Journal of Cross-Cultural Psychology*, *49*(5), 713–734. https://doi.org/10.1177/0022022117749042

Bosson, J. K., Jurek, P., Vandello, J. A., Kosakowska-Berezecka, N., Olech, M., Besta, T., Bender, M., Hoorens, V., Becker, M., Sevincer, A. T., Best, D., Safdar, S., Wlodarcyzk, A., Zawisza, M., Zadkowska, M., Abuhamdeh, S., Agyemang, C. B., Akbas, G., Albayrak-Aydemir, N., & Van Laar, C. (2021). Psychometric properties and correlates of precarious manhood beliefs in 62 nations. *Journal of Cross-Cultural Psychology, 52*(3), 231–258. https://doi.org/10.1177/0022022121997997

Bosson, J., & Vandello, J. (2011). Precarious manhood and its links to action and aggression. *Current Directions in Psychological Science*, *20*(2), 82–86. https://doi.org/10.1177/0963721411402669

Brandt, M. J. (2011). Sexism and gender inequality across 57 societies. *Psychological Science, 22*(11), 1413–1418. https://doi.org/10.1177/0956797611420445

Breda, T., Jouini, E., Napp, C., & Thebault, G. (2020). Gender stereotypes can explain the gender-equality paradox. *Proceedings of the National Academy of Sciences, 117*(49), 31063–31069. https://doi.org/10.1073/pnas.2008704117

Brewster, K. L., & Padavic, I. (2000). Change in gender-ideology, 1977–1996: The contributions of intracohort change and population turnover. *Journal of Marriage and Family, 62*(2), 477–487. https://doi.org/10.1111/j.1741-3737.2000.00477.x

Burgess, D., & Borgida, E. (1999). Who women are, who women should be: Descriptive and prescriptive gender stereotyping in sex discrimination. *Psychology, Public Policy, and Law, 5*(3), 665–692. https://doi.org/10.1037/1076-8971.5.3.665

Chrisler, J. C. (2013). Womanhood is not as easy as it seems: Femininity requires both achievement and restraint. *Psychology of Men & Masculinity, 14*(2), 117–120. https://doi.org/10.1037/a0031005

Correll, S. J., & Ridgeway, C. L. (2003). Expectation states theory. In J. Delamater (Ed.), *Handbook of social psychology* (pp. 29–51). Kluwer Academic. https://doi.org/10.1007/0-387-36921-X_2

Cuddy, A. J., Wolf, E. B., Glick, P., Crotty, S., Chong, J., & Norton, M. I. (2015). Men as cultural ideals: Cultural values moderate gender stereotype content. *Journal of Personality and Social Psychology, 109*(4), 622–635. https://doi.org/10.1037/pspi0000027

Edwards, J. R. (2001). Ten difference score myths. *Organizational Research Methods, 4*(3), 265–287. https://doi.org/10.1177/109442810143005

Finch, W. H., Bolin, J. E., & Kelley, K. (2019). *Multilevel modeling using R* (2nd ed.). Chapman and Hall. https://doi.org/10.1201/9781351062268

Fiske, S. T., Cuddy, A. J. C., & Glick, P. (2007). Universal dimensions of social cognition: Warmth and competence. *Trends in Cognitive Science, 11*, 77–83. https://doi.org/10.1016/j.tics.2006.11.005

Flere, S., & Lavrič, M. (2008). On the validity of cross-cultural social studies using student samples. *Field Methods, 20*(4), 399–412. https://doi.org/10.1177/1525822X08322703

Fog, A. (2021). A test of the reproducibility of the clustering of cultural variables. *Cross-Cultural Research, 55*(1), 29–57. https://doi.org/10.1177/1069397120956948

Gilmore, D. D. (1990). *Manhood in the making: Cultural concepts of masculinity*. Yale University Press. https://psycnet.apa.org/record/1990-97409-000

Glick, P., Fiske, S. T., Mladinic, A., Saiz, J. L., Abrams, D., Masser, B., Adetoun, B., Osagie, J. E., Akande, A., Alao, A., Brunner, A., Willemsen, T., Chipeta, K., Dardenne, B., Dijksteruis, A., Wigboldus, D., Eckes, T., Six-Materna, I., Exposito, F., & López, W. L. (2000). Beyond prejudice as simple antipathy: Hostile and benevolent sexism across cultures. *Journal of Personality and Social Psychology, 79*(5), 763–775. https://doi.org/10.1037/0022-3514.79.5.763

Glick, P., Lameiras, M., Fiske, S. T., Eckes, T., Masser, B., Volpato, C., Manganelli, A. M., Pek, J. C. X., Huang, L., Sakalli-Ugurlu, N., Castro, Y. R., Pereira, M., Willemsen, T., Brunner, A., Six-Materna, I., & Wells, R. (2004). Bad but bold: Ambivalent attitudes toward men predict gender inequality in 16 nations. *Journal of Personality and Social Psychology, 86*(5), 713–728. https://doi.org/10.1037/0022-3514.86.5.713

Glick, P., & Whitehead, J. (2010). Hostility toward men and the perceived stability of male dominance. *Social Psychology, 41*, 177–185. https://doi.org/10.1027/1864-9335/a000025

Hammond, M. D., Milojev, P., Huang, Y., & Sibley, C. G. (2018). Benevolent sexism and hostile sexism across the ages. *Social Psychological and Personality Science, 9*(7), 863–874. https://doi.org/10.1177/1948550617727588

Hofstede, G. (1980). *Cultures consequences: International differences in work-related values*. Sage. https://us.sagepub.com/en-us/nam/cultures-consequences/book665

Ingelhart, R., Norris, P., & Ronald, I. (2003). *Rising tide: Gender equality and cultural change around the world*. Cambridge University Press. https://doi.org/10.1017/CBO9780511550362

Jackson, E. F., & Bussey, K. (2020). Under pressure: Differentiating adolescents' expectations regarding stereotypic masculine and feminine behavior. *Sex Roles, 83*(5), 303–314. https://doi.org/10.1007/s11199-019-01113-0

Jackson, E. F., Bussey, K., & Myers, E. (2021). Encouraging gender conformity or sanctioning nonconformity? Felt pressure from parents, peers, and the self. *Journal of Youth and Adolescence, 50*(4), 613–627. https://doi.org/10.1007/s10964-020-01387-8

Kane, E. W. (2006). No way my boys are going to be like that! Parents' responses to children's gender nonconformity. *Gender & Society, 20*(2), 149–176. https://doi.org/10.1177/0891243205284276

Kervyn, N., Fiske, S. T., & Yzerbyt, V. Y. (2013). Integrating the stereotype content model (warmth and competence) and the Osgood semantic differential (evaluation, potency, and activity). *European Journal of Social Psychology, 43*(7), 673–681. https://doi.org/10.1002/ejsp.1978

Kim, E. S., Cao, C., Wang, Y., & Nguyen, D. T. (2017). Measurement invariance testing with many groups: A comparison of five approaches. *Structural Equation Modeling: A Multidisciplinary Journal, 24*(4), 524–544. https://doi.org/10.1080/10705511.2017.1304822

Kline, R. B. (2016). *Principles and practice of structural equation modeling* (4th ed.). Guilford Press. https://doi.org/10.1080/10705511.2012.687667

Koenig, A. M. (2018). Comparing prescriptive and descriptive gender stereotypes about children, adults, and the elderly. *Frontiers in Psychology.* https://doi.org/10.3389/fpsyg.2018.01086

Kuppens, T., & Pollet, T. V. (2015). Gender equality probably does not affect performance at the Olympic games: A comment on Berdahl, Uhlmann, and Bai (2015). *Journal of Experimental Social Psychology, 61*, 144–147. https://doi.org/10.1016/j.jesp.2015.06.002

Larsen, K. S., & Long, E. (1988). Attitudes toward sex-roles: Traditional or egalitarian? *Sex Roles, 19*(2), 1–12. https://doi.org/10.1007/BF00292459

Lehavot, K., & Lambert, A. J. (2007). Toward a greater understanding of antigay prejudice: On the role of sexual orientation and gender role violation. *Basic and Applied Social Psychology, 29*(3), 279–292. https://doi.org/10.1080/01973530701503390

Lytton, H., & Romney, D. M. (1991). Parents' differential socialization of boys and girls: A meta-analysis. *Psychological Bulletin, 109*(2), 267–296. https://doi.org/10.1037/0033-2909.109.2.267

Milfont, T. L., & Fisher, R. (2010). Testing measurement invariance across groups: Applications in cross-cultural research. *International Journal of Psychological Research, 3*, 111–121. https://doi.org/10.21500/20112084.857

Millsap, R. E. (2011). *Statistical approaches to measurement invariance* (1st ed.). Routledge. https://doi.org/10.4324/9780203821961

Mize, T. D., & Manago, B. (2018). Precarious sexuality: How men and women are differentially categorized for similar sexual behavior. *American Sociological Review, 83*(2), 305–330. https://doi.org/10.1177/0003122418759544

Moss-Racusin, C. A., Phelan, J. E., & Rudman, L. A. (2010). When men break the gender rules: Status incongruity and backlash against modest men. *Psychology of Men & Masculinity, 11*(2), 140. https://doi.org/10.1037/a0018093

Oyserman, D., Coon, H. M., & Kemmelmeier, M. (2002). Rethinking individualism and collectivism: Evaluation of theoretical assumptions and meta-analyses. *Psychological Bulletin, 128*(1), 3–72. https://doi.org/10.1037/0033-2909.128.1.3

Pauletti, R. E., Cooper, P. J., & Perry, D. G. (2014). Influences of gender identity on children's maltreatment of gender-nonconforming peers: A person × target analysis of aggression. *Journal of Personality and Social Psychology, 106*(5), 843–866. https://doi.org/10.1037/a0036037

Pleck, J. H. (1981) *The myth of masculinity.* MIT Press. https://doi.org/10.1086/227831

Prentice, D. A., & Carranza, E. (2002). What women and men should be, shouldn't be, are allowed to be, and don't have to be: The contents of prescriptive gender stereotypes. *Psychology of Women Quarterly, 26*(4), 269–281. https://doi.org/10.1111/1471-6402.t01-1-00066

Pryor, J. B., & Whalen, N. J. (1997). A typology of sexual harassment: Characteristics of harassers and the social circumstances under which sexual harassment occurs. In W. O'Donohue (Ed.), *Sexual harassment: Theory, research, and treatment* (pp. 129–151). Allyn & Bacon. https://psycnet.apa.org/record/1996-98843-007

R Core Team. (2021). *R: A language and environment for statistical computing.* R Foundation for Statistical Computing. https://www.R-project.org/

Roberts, A. L., Rosario, M., Slopen, N., Calzo, J. P., & Austin, S. B. (2013). Childhood gender nonconformity, bullying victimization, and depressive symptoms across adolescence and early adulthood: An 11-year longitudinal study. *Journal of the American Academy of Child & Adolescent Psychiatry, 52*(2), 143–152. https://doi.org/10.1016/j.jaac.2012.11.006

Rogoza, R., Żemojtel-Piotrowska, M., Jonason, P. K., Piotrowski, J., Campbell, K. W., Gebauer, J. E., Maltby, J., Sedikides, C., Bilic, M., Bodroza, B., Brulin, J. G., Poonoosamy, H. Y. B., Chaleeraktrakoon, T., Dominguez, A. D. C., Dragova-Koleva, S., El-Astal, S., Eldesoki, W. L., Gouveia, V., Gundolf, K., & Włodarczyk, A. (2021). Structure of dark triad dirty dozen across eight world regions. *Assessment, 28*(4), 1125–1135. https://doi.org/10.1177/1073191120922611

Rosseel, Y. (2012). lavaan: An R package for structural equation modeling. *Journal of Statistical Software, 48*, 1–36. https://doi.org/10.18637/jss.v048.i02

Rudman, L. A., Mescher, K., & Moss-Racusin, C. A. (2013). Reactions to gender egalitarian men: Perceived feminization due to stigma-by-association. *Group Processes & Intergroup Relations, 16*(5), 572–599. https://doi.org/10.1177/1368430212461160

Rudman, L. A., Moss-Racusin, C. A., Glick, P., & Phelan, J. E. (2012a). Reactions to vanguards: Advances in backlash theory. In P. Devine & A. Plant (Eds.), *Advances in experimental social psychology* (pp. 167–227). Elsevier. https://psycnet.apa.org/record/2012a-12724-004

Rudman, L. A., Moss-Racusin, C. A., Phelan, J. E., & Nauts, S. (2012b). Status incongruity and backlash effects: Defending the gender hierarchy motivates prejudice against female leaders. *Journal of Experimental Social Psychology, 48*(1), 165–179. https://doi.org/10.1016/j.jesp.2011.10.008

Rutkowski, L., & Svetina, D. (2014). Assessing the hypothesis of measurement invariance in the context of large-scale international surveys. *Educational and Psychological Measurement, 74*(1), 31–57. https://doi.org/10.1177/0013164413498257

Sagebin Bordini, G., & Sperb, T. M. (2013). Sexual double standard: A review of the literature between 2001 and 2010. *Sexuality & Culture, 17*(4), 686–704. https://doi.org/10.1007/s12119-012-9163-0

Sidanius, J., & Pratto, F. (2001). Social dominance: An intergroup theory of social hierarchy and oppression. *Cambridge University Press.* https://doi.org/10.1017/CBO9781139175043

Smuts, B. (1995). The evolutionary origins of patriarchy. *Human Nature, 6*(1), 1–32. https://doi.org/10.1007/BF02734133

Spivey, L. A., Huebner, D. M., & Diamond, L. M. (2018). Parent responses to childhood gender nonconformity: Effects of parent and child characteristics. *Psychology of Sexual Orientation and Gender Diversity, 5*(3), 360–370. https://doi.org/10.1037/sgd0000279

Sullivan, J., Moss-Racusin, C., Lopez, M., & Williams, K. (2018) Backlash against gender stereotype-violating preschool children. *PLoS One 13*(4), Article e0195503. https://doi.org/10.1371/journal.pone.0195503

Tellhed, U., Bäckström, M., & Björklund, F. (2017). Will I fit in and do well? The importance of social belongingness and self-efficacy for explaining gender differences in interest in STEM and HEED majors. *Sex Roles, 77*(1), 86–96. https://doi.org/10.1007/s11199-016-0694-y

United Nations Development Programme. (2020). *Inequality Adjusted Human Development Index.* http://hdr.undp.org/en/composite/IHDI

United Nations Statistics Division. (2021). *Standard country or area codes for statistical use.* https://unstats.un.org/unsd/methodology/m49/

Valved, T., Kosakowska-Berezecka, N., Besta, T., & Martiny, S. E. (2021). Gender belief systems through the lens of culture: Differences in precarious manhood beliefs and reactions to masculinity threat in Poland and Norway. *Psychology of Men & Masculinities, 22*(2), 265–276. https://doi.org/10.1037/men0000331

van Beusekom, G., Collier, K. L., Bos, H. M., Sandfort, T. G., & Overbeek, G. (2020). Gender nonconformity and peer victimization: Sex and sexual attraction differences by age. *The Journal of Sex Research, 57*(2), 234–246. https://doi.org/10.1080/00224499.2019.1591334

van de Vijver, F. J., & Leung, K. (2021). *Methods and data analysis for cross-cultural research*. Cambridge University Press. https://doi.org/10.1017/9781107415188

Vandello, J. A., Bosson, J. K., Cohen, D., Burnaford, R. M., & Weaver, J. R. (2008). Precarious manhood. *Journal of Personality and Social Psychology, 95*(6), 1325–1339. https://doi.org/10.1037/a0012453

Williams, J. E., & Best, D. L. (1990). *Measuring sex stereotypes: A multination study*. (Rev. ed.) Sage. https://psycnet.apa.org/record/1990-97701-000

Williams Insitute. (2019). *Social acceptance of LGBT People in 174 Countries: 1981 to 2017*. https://williamsinstitute.law.ucla.edu/wp-content/uploads/Global-Acceptance-Index-LGBT-Oct-2019.pdf

Wilson, M., & Daly, M. (1992). The man who mistook his wife for a chattel. In J. H. Barkow, L. Cosmides, & J. Tooby (Eds.), *The adapted mind: Evolutionary psychology and the generation of culture* (pp. 289–322). Oxford University Press. https://psycnet.apa.org/record/1992-98504-000

Wood, W., & Eagly, A. H. (2002). A cross-cultural analysis of the behavior of women and men: Implications for the origins of sex differences. *Psychological Bulletin, 128*(5), 699–727. https://doi.org/10.1037/0033-2909.128.5.699

Wood, W., & Eagly, A. H. (2012). Biosocial construction of sex differences and similarities in behavior. *Advances in Experimental Social Psychology, 46*, 55–123. https://doi.org/10.1016/B978-0-12-394281-4.00002-7

World Economic Forum. (2020). *Global gender gap report 2020*. Geneva, Switzerland. http://www3.weforum.org/docs/WEF_GGGR_2020.pdf