Does Culture Moderate Gender Stereotypes? Individualism Predicts Communal (but Not Agentic) Prescriptions for Men Across 62 Nations

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Author Biographies

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Colette Van Laar is Full Professor at the Center for Social & Cultural Psychology (CSCP) University of Leuven (KU Leuven). She examines social psychological factors and processes that transfer group stereotypes and prejudices into societal outcomes, including in education and work. She conducts research on social identity, contact, and intergroup relations, making use of both laboratory research with experimental groups, and field research with existing

groups such as ethnic minorities, women in traditionally male-dominated fields, and also men in traditionally female-dominated fields (HEED: Health care, Early Education and Domestic roles).

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Deborah Best is the William L. Poteat Professor of Psychology at Wake Forest University. A developmental psychologist by training, one line of her research focuses on children's cognitive development and memory strategies. Also a cross-cultural psychologist, she has explored the nature and development of gender, racial, and age stereotypes and attitudes of children and adults around the world.

Paweł Jurek holds the position of Associate Professor in the Division of Social Psychology at the University of Gdańsk (Poland). His primary research interests encompass psychological assessment, research methods in social science, and psychometrics. Additionally, he specializes in cross-cultural data analysis.

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Abstract

The cultural moderation of gender stereotypes hypothesis (Cuddy et al., 2015) argues that societies assign the most culturally valued traits to men, the dominant group. Thus, in line with cultural ideals, collectivistic cultures should assign men more communality, whereas individualistic societies should assign men more individualism. Using archival data, Cuddy et al. found evidence for cultural moderation in descriptive stereotypes. We argue, however, that cultural moderation should be tested using prescriptive stereotypes, which more directly reflect cultural ideals about how men and women should be. We also provide a more robust test using contemporary data from 62 countries from Towards Gender Harmony project (N = 27,391) that allows multilevel modeling techniques. We found evidence for cultural moderation for communal (though not agentic) traits: collectivistic (compared to individualistic) nations prescribed relatively more communal traits to men. Thus, we show that prescriptions for men gravitate more toward core cultural values than prescriptions for women.

Keywords: gender stereotypes, cultural moderation, communality, agency, prescriptions

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Are gender stereotypes assigning agency to men and communality to women universal? Evidence for agentic-male and communal-female stereotypes largely relies on research in Western nations that value individualistic traits (i.e., personal agency) over communal traits (e.g., helpfulness) (e.g., Eagly et al. 2020; Prentice & Carranza, 2002). Cuddy and colleagues' (2015) cultural moderation of gender stereotypes hypothesis proposes that societies assign men their most valued traits. Re-analyzing data from Williams and Best (1990a) involving 26 nations, they showed that individualistic (as compared to collectivistic) nations assigned more individualistic and less collectivistic traits to men. However, the broader cross-national comparisons Cuddy et al. (Study 4) had both theoretical and methodological limitations. The current study extends Cuddy et al work and offers a more robust and sensitive test of the cultural moderation hypothesis across a broader set of nations.

Specifically, the current study assesses stereotypes in a manner that should more directly test the cultural moderation hypothesis. Because they relied on archival data from Willams and Best (1990), Cuddy et al. (Study 4) tested for cultural moderation in descriptive gender stereotypes (i.e., expectations about how men and women are). We argue that assessing prescriptive stereotypes, which reflect beliefs about how men and women "should" be, better assesses cultural ideals, providing a more theoretically appropriate test of the cultural moderation hypothesis. Further, because Cuddy et al. re-analyzed archival data, their test for cultural moderation had several methodological and statistical limitations we improved upon in the current study. First, the Williams and Best data originally collected over 30 years ago (with some data collected over 40 years ago). These data do not reflect the

dramatic changes in gender roles (e.g., women's influx into the paid workforce in many nations) that have altered gender stereotypes. For example, Eagly and colleagues (2020) showed that stereotypes regarding women's greater communality increased in the United States from 1946 to 2018, whereas stereotypes regarding men's greater agency declined. We present contemporary data testing whether cultural values moderate current prescriptive gender stereotypes. Second, because Williams and Best reported national averages on their stereotyping measure and the individual data they collected were no longer available, Cuddy et al. could not test for the data's reliability, cultural invariance, or other psychometric properties. The study presented here uses multilevel modeling techniques to ensure greater reliability and validity of the inferences. Finally, the current study analyzes prescriptive stereotypes in a much larger set of nations than the 26 studied by Cuddy et al. We collected data in 62 nations that vary considerably on individualism-collectivism values, providing a comprehensive, reliable, and up-to-date analysis of whether cultural values moderate the content of contemporary prescriptive gender stereotypes concerning agency and communality.

Agency-communality, cultural values, and gender norms

The trait terms used to describe people cohere into two broad dimensions: agency (self-oriented) and communion (other-oriented) (Abele & Wojciszke, 2007). These dimensions broadly correspond, respectively, with male (agentic) and female (communal) stereotypes as well as individualistic, independent (focused on self) and collectivistic, interdependent (caring for others) cultural values. Overall, collectivistic societies place more value on communal traits (Markus & Kitayama, 1991) and people in collectivistic societies rate themselves higher in communal than agentic attributes (e.g., Heine, 2001; Sedikides et

al., 2003; Sugihara & Katsurada, 2000). Conversely, individualistic societies place more value on agentic traits, and people in these societies rate agency as more personally important than communality (Sedikides et al., 2003).

At the same time, robust cross-cultural evidence suggests a universal tendency to attribute agency more to men and communality more to women (Bosson et al., 2021; Hsu et al., 2021; Williams & Best, 1990a, 1990b), affecting how women and men describe themselves as well as others (Diekman & Eagly, 2000; Rudman & Glick, 2001; Wood & Eagly, 2009). However, because femininity and masculinity represent cultural constructs (Safdar & Kosakowska-Berezecka, 2015), expectations concerning femininity and masculinity are also reflected in the prescriptive content of gender stereotypes, which can vary depending on cultural context. Cuddy and colleagues (2015) suggested that cultural values systematically determine differences in gender stereotype content across cultures. Individualistic societies value personal agency (e.g., self-oriented, agentic, autonomous, independent) over communality, and collectivistic societies value communality (e.g., helpful to others, devoted to others, warm, supportive) over agency (Hofstede, Hofstede, & Minkov, 2010; Triandis & Gelfand, 2012). Therefore, if societies assign their most valued traits to men (Correll & Ridgeway, 2006; Sidanius & Pratto, 1999; Jost & Banaji, 1994), stereotypes associating men with personal agency and women with communality would be expected in individualistic cultures but should be less prominent or even reversed in more collectivistic nations. Cuddy and colleagues extracted a set of individualistic vs. collectivistic traits from Williams and Best's (1990a) data and found that the more collectivistic the nation, the more people viewed collectivistic traits as describing men, and the more individualistic the nation, the more people viewed individualistic traits as describing men. However, in their 14-country

study, with half of the countries being more collectivistic, Williams and Best (1990b) found that in all countries both men's and women's ideal selves (prescriptive) were more masculine (agentic) than their selves, suggesting those traits were more valued. We argue that gender prescriptions, rather than descriptive stereotypes, more closely reflect cultural ideals and, therefore, represent a more appropriate way to test the cultural moderation hypothesis. The current study examines whether individualism-collectivism predicts stereotypical agency and communality prescriptions for women and men in 62 countries.

The present research

Bosson and colleagues (2022) previously established that gender prescriptions (agency for men, communality for women) vary in strength across countries but did not examine whether cultural differences in individualism-collectivism predicted these variations. The current study tests whether nations' collectivism-individualism moderates stereotypical gender prescriptions about agency and communality in 62 countries. Similar to Cuddy et al. (2015), we examined how gender stereotypes relate to nations' individualism-collectivism, which represents one of the most fundamental and widely studied cultural value distinctions in psychology (e.g., Oyserman et al., 2002; Triandis, 1989). However, while the current paper's theorization is rooted in Cuddy et al.'s arguments and findings on the moderating role of culture on gender stereotypes, we extended Cuddy et al.'s conceptualization of the cultural moderation of gender stereotypes hypothesis in several ways.

First, we examined prescriptive (rather than descriptive) gender stereotypes. Cuddy and colleagues focused solely on descriptive gender stereotypes, which describe the traits people believe that men and women typically exhibit. We argue that the cultural moderation hypothesis would be better tested by examining prescriptive gender stereotypes, which

specify what women and men ideally should aspire to be like (Prentice & Carranza, 2002) because prescriptions more directly reflect cultural ideals. For example, people may descriptively stereotype men as "overbearing" and women as "shrill" yet view these traits as undesirable rather than as ideals. Thus, gender prescriptions should afford a more theoretically appropriate test of the cultural moderation hypothesis.

Second, unlike Cuddy et al. (2015), who treated masculinity and femininity as opposite ends of a single bipolar dimension, we asked participants to rate the desirability of a set of agency and communality traits for both binary genders separately, which allowed us to meaningfully compare perceived prescriptions towards men and women for each respondent. Third, we examined the cultural equivalence of prescriptive stereotypes regarding agency and communality by establishing their invariance across cultures (i.e., if the constructs measured are interpreted similarly across cultures). Fourth, we tested the moderating effect of culture in contemporary samples (data collected between 2018 and 2020) in a wider variety of nations (62 versus 2 and 26 for Cuddy et al.). Fifth, we employed multilevel modeling rather than simpler correlational methods for cross-national comparisons across multiple nations, allowing us to assess cross-cultural comparisons more reliably and accurately. In sum, the current study provides a comprehensive and cross-culturally equivalent (i.e., by using statistically comparable scores across cultures) test of whether individualistic-collectivistic cultural values moderate prescriptive (rather than descriptive) gender stereotypes on agency (broadly construed) and communality.

In our paper, we follow Hofstede (2001, p. 209) in conceptualizing country-level individualism-collectivism as the "extent to which people are autonomous individuals or embedded in their groups." In collectivist cultures, people perceive themselves as closely

linked to their in-group, tend to take the norms and duties prevalent in the in-group as strict guides, and attach high importance to their relationship with other members of their in-group. Individualist cultures, in contrast, replace the individual's dependence on small in-groups, especially family and acquaintances, with a more anonymous form of dependence on impartial institutions and universal norms. Individualism conceptualized and operationalized by Hofstede (2001, and more recent Hofstede, Hofstede, & Minkov, (2010) correlates with more recent conceptualizations of individualism-collectivism (Schwartz; 1994, 2008; Welzel, 2013; Minkov & Kaasa, 2022).

In this project, Hypotheses 1 and 2 stated that people in individualistic countries, compared to those in collectivistic countries, should prescribe less communality (H1) and more agency (H2) to men. We also explored gender gaps in prescriptions: whether people in collectivistic as compared to individualistic cultures prescribe more communality to men than women (Exploratory Question 1) and whether people in individualistic as compared to collectivistic cultures are especially inclined to prescribe more agency to men than women (Exploratory Question 2). Past research (Glick et al., 2000; Larsen & Long, 1988; Williams & Best, 1990b) has shown that men generally report more traditional gender beliefs than women, but with respect to prescriptive stereotypes, there is no direct evidence that men hold women and men to stronger prescriptive standards. Thus, we explored whether men, who typically report more traditional gender beliefs than women, hold stronger gender prescriptions (for both men and women) than women (Exploratory Question 3).

Method

Participants and Procedure

Data were collected between January 2019 and February 2020 as part of a large cross-cultural project Towards Gender Harmony[1] (see: https://osf.io/fqd4p/ and www.towardsgenderharmony.ug.edu.pl). Participants were undergraduate students who volunteered their time and (in most countries) received course credit or no compensation. Ethical approvals were obtained, and all participants gave their informed consent. Participants completed a survey that included additional scales to those described here (see: https://osf.io/7tza3). The order of measures was randomized. Data were collected via SurveyMonkey or Qualtrics (or, in rare cases, paper surveys). From the initial sample (N = 33,313), we excluded from analyses the data of 5,922 individuals who failed one or more of three attention checks, provided incomplete data, or self-identified with a different gender other than male or female. Note that we consider gender as a spectrum, and we are aware that categorizing it based on the female-male binary is limiting - and not a reflection of everyone's experience. Nevertheless, as the sample of transgender, nonbinary, and gender minority individuals was small (n = 373, 1.1%), we could not analyze their data for statistical reasons. The final sample consisted of 27,391 respondents (38% self-identified men) from 62 countries. Sample composition and information on participants' age per country and country-level scores for individualism and gross national income per capita appear in Table 1.

1You can also find Towards Gender Harmony project's overall preregistration here: https://osf.io/mq48y

Table 1

Composition of Samples and Country-Level Scores for Individualism and Gross National Income per Capita (GNI) (control variable)

Country	*N*	% Male	M_{age}	SD_{age}	Individualism	GNI
Total Sample	27391	37%	23,1	6,9	-	-
Albania	199	36%	23,1	5,2	20	14350
Argentina	331	47%	32,7	12,3	46	22060
Armenia	184	58%	20,0	1,8	22	14460
Australia	587	33%	29,7	11,1	90	51560
Belgium	1587	48%	21,5	5,8	75	54730
Bosnia	175	47%	23,0	6,1	22	15770
Brazil	904	31%	23,8	7,4	38	14850
Canada	861	31%	19,9	3,3	23	50810
Chile	124	40%	21,8	5,4	20	24140
China	508	37%	19,5	2,0	13	16740
Colombia	505	40%	21,5	5,0	33	15150
Croatia	287	22%	23,4	6,0	58	29520
Czechia	356	74%	28,0	8,5	58	40660
Denmark	237	39%	25,4	4,7	74	61410
England	619	39%	22,4	7,8	89	48040
Finland	268	12%	26,1	7,1	63	51210
France	330	18%	22,2	6,9	71	50390
Georgia	146	53%	21,7	3,1	40	15020
Germany	1200	35%	30,0	10,5	67	57690
Ghana	248	41%	20,3	2,6	15	5510
Greece	246	27%	26,1	8,9	35	31350
Hungary	613	18%	22,4	4,4	80	32750
India	317	39%	22,1	5,2	48	6960
Indonesia	217	47%	21,0	4,0	14	11930
Iran	145	39%	29,2	8,2	41	15270
Ireland	536	46%	19,8	3,7	70	68050
Italy	2158	34%	22,8	5,3	76	44580
Japan	194	42%	21,6	2,5	46	44780
Kazakhstan	336	44%	20,2	3,8	20	24050
Kosovo	353	40%	20,3	4,0	25	14350
Lebanon	106	29%	19,6	0,8	40	15260
Lithuania	278	32%	23,9	6,7	60	37010
Luxembourg	174	35%	24,6	5,3	60	77570
Malta	225	32%	26,7	10,1	59	41690
Mexico	269	48%	23,7	9,0	30	19810
Morocco	227	46%	29,0	9,8	46	7680
Nepal	170	38%	22,8	5,6	30	3600
Netherlands	784	33%	20,7	3,5	80	59890
New Zealand	211	29%	19,0	2,3	79	42710

Nigeria	355	43%	21,2	3,3	30	5170
Northern Ireland	271	39%	22,3	5,8	89	48040
Norway	180	47%	23,0	3,9	69	69610
Pakistan	344	44%	22,1	3,7	14	5210
Philippines	393	49%	19,8	2,1	32	10200
Poland	717	44%	23,0	4,8	60	32710
Portugal	150	15%	22,3	5,2	27	35600
Romania	216	41%	22,8	4,7	30	31860
Russia	601	31%	21,8	6,8	39	28270
Serbia	580	25%	22,1	5,1	25	17960
Slovakia	483	46%	22,0	4,5	52	33680
South Africa	320	40%	20,6	2,6	65	12630
Spain	968	36%	25,7	8,9	51	42300
Suriname	151	46%	22,9	5,4	47	15200
Sweden	593	47%	26,4	7,4	71	57300
Switzerland	518	36%	23,4	5,4	68	72390
Turkey	1314	31%	22,3	4,0	37	27410
UAE	437	35%	20,0	1,5	36	70240
USA	666	30%	20,4	4,4	91	65880
Ukraine	245	34%	19,1	1,4	25	13750
Uruguay	154	40%	22,7	6,3	36	21120
Vietnam	338	25%	22,5	7,0	20	7750
Wales	182	36%	30,2	10,2	89	48040

Note. England, Northern Ireland, and Wales are treated as separate countries in the analyses, but their Individualism and Gross National Income per Capita (GNI) assigned are overall United Kingdom scores, based on Hofstede, G., Hofstede, G.J., & Minkov, M. (2010). Cultures and organizations: Software of the mind (Rev., 3rd ed.) New York: McGraw-Hill.

Measures

Bilingual scholars used the back-translation procedure (Van de Vijver & Leung, 2021) to create 29 language versions of the scales. All items were translated from English to the specific language and then back-translated by an independent translator (unless the item was previously published in that language). All scale translations can be accessed (see https://osf.io/7tza3).

Individual Level Agentic and Communal Prescriptive Stereotypes

Participants rated 24 traits selected by independent judges (members of our cross-cultural consortium), out of which we used 16 in the analyses, as measurement invariance

was found for those previously (Bosson 2022). Those assessed agency (competent, confident, has leadership abilities, determined, courageous, active, capable, independent) and communion (compassionate, helpful to others, sympathetic, understanding of others, aware of others' feelings, devoted to others, warm, supportive; Prentice & Carranza, 2002; Rudman et al., 2012; Williams & Best, 1990a). For each trait, participants rated "How desirable is it in your society for a woman [man] to possess this trait?" on a scale of 1 (not at all desirable) to 7 (very desirable), and we used these ratings in tests of Hypotheses 1-2. In addition, for use in Exploratory Questions 1-2 tests, we calculated difference scores for each participant, subtracting desirability ratings of a given trait for women from desirability ratings of the same trait for men.

Prior to primary analyses, we established the measurement invariance of the agency and communion measures. Usually, three levels of invariance are assessed in the literature (Milfont & Fisher, 2010): configural invariance, indicating whether the factor structure of the measurement is equal across groups; metric invariance, indicating whether items' factor loadings are equal across groups; and scalar invariance, indicating whether the items' intercepts are equal across groups. The first ensures that the construct is replicable, the second allows multigroup inferences on the relationships between variables, and the third allows multigroup inferences on the levels of the variables.

Country Level Collectivism-Individualism

Hofstede's individualism vs. collectivism (IDV) measure (Hofstede et al., 2010) assesses the degree of interdependence a society maintains among its members, assessing a continuum from collectivism to individualism. Individualism places greater importance on attaining personal goals, whereas collectivism places greater importance on goals that foster

the group's well-being. IDV represents a scale ranging from 0 to 100, with low scores indicating collectivism (e.g., Colombia, which scored 13) and high scores indicating individualism (e.g., the United States of America, which scored 91). Globalization and Westernization have increased individualism globally since Hofstede's country-level ratings were initially created (Hofstede, 1980, 2002), but more recent rankings (Hofstede et al., 2010), as well as gender inequality rankings (United Nations Development Program, 2013), indicate that relative levels of individualism across countries have remained stable across the years.

Gross National Income (GNI). In studies of the effects of culture, controlling for national wealth is necessary to rule out the possibility that a particular cross-cultural difference is caused by wealth differences (cf. Welzel, 2013). To detect culture-specific effects, we followed best practices by calculating the country-fixed effect that results after controlling for national wealth (cf. Beugelsdijk & Welzel, 2018; Minkov & Kaasa, 2022; Minkov et al., 2023). We thus included Gross National Income (GNI; World Bank, 2020) in the analyses. It measures the nation-level standard of living per capita adjusted for the price level of the country. Among the countries we studied, Nepal had the lowest GNI ($3600) and Luxembourg the highest ($77,570).

Analytical Strategy

To obtain comparable scores across countries, we tested 2-factor models using factor analyses of prescription measures (agency correlated with communion). First, we conducted Confirmatory Factor Analysis (CFA) in all countries separately and then in both gender groups separately. Second, we used Multigroup Confirmatory Factor Analysis (MGCFA) to test each measure's cross-country and cross-gender measurement invariance. Third, we used within-person MGCFA to test whether prescriptions for different genders were comparable (e.g., agency prescriptions for men vs agency prescriptions for women). In all factor analyses, we used the Robust Maximum Likelihood (MLR) estimator to account for deviations from normality (Yuan & Bentler, 2000). Examining model fits in single-group analyses (CFAs), we relied on the following thresholds for fit indices: CFI > .90, RMSEA < .08, and SRMR < .08 (Brown, 2006; Byrne & Byrne, 2013). In multi-group analyses (MGCFAs), we relied on different thresholds depending on the number of groups analyzed. For within-person MGCFA, we used Chen's (2007) criteria: ΔCFI = .01, ΔRMSEA = .015. In cross-country MGCFA, given the large number of compared groups, we relied on more liberal thresholds to test metric invariance (ΔCFI = .02, ΔRMSEA = .03; Rutkowski & Svetina, 2014). We tested hypotheses using two-level Multilevel Regression Models (MLM), in which individuals were nested in countries with random effects modeled for gender, using latent scores of all four prescription variables (agentic prescriptions for women and men and communal prescriptions for women and men), derived from CFAs conducted on the whole sample.

In all analyses, we additionally controlled for participants' demographics (age and gender [with women as reference category]) and countries' GNI to verify whether the country-level cultural value of individualism predicts individual-level endorsement of

prescriptions, above and beyond country-level development and wealth and participants' age. When testing Hypotheses 1 and 2, we additionally controlled for prescriptions for the other gender group (i.e., we controlled for agentic prescriptions for women in the model predicting agentic prescriptions for men) to partial out the non-gender-specific general expectations of agency or communion in a given country.

We used R software for statistical analyses, specifically, the "lavaan" package (Rosseel, 2012) for factor analyses and the "lme4" package (Bates et al., 2015) for MLM analyses. All codes and detailed results, along with supplementary materials, are stored in an open repository [https://osf.io/pw9eq/?view_only=60da45251aa74c42aa31fec31a003b16] for reproducibility.

Results

Descriptive Statistics

Average scores and standard deviations of all agentic and communal prescription variables across all studied countries are presented in Table 2

Table 2

Observed Scores of Agentic and Communal Prescriptions for Men and Women - Descriptive Statistics across Countries

Country	Prescriptions for Men				Prescriptions for Women			
	Agentic		Communal		Agentic		Communal	
	M	*SD*	*M*	*SD*	*M*	*SD*	*M*	*SD*
Total sample	6.09	0.84	5.25	1.26	5.25	1.28	5.94	0.89
Albania	6.18	0.71	5.58	1.08	5.47	1.39	5.96	0.74
Argentina	6.31	0.69	5.38	1.19	5.25	1.48	5.88	0.94
Armenia	6.07	0.93	5.45	1.23	5.44	1.15	5.41	1.15
Australia	6.17	0.84	5.33	1.25	5.45	1.09	6.18	0.83
Belgium	5.86	0.78	5.38	1.06	5.58	0.99	5.73	0.85
Bosnia	5.84	0.99	5.42	1.13	5.44	1.10	5.69	0.99
Brazil	6.37	0.79	4.56	1.62	4.79	1.77	5.91	0.91
Canada	6.17	0.87	5.20	1.34	5.42	1.14	6.17	0.80
Chile	6.09	0.89	5.68	1.19	5.59	1.24	6.05	0.93
China	5.94	0.97	5.50	1.03	5.47	1.11	5.48	0.94
Colombia	6.31	0.83	5.44	1.26	5.43	1.45	6.01	0.96
Croatia	6.19	0.68	5.40	1.22	5.21	1.27	6.17	0.76
Czechia	5.90	0.81	5.32	1.00	5.34	0.93	5.78	0.81
Denmark	6.06	0.67	5.40	1.15	5.52	0.91	6.17	0.66
England	6.02	0.83	5.23	1.20	5.23	1.09	6.05	0.77
Finland	6.07	0.74	4.94	1.05	5.31	1.00	5.95	0.77
France	5.90	0.87	5.77	0.97	5.78	1.05	5.76	0.86
Georgia	6.04	1.07	5.51	1.18	5.64	1.32	5.56	1.14
Germany	6.09	0.71	4.96	1.17	5.41	1.03	5.88	0.81
Ghana	6.53	0.73	5.52	1.21	5.81	1.20	6.17	0.94
Greece	6.38	0.63	5.12	1.27	5.01	1.36	6.21	0.75
Hungary	6.12	0.72	4.97	1.20	4.87	1.14	6.13	0.76

India	6.28	0.70	5.14	1.25	5.27	1.30	6.05	0.86
Indonesia	6.46	0.73	6.05	0.85	5.75	1.01	6.15	0.70
Iran	6.55	0.75	5.30	1.11	4.64	1.54	5.84	1.12
Ireland	6.02	0.82	5.31	1.15	5.52	0.98	5.99	0.76
Italy	6.17	0.74	4.98	1.41	5.21	1.40	5.79	0.89
Japan	5.80	0.88	5.86	1.04	5.30	1.24	5.89	0.83
Kazakhstan	5.73	0.88	5.77	1.01	5.09	1.02	5.94	0.83
Kosovo	6.30	0.76	5.30	1.27	5.27	1.53	5.92	0.88
Lebanon	6.33	0.70	4.70	1.39	4.69	1.45	5.97	0.79
Lithuania	5.97	0.83	5.25	1.24	5.40	1.08	5.98	0.85
Luxembourg	6.14	0.80	5.25	1.14	5.60	1.08	5.87	0.77
Malta	6.35	0.71	5.21	1.41	5.48	1.26	6.22	0.77
Mexico	6.34	0.72	5.44	1.14	5.31	1.34	6.13	0.78
Morocco	5.50	2.31	4.80	2.15	4.82	2.11	5.50	2.10
Nepal	6.11	0.96	5.13	1.17	5.17	1.31	5.85	0.95
Netherlands	5.68	0.67	5.13	0.88	5.22	0.81	5.81	0.66
New Zealand	6.19	0.83	5.43	1.31	5.55	1.24	6.20	0.80
Nigeria	6.29	1.04	5.59	1.19	5.74	1.23	5.88	1.11
Northern Ireland	6.15	0.82	5.22	1.32	5.32	1.23	6.11	0.84
Norway	5.75	0.77	5.63	0.93	5.52	0.88	6.05	0.74
Pakistan	5.91	1.01	5.05	1.27	4.85	1.27	5.55	1.00
Philippines	6.31	0.76	5.59	1.20	5.68	1.15	6.21	0.75
Poland	6.14	0.66	5.21	1.11	5.07	1.00	5.99	0.81
Portugal	6.20	0.81	5.33	1.20	5.41	1.31	6.13	0.75
Romania	6.15	0.97	5.36	1.25	5.43	1.21	6.01	1.04
Russia	5.60	0.85	5.63	1.03	4.90	1.01	5.94	0.83
Serbia	6.26	0.74	5.66	1.18	5.68	1.17	6.02	0.85
Slovakia	5.81	0.91	5.10	1.22	5.18	1.02	5.68	0.99
South Africa	6.31	0.71	5.04	1.38	5.56	1.11	6.12	0.78

Spain	6.16	0.76	5.23	1.29	5.22	1.55	5.86	0.89
Suriname	5.92	0.95	5.55	1.15	5.58	1.08	5.86	0.87
Sweden	5.77	0.85	5.15	1.23	5.13	1.01	6.04	0.85
Switzerland	6.05	0.80	5.53	1.11	5.68	1.02	6.07	0.76
Turkey	6.10	0.78	5.29	1.28	4.15	1.56	6.08	0.82
UAE	6.27	0.72	4.92	1.24	4.83	1.33	6.06	0.83
Ukraine	6.17	0.85	5.13	1.39	5.23	1.26	6.18	0.86
Uruguay	6.28	0.76	4.81	0.96	5.05	1.07	5.46	0.93
USA	6.08	0.80	5.12	1.33	5.12	1.33	6.04	0.79
Vietnam	6.27	0.73	5.88	0.82	5.61	1.06	5.93	0.84
Wales	6.24	0.79	5.02	1.45	5.30	1.15	6.18	0.90

Factor Analyses

The tested CFA models and items used as indicators of measured constructs were based on previous analyses conducted on the same database (see Bosson et al., 2022; we used only complete cases of all studied variables, thus, the overall *N* differs from that paper), and, similarly, were found to be well-fitted to the data (see supplementary materials in the OSF). We established that gender prescriptions for both genders displayed cross-country measurement invariance at the metric level, enabling us to test Hypotheses 1 and 2. Also, the same prescriptions for different genders were scalar invariant, which enabled us to meaningfully test their differences by subtracting one score from the other (Exploratory Questions 1 and 2). Finally, we found scalar cross-gender invariance, allowing us to test for gender differences in perceived cultural prescriptions (Exploratory Question 3).

Hypothesis Testing

Communal and Agentic Prescriptions Across Countries

For all prescriptions examined, data were substantially clustered by country (see null models ICC in Table 3), thus requiring multilevel analyses. In line with Hypothesis 1, we found a negative relationship between individualism and communal prescriptions for men: In more individualistic countries, communion was less prescribed for men than in collectivistic countries (Figure 1[2], Table 3). In contrast, we found a positive yet weak link between individualism and communal prescriptions for women (Figure 2): Communion was more strongly prescribed for women in individualistic countries than in collectivistic countries. Country-level individualism was not significantly related to agentic prescriptions for men (Hypothesis 2) or women (Figure 1, Table 3).

[2] For clarity and more detailed presentation of distribution of results across countries, all figures in the paper are based on zero-order analyses of the latent scores.

Table 3

Results of Multilevel Regression Analyses Predicting Agentic and Communal Prescriptions for Men and Women

	Prescriptions for Men		Prescriptions for Women	
	Agency	Communion	Agency	Communion
Fixed Effects				
Prescriptions of the same trait toward the other gender	.32**	.32**	.31**	.31**
Age	.02*	.01	.01	-.02**
Gender (men)	-.26**	.12**	.15**	-.32**
IDV	-.03	-.11**	-.02	.08*
GNI	-.08	0.01	.04	.01
Gender(men)*IDV	.04	0.03	.03	-.03
Random Effects				
Null model ICC	.17	.07	.08	.13
Residual Variance	.44	1.27	.93	.54
Cross-country intercept variance	.03	.10	.11	.03
Cross-country gender effect variance	.01	.05	.07	.02
Pseudo-R2 (fixed effects)	.116	.106	.098	.122
Pseudo-R2 (total)	.171	.151	.169	.164

Note. Standardized coefficients are reported for fixed effects. The analyses were conducted using a hierarchical approach (i.e., adding each predictor individually); we report only the full models here for clarity. Detailed results of all models are reported in the OSF, anonymized. $N = 62$ countries.

IDV = Individualism, GNI = Gross National Income per Capita.

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

Fig. 1

The Relationship Between Individualism and Agentic and Communal Prescriptions for Men, Including 95% Confidence Intervals

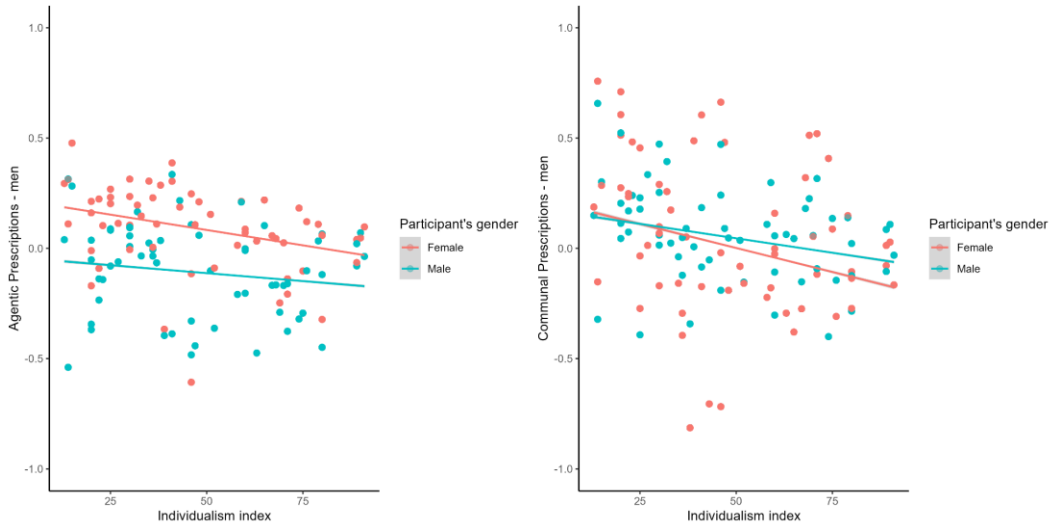
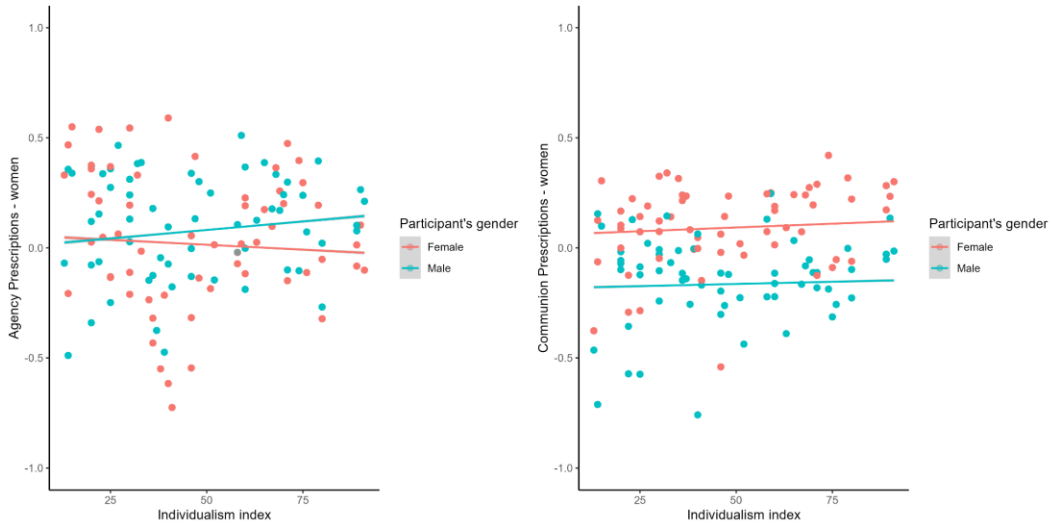


Fig. 2

The Relationship Between Individualism and Agentic and Communal Prescriptions for Women, Including 95% Confidence Intervals



Analyzing differences in agentic and communal prescriptions for men versus women, we found that in general - regardless of country-level individualism - more agency was prescribed to men (M = 0.83, SD = 1.35, where 0 indicates no difference) than to women (Exploratory Question 1) and more communion was prescribed to women (M = -0.70, SD = 1.34) than to men (Exploratory Question 2) (see Figure 3). However, a main effect of individualism concerning differences in communality prescriptions (Table 4) indicated that the gender gap in communality prescriptions was stronger in more individualistic countries.

We also observed a robust gender effect in predicting agentic and communal prescriptions for women and men (Exploratory question 3), indicating that men (versus women) viewed society as prescribing more communion and less agency to men, and more agency and less communion to women. This means that women (more than men) viewed society as prescribing more traditional gender traits to both binary genders. Moreover, the difference in prescribing agency to men vs women and communion to men vs women was smaller among men (see Figure 2).

All the observed effects were significant when controlling for GNI. We also found a weak age effect such that younger (compared to older) participants viewed society as prescribing agency more to men and communality less to women (Table 3). Finally, the difference in prescribing communion to men vs women was smaller for older than younger participants (see Table 4).

Table 4

Results of Multilevel Regression Analyses Predicting Prescriptions for Men and Women

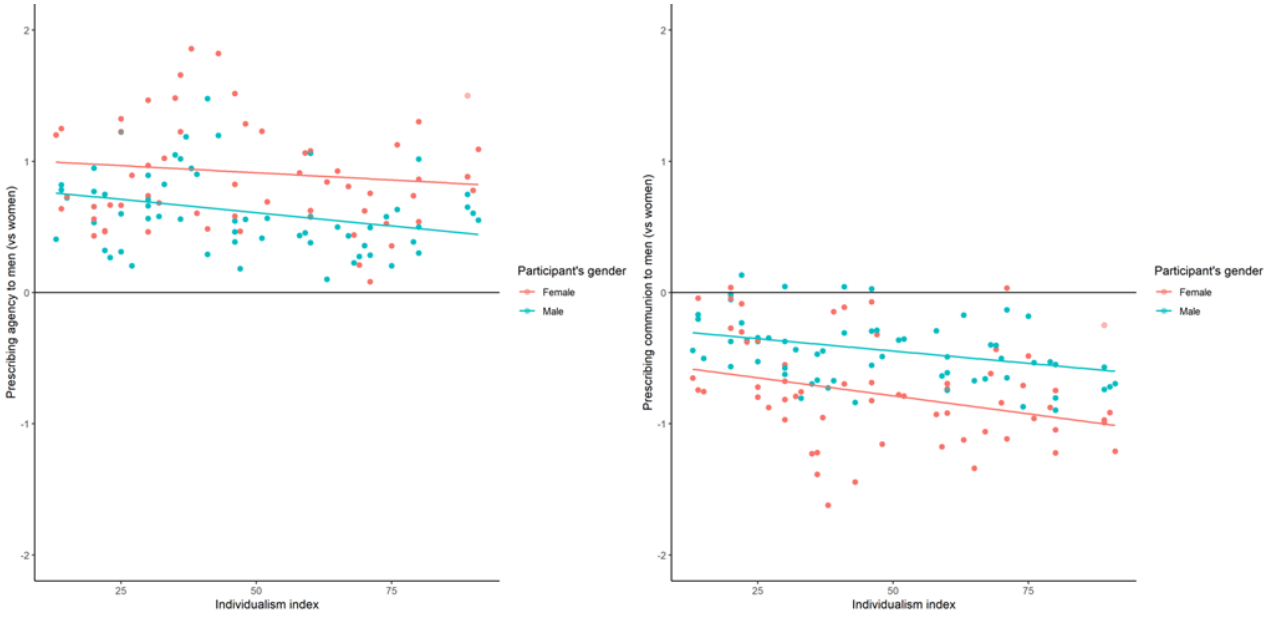
	Differences in prescriptions (traits prescription to men vs women)	
	Agency	Communion
Fixed Effects		
Age	-.01	.02**
Gender (men)	-.22**	.23**
IDV	.01	-.13**
GNI	-.07	.01
Gender(men)*IDV interaction	-.01	.04
Random Effects		
ICC	.07	.05
Residual Variance	1.58	1.63
Cross-country intercept variance	.18	.13
Cross-country gender effect variance	.10	.06
Pseudo-R2(fixed effects)	.016	.025
Pseudo-R2(total)	.093	.077

Note. Higher scores in differences indicate higher scores for men. Standardized coefficients are reported for fixed effects. IDV = Individualism, GNI = Gross National Income.

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

Fig. 3

Gender Differences in Prescribing Agency and Communion to Men and Women



Note. 0 indicates an equal prescription score. Negative scores indicate more trait prescribed for women.

Discussion

We investigated whether collectivistic versus individualistic cultural values moderate stereotypical agency and communality prescriptions for women and men. Results supported Hypothesis 1, showing a negative (though weak) correlation between individualism-collectivism and communality prescriptions; collectivistic (relative to individualistic) cultures prescribed more communal traits to men. Hypothesis 2 was not supported: cultural values were unrelated to agentic prescriptions for men (as well as for women). Further, despite finding cultural moderation of communal prescriptions for men, we generally found similar gender stereotyping across cultures. Specifically, women were prescribed more communality than men (even in highly collectivistic cultures), and men were prescribed more agency than

women (even in highly collectivistic cultures). Thus, we found no evidence for a reversal in gender stereotypes in even the most collectivistic nations – men were not prescribed greater communality or less agency than women. Thus, cultural moderation, while evident, was limited; although culturally valued communal traits were more prescribed for men in collectivistic cultures compared to individualistic cultures, they were not prescribed more strongly for men than for women.

The analyses showed that the individualism-collectivism dimension was only weakly linked to prescribing communality to women and was not linked to agentic prescriptions for either women or men. Individualism more strongly negatively predicted communal prescriptions for men than women. The non-significant relationship between agentic prescriptions and individualism seems surprising given that agency and individualism often load on a common factor (Abele & Wojciszke, 2007). Our agentic trait list contained mostly competence-related traits, which Cuddy et al. (2015) distinguished from individualistic traits. They found moderation for their individualistic trait index (e.g., self-focused) but not for competence traits (e.g., intelligent). However, in the current study, factor analysis did not support a 2-factor model for our agency indicators (see OSF Supplementary Materials), which included one individualistic trait (independent) overlapping with Cuddy et al.'s measure (Study 4) as well as competence traits (e.g., capable, leadership abilities). To the extent that agency represents competence, these traits may be universally prescribed as desirable, especially for men, regardless of differences in cultural values.

Cultural differences in the perceived relationship between agency and communion provide another potential reason for the lack of cultural moderation on agentic prescriptions. Researchers have noted that the presence of agentic traits might be perceived as the absence

of communal traits and vice versa (Haines & Stroessner, 2019). For example, men who act more communally might be perceived as less agentic. In their proposed Role Prioritization Model (RPM), Haines and Stroessner (2019) argued that as long as an individual does not neglect their prescriptive gender roles, it is acceptable, and even desirable, for them to engage in gender 'atypical' yet generally desirable behaviors (e.g., nurturing) – provided that the behavior complements (rather than implies a deficit in) gender traditional behaviors. Given that collectivistic cultures value family-oriented, altruistic, and communal traits, manifesting such traits might be seen as complementing rather than coming at the expense of agency and, therefore, more expected from men than in individualistic cultures. This may explain why we found that men in more collectivistic versus individualistic cultures were expected to possess more culturally desirable communal traits alongside agentic traits. This explanation coheres with the stronger correlation we found between agentic and communal prescriptions for men in collectivistic as compared with individualistic nations.

Our results show that prescriptive gender stereotype content converges in collectivistic countries; namely, the gap in prescribing communality and agency to women vs. men was smaller in collectivistic countries as compared to individualistic countries. This result parallels Cuddy et al.'s (2015) findings with descriptive stereotypes. Another analysis performed on data collected in the larger Towards Gender Harmony project in which the current study was embedded found a similar trend in gendered self-views: Men and women's communal self-views converged in more collectivistic countries (Kosakowska-Berezecka et al., 2022). These parallel findings provide converging evidence for cultural moderation in gendered expectations, prescriptions, and self-views.

The current data also yielded noteworthy participant gender effects and a significant, though weak, age effect. The participant gender effects revealed that compared to women, men perceived society to prescribe more communion and less agency towards men. Correspondingly, men viewed society as holding weaker communal prescriptions for women and stronger agency prescriptions for women. These results seem to contradict prior research in which men typically report more traditional gender beliefs than women (e.g., Brewster & Padavic, 2000). Why might women perceive agentic and communal prescriptions as more aligned with gender stereotypes than men? Perhaps because women generally experience inequality and various disadvantages at work, home, and in their social lives, they are more aware of societal gender inequality, prescribed roles, and stereotypes (e.g., Davis & Robinson, 1991; Pew Research Center report, 2020). Likewise, a weak but significant age relationship showed that younger (vs. older) participants perceived communality as prescribed more to women than men. Younger participants too may have greater awareness about continuing gender inequalities and social expectations than older participants - but due to the age variation across countries in our sample, this claim requires further exploration.

Alternatively, gender differences in perceived prescriptions might stem from reactive, aggrieved masculinity in response to changing roles. Some men who embrace conservative ideologies view society as increasingly (and unfairly) privileging women and derogating men who act in stereotypically masculine ways (e.g., as “toxic”) (Bosson et al., 2012). If so, somewhat older and more conservative men may have responded to our questions about “what society values” in men and women by rating society as (unhappily from their perspective) valuing agentic women and demanding that men be “nicer.” Testing this idea

would require assessing people's personal prescriptions for men and women and contrasting those with what they believe society prescribes.

Limitations and Future Directions

The current study has several limitations. First, we lack evidence of our participants' personal endorsement of gender prescriptions. Participants rated what they thought their society viewed as desirable for women versus men and not what they see as desirable for women/men. We intended to capture gender stereotype content that reflects general expectations about women and men, the shared knowledge or consensus about desired traits and behaviors for each gender in a given social context (Ellemers, 2018). Societal gender stereotypes help to perpetuate gender differences by leading people to treat men and women differently and "guiding" women and men to behave in line with societal expectations (Eagly et al., 2000; Prentice & Carranza, 2002).

Secondly, in the current study, we examined individualism at the country level using Hofstede et al.'s (2010) approach, categorizing countries as either more individualistic or more collectivistic along a single continuum. A meta-analysis by Pelham and colleagues (2002) indeed showed that countries scoring low on individualism usually score high on collectivism, but not always. Thus, at the cross-national level, it could be more useful to look at individualism and collectivism more nuancedly (e.g., as two dimensions). Nevertheless, despite the lack of strong face validity and internal reliability of his Individualism index, Hofstede correctly identified many of the important facets of individualism and collectivism dimensions (cf. Minkov & Kaasa, 2022)[3]. Following the "revised theory of modernization"

[3] We have also tested our analyses using a more recent conceptualization that provides scores for nations' individualism by Minkov & Kaasa, 2022. Our analyses indicated that the effects manifest similar patterns across

(Welzel, 2013), we expect national cultures to change, but the relative country rank orderings remain stable. This means that countries undergoing similar socioeconomic transformations change their values in the same direction, but they do so coming from different starting positions and continue to move along separate trajectories, which reflect the lasting impact of remote, country-specific historical drivers. Hence, even though countries change their position in absolute terms relative to each other, they seem to remain at a stable distance (Welzel, 2013; Beugelsdijk & Welzel, 2018). Research supports this notion, showing that even though trends toward globalization and Westernization have increased since Hofstede's country-level ratings were initially created (Hofstede, 1980, 2002), relative national rankings on individualism (Hofstede et al., 2010) have remained stable across the years (Best & Puzio, 2019). Recent studies also found that individualism, as conceptualized and operationalized by Hofstede, correlates strongly with more recent conceptualizations of individualism-collectivism dimensions (Schwartz, 1994, 2008; Welzel, 2013).

Third, participants in the current study were university students, which limits generalizability as we cannot presume that participants were representative of their nations. However, such sampling standardization allowed us to make more reliable cross-country comparisons. Nevertheless, future research would benefit from using more diverse representative samples (including transgender, nonbinary, and sexual minority individuals) to verify whether the current results replicate in community samples and to provide more variance on potential moderators such as age and social class.

countries. As before, the most robust effects are observed when it comes to individualism scores predicting communal prescriptions towards men.

Conclusions

Is the content of prescriptive gender stereotypes moderated by country-level cultural values? Data from 62 countries that varied considerably on individualism-collectivism showed that while men are generally prescribed to manifest agentic traits and women to manifest communal traits, societal values moderate prescriptions for men's communality. Consistent with the notion of men as cultural ideals (Cuddy et al., 2015), more collectivistic (vs individualistic) nations prescribed more communality to men but not women. In contrast, the individualism-collectivism dimension did not predict agentic prescriptions about either men or women. Although we did not find cultural moderation for agentic traits that mainly assessed competence-related characteristics, it remains possible that traits that more directly assess individuals (i.e., pursuing and prioritizing self-interest) could show a cultural moderation effect. For communality, however, converging evidence supports the cultural moderation hypothesis that stereotypes of and prescriptions for men (but not women) link to core cultural values (Best & Puzio, 2019).

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