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Gendered Self-Views across 62 Countries: A Test of Competing Models

Natasza Kosakowska-Berezecka[1], Jennifer K. Bosson[2], Paweł Jurek[1], Tomasz Besta[1], Michał Olech[1, 3], Joseph A. Vandello[2], Michael Bender [4 5], Justine Dandy[6], Vera Hoorens[7], Inga Jasinskaja-Lahti[8], Eric Mankowski[9], Satu Venäläinen[8], Sami Abuhamdeh[10], Collins Badu Agyemang[11], Gülçin Akbaş[12], Nihan Albayrak-Aydemir[13], Soline Ammirati[14], Joel Anderson[15, 16], Gulnaz Anjum[17], Amarina Ariyanto[18], John Jamir Benzon R. Aruta[19], Mujeeba Ashraf[20], Aistė Bakaitytė[21], Maja Becker[22], Chiara Bertolli[23], Dashamir Bërxulli[24], Deborah L. Best[25], Chongzeng Bi[26], Katharina Block[27], Mandy Boehnke[28], Renata Bongiorno[29], Janine Bosak[30], Annalisa Casini[31], Qingwei Chen[32], Peilian Chi[33] Vera Cubela Adoric[34], Serena Daalmans[35], Soledad de Lemus[36], Sandesh Dhakal[37], Nikolay Dvorianchikov[38], Sonoko Egami[39], Edgardo Etchezahar[40], Carla Sofia Esteves[41], Laura Froehlich[43], Efrain Garcia-Sanchez[44], Alin Gavreliuc[45], Dana Gavreliuc[45], Ángel Gomez[46], Francesca Guizzo[23], Sylvie Graf[47], Hedy Greijdanus[48], Ani Grigoryan[48], Joanna Grzymała-Moszczyńska[49], Keltouma Guerch[50], Marie Gustafsson Sendén[51], Miriam-Linnea Hale[52], Hannah Hämer[53], Mika Hirai[54], Lam Hoang Duc[55], Martina Hřebíčková[56], Paul B. Hutchings[57], Dorthe Høj Jensen[58], Serdar Karabati[59], Kaltrina Kelmendi[60], Gabriella Kengyel[61], Narine Khachatryan[62], Rawan Ghazzawi[63], Mary Kinahan[64], Teri A. Kirby[29], Monika Kovács[65], Desiree Kozlowski[66], Vladislav Krivoshchekov[671], Kuba Kryś[68], Clara Kulich[69], Tai Kurosawa[70], Nhan Thi Lac An[71], Javier Labarthe[726], Mary Anne Lauri[73], Ioana Latu[74],Abiodun Musbau Lawal[74], Junyi Li[79], Jana Lindner[75], Anna Lindqvist[76], Angela T. Maitner[77], Elena Makarova[75], Ana Makashvili[78], Shera Malayeri[79], Sadia Malik[80], Tiziana Mancini[81], Claudia Manzi[82], Silvia Mari[83], Sarah E. Martiny[84], Claude-Hélène Mayer[85], Vladimir Mihić[86], Jasna Milošević Đorđević[87], Eva Moreno-Bella[36], Silvia Moscatelli[88], Andrew Bryan Moynihan[89], Dominique Muller[14], Erita Narhetali[18], Félix Neto[90], Kimberly A. Noels[91], Boglárka Nyúl[65], Emma C. O'Connor[9], Danielle P. Ochoa[92], Sachiko Ohno[93], Sulaiman Olanrewaju Adebayo[94], Randall Osborne[95], Maria Giuseppina Pacilli[96], Jorge Palacio[97], Snigdha Patnaik[98], Vassilis Pavlopoulos[99], Pablo Pérez de León[90], Ivana Piterová[100], Juliana Barreiros Porto[55], Angelica Puzio[27], Joanna Pyrkosz-Pacyna[101], Erico Rentería Pérez[102], Emma Renström[103], Tiphaine Rousseaux[22], Michelle K. Ryan[29 48], Saba Safdar[104], Mario Sainz[105], Marco Salvati[106], Adil Samekin[107], Simon Schindler[108], A. Timur Sevincer[109], Masoumeh Seydi[110], Debra Shepherd[111], Sara Sherbaji[77], Toni Schmader[112], Cláudia Simão[113], Rosita Sobhie[114], Jurand Sobiecki[1], Lucille De Souza[115], Emma Sarter[31], Dijana Sulejmanović[116], Katie E. Sullivan[57], Mariko Tatsumi[116], Lucy Tavitian-Elmadjian[63], Suparna Jain Thakur[117], Quang Thi Mong Chi[56], Beatriz Torre[92], Ana Torres[118], Claudio V. Torres[54], Beril Türkoğlu[119], Joaquín Ungaretti[40], Timothy Valshtein[27], Colette Van Laar[7], Jolanda van der Noll[43], Vadym Vasiutynskyi[120], Christin-Melanie Vauclair[41], Neharika Vohra[121], Marta Walentynowicz[31], Colleen Ward[122], Anna Włodarczyk[123], Yaping Yang[124], Vincent Yzerbyt[31], Valeska Zanello[54], Antonella Ludmila Zapata-Calvente[37], Magdalena Zawisza[125], Rita Žukauskienė[21], Magdalena Żadkowska[1].

Gendered Self-Views Across 62 Countries

[1]University of Gdańsk, Gdańsk, Poland
[2] University of South Florida, USA
[3]Medical University of Gdańsk, Gdańsk, Poland
[4] Tilburg University, Netherlands
[5] Gratia Christian College, Hong Kong
[6] Edith Cowan University, Australia
[7]University of Leuven (KU Leuven), Belgium
[8] University of Helsinki, Finland
[9]Portland State University, USA
[10] Marmara University, Turkey
[11] University of Ghana, Ghana
[12]Atilim University, Turkey
[11] Anglia Ruskin University, Cambridge, United Kingdom
[13] London School of Economics and Political Science, England, United Kingdom
[14] Université Grenoble Alpes, France
[15] Australian Catholic University, Australia
[16] La Trobe University, Australia
[17] Institute of Business Administration Karachi, Pakistan
[18]University of Indonesia, Indonesia
[19] De La Salle University, Philippines
[20] University of the Punjab, Pakistan
[21] Mykolas Romeris University, Lithuania
[22] CLLE, Université de Toulouse, CNRS, UT2J, France
[23]University of Padova, Italy
[24] University of Prishtina, Kosovo
[25]Wake Forest University, USA
[26] Southwest University, China
[27] New York University, USA
[28] University of Bremen, Germany
[29] University of Exeter, England, United Kingdom
[30] Dublin City University, Ireland
[31] Université Catholique de Louvain, Belgium
[32] South China Normal University, China
[33] University of Macau, China
[34] University of Zadar, Croatia
[35] Radboud University Nijmegen, Netherlands
[36] University of Granada, Spain
[37] Tribhuvan University, Nepal
[38] Moscow State University of Psychology and Education, Russia
[39] Shiraume Gakuen University, Japan
[40] University of Buenos Aires, Argentina
[41] Universidade Católica Portuguesa, Católica Lisbon School of Business & Economics, Católica Lisbon Research Unit in Business and Economics, Lisboa, Portugal
[42] Faculdade de Psicologia e de Ciências da Educação, Universidade do Porto, Portugal
[43]FernUniversität in Hagen, Germany
[44]University of Granada, Colombia
[45] West University of Timisoara, Romania
[46] Universidad Nacional de Educación a Distancia, Spain
[47] Czech Academy of Sciences, Czech Republic
[48] University of Groningen, Netherlands

[49] Yerevan State University, Armenia
[50] Jagiellonian University, Poland
[51] Mohamed I University in Oujda, Morocco
[52] Stockholm University, Sweden
[53]University of Luxembourg, Luxembourg
[54] University of Brasilia, Brazil
[55] Yokohama City University, Japan
[56] Vietnam National University Ho Chi Minh City, Vietnam
[57] University of Wales Trinity Saint David, Wales, United Kingdom
[58] Aarhus University, Denmark
[61] Istanbul Bilgi University, Turkey
[62] Pazmany Peter Catholic University, Hungary
[63] Haigazian University, Lebanon
[64] Technological University Dublin, Ireland
[65] Eötvös Loránd University, Hungary[66] Southern Cross University, Australia
[67]University of Bern, Switzerland
[68] Polish Academy of Sciences, Poland
[69] University of Geneva, Switzerland
[70] Ibaraki Christian University, Japan
[71] Universidad Católica del Uruguay, Uruguay
[72]University of Malta, Malta
[72] Queen's University Belfast, Northern Ireland, United Kingdom
[73] Federal University Oye-Ekiti, Nigeria
[74] Sichuan Normal University, China
[75] University of Basel, Switzerland
[76] Lund University, Sweden
[77] American University of Sharjah, United Arab Emirates
[78] Ilia State University, Georgia
[80] University of Sargodha, Pakistan
[81] University of Parma, Italy
[82] Catholic University of Milan, Italy
[83] University of Milano-Bicocca, Italy
[84] UiT The Arctic University of Norway, Norway
[85] University of Johannesburg, South Africa
[86] University of Novi Sad, Serbia
[87] Singindunum University, Serbia
[88] University of Bologna, Italy
[89] University of Limerick, Ireland
[90] Universidade do Porto, Portugal
[91] University of Alberta, Canada
[92] University of the Philippines Diliman, Philippines
[93] Shirayuri University, Japan
[94] Ekiti State University, Nigeria
[95] Texas State University, USA
[96] University of Perugia, Italy
[97] Universidad del Norte, Colombia
[98] Xavier University of Bhubaneswar, India
[99] National and Kapodistrian University of Athens, Greece
[100] Slovak Academy of Sciences, Slovakia
[101] AGH University of Science and Technology, Poland

[102] University of Valle, Colombia
[103] University of Gothenburg, Sweden
[104]University of Guelph, Canada
[105] Pontificia Universidad Católica de Chile
[106]Sapienza University of Rome, Italy
[107] International Islamic Academy of Uzbekistan, Uzbekistan
[108] University of Kassel, Germany
[109] University of Hamburg, Germany
[110] Semnan University, Iran
[111] Stellenbosch University, South Africa
[112]The University of British Columbia, Canada
[113] Católica Lisbon School of Business & Economics, Portugal
[114] Universiteit van Suriname, Suriname
[115] University of Bihac, Bosnia and Herzegovina
[116] Osaka Prefecture University, Japan
[117] University of Delhi, India
[118] Federal University of Paraíba, Brazil
[119] Ankara Medipol University, Turkey
[120]National Academy of Educational Sciences, Ukraine
[121] Indian Institute of Management, India
[122] Victoria University of Wellington, New Zealand
[123]Universidad Católica del Norte, Antofagasta, Chile
[124] Ningbo University, China
[125] Anglia Ruskin University, Cambridge, United Kingdom

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Abstract

Social role theory posits that binary sex differences in gendered self-views should be larger in *less* egalitarian countries, reflecting these countries' more pronounced sex-based power and labor divisions. Conversely, evolutionary theorists suggest that sex differences in gendered self-views should be larger in *more* egalitarian countries, reflecting these countries' greater autonomy support. Using data from 62 countries (N = 28,640) we examine sex differences in gendered self-views (agency and communality) as a function of country-level objective gender equality (the Global Gender Gap Index [GGGI]) and subjective distributions of social power (the Power Distance Index [PDI]). Findings show patterns that differ by dimension: In more egalitarian countries, sex differences in agency are smaller, and sex differences in communality are larger. These patterns are driven primarily by men's self-views. We consider possible causes and implications of these findings.

Keywords: *communality, agency, self-views, binary sex differences, egalitarianism, gender equality*

Gendered Self-Views Across 62 Countries: A Test of Competing Models

How do women's and men's gendered self-views differ across cultures? Different perspectives offer competing answers to this question. On the one hand, social role theory (Eagly & Steffen, 1984; Wood & Eagly, 2012) posits that binary sex differences in gendered self-views should be larger in *less* egalitarian countries, reflecting these countries' more pronounced vertical and horizontal gender segregation of occupational and social roles (Eagly et al., 2019). On the other hand, evolutionary theorists (cf. Schmitt et al., 2017) suggest sex differences in gendered self-views should be larger in *more* egalitarian countries, reflecting the greater autonomy enjoyed in these countries. Here, using data from 62 countries (N = 28,640), we test these competing hypotheses by examining how binary sex differences in gendered – i.e., communal and agentic – self-views vary with both objective and subjective country-level measures of egalitarianism (the Global Gender Gap Index [GGGI; World Economic Forum, 2020], and the Power Distance Index [PDI; Hofstede, 2010]).

Explaining Gendered Self-Views

Communality and agency are dual dimensions of human evaluation (Bakan, 1966; Fiske et al., 2002) underlying gender stereotypes and gendered self-views. Stereotypes linking communality to women and agency to men are cross-culturally universal (Williams & Best, 1990), as are sex differences in gendered self-views: Across cultures, women generally rate themselves higher in communal traits (e.g., nurturance, warmth) than men, and men generally rate themselves higher in agentic traits (e.g., competitiveness, assertiveness) than women (Cross & Madson, 1997; Williams & Best, 1990). This likely occurs because people derive self-views, in part, by internalizing qualities associated with valued social groups (Tobin et al., 2010; Turner et al., 1987).

And yet, there are individual and cultural differences in the extent to which people internalize gender stereotypes as stable self-views (Best, 2009; Biernat et al., 1996; Wood & Eagly, 2012). Of interest here, cultural factors related to egalitarianism are theorized to covary with the size of sex differences in communal and agentic self-views.

Social Role Theory

According to social role theory (Eagly & Steffen, 1984) and its updates (i.e., biosocial construction theory; Wood & Eagly, 2012), sex differences in self-views stem distally from sex-based power and labor divisions, mediated through gender socialization processes. To the extent that cultures divide power and labor along gender lines, they should more assiduously socialize girls and boys to adopt traits and preferences that will prepare them for sex-based roles. For example, in cultures that segregate women and men into non-overlapping domestic and breadwinner roles, respectively, girls are socialized to be more communal, and boys to be more agentic. More rigid gender socialization, in turn, encourages internalization of gendered tendencies, producing larger sex differences in gendered self-views.

Two types of gender segregation may distally drive sex differences in gendered self-views. Whereas *vertical segregation* is the underrepresentation of women in powerful and high-status roles, *horizontal segregation* is the clustering of women and men in occupations of similar status but differing demands (Charles, 1992; Wong & Charles, 2020). Importantly, both vertical and horizontal segregation should drive sex differences in gendered self-views insofar as both concentrate men in roles requiring agency and competitiveness and women in roles requiring communality and social skills (Croft et al. 2015; Eagly et al., 2019). Here, however, we focus exclusively on vertical segregation as a predictor, because this type of segregation is captured by country-level indicators of gender equality – such as the GGGI – via measures of women's economic participation and political empowerment (World Economic Forum, 2021). Specifically, because countries higher in gender equality tend to

have less traditional sex-based labor divisions (Glick et al., 2000; Wood & Eagly, 2012), we should observe smaller sex differences in gendered self-views in these countries.

Note that this logic may pertain more to agentic than communal self-views (Eagly et al., 2019). In more gender equal (i.e., less vertically gender segregated) countries, women and men are more similarly concentrated in high-status roles, which should result in more similar self-views on the agentic traits predictive of success in such roles (e.g., competitiveness, leadership). In contrast, even in the most gender equal countries, women remain visibly overrepresented in the domestic, caretaking, and helper roles that presumably foster communal self-views (e.g., Charmes, 2019). As such, sex differences in communal self-views may associate relatively weakly with country-level gender equality.

Supporting social role approaches, increases in gender equality across time and cultures are associated with smaller sex differences in gendered self-views (Donnelly & Twenge, 2017), job attribute preferences (Konrad et al., 2000), sociosexual tendencies (Schmitt, 2005), and mate preferences (Eagly & Wood, 1999; Zentner & Mitura, 2012).

Evolutionary Theories[1]

According to evolutionary theorists (Buss & Schmitt, 1995; Schmitt, 2015), women and men evolved different traits and preferences to solve different adaptive problems in humans' ancestral past. For instance, sex differences in parental investment (Trivers, 1972) presumably created sexual selection pressures that shaped men's innately higher levels of agentic traits and women's innately higher levels of communal traits (Buss, 1997). Although such sex differences are universally observed, cultural contexts influence how freely these innate tendencies can be expressed. Presumably, contemporary environments that more

[1] Initially, we considered a third perspective proposing that cross-cultural differences in reference groups should produce larger gender differences in more egalitarian countries (e.g., Guimond et al., 2007, 2008; see OSF *hidden*). However, empirical support for this perspective is limited to relatively few countries, so we omit this perspective due to space constraints and focus instead on approaches that have been studied more extensively across countries.

closely match the hunter-gatherer environments of early humans should best allow adaptive, innate sex differences to emerge, whereas those that differ markedly from ancestral environments may impede the emergence of evolved sex differences (e.g., Crawford, 1998). Interestingly, some propose that more developed and modern countries – as opposed to more agricultural or pastoral cultures – offer ecological and psychological conditions that more closely mimic humans' ancestral environments (Schmitt, 2005). Thus, according to some evolutionary approaches, we should see larger sex differences in gendered self-views in more egalitarian countries, as these countries better allow the expression of women's and men's innate psychological tendencies (Schmitt et al., 2008).

Consistent with this perspective, greater gender equality across cultures is associated with larger sex differences in personality traits (Costa et al., 2001; Schmitt et al., 2008), behavior preferences (Falk & Hermle, 2018), emotional reactions (Niedenthal et al., 2006), and academic STEM strengths (Stoet & Geary, 2019).

The Present Research

Whereas social role theory (Eagly & Steffen, 1984; Wood & Eagly, 2012) predicts larger sex differences in gendered self-views in less egalitarian countries, evolutionary approaches (Buss & Schmitt, 1995; Schmitt, 2015) predict larger sex differences in more egalitarian countries. Here, we test these approaches by examining sex differences in communal and agentic self-views across 62 countries.

In doing so, we also examine the measurement invariance of communality and agency. Measurement invariance is the psychometric equivalence of a construct across different groups, which allows for meaningful comparisons across countries (Boer et al., 2018; van de Vijver & Leung, 2021). Specifically, we test for configural invariance (equivalence of factor structure), metric invariance (equivalence of factor loadings), and scalar invariance (equivalence of item intercepts; Milfont & Fisher, 2010; Millsap, 2011). As

in other cross-cultural tests of measurement invariance (cf. Rogoza et al., 2021), we grouped the 62 countries into 13 world regions following the United Nations classification (UNSD, 2021).

This project adds to the literature in several ways. First, the inclusion of data from 62 countries makes this the most comprehensive cross-cultural study of gendered self-views to date; prior studies examined between 25 (Williams & Best, 1990) and 55 (Schmitt et al., 2008) countries. Second, the recency of our data collection (2018-2020) allows for an updated test of the universality of sex differences in communality and agency. Third, we examined the measurement invariance of communion and agency across world regions, thus allowing for meaningful cross-cultural comparison of these constructs' relations with other variables. Note that Hsu et al. (2021) recently meta-analyzed sex differences in agency and communion as a function of country-level gender equality, but these researchers were unable to demonstrate the measurement invariance of communality and agency given their reliance on study-level (rather than item-level) data.

Fourth, we examined sex differences as a function of both objective and subjective country-level egalitarianism: The GGGI (World Economic Forum, 2020), which captures vertical gender segregation by indexing objective gender-based disparities in access to resources and power, and the PDI (Hofstede, 2010), which reflects subjective perceptions of general societal power distributions (i.e., power distance beliefs). These two measures of egalitarianism may, of course, associate differently with sex differences in self-views insofar as they measure different constructs: Whereas the GGGI indexes objective outcomes that are gender-specific, the PDI indexes subjective beliefs about power distributions in general. Thus, both social role and evolutionary theories may posit the GGGI as a more direct predictor of women's and men's self-views, given these theories' emphasis on gender as a primary source of difference. Nonetheless, the GGGI and PDI overlap. For instance,

countries higher in PDI are also higher in traditional gender ideologies (Glick et al., 2000, 2005), and these in turn function to maintain the stability of country-level gender hierarchies. More broadly, results of an exploratory factor analysis on 85 cultural variables showed that GGGI and PDI both load strongly – though in opposite directions – on the same "superfactor" (Fog, 2021), reflecting cultural development, modernization, secularization, and empowerment. Hence, GGGI and PDI both reflect aspects of cultural orientations related to human development. Thus, using both of these variables allows us to test the generalizability of our effects across both perceived (PDI) and actual (GGGI) country-level egalitarianism.

The hypotheses listed here are pre-registered as confirmatory and exploratory (see OSF *hidden*). First, across cultures, men will rate themselves higher on agency than women (Hypothesis 1), and women will rate themselves higher on communality than men (Hypothesis 2). Next, we ask whether objective and subjective indices of egalitarianism (GGGI and PDI) correlate negatively or positively with the size of sex differences in communal and agentic self-views (Exploratory Question 1). Because gender equality and economic growth are bidirectionally associated (Holter, 2014; Inglehart & Norris, 2003), we also examine whether patterns observed with the GGGI and PDI remain significant when controlling for country-level wealth (Gross National Income [GNI]; United Nations Development Programme, 2019) (Exploratory Question 2). Given that our samples are diverse regarding age (M_{age} between 19.01 and 32.58, see Table 1) we control for age in analyses.

Method

Participants and Procedure

Data were collected between January 2018 and February 2020 as part of a large cross-cultural project (see OSF *hidden*). Participants were undergraduate students who volunteered

their time and (in most countries) received no compensation. IRB approval was obtained at each institution when required, and all participants gave informed consent. Participants completed a set of scales that measured more variables than those described here (see *hidden* for all variables). Order of measures was randomized and data were collected via SurveyMonkey or Qualtrics (in rare cases, participants completed paper surveys). From the initial sample (N = 34,023), we removed records from 5,185 individuals who failed more than 1 of 3 attention checks or provided incomplete data. This yielded a final sample of N = 28,640 respondents (37% self-identified men) from 62 countries. Information on sample composition appears in Table 1.

Measures

Bilingual scholars used the back-translation procedure (Van de Vijver & Leung, 2021) to create 29 language versions of the surveys below.

Agency and Communality

Participants indicated the extent to which 12 agentic traits and 12 communal traits described them on scales of 1 (*does not describe me at all*) to 7 (*describes me well*). Communal traits included: compassionate, helpful to others, sympathetic, understanding of others, sensitive, soft-hearted, aware of others' feelings, cooperative, devoted to others, trusting, warm, supportive. Agentic traits included: decisive, ambitious, competitive, competent, confident, has leadership abilities, efficient, determined, courageous, active, capable, independent. Traits were selected from a pool of 472 prescriptive gender stereotypes (Haines et al., 2016; Prentice & Carranza, 2002; Rudman et al., 2009; Williams & Best, 1990).

Global (GGGI)

The GGGI (World Economic Forum, 2020) benchmarks women's disadvantage, relative to men's, in economic, education, health, and political arenas. Thus, GGGI reflects cross-cultural variation in vertical gender segregation (Wong & Charles, 2020), with scores ranging from 0 (gender disparity) to 1 (gender parity).

Power Distance Index (PDI)

The PDI (Hofstede, 2011) measures the extent to which less powerful members of institutions and organizations within a country expect and accept unequal power distributions. It is measured with a scale that runs roughly from 0 to 100.

Gross National Income (GNI)

Gross National Income (GNI; United Nations Development Programme, 2019) is the nation-level standard of living per capita adjusted for the price level of the country.

Results

Table 1 shows the country-level indicators (GGGI, PDI, and GNI) for each country. As shown in Table 2, communal and agentic items displayed acceptable internal consistency reliabilities (αs > .70; Lord & Novick, 1968) in all countries.

Factor Structure and Measurement Invariance of Communality and Agency

Confirmatory factor analyses (CFAs) on the total sample, and then for each country, testes the two-factor structure of communality and agency. To assess model fit using maximum likelihood estimation we examined the Bayesian information criterion (BIC; lower BIC indicates better fit), comparative fit index (CFI; ≥ 0.90 indicates acceptable fit), and root mean square error of approximation (RMSEA; < 0.08 indicates acceptable fit; Kline, 2016). We used the lavaan package (Rosseel, 2012) in the R environment (R Core Team, 2020) for analyses.

As shown in Table 2 (bottom row), the two-factor model demonstrated good fit to the data in the total sample. Although the RMSEA criterion was not met in China and Japan, and CFI fell below the cut-off in 42 countries, we had to select the same model in every country to test for invariance. Hence, we allowed covariance between single items and used the total sample model.

Next, we tested the measurement invariance of the two-factor model across 13 world regions. We first tested for configural invariance using common criteria to assess goodness-of-fit

(i.e., CFI ≥ 0.90 and RMSEA < 0.08; Brown, 2015), and then we tested for metric and scalar invariance using cut-off criteria suggested by Chen (2007) (ΔCFI < 0.01 and ΔRMSEA < 0.015). The two-factor model demonstrated configural invariance (CFI = 0.90, RMSEA = 0.051), metric invariance (ΔCFI = 0.01, ΔRMSEA = 0.001), and partial scalar invariance (ΔCFI = 0.01, ΔRMSEA = 0.006). Thus, the two-factor model of agency and communality was sufficiently universal across samples to allow for multilevel analyses.

Primary Analyses

We used multilevel modelling to test eight models of agency (Models 1A-8A) and eight models of communion (Models 1C-8C; see Table 3). Models 1A and 1C were baseline models with no predictors, used to calculate intraclass correlations (ICCs). Models 2A and 2C included individual-level variables (gender and age), and Models 3A, 3C, 4A, and 4C included country-level variables as separate predictors (GGGI in 3A and 3C, and PDI[2] in 4A and 4C). Next, we included cross-level interaction effects of Gender-by-GGGI (see Models 5A and 5C) and Gender-by-PDI (see Models 6A and 6C). In Models 7A, 7C, 8A, and 8C, we expanded prior models (5A, 5C, 6A, and 6C) by adding GNI as covariate. In all models, we included random slopes for gender. We used the lavaan (Rosseel, 2012) and lme4 (Bates et al., 2015) packages in the R environment (R Core Team, 2020) for these analyses. Sex Differences in Agentic Self-Views

In Model 1A, 11% of the variance in agency was explained by country (ICC = 0.11), indicating a multilevel approach was appropriate (Dyera et al., 2005). Next, in support of Hypothesis 1, there was a main of effect of gender such that men described themselves as more agentic than women (see Tables 3 and 4, Model 2A). However, analyses of sex differences in agency by country (see Table 5) yielded significant differences in only 20 out of 62 (32%)

2 We planned to control for individual-level power distance beliefs in the tested models; however, this scale did not meet invariance criteria in our sample.

countries. Moreover, the whole sample effect size was small (d = .16). Thus, we found partial support for Hypothesis 1.

Models 5A and 6A tested Exploratory Question 1 by examining interactions of gender with GGGI and PDI predicting agentic self-views. First, as show in Tables 3 and 4 (see Model 5A) and illustrated in Figure 1[3], the Gender-by-GGGI interaction was significant such that sex differences in agency were smaller in countries higher in GGGI. This pattern was driven primarily by men: Women's agency did not differ by GGGI (B = 0.19, p = 0.15), whereas men reported lower agency in countries higher in GGGI (B = -0.64, p < 0.01). Similarly, the Gender-by-PDI interaction was significant (see Tables 4 and 5, Model 6A). As shown in Figure 2, sex differences in agency were smaller in countries lower in PDI, and again, the pattern was driven more by men than women: Women's agency did not differ by PDI (B = -0.001, p = 0.94), while men reported lower agency in countries lower in PDI (B = 0.27, p < 0.01). Thus, on both objective and subjective country-level indices, sex differences in agentic self-views were smaller when egalitarianism was higher. These patterns are consistent with social role theory's assumption that reductions in vertical gender segregation should lead to greater similarity of women's and men's agentic self-views.

When we included GNI in Model 7A and 8A, the Gender-by-GGGI interaction in Model 7A was not significant but the Gender-by-PDI interaction remained significant in Model 8A (see Table 4).

Sex Differences in Communal Self-Views

In Model 1C, 5% of the variance in communality was explained by country (ICC = 0.05), indicating that a multilevel approach was suitable. Strongly supporting Hypothesis 2, there was a main effect of gender (see Tables 4 and 5, Model 2C). Women described

3 See the supplementary material for additional Figures (1a, 2a, 3a, 4a) illustrating, respectively, women's and men's average agentic and communal self-views, with countries ordered from low to high in GGGI and PDI.

themselves as more communal than men in 53 of 62 (85%) countries, with a medium whole sample effect size of d = .43 (see Table 3).

Exploratory Question 1 was tested in Models 5C and 6C via the interactions of gender with GGGI and PDI predicting communal self-views. As shown in Tables 4 and 5 (Model 5C) and illustrated in Figure 3, there was a significant Gender-by-GGGI interaction. Sex differences in communality were larger in countries higher in GGGI, driven by a (weaker) negative association of women's communality (B = -0.42, p < 0.01), and by a (stronger) negative association of men's communality (B = -1.23, p < 0.01), with country-level GGGI. Similarly, the Gender-by-PDI interaction was significant (see Tables 4 and 5, Model 6C). As illustrated in Figure 4, sex differences in communality were larger in countries lower in PDI, and this pattern was driven by men: Women's communality did not differ by PDI (B = 0.002, p = 0.93), whereas men reported lower communality in countries lower in PDI (B = 0.34, p < 0.01). Thus, on both objective and subjective country-level indices, sex differences in communal self-views were larger when cultural egalitarianism was higher. These patterns are consistent with the evolutionary approach, but only for men's self-views.

When we included GNI as a covariate in Models 7C and 8C, the Gender-by-GGGI interaction became non-significant in Model 7A but the Gender-by-PDI remained significant in Model 8A (see Table 4).

Discussion

Across 62 countries, we examined the universality of gendered self-views, and tested two competing models of the links between sex differences in gendered self-views and country-level egalitarianism. Consistent with our expectations and past cross-cultural investigations (e.g., Williams & Best, 1990), women all over the world view themselves higher in communality than men. Men, conversely, view themselves higher in agency than women. However, this latter sex difference is less consistent across countries than is the sex

difference in communal self-views. Thus, whereas women's greater communality is universal, men's greater agency is a much more variable phenomenon. Given the limited movement of men into domestic and caregiving roles, and the continued predominance of women in these communal activities (Croft et al., 2015), women clearly still view themselves as more communal than men.

Next, using both objective (GGGI) and subjective (PDI) indices, we examined the size of sex differences in agentic and communal self-views as a function of country-level egalitarianism. Here, we intriguingly found support for both the social role and evolutionary models. First, sex differences in agency were smaller in more gender egalitarian and lower power distance countries. This pattern is consistent with social role theory (Eagly & Steffen, 1984; Wood & Eagly, 2012), which predicts that women's lower distribution into high status leadership positions in less gender equal (more vertically gender segregated) countries should produce larger sex differences in the agentic traits associated with high status roles. Notably, the observed sex differences were driven more strongly by variations in men's than women's self-views, such that men described themselves as less agentic in more egalitarian (high GGGI, low PDI) countries.

Second, sex differences in communal self-views were larger in more gender egalitarian and lower power distance countries. This pattern is consistent with evolutionary approaches, and adds to accruing research on the Gender Equality Paradox (GEP; Connolly et al., 2019; Stoet & Geary, 2019), or the tendency for sex differences in psychological variables to increase in countries characterized by more gender parity. As with the agency effects, findings with communality were driven primarily by men's reports of themselves as less communal in countries higher in egalitarianism (higher GGGI, lower PDI).

The fact that these patterns emerged consistently across both the GGGI and PDI suggests that they are robust, and are not merely artifacts of a particular country-level index

of egalitarianism. How can we explain these seemingly contradictory effects for agency and communality? Interestingly, these patterns shadow changing trends in gender stereotypes in U.S. public opinion polls over time (Eagly et al., 2019). Specifically, stereotypes regarding women's communality advantage have increased rather strikingly in the U.S. from 1946 to 2018 (see also Lupetow et al., 2001), while stereotypes regarding men's agency advantage have declined weakly and non-significantly. To explain these trends, Eagly and colleagues (2019) suggested – as detailed earlier – that changes in vertical gender segregation should decrease the size of sex differences in agency stereotypes as U.S. women have entered high-status and leadership positions in increasing numbers over the past half century. At the same time, women's continued overrepresentation in domestic and caretaking roles means that communality stereotypes should continue to favor women, even as vertical segregation has declined. And, complicating matters, horizontal gender segregation – which occurs when women and men of comparable occupational status concentrate into female- and male-dominated subfields (Charles & Bradley, 2009) – may heighten perceptions of women's communality by crowding women into education, health care, and socially-oriented occupations.

Eagly et al.'s (2019) findings pertained to stereotypes, and were limited to a single country (the U.S.), but perhaps the same logic applies to the current findings. In countries characterized by less vertical gender segregation, women's and men's more similar representation in high-status roles may produce more similar self-views on dimensions critical to success in such roles, such as "competitiveness" and "assertiveness" (e.g., Ng et al., 2005). Yet, even in the most egalitarian countries, domestic work and caregiver roles remain markedly gender segregated, with women doing most of this work regardless of whether they work outside the home (Croft et al., 2015; Kan et al., 2011). And these gender disparities in home and caretaker responsibilities may be especially salient in more gender

equal countries, as they challenge expectations of egalitarianism. Moreover, countries higher in gender equality may, curiously, be higher in horizontal segregation as well (CITE). If so, then women's and men's dissimilar caretaker roles, along with their increasing segregation into gender-typical occupations, may produce more dissimilar self-views on dimensions such as "helpfulness to others" and "warmth." Unfortunately, a strong test of this hypothesis requires a cross-culturally validated measure of horizontal gender segregation, which to our knowledge does not exist. This question thus must await future tests.

Of course, these explanations are speculative given that our study did not include measures of possible mechanisms. For instance, people generally attribute the most culturally valued traits to more dominant social groups, which are usually men (Pratto et al., 1994; Sidanius & Pratto, 1999). Thus, stereotypes about men may differ with the core values of a given culture. If, for example, communal traits are valued more strongly in less egalitarian (low GGGI, high PDI) countries, then people in such countries may stereotype men as more communal (e.g., Cuddy et al., 2015) and men may internalize these prescriptive stereotypes as communal self-views. This cultural values perspective may partially explain why men, in particular, exhibit more communal self-views in less egalitarian countries where these traits are highly valued. At the same time, the cultural values perspective falls short of explaining why men in more egalitarian countries exhibit less agentic self-views. Agency is more valued in more egalitarian (and richer) countries (Sedikides et al., 2003), and we thus would expect to people to internalize this socially desired trait more as a function of gender equality and power distance. That men instead report less agentic self-views in more egalitarian countries thus remains an open question in need of more research.

This brings us to another interesting finding: While not hypothesized, we observed a consistent tendency for differences in *men's* self-views to drive the sex difference effects. Whereas women's communal and agentic self-views differ minimally (if at all) across

countries that vary in egalitarianism, men view themselves both as less agentic *and* as less communal in more egalitarian countries. Note that this effect is consistent with findings in the GEP literature (e.g., Schmitt et al., 2008), suggesting that variations in men's traits are the primary driver of variations in sex differences across cultures. However, we find also that men's declines in communal self-views are steeper than their declines in agentic self-views. To explain this, we wonder if men's less communal self-views in more egalitarian countries reflect a compensatory need to distance themselves from femininity (cf. Breda et al., 2020). In countries where gender equality movements grant women increasing access to labor markets and leadership positions, women's representation in previously male-dominated spaces is more visible. In turn, reductions in men's primacy over women, and increasing public discourse about women's equality, may activate a need among men for gender differentiation in domains – such as communal self-views – that allow them to maintain distinct gendered identities (Bosson & Michniewicz, 2013). Stated differently, as women's gains in power in more egalitarian countries reduce men's ingroup distinctiveness in agency, perhaps men experience heightened motivation to dismiss femininity – i.e., communality – from their identity. This reasoning implies that the need to preserve some form of gender distinctiveness might account, in part, for the GEP regarding communal traits.

Limitations and Future Research

Our dataset covers a large cross-cultural sample but our participants were all university students and we did not control for their employment status. While using university students helps standardize the samples and makes them more comparable in terms of age and socioeconomic status, we cannot generalize our findings to all or most residents of the countries we studied. Moreover, cultures differ in response biases (Grimm & Church, 1999), and we did not control for such biases. However, we know from other studies that sex differences in personality traits do not reflect differences in response bias (cf. Connelly et al.,

2019; Wang & Degol, 2017). We thus assume that our gendered self-view data are similarly valid.

Recall that analyses examining both GGGI and PDI in two models including country-level wealth (GNI) as covariate, suggest that PDI is the only measure of egalitarianism that uniquely predicts sex differences in gendered self-views. That is, interactions of GGGI with gender predicting agency and communion were no longer significant when GNI was included in the model. This suggests that objective gender equality operates analogically to country-level wealth in our analyses, a finding that bears further scrutiny. In contrast, subjective perceptions of power distance capture something that goes beyond both objective gender equality and wealth. Most societies are structured by a gendered division of labor that mirrors prescriptive and proscriptive gender roles, which both create and reinforce gender hierarchy (Eagly and Wood, 1999). PDI and GGGI both reflect and promote social inequalities and are correlated with GNI (GGGI-GNI: $r = 0.50$; PDI-GNI: $r = -0.63$) but our results potentially indicate that inequality might be more maintained by PDI as it reflects the perceived legitimacy of gender hierarchy. We also know that PDI and GGGI measures might share the fundamental elements of cultural orientations related to human development (Fog, 2021).

Future studies should continue to explore the joint and unique predictive utility of distinct indicators of country-level egalitarianism. Future research should also seek to replicate our self-view findings using measures of gender stereotypes of agency and communality. Stereotype research consistently finds that people estimate sex differences in personality with high accuracy (Jussim et al., 2015; Löckenhoff et al., 2014). It will be interesting to examine whether cross-cultural gender stereotypes are similarly accurate, mapping closely onto people's gendered self-views.

Conclusions

Social role theory predicts that sex differences should shrink as societies embrace the profits of progress of vertical gender segregation. Conversely, evolutionary theories anticipate larger sex differences in more egalitarian countries (Schmitt, 2015). Here, results from a large, 62-country dataset, show that sex differences in gendered self-views correlate differently with cultural egalitarianism depending on the dimension under examination: Sex differences in agentic self-views are smaller, and sex differences in communal self-views are larger, in more egalitarian countries. These patterns emerged across two distinct, objective and subjective nation-level indices of egalitarianism, and were driven more robustly by variations in men's than women's self-views. Moreover, whereas women's more communal self-views appear universal, men's more agentic self-views vary considerably across countries. We encourage future research to analyze these variations of sex differences across cultures through the lens of culturally constructed gender identities (Charles & Bradley, 2009), and to seek evidence of explanatory mechanisms.

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Table 1

Sample Composition and Country-Level Indicators for Each Country

Country	*N*	% Male	M_{Age}	SD_{Age}	PDI	GGGI	GNI
Albania	215	39	23.15	5.06	0.20	0.769	14 350
Argentina	345	48	32.58	12.22	0.49	0.746	22 060
Armenia	187	59	20.04	1.90	0.85	0.684	14 460
Australia	614	34	29.75	11.13	0.36	0.731	51 560
Belgium	1 681	47	21.52	5.92	0.65	0.750	54 730
Bosnia	179	49	22.95	5.75	0.90	0.712	15 770
Brazil	963	32	23.81	7.46	0.69	0.691	14 850
Canada	883	31	19.84	2.90	0.39	0.772	50 810
Chile	128	41	21.63	4.89	0.63	0.723	24 140
China	520	36	19.48	1.97	0.80	0.676	16 740
Colombia	539	39	21.49	5.05	0.67	0.758	15 150
Croatia	290	24	23.32	6.02	0.73	0.720	29 520
Czechia	365	74	27.91	8.15	0.57	0.706	40 660
Denmark	239	39	25.44	4.81	0.18	0.782	61 410
England	671	40	22.30	7.46	0.35	0.767	48 040
Finland	277	12	26.17	6.97	0.33	0.832	51 210
France	366	19	22.28	6.72	0.68	0.781	50 390
Georgia	157	53	21.83	3.33	0.65	0.708	15 020
Germany	1 257	36	29.76	10.37	0.35	0.787	57 690
Ghana	276	40	20.25	2.59	0.80	0.673	5 510
Greece	256	26	26.23	8.99	0.60	0.701	31 350
Hungary	656	18	22.36	4.25	0.46	0.677	32 750
India	332	38	22.14	5.14	0.77	0.668	6 960
Indonesia	217	47	21.02	3.96	0.78	0.700	11 930
Iran	160	40	29.21	8.31	0.58	0.584	–
Ireland	533	47	19.83	3.75	0.28	0.798	68 050
Italy	2 215	34	22.79	5.22	0.50	0.707	44 580
Japan	196	41	21.67	3.72	0.54	0.652	44 780
Kazakhstan	336	44	20.21	3.83	0.88	0.710	24 050
Kosovo	372	41	20.35	3.97	0.90	0.769	14 350
Lebanon	115	30	19.64	0.80	0.80	0.599	15 260
Lithuania	283	32	24.06	6.93	0.42	0.745	37 010
Luxembourg	174	35	24.56	5.32	0.40	0.725	77 570
Malta	235	34	26.83	9.84	0.56	0.693	41 690
Mexico	268	49	23.90	9.04	0.81	0.754	19 810
Morocco	253	46	29.28	9.55	0.70	0.605	7 680
Nepal	185	37	22.36	5.45	0.65	0.680	3 600
Netherlands	823	32	20.60	3.40	0.38	0.736	59 890
New Zealand	214	29	19.01	2.34	0.22	0.799	42 710
Nigeria	395	44	21.20	3.08	0.77	0.635	5 170
Northern Ireland	284	38	22.14	5.52	0.35	0.767	48 040
Norway	191	47	23.00	3.86	0.31	0.842	69 610

Pakistan	372	45	22.14	3.72	0.55	0.564	5 210
Philippines	417	49	19.77	2.09	0.94	0.781	10 200
Poland	729	44	22.98	4.73	0.68	0.736	32 710
Portugal	157	17	22.12	4.92	0.63	0.744	35 600
Romania	225	42	22.78	4.49	0.90	0.724	31 860
Russia	629	33	21.89	6.94	0.93	0.706	28 270
Serbia	617	25	22.12	5.14	0.86	0.736	17 960
Slovakia	516	48	21.95	4.49	1.00	0.718	33 680
South Africa	353	41	20.62	2.55	0.49	0.780	12 630
Spain	1 025	37	25.55	8.57	0.57	0.795	42 300
Suriname	153	47	22.90	5.89	0.85	0.707	15 200
Sweden	609	47	26.09	7.03	0.31	0.820	57 300
Switzerland	538	35	23.43	5.20	0.34	0.779	72 390
Turkey	1 364	32	22.28	4.06	0.66	0.635	27 410
UAE	443	35	20.00	1.34	0.80	0.655	70 240
Ukraine	258	35	19.16	1.43	0.92	0.721	13 750
Uruguay	157	40	22.71	6.70	0.61	0.737	21 120
USA	684	31	20.34	4.36	0.40	0.724	65 880
Vietnam	358	26	22.38	6.68	0.70	0.700	7 750
Wales	191	34	30.34	10.31	0.35	0.767	48 040
Total sample	**28,640**	**37**	**23.05**	**6.82**	–	–	–

Notes. PDI - Power Distance Index, GGGI – Overall Global Gender Gap Index, GNI - Gross National Income per capita.

Table 2

CFA Model (2-Factor Solution) Fit Statistics and Alpha Coefficients for Agency and Communality for Each Country

Country	χ^2/df	CFI	RMSEA [90% CI]	Alpha Communality	Alpha Agency
Albania	1.89	0.86	0.064 [0.056-0.073]	0.89	0.88
Argentina	2.44	0.85	0.065 [0.059-0.071]	0.85	0.85
Armenia	1.52	0.91	0.053 [0.042-0.062]	0.85	0.87
Australia	2.68	0.90	0.052 [0.048-0.057]	0.89	0.86
Belgium	6.15	0.87	0.055 [0.053-0.058]	0.86	0.84
Bosnia	1.80	0.83	0.067 [0.057-0.076]	0.81	0.86
Brazil	3.98	0.88	0.056 [0.052-0.059]	0.81	0.86
Canada	4.10	0.88	0.059 [0.056-0.063]	0.90	0.88
Chile	1.32	0.89	0.050 [0.037-0.062]	0.89	0.84
China	4.67	0.83	0.084 [0.080-0.088]	0.90	0.91
Colombia	2.53	0.91	0.053 [0.049-0.058]	0.87	0.88
Croatia	2.11	0.87	0.062 [0.055-0.069]	0.85	0.89
Czechia	2.19	0.88	0.057 [0.051-0.063]	0.86	0.87
Denmark	2.05	0.88	0.066 [0.059-0.074]	0.92	0.82
England	3.09	0.88	0.056 [0.052-0.060]	0.87	0.85
Finland	1.98	0.90	0.059 [0.052-0.067]	0.88	0.88
France	2.63	0.84	0.067 [0.061-0.073]	0.85	0.84
Georgia	1.54	0.91	0.059 [0.048-0.069]	0.88	0.89
Germany	6.65	0.84	0.067 [0.064-0.070]	0.86	0.85
Ghana	1.36	0.94	0.036 [0.027-0.044]	0.82	0.89
Greece	1.89	0.90	0.059 [0.052-0.066]	0.89	0.89
Hungary	3.37	0.88	0.060 [0.056-0.064]	0.88	0.87
India	1.81	0.92	0.050 [0.043-0.056]	0.87	0.89
Indonesia	1.59	0.90	0.052 [0.044-0.060]	0.82	0.90
Iran	1.66	0.87	0.064 [0.054-0.074]	0.88	0.89
Ireland	2.39	0.90	0.051 [0.046-0.056]	0.85	0.87
Italy	8.82	0.88	0.059 [0.057-0.062]	0.86	0.88
Japan	2.10	0.84	0.075 [0.067-0.083]	0.86	0.88
Kazakhstan	2.11	0.89	0.058 [0.051-0.064]	0.85	0.89
Kosovo	2.62	0.84	0.066 [0.060-0.072]	0.84	0.89
Lebanon	1.37	0.87	0.057 [0.042-0.070]	0.87	0.84
Lithuania	2.05	0.89	0.061 [0.054-0.068]	0.88	0.89
Luxembourg	1.52	0.89	0.054 [0.044-0.065]	0.84	0.86
Malta	1.66	0.89	0.053 [0.045-0.061]	0.86	0.86
Mexico	1.95	0.87	0.060 [0.052-0.067]	0.86	0.88
Morocco	1.45	0.95	0.042 [0.035-0.050]	0.89	0.94
Nepal	1.17	0.97	0.030 [0.013-0.042]	0.86	0.91
Netherlands	3.08	0.89	0.050 [0.047-0.054]	0.86	0.83

New Zealand	2.15	0.86	0.073 [0.065-0.081]	0.90	0.87
Nigeria	1.27	0.97	0.026 [0.018-0.033]	0.84	0.84
Northern Ireland	2.13	0.88	0.063 [0.056-0.070]	0.90	0.88
Norway	1.60	0.88	0.056 [0.047-0.066]	0.86	0.81
Pakistan	1.60	0.94	0.040 [0.034-0.046]	0.88	0.89
Philippines	1.97	0.91	0.048 [0.042-0.054]	0.87	0.87
Poland	3.83	0.85	0.062 [0.059-0.066]	0.87	0.86
Portugal	1.56	0.88	0.060 [0.049-0.070]	0.82	0.88
Romania	2.12	0.85	0.070 [0.063-0.078]	0.87	0.88
Russia	3.25	0.88	0.060 [0.056-0.064]	0.86	0.88
Serbia	2.86	0.90	0.055 [0.051-0.059]	0.87	0.88
Slovakia	2.61	0.91	0.056 [0.051-0.061]	0.88	0.89
South Africa	1.85	0.91	0.049 [0.043-0.055]	0.87	0.88
Spain	4.37	0.88	0.057 [0.054-0.061]	0.84	0.86
Suriname	1.41	0.91	0.052 [0.040-0.063]	0.84	0.87
Sweden	2.75	0.88	0.054 [0.049-0.058]	0.85	0.83
Switzerland	3.78	0.81	0.072 [0.067-0.076]	0.86	0.84
Turkey	5.83	0.89	0.059 [0.057-0.062]	0.85	0.89
UAE	2.42	0.89	0.057 [0.051-0.062]	0.85	0.88
Ukraine	1.98	0.87	0.062 [0.054-0.069]	0.84	0.87
Uruguay	1.88	0.80	0.075 [0.065-0.085]	0.84	0.87
USA	2.57	0.92	0.048 [0.044-0.052]	0.88	0.87
Vietnam	1.96	0.91	0.052 [0.046-0.058]	0.85	0.89
Wales	2.17	0.86	0.078 [0.070-0.086]	0.93	0.90
Total Sample	**52.47**	**0.93**	**0.042 [0.042-0.043]**	**0.86**	**0.87**

Table 3

Descriptive Statistics and Gender Comparision for Agency and Communality for Each Country

Country	Self-ratings on Agency						*t*	*Cohen's d*	Self-ratings on Communality						*t*	*Cohen's d*
	All		Male		Female				All		Male		Female			
	M	*SD*	*M*	*SD*	*M*	*SD*			*M*	*SD*	*M*	*SD*	*M*	*SD*		
Albania	5.19	0.93	5.35	0.95	5.08	0.91	2.11*	0.30	5.48	0.97	5.00	1.11	5.78	0.73	-5.69**	0.87
Argentina	4.84	0.97	4.87	0.93	4.82	1.01	0.43	0.05	5.12	0.90	5.00	0.93	5.23	0.85	-2.41*	0.26
Armenia	5.08	0.95	5.16	1.04	4.98	0.81	1.30	0.19	5.17	0.95	5.02	1.02	5.39	0.79	-2.82**	0.40
Australia	4.99	0.89	5.02	0.98	4.98	0.85	0.51	0.05	5.52	0.82	5.24	0.87	5.66	0.76	-5.85**	0.52
Belgium	4.71	0.82	4.82	0.83	4.62	0.80	4.91**	0.24	5.26	0.79	5.09	0.83	5.41	0.73	-8.59**	0.42
Bosnia	5.08	0.91	5.38	0.78	4.78	0.93	4.66**	0.70	5.50	0.76	5.37	0.69	5.64	0.81	-2.39*	0.36
Brazil	4.88	0.97	4.98	0.92	4.83	0.99	2.22*	0.15	5.23	0.81	5.03	0.78	5.33	0.80	-5.46**	0.37
Canada	4.95	0.92	5.10	0.97	4.89	0.88	3.02**	0.23	5.44	0.88	5.22	0.90	5.55	0.85	-5.12**	0.38
Chile	5.12	1.01	5.03	0.98	5.18	1.03	-0.79	0.14	5.50	1.03	5.35	0.90	5.61	1.11	-1.46	0.25
China	4.41	0.92	4.54	1.04	4.33	0.83	2.35*	0.23	5.10	0.79	4.98	0.88	5.17	0.72	-2.57**	0.25
Colombia	4.91	0.98	4.98	1.04	4.86	0.93	1.32	0.12	5.12	0.90	5.01	0.87	5.19	0.91	-2.33*	0.20
Croatia	4.83	0.92	5.06	0.99	4.76	0.88	2.19*	0.32	5.67	0.71	5.37	0.71	5.77	0.68	-4.08**	0.58
Czechia	4.72	0.89	4.74	0.91	4.67	0.83	0.75	0.09	5.13	0.82	4.99	0.80	5.52	0.74	-5.95**	0.69
Denmark	4.97	0.76	5.07	0.60	4.91	0.84	1.74	0.22	5.28	0.95	4.62	0.95	5.71	0.67	-9.70**	1.39
England	4.76	0.86	4.83	0.90	4.72	0.83	1.56	0.12	5.38	0.79	5.12	0.85	5.56	0.70	-7.04**	0.58
Finland	4.66	0.94	4.55	1.00	4.67	0.93	-0.67	0.13	5.17	0.83	4.57	0.99	5.26	0.78	-3.81**	0.85
France	4.52	0.87	4.61	0.82	4.49	0.88	1.00	0.13	5.44	0.79	5.10	0.82	5.52	0.76	-3.84**	0.54
Georgia	4.91	1.05	4.85	1.02	4.98	1.08	-0.79	0.13	5.41	0.99	5.05	1.03	5.81	0.77	-5.21**	0.82
Germany	4.82	0.84	4.83	0.83	4.81	0.84	0.30	0.02	5.30	0.79	5.05	0.78	5.43	0.77	-8.54**	0.49
Ghana	5.50	1.04	5.60	1.00	5.44	1.06	1.27	0.16	5.78	0.85	5.60	0.79	5.90	0.87	-2.96**	0.36
Greece	4.85	0.94	4.93	0.84	4.83	0.98	0.82	0.11	5.73	0.75	5.34	0.80	5.86	0.69	-4.71**	0.72
Hungary	4.70	0.91	4.71	0.95	4.70	0.90	0.08	0.01	5.50	0.81	5.12	0.93	5.58	0.76	-5.02**	0.58
India	5.42	0.85	5.47	0.84	5.40	0.86	0.76	0.09	5.69	0.74	5.52	0.72	5.79	0.74	-3.34**	0.38
Indonesia	5.09	0.86	5.17	0.89	5.01	0.83	1.39	0.19	5.55	0.69	5.62	0.69	5.49	0.69	1.36	0.19
Iran	4.71	1.00	4.92	1.07	4.57	0.93	2.11*	0.35	5.37	0.84	5.31	0.82	5.42	0.85	-0.80	0.13
Ireland	5.03	0.88	5.12	0.91	4.96	0.85	2.04*	0.18	5.18	0.80	4.98	0.79	5.36	0.76	-5.54**	0.48
Italy	4.75	0.93	4.81	0.93	4.72	0.94	2.25*	0.10	5.30	0.83	5.08	0.86	5.41	0.79	-8.89**	0.41
Japan	3.54	1.05	3.59	1.04	3.50	1.05	0.64	0.09	4.76	0.82	4.74	0.87	4.78	0.80	-0.33	0.05
Kazakhstan	4.75	0.99	4.84	0.96	4.68	1.02	1.52	0.17	5.28	0.87	5.07	0.85	5.44	0.85	-3.90**	0.43
Kosovo	5.35	0.99	5.52	0.88	5.24	1.05	2.74**	0.28	5.69	0.82	5.54	0.86	5.80	0.77	-3.04**	0.33
Lebanon	5.14	0.86	5.26	0.69	5.09	0.92	1.09	0.20	5.66	0.84	5.42	1.03	5.76	0.73	-1.75	0.41

Lithuania	4.51	0.98	4.47	1.00	4.53	0.98	-0.51	0.07	5.24	0.87	4.79	0.83	5.46	0.80	-6.37**	0.82
Luxembourg	5.20	0.83	5.28	0.83	5.15	0.83	1.00	0.16	5.57	0.73	5.40	0.77	5.66	0.69	-2.20*	0.36
Malta	5.03	0.91	5.01	1.05	5.05	0.83	-0.23	0.03	5.56	0.81	5.39	0.89	5.64	0.75	-2.16*	0.31
Mexico	5.24	0.89	5.48	0.82	5.02	0.89	4.38**	0.54	5.49	0.79	5.41	0.74	5.57	0.82	-1.65	0.20
Morocco	5.72	1.15	5.82	1.19	5.63	1.12	1.34	0.17	5.75	0.99	5.58	1.10	5.90	0.86	-2.51**	0.32
Nepal	4.88	1.04	5.00	1.07	4.81	1.02	1.18	0.18	5.50	0.84	5.33	0.89	5.59	0.80	-2.02*	0.32
Netherlands	4.72	0.73	4.83	0.78	4.67	0.70	2.72**	0.21	5.38	0.67	5.19	0.66	5.47	0.66	-5.75**	0.43
New Zealand	4.96	0.85	5.04	0.78	4.93	0.87	0.89	0.13	5.57	0.78	5.30	0.81	5.68	0.75	-3.24**	0.50
Nigeria	5.59	1.00	5.63	0.97	5.56	1.03	0.70	0.07	5.80	0.95	5.73	0.93	5.86	0.96	-1.36	0.14
Northern Ireland	4.89	0.93	5.00	1.00	4.83	0.88	1.44	0.18	5.42	0.89	4.98	0.90	5.70	0.76	-6.94**	0.88
Norway	4.64	0.78	4.79	0.77	4.52	0.76	2.43*	0.35	5.16	0.78	4.96	0.81	5.33	0.71	-3.35**	0.49
Pakistan	5.07	0.99	5.15	0.79	5.00	1.12	1.45	0.15	5.45	0.96	5.07	1.02	5.76	0.78	-7.21**	0.77
Philippines	5.09	0.88	5.09	0.91	5.10	0.85	-0.19	0.02	5.46	0.80	5.39	0.84	5.53	0.74	-1.80	0.18
Poland	4.66	0.90	4.82	0.91	4.53	0.88	4.43**	0.33	5.21	0.85	5.04	0.87	5.34	0.81	-4.79**	0.36
Portugal	4.96	0.81	5.27	0.84	4.90	0.80	2.11*	0.46	5.47	0.67	5.22	0.60	5.52	0.67	-2.37*	0.46
Romania	5.33	0.89	5.39	0.86	5.28	0.91	0.85	0.11	5.61	0.78	5.38	0.81	5.77	0.72	-3.72**	0.51
Russia	4.44	0.97	4.62	1.00	4.36	0.95	3.07**	0.27	5.24	0.82	5.01	0.85	5.35	0.79	-4.80**	0.42
Serbia	5.09	1.01	5.19	0.94	5.06	1.03	1.47	0.13	5.59	0.91	5.12	0.87	5.74	0.87	-7.68**	0.71
Slovakia	4.62	1.03	4.71	1.03	4.53	1.02	1.98*	0.17	5.24	0.89	5.04	0.86	5.42	0.88	-5.07**	0.45
South Africa	5.20	0.90	5.25	0.97	5.17	0.84	0.79	0.09	5.41	0.87	5.18	0.80	5.56	0.88	-4.19**	0.45
Spain	4.88	0.87	4.92	0.84	4.86	0.89	1.11	0.07	5.32	0.75	5.11	0.75	5.44	0.73	-6.97**	0.46
Suriname	4.93	0.95	4.93	0.81	4.92	1.06	0.01	0.00	5.54	0.79	5.32	0.86	5.73	0.68	-3.19**	0.53
Sweden	4.81	0.84	4.76	0.85	4.86	0.83	-1.50	0.12	5.16	0.79	4.91	0.80	5.39	0.71	-7.81**	0.64
Switzerland	4.83	0.83	4.89	0.88	4.80	0.81	1.17	0.11	5.39	0.76	5.12	0.78	5.54	0.71	-6.15**	0.58
Turkey	4.75	1.06	4.99	1.01	4.63	1.06	6.07**	0.35	5.47	0.80	5.36	0.83	5.51	0.78	-3.17**	0.19
UAE	4.94	0.96	5.01	0.92	4.90	0.98	1.21	0.12	5.44	0.83	5.23	0.76	5.55	0.84	-4.00**	0.39
Ukraine	4.86	0.87	5.07	0.89	4.75	0.85	2.75**	0.37	4.94	0.84	4.74	0.89	5.04	0.80	-2.73**	0.37
Uruguay	4.82	0.92	4.98	0.95	4.71	0.88	1.74	0.29	5.47	0.72	5.26	0.77	5.61	0.65	-2.93**	0.50
USA	5.05	0.94	5.13	0.89	5.02	0.96	1.52	0.12	5.48	0.87	5.23	0.84	5.59	0.86	-5.19**	0.43
Vietnam	4.32	1.01	4.49	0.96	4.26	1.02	1.97	0.23	5.29	0.79	5.17	0.79	5.33	0.79	-1.66	0.20
Wales	4.86	1.01	4.83	1.13	4.88	0.95	-0.26	0.04	5.35	1.04	4.85	1.06	5.61	0.93	-4.89**	0.78
Total sample	**4.86**	**0.96**	**4.95**	**0.96**	**4.80**	**0.95**	**13.12****	**0.20**	**5.37**	**0.84**	**5.14**	**0.86**	**5.50**	**0.80**	**-34.53****	**0.43**

Notes. Models 8A and 8C were tested on 61 countries, ** $p < 0.01$, * $p < 0.05$

Table 4

Multilevel Models Predicting Agency and Communality Self-Views

Model type	Predictor	Self-views on Agency								Self-views on Communality							
		Model 1A	Model 2A	Model 3A	Model 4A	Model 5A	Model 6A	Model 7A	Model 8A	Model 1C	Model 2C	Model 3C	Model 4C	Model 5C	Model 6C	Model 7C	Model 8C
Baseline	*Intercept*	4.91**	4.52**	4.96**	4.33**	4.79**	4.40**	5.97**	6.60**	5.41**	5.46**	6.24**	5.31**	5.96**	5.42**	4.46**	6.54**
Individual-level variables (L1)	Age	–	0.01**	0.01**	0.01**	0.01**	0.01**	0.01**	0.01**	–	< 0.01**	< 0.01**	< 0.01**	< 0.01**	< 0.01**	< 0.01**	< 0.01**
	Gender (male)	–	0.13**	0.13**	0.13**	0.54**	0.01	0.55*	0.00	–	-0.37**	-0.37**	-0.37**	0.28	-0.61**	0.21	-0.61*
Country-level variables (L2)	GGGI	–	–	-0.61	–	-0.38	–	0.86	–	–	–	-1.08*		-0.69	–	-0.24	–
	PDI	–	–	–	0.31		0.19	–	-0.19	–	–	–	0.25*		0.06	–	-0.14
	Log (GNI per capita)	–	–	–	–	–	–	-0.47**	-0.44**	–	–	–	–	–	–	-0.19*	-0.23*
Cross-levels interaction component	Gender x GGGI	–	–	–		-0.57*	–	-0.52		–	–	–		-0.90*	–	-0.81	
	Gender x PDI	–	–	–	–	–	0.21**		0.21**	–	–	–	–	–	0.39**		0.39**
Random effects	Residual	0.92	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.81	0.81	0.81	0.81	0.81	0.81	0.80	0.80
	Gender random slope	0.16	0.07	0.07	0.07	0.06	0.06	0.07	0.06	0.41	0.16	0.16	0.16	0.15	0.14	0.15	0.14
	Intercept	0.32	0.32	0.32	0.32	0.32	0.32	0.29	0.29	0.24	0.20	0.20	0.21	0.20	0.20	0.19	0.19

Notes. Number of observations = 28,640; Number of countries = 62. Models 7A, 8A, 7C and 8C were tested on 61 countries and 28,480 observations. * $p < 0.05$. ** $p < 0.01$.

$ICC_A = 0.11$
$ICC_C = 0.05$

Table 5

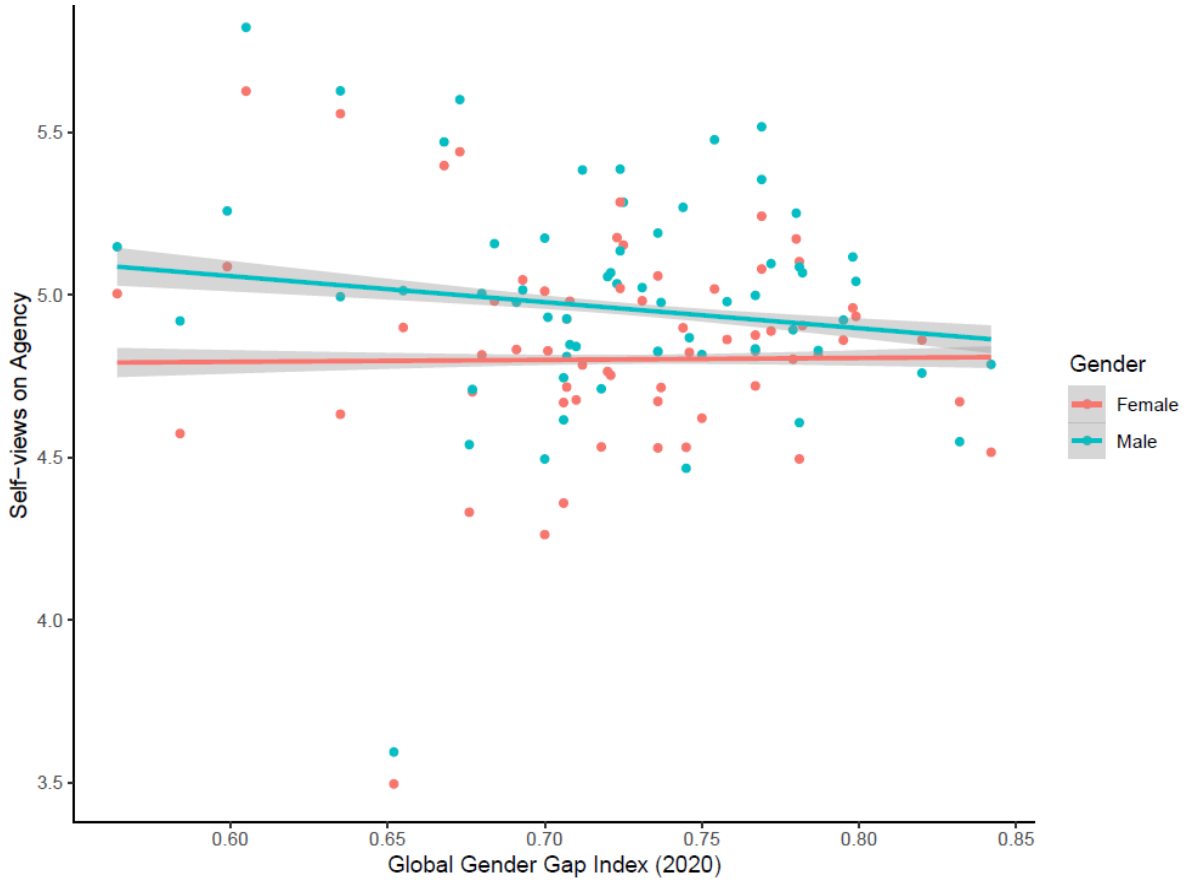
Multilevel Models' Fit Indices

Model	Type	Description	Self-views on Agency (Models A)				Self-views on Communality (Models C)			
			Δ df	- 2 log likelihood	AIC	L. Ratio	Δ df	- 2 log likelihood	AIC	L. Ratio
1A/C	Baseline	Individuals nested within their country with no other predictors	–	76729	76739	–	–	69253	69263	–
2A/C	Random coefficient and fixed predictors	Individual-level variables: Age and Gender	2	76402	76416	327**	2	69138	69152	116**
3A/C		Individual and country level variables: Age, Gender, GGGI	0	76401	76417	1	0	69132	69148	6*
4A/C		Individual and country level variables: Age, Gender, PDI	0	76400	76416	2	0	69134	69150	4*
5A/C		Individual (Age, Gender) and country level (GGGI) variables and cross-levels interaction (Gender x GGGI)	1	76397	76415	4*	1	69127	69145	5*
6A/C		Individual (Age, Gender) and country level (PDII) variables and cross-levels interaction (Gender x PDI)	1	76391	76409	9*	1	69120	69138	14*
7A/C		Individual (Age, Gender) and country level (GGGI, PDI) variables and cross-levels interactions (Gender x GGGI, Gender x PDI)	–	75936	75956	– [a]	–	68724	68744	– [a]
8A/C		Individual (Age, Gender) and country level (GGGI, PDI, GNI per capita) variables and cross-levels interactions (Gender x GGGI, Gender x PDI) [a]	–	75931	75951	– [a]	–	68714	68734	– [a]

Notes. Number of observations = 28,640; Number of countries = 62. [a] Models 7A, 8A, 7C and 8C were tested on 61 countries and 28,480 observations. * $p < 0.05$. ** $p < 0.01$.

Figure 1

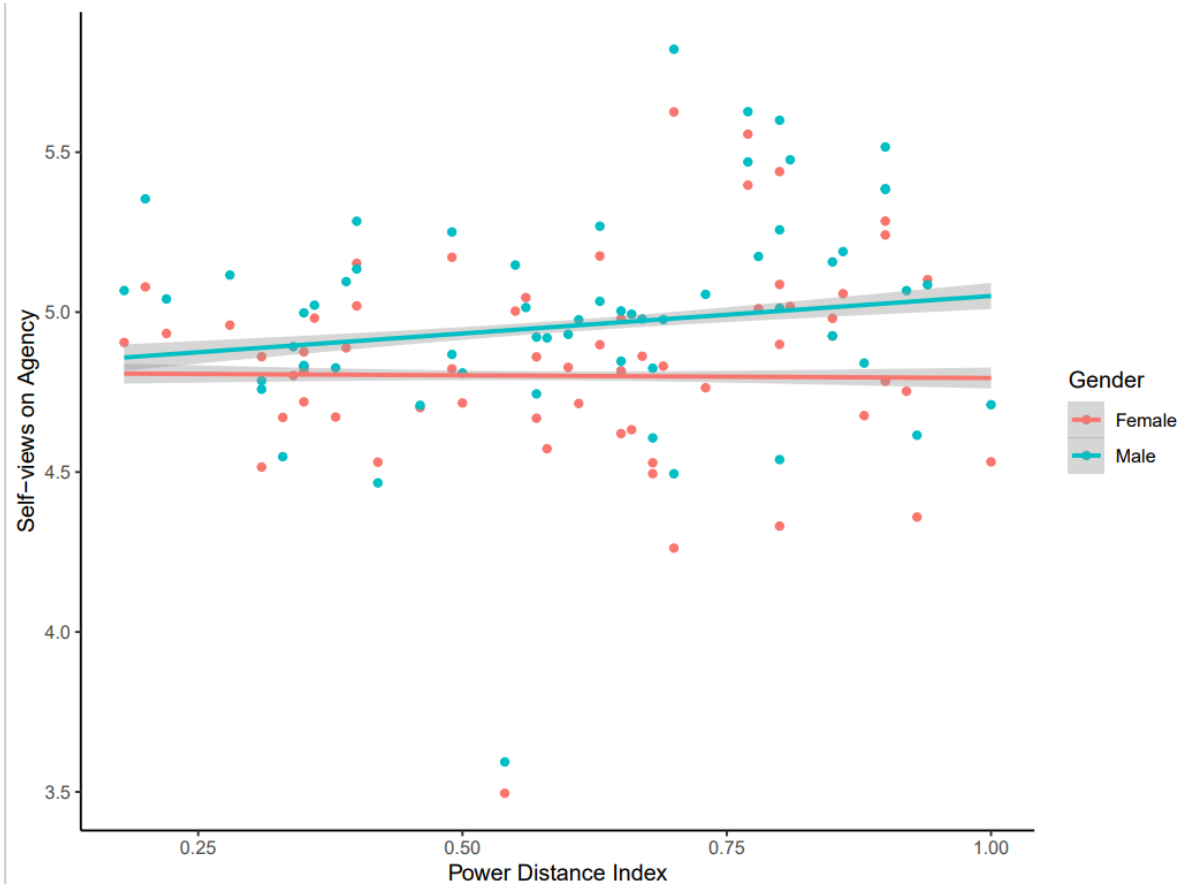
GGGI Predicts Country-Level Binary Sex Differences in Agentic Self-Views



Note. Dots are mean, raw agency self-views for each gender in each country. Lines are simple regression lines.

Figure 2

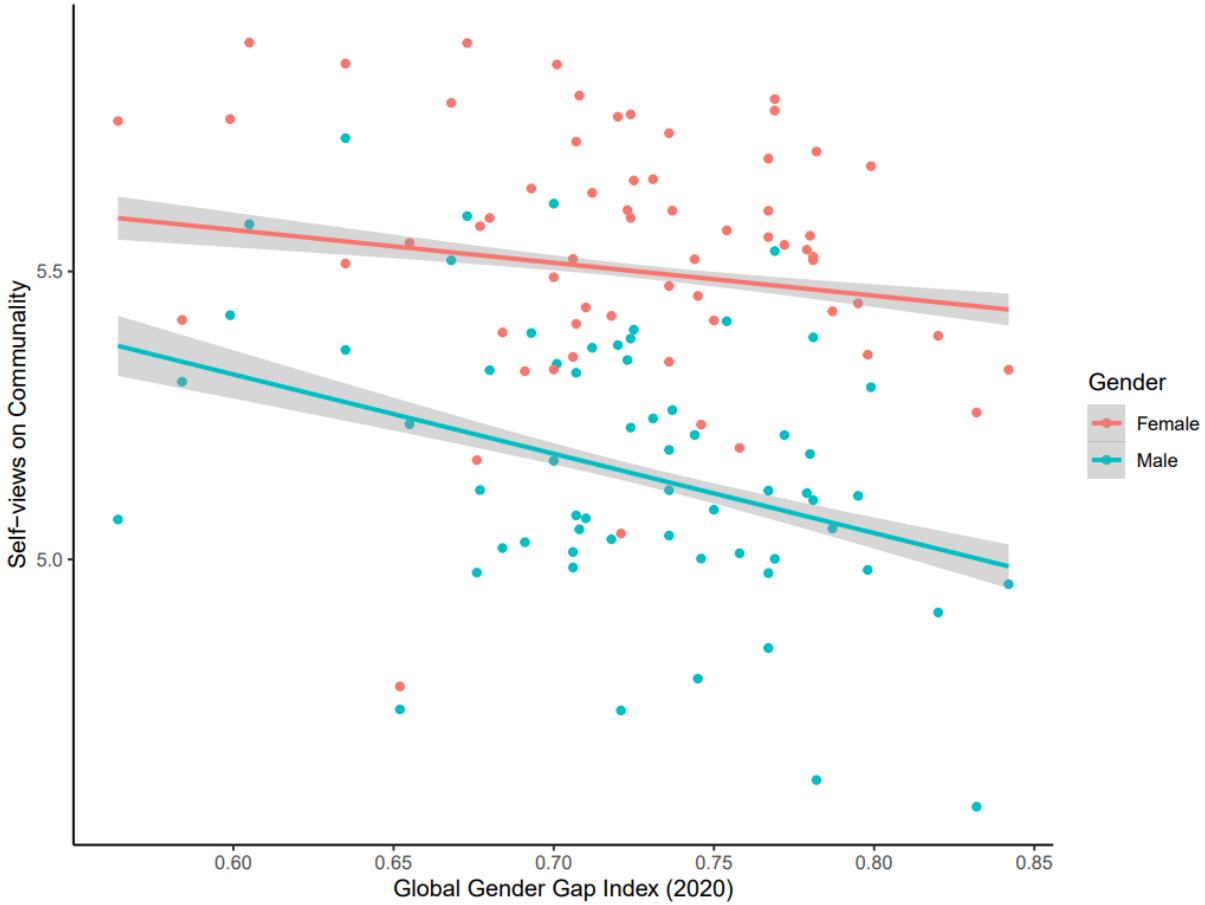
PDI Predicts Country-Level Binary Sex Differences in Agentic Self-Views



Note. Dots are mean, raw agency self-views for each gender in each country. Lines are simple regression lines.

Figure 3

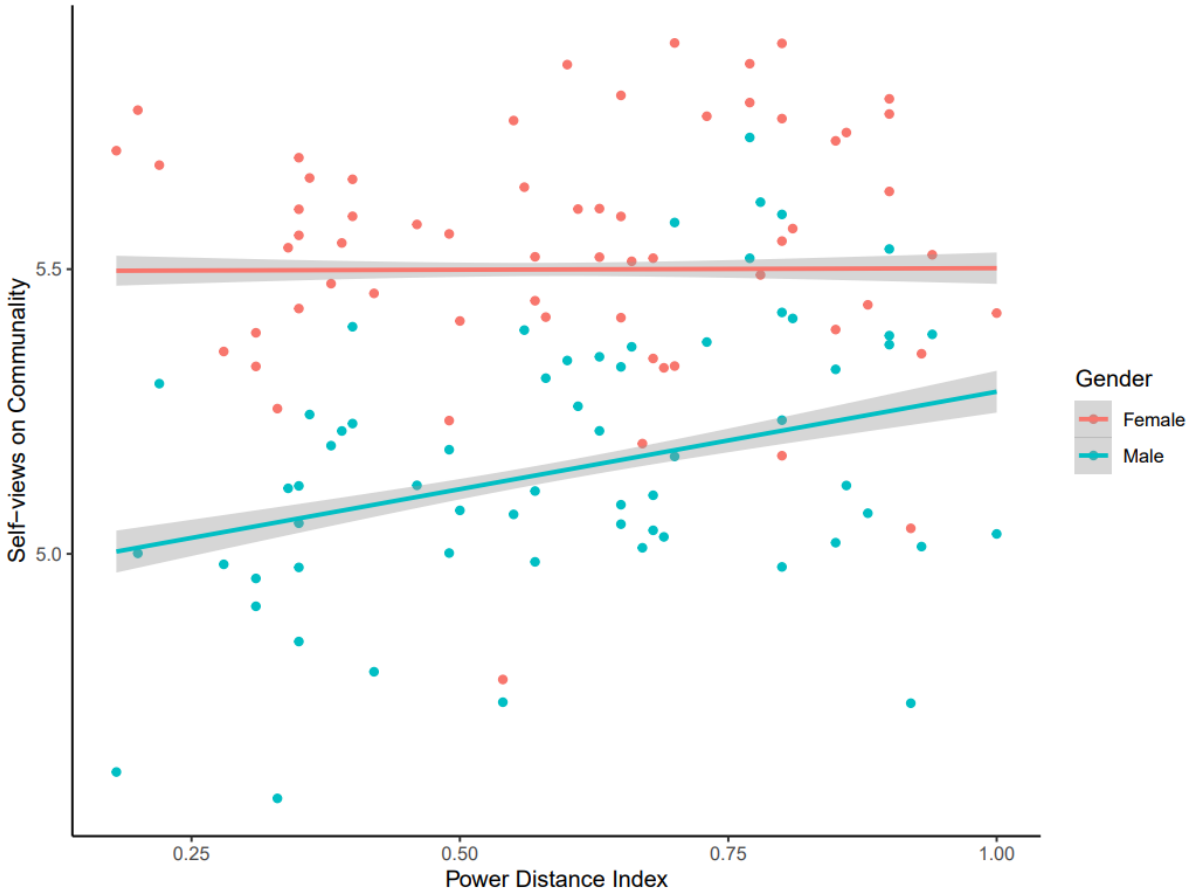
GGGI Predicts Country-Level Binary Sex Differences in Communal Self-Views



Note. Dots are mean, raw communality self-views for each gender in each country. Lines are simple regression lines.

Figure 4

PDI Predicts Country-Level Binary Sex Differences in Communal Self-Views



Note. Dots are mean, raw communality self-views for each gender in each country. Lines are simple regression lines.