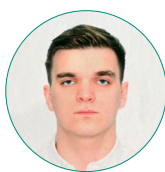


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GENDER ATTITUDES AT THE INDIVIDUAL AND SOCIETAL LEVEL AS FACTORS OF SUBJECTIVE WELL-BEING: COMPARATIVE ANALYSIS

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Abstract. This paper examines the relationship between gender attitudes and subjective well-being, focusing on life satisfaction as its core indicator. It covers both individual

ГЕНДЕРНЫЕ УСТАНОВКИ НА ИНДИВИДУАЛЬНОМ И СОЦИЕТАЛЬНОМ УРОВНЕ КАК ФАКТОРЫ СУБЪЕКТИВНОГО БЛАГОПОЛУЧИЯ: СРАВНИТЕЛЬНЫЙ АНАЛИЗ

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Аннотация. В статье анализируется взаимосвязь гендерных установок и субъективного благополучия, измеряемого через удовлетворенность жизнью. Цель иссле-

and country-level gender attitudes and tests whether a mismatch between them affects individual well-being. The analysis draws on the 7th wave of the World Values Survey, covering 55 countries. Gender attitudes are captured by composite indices at the individual and societal levels. Since our respondents are nested in countries and determinants operate at multiple levels, we use multilevel regression modeling. On average, individuals with more egalitarian gender attitudes report higher life satisfaction. At the country level, more dominant egalitarian gender attitudes are also associated with higher levels of subjective well-being. However, this individual-level association depends on the broader societal context. In societies with high gender inequality the positive link is weaker, and in the most unequal contexts egalitarian views are associated with lower life satisfaction. Initially, the moderation effect of public gender attitudes was not found, but additional analysis showed its presence for respondents with moderate and egalitarian views. Overall, the results underscore the importance of person — culture fit for subjective well-being and show that the well-being effects of egalitarian gender attitudes vary with both the level of gender inequality and the prevailing normative climate.

дования — оценить влияние индивидуальных и общественных гендерных установок на субъективное благополучие, а также проверить, усиливает ли их согласованность субъективное благополучие. Эмпирическая база исследования включает данные седьмой волны Всемирного исследования ценностей (World Values Survey) по 55 странам. Гендерные установки операционализированы с помощью индексов, рассчитанных на индивидуальном и социальном уровнях. Для анализа использованы многоуровневые регрессионные модели, позволяющие учитывать вложенную структуру данных и одновременное влияние факторов разных уровней. Полученные результаты показывают, что в среднем более эгалитарные индивидуальные гендерные установки положительно связаны с удовлетворенностью жизнью. На уровне стран более выражено доминирующие эгалитарные гендерные установки также связаны с более высоким уровнем субъективного благополучия. Вместе с тем выявлено, что общественный контекст модерирует данную связь. Высокий уровень гендерного неравенства в стране ослабляет положительный эффект индивидуального эгалитаризма, а в обществах с выраженным неравенством эгалитарные установки на индивидуальном уровне связаны с более низкой удовлетворенностью жизнью. Первоначально модерационный эффект общественных гендерных установок не был обнаружен, однако дополнительный анализ показал его наличие для респондентов с умеренными и эгалитарными взглядами. Полученные результаты свидетельствуют о значимости соответствия между индивидуальными установками и доминирующими социальными нормами и подчеркивают контекстную обусловленность влияния гендерных установок на субъективное благополучие.

Keywords: gender attitudes, subjective well-being, multilevel regression, person-culture fit, WVS

Ключевые слова: гендерные установки, субъективное благополучие, многоуровневая регрессия, несоответствие личности и культуры, Всемирное исследование ценностей

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Introduction

Gender inequality is a central issue in global politics. Closing the gender gap is an explicit United Nations goal, yet at the current pace the World Economic Forum estimates it will take 135.6 years to achieve [World Economic Forum, 2021: 9]. Policy efforts have concentrated on the legal dimension of the gap, such as quotas and the formal equalization of rights. But the gap also has a cultural side: a large part of gender inequality is rooted in the prevailing gender attitudes within a society. Following Bergh [2006: 5], we define gender attitudes as “attitudes toward gender equality and gender relations in society”. The implicit benchmark of progressive policy is the more egalitarian Western societies that top the UN Gender Inequality Index, on the assumption that more egalitarian attitudes benefit both societies and individuals. Whether that expectation holds at the individual level, and whether it holds outside the Western context, is an empirical question that this paper addresses.

Gender-related effects on subjective well-being (SWB) have interested researchers for decades [Diener, Ryan, 2009], and the literature has moved from simple comparisons of men’s and women’s well-being toward more sophisticated accounts. Early syntheses found that gender explains very little variance in average well-being: men report marginally higher well-being, but gender does not transcend social class as a determinant [Haring, Stock, Okun, 1984]. In some samples men and women do not differ substantially in mean well-being even though women experience emotions, both positive and negative, more intensely [Fujita, Diener, Sandvik, 1991]. Apparent gender differences are often masked by interactions with age, with younger women reporting higher and older women lower well-being than men [Inglehart, 2002].

A second strand shifts attention from gender as a category to gender-related attitudes and contexts. At the societal level, the size of gender differences in well-being varies with a country’s level of gender inequality and its prevailing attitudes toward gender equality [Tesch-Römer, Motel-Klingebiel, Tomasik, 2008], and liberal gender-role norms and public childcare reduce the well-being penalty that full-time working wives would otherwise face [Treas, van der Lippe, Tai, 2011; Stavrova, Fetchenhauer, Schlösser, 2012]. In East Asia, the picture is more heterogeneous still, with marital status a stronger correlate of happiness than gender-role traditionalism [Hori, Kamo, 2018]. Taken together, this literature suggests that the well-being relevance of gender attitudes is rarely unconditional but depends on the societal context.

Few studies, however, focus specifically on the direct association between gender related constructs and subjective well-being. Existing work tends to examine such constructs as gender identity [Chang, 2011] or gender ideology in specific domains (for example, marital gender ideology and marital happiness [Horrell et al., 2022]) rather than general gender attitudes and overall life satisfaction, and most of it is based on Western or Western-oriented contexts [Tesch-Römer, Motel-Klingebiel, Tomasik, 2008; Treas, van der Lippe, Tai, 2011]. As a result, the cultural specificity of non-Western contexts is rarely taken as a substantive point of reference, and we still know relatively little about how explicitly measured gender attitudes relate to subjective well-being across diverse societies.

As mentioned earlier, gender can be analyzed at two levels — individual and societal — and the same applies to gender-related attitudes and identities. At the individual level, existing research shows that more egalitarian gender-related identities and ideologies are positively associated with subjective well-being or domain-specific well-being: for example, Chang finds that a less traditional gender identity relates to higher life satisfaction, and Horrell et al. report that egalitarian gender role ideologies are associated with higher eudaimonic well-being and marital satisfaction. More broadly, studies on value orientations show that conservative or traditional values tend to relate to lower SWB, whereas other value dimensions have more context-dependent effects [Sortheix, Schwartz, 2017; Schwartz, Sortheix, 2018]. This suggests a general positive association between individual egalitarian orientations and well-being, so we expect that, on average, the more egalitarian the individual gender attitudes, the higher the life satisfaction (H1).

On the societal level, Treas et al. [2011] discovered that liberal gender ideology and public childcare ameliorate the disadvantage in happiness for full-time working wives. We also expect that the general societal gender attitudes in a country would influence SWB. Therefore, we put forward a hypothesis that, *on average, the more egalitarian a society's gender attitudes, the higher the life satisfaction* (H2).

A further possibility suggested by the literature is that what matters for well-being is not only the content of the attitudes a person holds but also their fit with the surrounding culture [Oishi, Gilbert, 2016; Schwartz, Sortheix, 2018]. Some studies indicate that individuals may feel less happy when enacting gender roles that diverge from the dominant patterns in their societies [Mencarini, Sironi, 2012], and that migrants from more traditional societies who do not share positive attitudes toward gender equality also report lower SWB than natives [van de Vijver, 2007]. Building on this work, we expect the well-being implications of egalitarian attitudes to depend on the societal context. Where gender inequality is high and egalitarianism is counter-normative, the positive association should weaken or even reverse; where the context is more egalitarian, it should strengthen. Formally, we hypothesize that higher gender inequality decreases the positive effect of egalitarian individual gender attitudes on life satisfaction (H3), and that in countries with more egalitarian societal gender attitudes, the positive association between individual gender attitudes and life satisfaction is stronger (H4).

Testing a person — culture fit requires both a “person” and a “culture”. The individual component is gender attitudes; the societal component can be captured in two ways. The first, “aggregated subjective”, is the average of individual attitudes in a coun-

try, that is, what a country thinks about gender. The second, “resulting objective”, reflects actual gender relations and must be measured by an outside entity. The distinction matters because a population may hold egalitarian attitudes on average while the situation on the ground remains unequal. The country’s level of gender inequality, estimated from cross-national data rather than from aggregated beliefs, is a clear example of the “resulting objective” measure.

Our main research question therefore asks: How does the relationship between gender attitudes and subjective well-being vary across countries, once we account for both individual gender attitudes and the societal gender context?

Data and Variables

We tested all hypotheses using the World Values Survey (WVS) dataset. The latest, seventh, wave of WVS contains 72 153 observations for 55 countries and both individual-level and country-level variables. The latter were adopted from the World Bank (GDP per capita) and the United Nations Development Programme (Gender Inequality Index).

Dependent variables

Our main dependent variable reflects the level of *life satisfaction*. It was measured using the question: “All things considered, how satisfied are you with your life as a whole these days?”. The answer options ranged from 1 to 10, where 1 — Completely dissatisfied, and 10 — Completely satisfied.

Independent variables

The main independent variable is the Individual Gender Attitude Index (IGAI). It consisted of seven variables that covered various aspects of gender relations.

Political leadership: “On the whole, men make better political leaders than women do”.

University education: “A university education is more important for a boy than for a girl”.

Business management: “On the whole, men make better business executives than women do”.

Vocations of a woman: “Being a housewife is just as fulfilling as working for pay”.

Income distribution in a couple: “If a woman earns more money than her husband, it’s almost certain to cause problems”.

Rights to work: “When jobs are scarce, men should have more rights to a job than women”.

Mother’s role: “When a mother works for pay, the children suffer”.

The first four and the seventh items shared the same scale (1 to 4, from *Agree strongly* to *Disagree strongly*, without *Neither disagree, nor agree*), while the fifth and the sixth items had a mid-point (1 to 5, from *Agree strongly* to *Disagree strongly*, with *Neither disagree, nor agree*).

To construct the Individual Gender Attitude Index, we first checked whether the selected items reflect a single latent dimension. Beyond internal consistency (Cronbach’s $\alpha = 0.78$), we assessed the cross-national comparability of the Individual Gender Attitude Index by estimating a series of multi-group CFA models. A one-factor configural model showed acceptable fit in all countries (RMSEA = 0.084, SRMR = 0.041, CFI = 0.93, TLI = 0.90), indicating that the same latent structure holds across groups.

Imposing equal factor loadings led to some deterioration in fit ($\Delta CFI \approx 0.06$), but overall indices remained close to conventional thresholds, which we interpret as approximate metric invariance; this allows us to compare associations of the index with other variables across countries, while country-level means differences are interpreted only as descriptive patterns of observed index scores and should not be taken as definitive evidence of cross-national difference in the underlying latent construct, given that scalar invariance was not supported [Cheung, Rensvold, 2002; Leitgöb et al., 2023].

We first recoded all items so that higher values consistently reflected more egalitarian gender attitudes and lower values more traditional views, making the minimum of each item correspond to the most traditional and the maximum to the most egalitarian position. All recoded items were rescaled to range from 0 (the most traditional gender attitudes) to 1 (the most egalitarian gender attitudes) and summed into an additive index.

For controls we used *age*, *marital status* (0 — single, 1 — having a partner), *education* (0 — no higher education, 1 — higher education), *employment* (0 — unemployed, 1 — employed) and *religious denomination, and subjective income*.

Moderators

Since the initial idea was to examine the possible effect of the person-culture fit (or a misfit) we consider two country-level variables. First, we calculated the Societal Gender Attitude Index (SGAI) which is the mean IGA for each country. Second, we used the Gender Inequality Index (GII). It was already included in the WVS dataset and taken from the United Nations Development Programme¹. Having both SGA and GII provides the opportunity to distinguish gender attitudes at the societal level in two different ways. SGA measures aggregated subjective gender attitudes for each country while GII captures “objective traces” by taking into account equality of genders in education, the workforce, and politics. The two indices are related, as more egalitarian attitudes tend to accompany lower measured inequality ($r = -0.64$, $p < 0.001$), but they are not identical and capture analytically distinct domains of a country’s context — what a society thinks about gender, and how unequal it actually is.

Method

Our main method is multilevel (random-intercept) regression modeling, estimated stepwise. We first fit a null model to quantify the share of variance in life satisfaction that lies between countries (the ICC). We then add country-level predictors, a random slope for individual gender attitudes, and the cross-level interactions, before assessing the robustness of the models.

Because both life satisfaction and gender attitudes are measured at a single time point, the WVS 7 design does not allow us to identify the causal direction, and we model gender attitudes as predictors of life satisfaction on substantive grounds. Gender attitudes form part of the broad value orientations that are largely acquired during socialization and remain comparatively stable over the adult life course [Inglehart, Welzel, 2005], whereas life satisfaction is a more flexible and fluctuating evaluation. The

¹ United Nations Development Programme (2019). Gender inequality index (GII). Human Development Report 2019. <http://hdr.undp.org/en/content/gender-inequality-index-gii> (date of access: 20.06.2026).

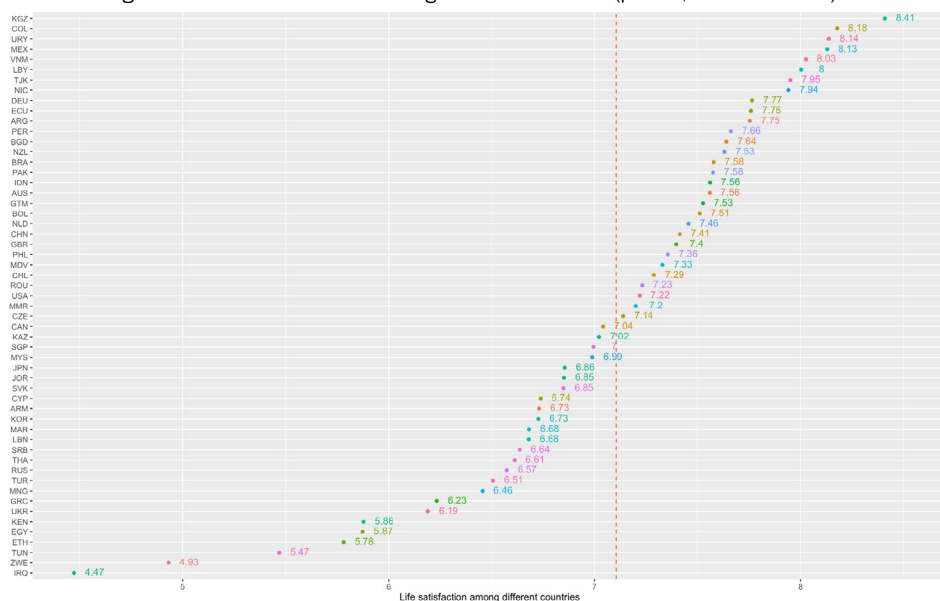
person — culture-fit mechanism we test runs in the same direction: it is the (in)congruence between a person's values and the prevailing values of their environment that bears on well-being, rather than the reverse [Sortheix, Schwartz, 2017; Hanel et al., 2020]. We treat this ordering as an assumption, not a causal claim, and we return in the Conclusion to the possibility of reverse or reciprocal effects, which panel data would be needed to adjudicate [Leszczensky, Wolbring, 2022].

Results

General Overview of SGAI, life satisfaction and their relationship

Figure 1 shows the average life satisfaction for each country in the sample. The mean life satisfaction among all the countries is 7.1. The most satisfied countries are Kyrgyzstan (8.41), Colombia (8.18), Mexico (8.14), Uruguay (8.13), and Vietnam (8.03). Surprisingly, the most satisfied countries are not the most developed in terms of economy. All these countries are considered developing². In terms of religious diversity, three out of the five most satisfied countries — Colombia, Mexico, and Uruguay — are Latin Christian countries, while Kyrgyzstan is a predominantly Muslim country, and most Vietnamese respondents claimed to not have any religious affiliations. The least satisfied countries are Iraq (4.47), Zimbabwe (4.93), Tunisia (5.47), Ethiopia (5.78), and Egypt (5.87). These are predominantly African countries, except for Iraq, with lower levels of GDP. Three out of five least satisfied countries — Iraq, Tunisia, and Egypt — have Islam as the country's predominant religion, while Zimbabwean and Ethiopian religious majorities are Christian.

Fig. 1. Mean life satisfaction among different countries ($\mu = 7.1$, not normalized)



² International Monetary Fund (2022) World Economic Outlook Database — WEO Groups and Aggregates Information. URL: <https://www.imf.org/external/pubs/ft/weo/2022/01/weodata/groups.htm> (date of access: 30.08.2026).

Figure 2 shows societal gender attitudes (SGAI) for each country in our sample. The most egalitarian countries in their gender attitudes are the Netherlands (1), Great Britain (0.94), New Zealand (0.92), Australia (0.9), and Canada (0.87). As anticipated, these are the Western developed countries in which the largest group does not hold any religious beliefs. The most “traditional” countries are Pakistan (0), Egypt (0.09), Myanmar (0.13), Jordan (0.15), and Iraq (0.16). The most traditional countries present almost the opposite picture compared to the most egalitarian ones. Firstly, these are the developing countries with lower levels of GDP per capita. Secondly, the largest groups of people in these countries claim to follow certain religions: for Pakistan, Egypt, Jordan, and Iraq, it is Islam, while Myanmar is a country with a Buddhist majority.

Fig. 2. Societal gender attitude index among different countries (normalized).
(0 — the most traditional, 1 — the most egalitarian; $\mu = 0.52$)

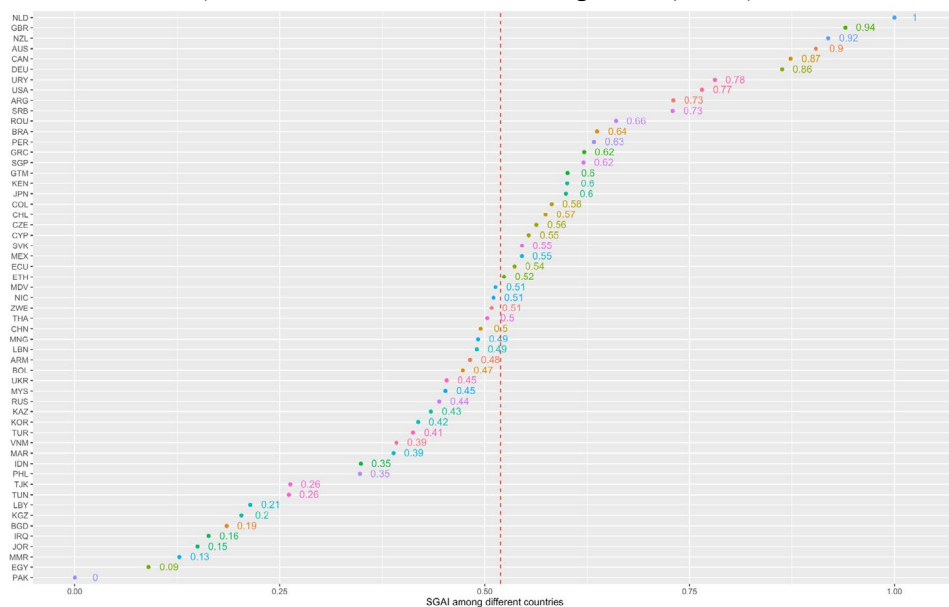


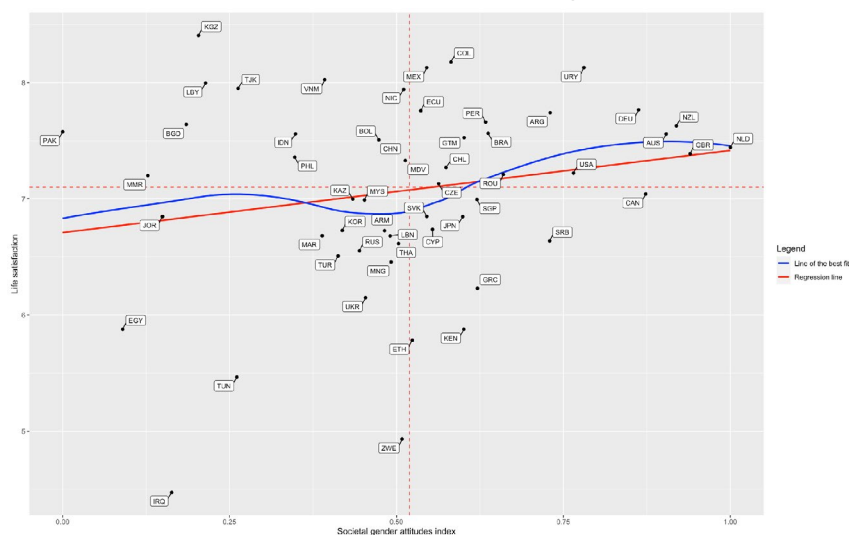
Figure 3 provides a visual representation of countries within two dimensions — life satisfaction and SGAJ. If we divide countries based on their position regarding average levels of life satisfaction and societal gender attitudes, we can distinguish four different groups: “unsatisfied traditional”, “satisfied traditional”, “satisfied egalitarian” and “unsatisfied egalitarian” (Table 1). This classification is purely analytical and based on the results of the visualization. Moreover, we do not take into consideration the distance between a country’s position on the x- and y-axes and the mean values for SGAJ and life satisfaction (0.54; 7.1, respectively). Thus, one group of countries may include seemingly different countries just because these countries fall into the same part of the graph (for instance, Japan and Ethiopia).

Table 1. Group of countries based on their relation to LS and SGAI

Group	LS	SGAI	Countries	Brief description	N
1. "Unsatisfied traditional"	–	–	Kazakhstan, Malaysia, Jordan, Armenia, Korea, Lebanon, Morocco, Thailand, Turkey, Mongolia, Ukraine, Egypt, Tunisia, Zimbabwe, Iraq	Mostly Asian and African countries, developing economies, religiously diverse, but mostly Muslim.	15
2. "Satisfied traditional"	+	–	Kyrgyzstan, Vietnam, Libya, Tajikistan, Nicaragua, Bangladesh, Pakistan, Indonesia, Bolivia, China, Philippines, Moldova, Myanmar	Predominantly Asian, religiously diverse, but most of the countries are Muslim, on average the least economically developed group.	13
3. "Satisfied egalitarian"	+	+	Colombia, Uruguay, Mexico, Ecuador, Argentina, Germany, Peru, New Zealand, Australia, Brazil, Guatemala, Netherlands, Great Britain, Chile, Romania, USA, Czech Republic, Canada	Mostly Western and American countries, especially Latin ones. Mix of developing and developed countries, but overall, the most economically developed group. Religiously, two biggest groups are Catholics and non-religious people.	17
4. "Unsatisfied egalitarian"	–	+	Singapore, Slovakia, Japan, Cyprus, Serbia, Greece, Kenya, Ethiopia	Geographically diverse countries, mostly developing countries, diverse religions.	9

Note: — stands for values below average; + stands for values above average.

From the graph, we can notice two patterns. Firstly, the regression line shows that, on average, a higher (i. e., more egalitarian) level of a country's SGAI promotes a higher overall level of life satisfaction. Secondly, the line of best fit implies a nonlinear link between SGAI and life satisfaction: a cluster of traditional yet highly satisfied countries pulls the fitted line upward at the low end of SGAI, so that moderately traditional countries appear, by comparison, to have lower life satisfaction.

Fig. 3. Scatter plot of a country's mean life satisfaction and mean societal gender attitude index ($\mu_x = 0.52$, $\mu_y = 7.1$)

Regression results and hypotheses testing

In this section, the main research question and hypotheses are tested. The analyses are structured as follows. Firstly, we test the relationship between individual gender attitudes and life satisfaction (H1). Secondly, we test the relationship between societal gender attitudes and life satisfaction (H2). Thirdly, the moderating effect of gender inequality in a country on a link between individual gender attitudes and life satisfaction is tested (H3). Finally, we analyze the moderating effect of societal gender attitudes on a link between individual gender attitudes and life satisfaction (H4).

Table 2 presents estimates from multilevel models that include a random intercept at the country level. The first column includes the null model that shows us 13 % of the total variation in individuals' life satisfaction is due to differences between the countries, which implies the need for a multilevel model.

Model 1, which includes a random slope, corroborates our *first hypothesis*. The link between individual gender attitudes and life satisfaction is positive and significant at the 90 % confidence level, meaning that more egalitarian individual gender attitudes are associated with higher life satisfaction. Age remains significant in all the models. Furthermore, being a woman has a small positive association with life satisfaction at the 90 % confidence level, which supports previous findings on the nonsignificant (or very weak) effect of gender on SWB [Inglehart, 2002]. On the contrary, having a partner remains a stable predictor of a higher level of life satisfaction across all the models, which is in accordance with previous research [Diener, Oishi, Tay, 2018].

Our *second hypothesis* was corroborated as well. Model 2 demonstrates that, on the 90 % confidence level, we can state that the more egalitarian society in its gender attitudes the more people are satisfied with life. In other words, living in an egalitarian country is associated with higher life satisfaction. One might attribute this to the fact that egalitarian countries are, on average, more affluent. We address that objection directly in the Robustness check below, where we show that the positive link between societal gender attitudes and life satisfaction holds net of economic development.

The *third hypothesis* implies the moderating effect of societal gender inequality on the link between individual gender attitudes and life satisfaction. The idea was that higher gender inequality in a country weakens the link between individual gender attitudes and life satisfaction. This assumption was supported at the 90 % of confidence level. Such a level of confidence might be caused by the possible nonlinear relationship between IGAI and life satisfaction (Figure 4). We are going to address this possibility in the further analysis.

Figure 4 shows how the country's level of gender inequality conditions the IGAI — life-satisfaction link. In more gender-unequal countries (higher values of GII), the estimated effect of individual gender attitudes on life satisfaction is small and non-significant, although it tends to become slightly negative at the upper end of the GII scale. As gender inequality decreases (lower GII), the IGAI coefficient gradually increases, and from roughly GII ≈ 0.5 onward the confidence interval lies entirely above zero, indicating a statistically significant positive association between egalitarian individual gender attitudes and life satisfaction in more gender-equal contexts. This pattern is consistent with H3: in less gender-equal societies egalitarian attitudes do not translate into higher life satisfaction, whereas in more gender-equal societies they are associated with a clear life satisfaction benefit.

The next step was to analyze whether societal context related to shared culture, i. e., societal gender attitudes, moderates the effect of individual gender attitudes on life satisfaction. The results for our *fourth hypothesis* were mixed and not corroborated. On the one hand, Figure 5 shows that this link varies across societal contexts. Thus, when societal gender attitudes are the most traditional, this link tends to be negative. Then, when societal gender attitudes shift into a more moderate area (some 0.25 on the SGAI scale), the link becomes positive, and its strength grows linearly.

In the linear specification, however, the cross-level interaction between IGAI and SGAI is not statistically significant even at the 90 % level, so H4 is not supported when individual attitudes enter the model linearly. At the same time, Figure 5 suggests that the slope of IGAI may change across more traditional, moderate, and more egalitarian ranges of societal gender attitudes, which a single linear interaction term may not capture well. We therefore treat the evidence for H4 as inconclusive at this stage and return to it in the robustness section, where we model the nonlinearity of individual gender attitudes more explicitly.

Table 2. *Multilevel models for continuous IGAI*

Regressors	Model 0 (The null model)	Model 1 (Individual level)	Model 2 (Country level)	Model 3 (Cross-level interaction — GII)	Model 4 (Cross-level interaction — SGAI)
Individual-level regressors					
(Intercept)	0.67***	0.52***	0.47***	0.52***	0.53***
IGAI		0.03~	0.03~	0.07*	–0.02
Age		0.02**	0.02**	0.02**	0.02**
Female		0.00~	0.00~	0.00~	0.00~
Marital status (not single)		0.03***	0.03***	0.03***	0.03***
Higher education		0.00	0.00	0.00	0.00
Employed		0.00	0.00	0.00	0.00
Scale of incomes (subjective)		0.21***	0.21***	0.21***	0.21***
Country-level regressors					
SGAI			0.1~		0.03
GII				0.00	
Interaction effects					
IGAI x GII				–0.09~	
IGAI x SGAI					0.11
N groups	55	55	55	55	55
Observations	72 153	72 153	72 153	72 153	72 153
R2cond	12.8 %	17.5 %	18.1 %	17.9 %	17.9 %

Note: all models control for religious denomination. *** $p < 0.001$; ** $p < 0.01$; * $p < 0.05$; ~ $p < 0.1$.

Fig. 4. IGAI coefficient on life satisfaction across levels of gender inequality (GII)

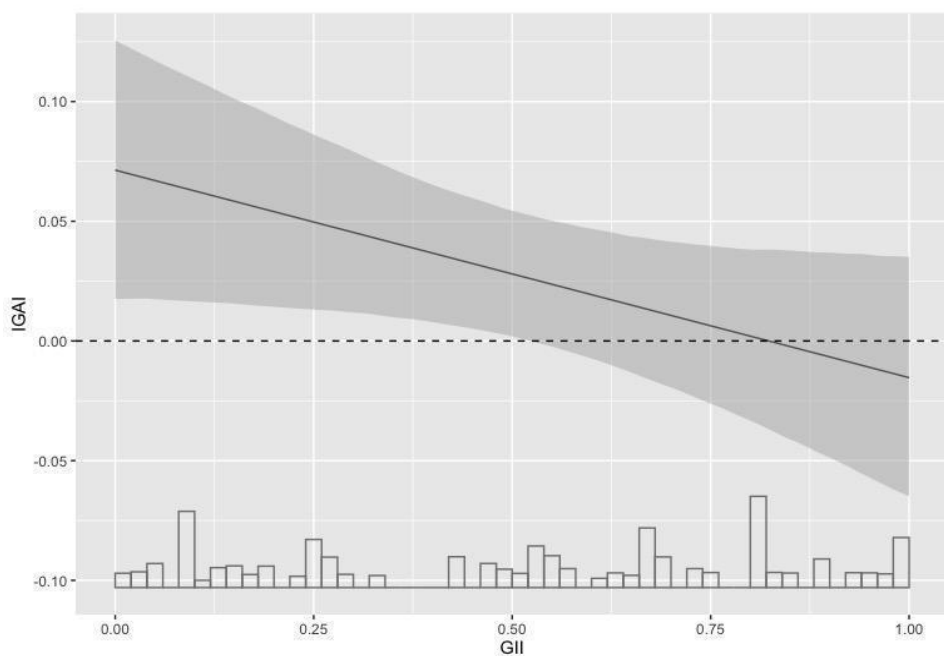
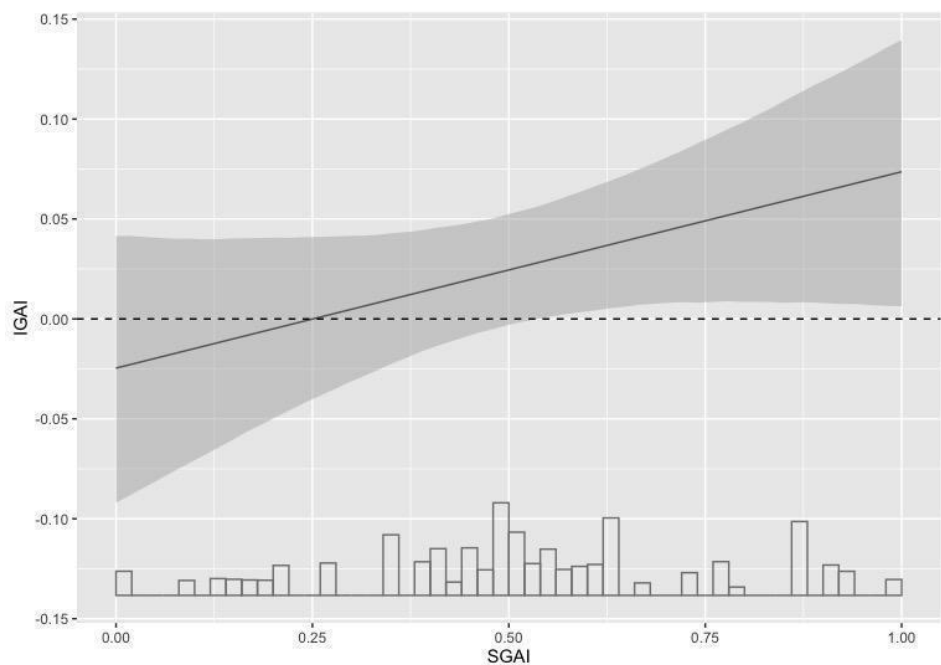


Fig. 5. IGAI coefficient on life satisfaction across levels of societal gender attitudes (SGAI)



Robustness check

We begin our analysis by testing the claim that the level of a country's economic development does not account for the associations of individual and societal gender attitudes with life satisfaction. We tested all the models except for the one with GII since the correlation between it and GDP per capita was too high ($rr = -0.81$, $p < 0.001$).

Table 3 provides the estimates for the models. The results of the regression analysis are robust and coincide with the ones we got in our initial models. H1 and H2 were corroborated even with the country's economic development being controlled. H4, again, does not find support, since Model 4a provides the same results as Model 4, demonstrating that the interaction of individual and societal gender attitudes is not significant.

Therefore, we draw two important conclusions. Firstly, the positive effect of societal gender attitudes on life satisfaction is robust even when the country's wealth is considered. Life satisfaction is linked not to the wealth of a country but to the degree of egalitarian gender attitudes prevailing in it. Secondly, GDP per capita carries no independent association with life satisfaction once societal gender attitudes are in the model, and this holds when Singapore, the highest-GDP outlier, is excluded. At first sight this sits awkwardly with the established positive link between national income and well-being [Deaton, 2008; Diener, Diener, 1995], but the two findings are reconcilable. In those studies, national income enters without controlling for the value climate; here the effect of affluence is estimated net of a value-based measure. Modernization theory implies that economic development raises well-being largely indirectly, by giving rise to the self-expression and gender-egalitarian orientations that accompany sustained prosperity, rather than directly through income itself [Inglehart, Welzel, 2005]. Egalitarian attitudes tend to emerge in countries that have been durably wealthy, not merely recently affluent, so that much of the cross-national variance in affluence is already absorbed by the attitudinal variable. The high collinearity between GII and GDP per capita, which led us to exclude GII from these models, is consistent with this overlap. The near-zero net coefficient on GDP per capita is therefore not evidence that affluence is irrelevant to well-being, but that its contribution is mediated by the value climate captured by SGAI.

Table 3. *Multilevel models with GDP per capita*

Regressors	Model 1a (Individual level)	Model 2a (Country level)	Model 4a (Cross-level interaction — SGAI)
Individual-level regressors			
(Intercept)	0.51***	0.47***	5.32***
IGAI	0.03~	0.03~	-0.02
Age	0.02**	0.02**	0.02**
Female	0.00~	0.00~	0.00~
Marital status (not single)	0.03***	0.03***	0.03***
Higher education	0.00	0.00	0.00
Employed	0.00	0.00	0.00
Scale of incomes (subjective)	0.21***	0.21***	0.21***

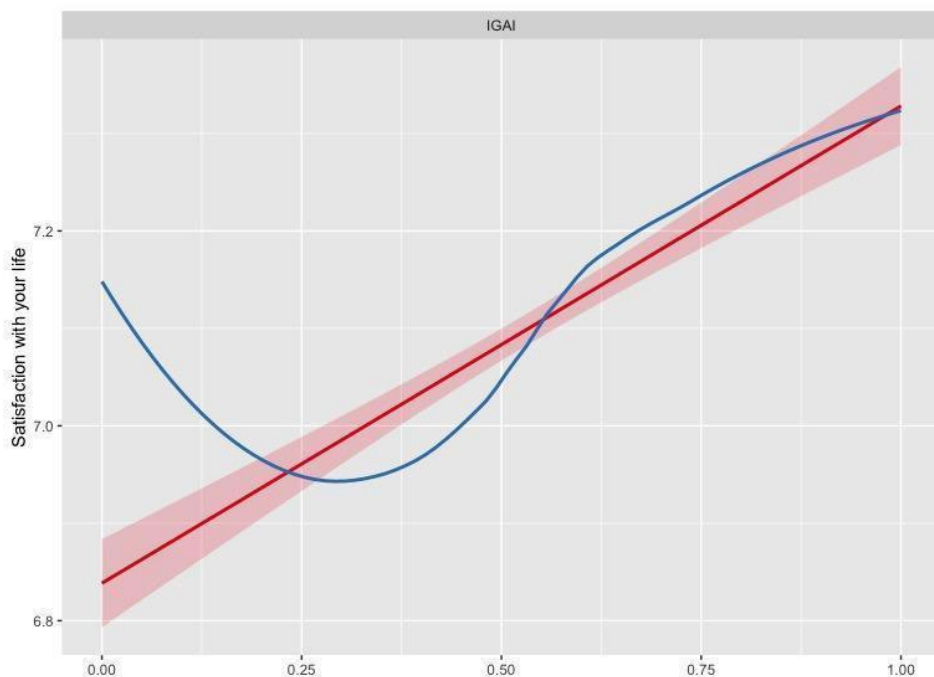
Regressors	Model 1a (Individual level)	Model 2a (Country level)	Model 4a (Cross-level interaction — SGAI)
Country-level regressors			
GDP per capita	0.04	−0.04	−0.04
SGAI		0.12 [~]	0.05 [~]
Interaction effects			
IGAI x SGAI			0.1
N groups	55	55	55
Observations	72 153	72 153	72 153
R2cond	17.8 %	18.2 %	18.0 %

Note: all models control for religious denomination. *** $p < 0,001$; ** $p < 0,01$; * $p < 0,05$; [~] $p < 0,1$.

The next part of our analysis was to test the assumption that the relationship between individual gender attitudes and life satisfaction as well as societal gender attitudes and life satisfaction can be nonlinear.

Figure 6 suggests a nonlinear IGAI — life-satisfaction relationship of modest magnitude (~6.95—7.31): life satisfaction declines as attitudes become more egalitarian up to ~0.32 on the IGAI scale, where moderate attitudes begin, and rises thereafter. Therefore, a U-shaped, i. e., quadratic, relationship might be present between individual gender attitudes and life satisfaction.

Fig. 6. Possible nonlinear relationship between life satisfaction (not normalized) and individual gender attitudes



To check whether there are significant nonlinear links and not just visual noise from the graph, we first created IGAI squared, as well as SGAI squared, and then ran a regression with these variables. Table 4 shows the results of the regression model. IGAI squared is significant ($P < 0.001$), while SGAI squared is not significant on the 95 % confidence level. We find support for our assumption of a nonlinear relationship between IGAI and life satisfaction.

Table 4. Multilevel model to test the assumption of the presence of a nonlinear relationship

Regressors	Model 5 (Individual level)	Model 6 (Country level)	Model 7 (Cross-level interaction — SGAI)
Individual-level regressors			
(Intercept)	0.53***	0.47***	0.53***
IGAI	−0.04		−0.04
IGAI2	0.06**		0.06**
Age	0.02**	0.02**	0.02**
Female	0.00~	0.00~	0.00~
Marital status (not single)	0.03***	0.03***	0.03***
Higher education	0.00	0.00	0.00
Employed	0.00	0.00	0.00
Scale of incomes (subjective)	0.21***	0.21***	0.21***
Country-level regressors			
SGAI		0.1	0.08
SGAI2		0.00	0.01
N groups	55	55	55
Observations	72 153	72 153	72 153
R2cond	17.6 %	18.6 %	18.2 %

Note: all models control for religious denomination. *** $p < 0.001$; ** $p < 0.01$; * $p < 0.05$; ~ $p < 0.1$.

Second, after the confirmation of the significant nonlinear relationship between individual gender attitudes and life satisfaction, the original IGAI variable was recoded into three even³ categories: [0—0.32] — the most traditional gender attitudes; [0.33—0.68] — moderate gender attitudes; [0.69—1] — the most egalitarian gender attitudes. We decided to inspect different categories of people: those who hold traditional gender attitudes; those who hold moderate gender attitudes; and those who hold the most egalitarian gender attitudes. Therefore, based on the graph, we expect the following distribution of life satisfaction among these groups:

IGAI (egal.) > IGAI (trad.) > IGAI (moder.)

Mean life satisfaction differs across the three groups: 6.99 for traditional, 7.07 for moderate, and 7.24 for egalitarian gender attitudes. Table 5 contains the results of T-test pairwise comparisons with Scheffé's post hoc method. Based on the results, we

³ In accordance with the 33rd, 66th and 100th percentiles.

can see that there is a significant difference in mean life satisfaction between all the groups. People who adhere to egalitarian gender attitudes are the most satisfied with life; people with moderate gender attitudes follow them in the list; and the least satisfied with life are people who hold traditional gender attitudes. At the same time, the magnitude of these differences is modest: the gap between the most and least satisfied groups is only 0.25 points on a 1–10 scale. The nonlinearity is therefore statistically present but substantively small, a qualification we carry into the interpretation below.

Table 5. *Pairwise comparison of mean levels of life satisfaction for three IGAI groups*

Pair	Difference	CI
IGAI (moder.) — IGAI (trad.)	0.08**	0.02—0.14
IGAI (egal.) — IGAI (trad.)	0.25***	0.19—0.32
IGAI (egal.) — IGAI (moder.)	0.17***	0.12—0.22

*** $p < 0.001$; ** $p < 0.01$; * $p < 0.05$; ~ $p < 0.1$

To complete our analysis, we ran a multilevel regression that includes categorical IGAI. Table 6 provides results for multilevel regression analysis. People who hold traditional gender attitudes were used as a reference category. Model 8, which includes a random slope, tells us that there is no significant difference between people who hold traditional gender attitudes and other groups in terms of their life satisfaction.

When it comes to societal gender attitudes, Model 9 provides support for the assumption that there is a positive link between societal gender attitudes and life. It means that, on average, the more egalitarian the country, the higher the level of life satisfaction, which supports our *second hypothesis*.

The interaction of GII and moderate IGAI is negative, meaning that, compared to people with traditional gender attitudes, the higher the gender inequality the lower life satisfaction for people who hold moderate gender attitudes. The second interaction (IGAI (egal.) $\times$ GII) shares the same pattern, but both interactions of GII and IGAI groups are insignificant. At the same time, Model 10 tells us that, on average, having egalitarian gender attitudes on the individual level promotes higher life satisfaction. Substantially, it means that people with egalitarian gender attitudes living in the most gender-equal countries experience higher life satisfaction than people who adhere to traditional gender attitudes.

Once individual attitudes are treated as categories, the moderating role of societal attitudes becomes visible. Model 11 supports H4. The hypothesis implies a stronger positive effect of more egalitarian societal gender attitudes on the link between individual gender attitudes and life satisfaction. We can see that, compared to people with traditional gender attitudes, more egalitarian SGAI promotes higher life satisfaction for people with moderate gender attitudes and for people with egalitarian gender attitudes. Therefore, we can see that our *fourth hypothesis* which tests the person-culture fit was supported. Moreover, compared to people with traditional gender attitudes, holding moderate gender attitudes lowers one's life satisfaction, which means that in a very traditional context, people who hold traditional gender attitudes are more satisfied with life compared to the ones who have moderate gender attitudes.

Table 6. *Multilevel models for IGAI as categories*

Regressors	Model 0 (The null model)	Model 8 (Individual level)	Model 9 (Country level)	Model 10 (Cross-level interaction — GII)	Model 11 (Cross-level interaction — SGAI)
Individual-level regressors					
(Intercept)	0.67***	0.53***	0.47***	0.54***	0.51***
IGAI (trad.)		Ref.	Ref.	Ref.	Ref.
IGAI (moder.)		0.00	0.00	0.00	−0.02~
IGAI (egal.)		0.01	0.01	0.03*	−0.02
Age		0.02**	0.01**	0.02**	0.01**
Female		0.00~	0.00~	0.00~	0.00~
Marital status (not single)		0.03***	0.03***	0.03***	0.03***
Higher education		0.00~	0.00~	0.00~	0.00~
Employed		0.00	0.00	0.00	0.00
Scale of incomes (subjective)		0.21***	0.21***	0.21***	0.21***
Country-level regressors					
GII				−0.02	
SGAI			0.11*		0.03
Interaction effects					
IGAI (moder.) × GII				−0.02	
IGAI (egal.) × GII				−0.04	
IGAI (moder.) × SGAI					0.06*
IGAI (egal.) × SGAI					0.07~
N groups	55	55	55	55	55
Observations	72 153	72 153	72 153	72 153	72 153
R2cond	12.8%	20%	21%	20.5%	20.3%

Note: all models control for religious denomination. *** $p < 0.001$; ** $p < 0.01$; * $p < 0.05$; ~ $p < 0.1$.

Conclusion

This study attempts to understand whether adherence to egalitarian gender attitudes affects subjective well-being more positively than adherence to traditional gender attitudes. The special value of this study lies in the fact that it covers a wide range of countries and does not focus on predominantly Western countries.

The *first hypothesis* was supported: on average, more egalitarian individual gender attitudes are associated with higher life satisfaction. Our *second hypothesis* was corroborated as well. The more egalitarian the society, the higher satisfaction with life. Therefore, we found two significant predictors of life satisfaction that relate to gender attitudes.

In this paper, we have also tried to contribute to the person-culture fit theory. Thus, we tested moderating effects of two contextual (societal) variables — the level of gender inequality in a country and societal gender attitudes. The idea was that if individu-

al characteristics, i. e., gender attitudes, align with a country's level of gender inequality or with its prevailing societal gender attitudes, the association between individual gender attitudes and life satisfaction should be strengthened. When individual gender attitudes diverge from the surrounding normative context, our results point to a weakening of this association: the positive effect of egalitarian attitudes on life satisfaction becomes smaller and, in some contexts, statistically indistinguishable from zero. At the same time, we do not observe a robust pattern of clearly negative effects, so the data support a loss of life satisfaction benefit under person — culture misfit rather than a systematic well-being disadvantage.

The *third hypothesis* was confirmed as well. Higher gender inequality is associated with a weaker positive link between egalitarian individual gender attitudes and life satisfaction. These results are readily interpretable. In countries with a high level of gender inequality, the dissonance between individual (egalitarian) gender attitudes and the real situation in the country regarding gender (in)equality contributes to a lower level of life satisfaction.

Finally, support for the fourth hypothesis is conditional on specification. No moderating effect of societal gender attitudes appears in the linear model, but once individual attitudes are modeled as categories (traditional, moderate, egalitarian) the predicted moderation emerges, which is consistent with the small but significant nonlinearity in the individual-level relationship. Compared to people that hold traditional gender attitudes, adhering to moderate gender attitudes promotes higher life satisfaction in more gender egalitarian societies.

These results hold independently of a country's level of economic development: adding GDP per capita leaves the attitudinal relationships unchanged, while GDP itself carries no net association with individual life satisfaction. Rather than contradicting the established income — well-being link [Deaton, 2008; Diener, Diener, 1995], this points to the indirect way affluence operates. Following modernization theory, sustained economic development fosters the egalitarian value climate that, in our models, is captured by societal gender attitudes; once that climate is accounted for, little independent variance is left for income to explain [Inglehart, Welzel, 2005]. The contribution of affluence to well-being thus appears to run through the value orientations it cultivates rather than through income directly.

Taking these results into consideration, we believe that we contributed to the literature on the person-culture fit [Oishi, Gilbert, 2016; Schwartz, Sortheix, 2018]. We found evidence that the relationship between the individual and the culture might not only strengthen the positive effect on life satisfaction but also change the direction of the link.

Limitations

One of the most fundamental limitations of this research is the lack of a universal tool to measure how traditional or egalitarian gender attitudes are. Gender attitudes and their scaling is a non-universal concept, boundaries of which are not defined properly and not understood similarly by representatives of different cultures. For example, the statement: “Being a housewife is just as fulfilling as working for pay” might be interpreted from various perspectives, depending on a historical, political, and so-

cial context. It might be a statement supported by the feminists of the second wave, who claimed that traditionally women's labor is as important as traditionally men's. Simultaneously, someone, who believes that it is the only activity that a woman is capable of, would also agree with this statement. In this light, does the level of agreement indicate a more egalitarian attitude or not? The question remains open, and the answer is conditional.

Conceptually and methodologically, it is necessary to develop a universal definition of gender attitudes, organized according to the principle of division into different domains that would reflect the main aspects of the concept. A common, shared, conceptual framework is needed. For example, the conviction that women should have the same rights to work as men may reflect not adherence to egalitarian values but a cultural context in which a woman should not only fulfill the traditional role of "housekeeper", but also that of a worker, because of a difficult economic situation. What we, as researchers, understand as an example of egalitarian gender attitudes can be interpreted by representatives of diverse cultures in a completely different, or even opposite, way.

We see two ways to find an answer to this challenge: (1) a detailed cross-cultural comparative research for universal concepts using quantitative methodology; (2) a series of nuanced studies of individual cultures using qualitative methodology. It is likely that to achieve the first, a critical mass of the second is needed, especially when we consider countries that remain outside the framework of conventional mainstream studies (Africa, Asia, South America, MENA region).

A further limitation concerns causal direction. Because our data are cross-sectional and both the dependent and the key independent variable are subjective, we cannot rule out reverse or reciprocal effects: more satisfied individuals may be more receptive to egalitarian attitudes, just as egalitarian attitudes may raise satisfaction. We have argued on substantive grounds for treating attitudes as prior, since they belong to comparatively stable value orientations [Inglehart, Welzel, 2005], but this remains an assumption. Disentangling the direction would require longitudinal data and a design suited to reverse causality, such as a cross-lagged panel model with fixed effects [Leszczensky, Wolbring, 2022]. The same caveat applies to the interplay of economic development, life satisfaction, and gender attitudes, which we treat as associational throughout.

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