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Gender Gaps in Patience, Risk-Taking, Trust, and Prosociality Have Declined across Birth Cohorts*

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Abstract

Men and women differ systematically in measures of patience, risk-taking, trust, and prosociality. While literature documents such gender gaps in numerous countries throughout the world, recent work suggests an association between these gender gaps and economic development, based on evidence of larger gender gaps in Western, educated, industrialized, rich, and democratic societies. However, little is known about how these gender gaps evolve and whether they indeed widen as countries develop. To examine this question, we analyze how within-country gender gaps in patience, risk-taking, trust, and prosociality have evolved across birth cohorts worldwide. We compare these gender gaps across country–period–cohort cells using two survey data sets that cover 460,000 people in more than 100 countries. Our results document that gender gaps in patience, risk-taking, trust, and prosociality have declined across birth cohorts. This evidence rejects the notion that these gender gaps widen as countries develop and instead points to a decline in socioeconomic differences between men and women.

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1 Introduction

Attitudes toward time, risk, and social interactions drive people's decision-making and determine economic outcomes. For instance, a person's patience and willingness to take risks are associated with investment in stocks, occupational choices, and education (Dohmen et al. 2011; Backes-Gellner et al. 2021), while trust and prosociality are associated with labor market success (Kosse and Tincani 2020).

Recent literature has developed survey measures of patience, risk-taking, trust, and prosociality that can be used to elicit information about the distribution of these attitudes in large, representative samples. This literature documents that patience, risk-taking, trust, and prosociality differ considerably throughout the world (Falk et al. 2018; Ruggeri et al. 2022). One striking finding of this literature is a pervasive gender gap: compared to men, women tend to be less patient, less willing to take risks, less reciprocal, more altruistic, and more trusting in most countries across the world (Falk et al. 2018). This finding aligns with existing literature that documents systematic differences in preferences between men and women across various dimensions (e.g., Croson and Gneezy 2009; Frey et al. 2020) and shows that gender gaps in attitudes and preferences already emerge among adolescents (Ertac 2020; Horn et al. 2022). Although men's and women's socioeconomic outcomes have appreciably converged in high-income countries, the remaining gaps in wages and labor market activities appear remarkably persistent. The observed heterogeneity in preferences and attitudes between men and women might explain this persistence and pose an obstacle for further convergence in socioeconomic outcomes between men and women (Olivetti and Petrongolo 2016; Blau and Kahn 2017; Flinn et al. 2025).

Against this backdrop, recent findings suggest an inverse relation between economic development and gender gaps in patience, risk-taking, trust, and prosociality between countries: gender gaps are larger in richer and more gender-equal societies, where relaxed resource constraints allow men and women more scope to express gender-specific preferences (Falk and Hermle 2018; Cuevas et al. 2021). These findings complement an extensive literature in personality and social psychology that has documented gender gaps in a large range of personality traits (Kajonius and Johnson 2018). This literature has reported a similar pattern of greater gender gaps in personality traits and occupational preferences in countries with higher levels of development and gender equality (Lippa 2010; Schmitt et al. 2017; Giolla and Kajonius 2019; Connolly et al. 2020). This evidence prompts the question of how gender gaps in patience, risk-taking, trust,

and prosociality evolve and whether these gender gaps widen as countries develop.

Growing evidence suggests that attitudes and preferences are formed early in life and remain fairly stable thereafter (Krosnick and Alwin 1989; Schildberg-Hörisch 2018). At the population level, preference heterogeneity is influenced by environmental factors related to geography, climate, and culture (Galor and Özak 2016; Becker et al. 2020). At the individual level, preference endowments are shaped by genetic factors, parental influences, and the social environment (Cesarini et al. 2009; Dohmen et al. 2012; Kosse et al. 2020). Furthermore, experiencing particular macroeconomic conditions like severe recessions during the formative years also affects attitudes and preferences (Malmendier and Nagel 2011; Giuliano and Spilimbergo 2024).

Here we investigate global variation in within-country gender gaps in patience, risk-taking, trust, and prosociality (henceforth also referred to as "gender preference gaps") across birth cohorts. The analysis is motivated by two opposing hypotheses about whether gender gaps in preferences and attitudes originate from evolutionary or social mechanisms and how they evolve accordingly. Specifically, gender preference gaps might persist because of genetic predispositions that change little with socioeconomic development and could even widen if economic development facilitates the expression of gender-specific dispositions. In contrast, gender preference gaps might narrow as socioeconomic disparities between men and women shrink and traditional gender norms erode—especially among younger cohorts growing up under economically more favorable conditions than older ones. How gender preference gaps evolve across cohorts is thus primarily an empirical question.

We investigate the evolution of gender gaps in patience, risk-taking, trust, and prosociality across birth cohorts using two separate survey data sets. Each of these surveys provides representative country samples covering more than 90 percent of the world's population and gross domestic product.

The first data set is the Global Preferences Survey, which provides experimentally validated survey measures of time preference (patience), risk preference (risk-taking), generalized trust, altruism, and positive and negative reciprocity for 80,000 individuals from 76 countries. However, its usefulness for tracking gender preference gaps across birth cohorts is limited because it contains only cross-sectional variation from a single survey wave elicited in 2012.

The second data set is the World Values Survey, which contains data for 380,000 individuals from 106 countries and territories, observed across up to 7 survey waves during 1981–2022. The World Values Survey's repeated cross-sections provide rich longitudinal information at the

cohort level that facilitates the identification of variation in gender preference gaps across birth cohorts. However, unlike the Global Preferences Survey, the World Values Survey provides non-validated survey measures for patience, risk-taking, trust, and prosociality (unselfishness), which, nevertheless, are frequently used in literature as proxy measures for the respective preference dimensions.

While both data sets have limitations when used in isolation—one is constrained by data availability, the other by (lack of) validation of its measures—comparing their results lets us assess the robustness and generalizability of the estimated cohort variation in gender preference gaps under different identification assumptions and measures, thereby overcoming each data set's individual limitations.

Previous work on gender gaps in preferences and personality traits has relied on between-country comparisons (Donnelly and Twenge 2016; Falk and Hermle 2018; Connolly et al. 2020). Here we instead leverage within-country variation in gender preference gaps, thereby complementing those between-country comparisons. By focusing on how gender preference gaps evolve within countries across cohorts, our approach controls for systematic differences in the levels of patience, risk-taking, trust, and prosociality between men and women. Specifically, it controls for country-specific and period-specific heterogeneity in gender preference gaps and eliminates country, period, gender-specific age profiles in the respective preference measures.

Our results document that gender gaps in patience, risk-taking, trust, and prosociality have declined across birth cohorts. This finding pertains to gender gaps in both levels and variability and reflects convergence in the distributions of the respective preference measures. The results indicate that, on average, gender preference gaps between the cohorts born during the 1950s and 1980s have narrowed by about 20 percent across our measures of patience, risk-taking, trust, and prosociality.

Prima facie, the finding of a decline in gender preference gaps might appear contradictory as those gaps have been found to be wider in more developed and gender-equal economies. However, the observed narrowing of gender gaps in patience, risk-taking, trust, and prosociality reflects within-country cohort variation found worldwide and is consistent with narrowing observed in other socioeconomic outcomes. At the same time, the observation of smaller gender preference gaps for later-born cohorts is compatible with systematic variation in the levels of gender preference gaps across countries, which are accounted for by the estimation framework. Additional analyses indicate that gender preference gaps narrow more rapidly in low-income

countries than in high-income countries, suggesting that the within-country cohort patterns differ from the between-country patterns that previous literature has used to document larger gender preference gaps in high-income countries. Overall, our results demonstrate a decline in gender gaps in patience, risk-taking, trust, and prosociality across birth cohorts, consistent with recent evidence showing that cultural change is driven by cohort replacement rather than by contemporaneous social influences and preference updating (e.g., Vaisey and Lizardo 2016; Kiley and Vaisey 2020, 2021).

2 Data and Methodology

We investigate how gender gaps in survey measures of patience, risk-taking, trust, and prosociality have evolved within countries across birth cohorts. We measure within-country gender preference gaps as the absolute difference in preference means between men and women within the same birth cohort, country, and survey period. To construct these gaps, we aggregate respondents' preference measures by country, survey period, and birth cohort (i.e., into country–period–cohort cells) for each gender and then calculate the absolute difference between the gender-specific cell means (for details on the survey items and variable construction, see Methods, Supplementary Appendix S.1, and Falk et al. 2023). We then analyze the extent to which gender gaps in patience, risk-taking, trust, and prosociality have increased, persisted, or decreased across birth cohorts.

2.1 Data and Samples

The analysis is based on two independent data sets, covering countries from all continents and at various stages of economic development. Our first data set is the Global Preferences Survey, which includes preference measures for approximately 80,000 individuals in 76 countries (Falk et al. 2018). Conducted as part of the 2012 Wave of the Gallup World Poll, this survey contains a module of preference items for time preference (patience), risk preference (risk-taking), generalized trust, and prosociality (comprising equally weighted measures of altruism, positive reciprocity, and negative reciprocity). The behavioral reliability of these preference measures was validated in incentivized laboratory experiments (Falk et al. 2023). Additional studies were able to further validate the same or very similar survey items in various populations across high- and low-income countries (e.g., Dohmen et al. 2011; Rieger et al. 2015; Vieider et al. 2015;

Wang et al. 2016; Bauer et al. 2020; Kosfeld and Sharafi 2024). The Global Preferences Survey contains only a single survey wave, which limits the variation for tracking gender preference gaps across birth cohorts.

To address this issue, we alternatively use survey measures from the World Values Survey, which comprises preference measures for approximately 380,000 individuals across 106 countries and territories, collected over up to 7 waves during 1981–2022 (Inglehart et al. 2023). The preference measures in the World Values Survey were not validated and differ from those in the Global Preferences Survey, except for the trust measure, which is identical in both data sets. The repeated cross-sections in the World Values Survey provide longitudinal variation in preferences, allowing us to account for changes in gender preference gaps over time and across birth cohorts.

Tables S.1 and S.2 list the countries included in the two data sets, and Tables S.3 and S.4 report descriptive statistics.

2.2 Preference Measures

The preference measures in the Global Preferences Survey are based on survey items involving hypothetical choice experiments and subjective self-assessments in the context of intertemporal choice (patience), willingness to take risks (risk-taking), trust, altruism (the willingness to incur cost in order to benefit others without expecting anything in return), positive reciprocity (the willingness to reward kind behavior by others), and negative reciprocity (the willingness to punish unkind behavior by others). The specific survey items were selected through a validation procedure that identified items from a long list of candidate questions based on their predictive power for incentivized choices regarding the respective preference dimensions in laboratory experiments. The resulting six preference measures are constructed as weighted scores of the respective survey items (for details on the survey items, see Supplementary Appendix S.1 and Falk et al. 2023).

The preference measures in the World Values Survey are non-validated proxy measures. They are based on responses to questions about desirable qualities of children and personal values. Specifically, these measures capture thrift as a desirable quality of children (capturing patience), the importance of experiencing adventures and taking risks (capturing the willingness to take risks), and whether not being selfish (unselfishness) is a desirable quality of children (capturing prosociality). Although they are imperfect proxies compared to the measures in the Global Preferences Survey, the measures of the different preference dimensions in both data sets

are systematically correlated (see Falk et al. 2018).

While both the Global Preferences Survey and the World Values Survey have limitations when used in isolation (the former is constrained by data availability, the latter by lack of validation of its measures), conducting the analysis for both data sets and comparing the results sheds light on the robustness and generalizability of cohort variation in gender gaps under different identification assumptions and measures.

All preference measures are standardized to mean 0 and standard deviation 1 on the respective global samples (for details on the survey items see Supplementary Appendix S.1).

2.3 Empirical Strategy

To gauge the importance of systematic age patterns in people's preference measures (e.g., due to life cycle stages or selective attrition), we compare gender gaps across birth cohorts before and after correcting the preference measures for age profiles.

The measure for a particular preference of a male respondent r in country i who is a member of birth cohort t is denoted as $P^m_{r,i,t}$. The corresponding preference measure of a female respondent r' is $P^f_{r',i,t}$. Preference measures for each gender are aggregated into country–period–cohort cells, where the corresponding means for men and women are given by $\mu^m_{i,t} = \frac{1}{n^m_{i,t}} \sum_r P^m_{r,i,t}$ and $\mu^f_{i,t} = \frac{1}{n^f_{i,t}} \sum_{r'} P^f_{r,i,t}$ and where $n^m_{i,t}$ and $n^f_{i,t}$ denote the respective counts of male and female respondents of birth cohort t in country i. The Global Preferences Survey represents one cross-section, such that all respondents are observed in the same period. In contrast, preference measures in the World Values Survey are elicited across up to 7 survey waves and separately aggregated by country, birth cohort, and gender for each survey wave (the notation for survey waves is suppressed for convenience). The average gender preference gap $H_{i,t}$ is then given by the absolute difference in country, period, cohort-specific gender preference means:

$$H_{i,t} = \left| \mu^m_{i,t} - \mu^f_{i,t} \right| .$$

For the construction of country, period, cohort-specific means, we use the sampling weights provided by the Gallup World Poll and the World Values Survey.

To account for systematic differences across age groups that might influence our measures of the gender preference gaps, alternative age-corrected measures are constructed using the residuals of regressions that project respondents' preferences on country, gender-specific age patterns.

Figures S.1 and S.2 illustrate the age profiles in patience, risk-taking, trust, and prosociality by level of economic development and gender. Specifically, age-corrected preference measures are purged of country, period, gender-specific quadratic age patterns,

$$\tilde{P}^{g}_{r,i,t} = P^{g}_{r,i,t} - \widehat{F}\left(Age_{r,i,t}\right) ,$$

where $g = m, f$ denotes gender (male, female), $Age_{r,i,t}$ denotes respondents' age, and $\widehat{F}(Age_{r,i,t})$ denotes estimates of parametric or non-parametric age patterns. In the baseline specification, the age pattern is assumed quadratic such that $\widehat{F}(Age_{r,i,t}) = \widehat{\gamma}^{g}_{0,i} + \widehat{\gamma}^{g}_{1,i} Age_{r,i,t} + \widehat{\gamma}^{g}_{2,i} Age^{2}_{r,i,t}$ with $\widehat{\gamma}^{g}_{0,i}$, $\widehat{\gamma}^{g}_{1,i}$, and $\widehat{\gamma}^{g}_{2,i}$ representing country, gender-specific coefficient estimates of the respective age profiles. Additional analysis uses alternative specifications, such as cubic or quartic age trends or a non-parametric specification that allows for a flexible age profile based on 10-year age bins. This age correction is conducted once for the Global Preferences Survey. For the World Values Survey, we analyze the data using two different age corrections: i) assuming a stable age profile for a country across all survey waves, and ii) allowing for country-specific age variation for each survey wave. Age-corrected measures of the gender gaps in each preference, $\tilde{H}_{i,t}$, are then constructed analogously based on the residualized individual preference measures. More restrictive age corrections are used in robustness analyses where we estimate country, period, gender-specific age profiles parametrically with cubic and quartic age trends or non-parametrically with 10-year age bins, and then purge preference measures of the corresponding age profiles. Country, period, cohort-specific means of age-corrected preference measures are computed using the sampling weights provided by the Gallup World Poll and the World Values Survey.

Cohort variation in within-country gender preference gaps is estimated using the empirical model

$$H_{i,t(,p)} = \tau BD(t) + \zeta X_{i,t} + \xi_{i(,p)} + \varepsilon_{i,t(,p)},$$

where $BD(t)$ denotes a global linear influence of birth decades, and τ represents the coefficient of interest; $X_{i,t}$ denotes additional controls, such as log income per capita, that might affect gender preference gaps; and $\xi_{i(,p)}$ denotes country–period fixed effects, which account for systematic variation in gender preference gaps by country in the cross-sectional Global Preferences Survey and for systematic variation in gender preference gaps by country–period in the longitudinal World Values Survey. The residual $\varepsilon_{i,t(,p)}$ captures idiosyncratic variation in gender preference

gaps at the country level.

The identification of cohort patterns in gender preference gaps requires additional assumptions that vary across the different specifications. Our main assumption is that age and cohort patterns in preference measures are separable from one another. This assumption is common in the literature on personality traits and preferences. Indeed, recent evidence documents that age profiles in preferences are stable across cohorts, supporting the plausibility of this assumption (Fitzenberger et al. 2022).

We analyze the variation in gender preference gaps at the country-cohort level with two approaches. The first approach is to construct gender preference gaps for these country-cohort cells and conduct analysis based on this construct as the object of interest (dependent variable). The additional assumption required for the first approach is that preferences of men and women in a country exhibit identical age patterns that are constant across cohorts. If that is the case, the estimation results isolate cohort variation in gender gaps, as parallel age profiles are removed prior to estimation when calculating gender preference gaps for each country-cohort cell.

One might suspect age profiles in preferences to differ systematically between men and women, however. Our second approach is therefore to use age-corrected measures that have been purged of quadratic country-gender-specific age profiles. This approach explicitly accounts for heterogeneous age profiles of men and women from the same country before computing gender preference gaps and estimating common cohort variation in these gaps. The additional assumption required for this second approach is that the age correction adequately accounts for any age patterns in the preference measures.

We probe the plausibility of this assumption by applying alternative, more restrictive age corrections that purge the preference measures of cubic, quartic, and non-parametric country-period-gender specific age patterns. The use of repeated observations for the same countries over time in the World Values Survey allows us to construct a pseudo-panel at the level of country–cohort–gender cells. By observing the same birth cohorts at different ages within a country, and the same age groups across birth cohorts, we can disentangle linear variation across age groups and birth cohorts while accounting for systematic variation across time periods. This data structure allows us to examine the sensitivity of the estimated patterns in gender preference gaps with respect to the specific functional form of our age correction.

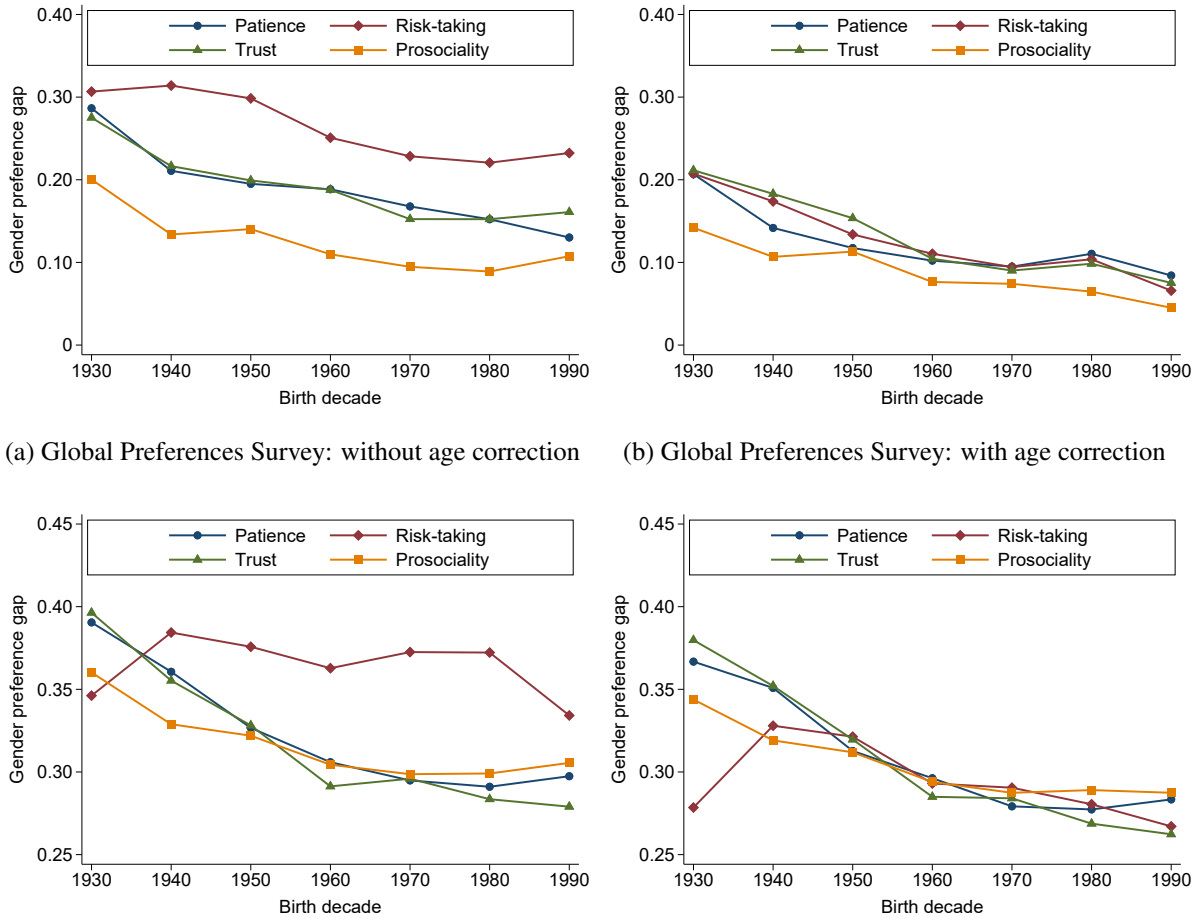
Sample descriptions and summary statistics are reported in Supplementary Appendix S.2 (Tables S.1–S.4).

3 Results

A descriptive analysis of the data reveals that within-country gender gaps in patience, risk-taking, trust, and prosociality are smaller among younger birth cohorts than among older ones (Figure 1). The graph shows gender gaps expressed in standard deviations of the corresponding preference measures for different birth cohorts. The negative slopes of these lines indicate a common trend of declining gender preference gaps. The gender preference gaps decline by about 0.05–0.15 standard deviations of the corresponding preference measures between the 1930 and 1990 birth decades. This decline emerges in both the Global Preferences Survey and the World Values Survey, and regardless of whether we apply an age correction. The observed trends in gender preference gaps across birth cohorts are approximately linear. The only exception is the gender gap in the risk-taking measure in the World Values Survey, which follows a hump-shaped pattern across birth cohorts and, unlike the other preference measures, does not show an appreciable decline between 1930 and 1990 birth decades.

The unconditional gender preference gaps might mask systematic cross-country heterogeneity unrelated to cohort variation. To address this concern, we regress within-country gender gaps (with and without age correction) on birth decade, country fixed effects, and, in the longitudinal World Values Survey data, country–period fixed effects. This approach allows us to estimate the global variation across birth cohorts in within-country gender preference gaps while accounting for heterogeneity in preferences driven by different country- and period-specific cultural, demographic, economic, institutional, and technological environments (see Methods). Standard errors are clustered at the country level, and observations are weighted using sampling weights for (ex-post) representativeness.

The estimation results consistently reveal a negative estimate for the birth decade coefficient, indicating that within-country gender gaps in patience, risk-taking, trust, and prosociality are smaller among later-born cohorts (Table 1). The estimated coefficients reflect the changes in gender preference gaps per birth decade, expressed in standard deviations of the corresponding preference measures (equivalent to the slopes of linear trend lines in Figure 1). We find shrinking gender preference gaps in both the Global Preferences Survey (Table 1, Panel a) and the World Values Survey (Table 1, Panel b), regardless of whether preference measures have been corrected for country, period, gender-specific age profiles. The estimated changes in gender preference gaps per birth decade are broadly similar across both data sets. This similarity holds regardless of whether we restrict the World Values Survey sample to a cross-section elicited around the



(a) Global Preferences Survey: without age correction

(b) Global Preferences Survey: with age correction

(c) World Values Survey: without age correction

(d) World Values Survey: with age correction

Note: This figure shows the evolution of unconditional within-country gender gaps in patience, risk-taking, trust, and prosociality across birth decades. Panels (a) and (c) plot gender gaps in means of uncorrected preference measures. Panels (b) and (d) plot gender gaps in means of age-corrected preference measures, which have been purged of country, gender-specific age profiles in the cross-sectional data from the Global Preferences Survey, and of country, period, gender-specific age profiles in the longitudinal data from the World Values Survey. All preference measures are standardized to mean 0 and standard deviation 1 on the respective global samples such that gender preference gaps are expressed in standard deviations of the corresponding preference measures (see Methods).

Figure 1: Unconditional gender gaps by birth decade

same time as the Global Preferences Survey (Wave 6) or include data from all 7 waves and country–period fixed effects (Figure 2).

Quantitatively, the results reveal a decline in gender preference gaps of approximately 0.01–0.02 standard deviations per birth decade (a decline of about 0.06–0.12 standard deviations between the 1930 and 1990 birth decades). The estimated variation across birth cohorts implies that, on average, gender preference gaps have declined by 21.6 percent (ranging from 8.6 to 35.4 percent) over one generation between the 1950 and 1980 birth decades (Table S.5). To put this decline into perspective, the gender wage gap in the United States has decreased by about 50 percent between 1980 and 2010 (Blau and Kahn 2017).

Cohort heterogeneity accounts for an appreciable share of the variation in gender gaps in

Table 1: Estimated changes in gender gaps per birth decade

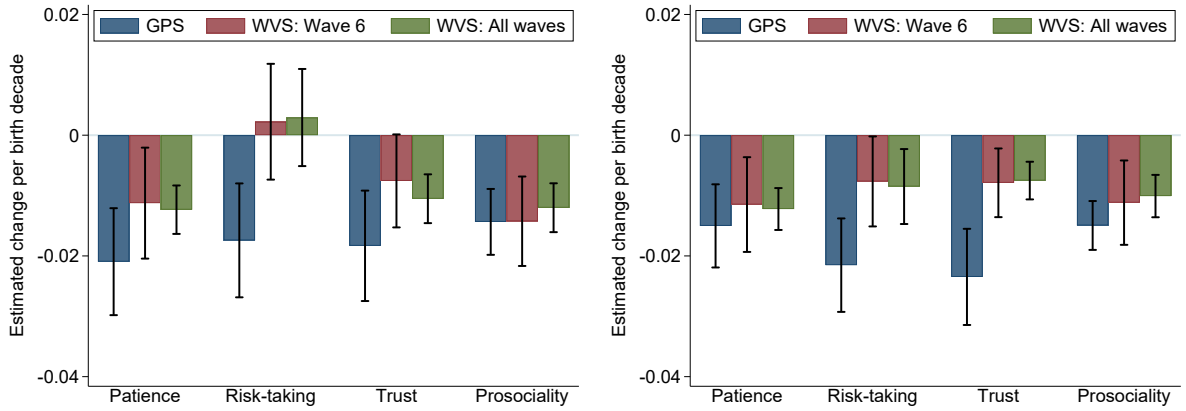
Gender gap in	Patience (1)	Risk-taking (2)	Trust (3)	Prosociality (4)
Panel (a): Estimated changes in within-country gender gaps per birth decade in Global Preferences Survey				
Dependent variable: Gender gaps without correction for age profiles in preferences				
Birth decade	-0.021***	-0.017***	-0.018***	-0.014***
	(0.004)	(0.005)	(0.005)	(0.003)
R^2	0.31	0.24	0.22	0.21
Clusters	76	76	76	76
Observations	513	513	513	513
Dependent variable: Gender gaps with correction for age profiles in preferences				
Birth decade	-0.015***	-0.022***	-0.023***	-0.015***
	(0.003)	(0.004)	(0.004)	(0.002)
R^2	0.32	0.29	0.29	0.29
Clusters	76	76	76	76
Observations	513	513	513	513
Panel (b): Estimated changes in within-country gender gaps per birth decade in World Values Survey				
Dependent variable: Gender gaps without correction for age profiles in preferences				
Birth decade	-0.012***	0.003	-0.011***	-0.012***
	(0.002)	(0.004)	(0.002)	(0.002)
R^2	0.23	0.29	0.24	0.24
Clusters	106	77	106	106
Observations	1,792	720	1,791	1,780
Dependent variable: Gender gaps with correction for age profiles in preferences				
Birth decade	-0.012***	-0.009**	-0.008***	-0.010***
	(0.002)	(0.003)	(0.002)	(0.002)
R^2	0.27	0.25	0.26	0.27
Clusters	106	77	106	106
Observations	1,792	720	1,791	1,780

Note: This table shows coefficient estimates from ordinary least squares regressions of within-country gender preference gaps on linear birth decade trends. The coefficients reflect the estimated changes in gender preference gaps per birth decade (i.e., cohort trends). Results are shown for 76 countries observed over 7 birth decades in the Global Preferences Survey (Panel a) and for 106 countries and territories observed over 7 birth decades and up to 7 survey waves during 1981–2022 in the World Values Survey (Panel b). An observation is a within-country gender gap per birth decade. The dependent variable is the absolute difference in means of preferences between men and women (top of Panels a and b) or the absolute difference in means of age-corrected preferences between men and women (bottom of Panels a and b), where means are separately calculated for each gender within country, period, birth decade-specific cells. Age-corrected preference measures have been purged of country gender-specific age profiles in the cross-sectional data from the Global Preferences Survey and of country, period, gender-specific age profiles in the longitudinal data from the World Values Survey. All preference measures are standardized to mean 0 and standard deviation 1 on the respective global samples such that gender preference gaps are expressed in standard deviations of the corresponding preference measures (see Methods). Specifications for the Global Preferences Survey include country fixed effects, whereas specifications for the World Values Survey include country–period fixed effects. For a list of countries included in the Global Preferences Survey and World Values Survey samples, see Tables S.1 and S.2. Standard errors are clustered at the country level and reported in parentheses. Asterisks indicate significance levels: * $p < 0.1$; ** $p < 0.05$; *** $p < 0.01$.

patience, risk-taking, trust, and prosociality. Specifically, it explains about 5–15 percent of the variation in gender preference gaps (Table S.6). Relative to cross-country heterogeneity, cohort heterogeneity explains about the same share of variation in the World Values Survey and one-fourth to one-half as much in the Global Preferences Survey.

Our finding of declining gender preference gaps across birth cohorts also holds when we apply highly restrictive age corrections that purge preference measures of country, period, gender-specific age profiles using higher-order polynomials or non-parametric age bins that account for non-monotonic and discontinuous age patterns (Figure S.3).

We note two interesting patterns in this context. First, more flexible specifications of the age correction lead to smaller estimates of the cohort variation in the cross-sectional data



(a) Gender gaps without age correction

(b) Gender gaps with age correction

Note: This figure shows coefficient estimates and 95% confidence intervals from regressions of within-country gender preference gaps on linear birth decade trends. The coefficients reflect the estimated changes in gender preference gaps per birth decade (i.e., cohort trends). An observation is a within-country gender gap per birth decade. Data for the Global Preferences Survey (GPS) comprise 76 countries observed over 7 birth decades. Data for the World Values Survey (WVS) comprise 106 countries observed over 7 birth decades and up to 7 survey waves during 1981–2022. The dependent variable is the absolute difference in means of preferences between men and women (Panel a) and the absolute difference in means of age-corrected preferences between men and women (Panel b). Age-corrected preference measures have been purged of country gender-specific age profiles in the cross-sectional data from the Global Preferences Survey and of country, period, gender-specific age profiles in the longitudinal data from the World Values Survey. All preference measures are standardized to mean 0 and standard deviation 1 on the respective global samples such that gender preference gaps are expressed in standard deviations of the corresponding preference measures (see Methods). Specifications for the Global Preferences Survey include country fixed effects, whereas specifications for the World Values Survey include country–period fixed effects. Confidence intervals are based on standard errors that are clustered at the country level.

Figure 2: Estimated changes in gender gaps per birth decade: Global Preferences Survey vs. World Values Survey

from the Global Preferences Survey. By contrast, the estimated cohort variation is essentially unaffected by how we specify the age correction in the longitudinal data from the World Values Survey. Second, the estimated cohort variation in the Global Preferences Survey and the World Values Survey is very similar in size for the most flexible (non-parametric) specification of the age correction. These patterns reflect differences in the potential for identifying cohort variation in cross-sectional versus longitudinal data (see Methods). In cross-sectional data, the identification of variation across birth cohorts requires an assumption regarding the age patterns in the preference measures because more flexible specifications of the age correction mechanically absorb cohort variation. In longitudinal data, such an assumption is not necessary as age and cohort variation can be separated from one another.

Additional robustness checks support the finding of declining within-country gender gaps in patience, risk-taking, trust, and prosociality. The analyses for the World Values Survey deliver similar results when assuming stable age profiles in these attitudes and applying the age correction for all waves jointly rather than for each wave separately (Table S.7), and when accounting for cohort-specific age profiles (Table S.8). Finally, the results are also robust to using country–period–birth year cells rather than country–period–birth decade cells. Fitting

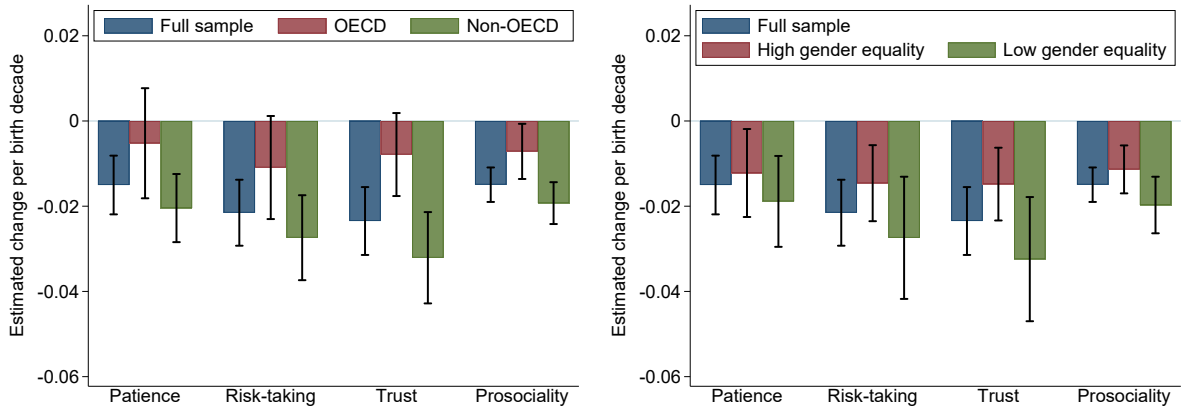
a model that uses birth year data, we can simultaneously incorporate linear variation across birth decades and arbitrary age patterns while controlling for country–period fixed effects. The corresponding results are quantitatively similar to the baseline results and reveal a decline in gender gaps across birth cohorts in patience, risk-taking, trust, and prosociality, conditional on age group variation (Table S.9).

Taken together, the comparison across different specifications of age patterns in the World Values Survey reveals no systematic age variation in the age-corrected measures and supports the finding of a decline in gender gaps in patience, risk-taking, trust, and prosociality across birth cohorts. These findings are consistent with existing literature suggesting that preferences exhibit very similar life cycle patterns across birth cohorts (Fitzenberger et al. 2022). Moreover, the similarity of our results for the Global Preferences Survey and the World Values Survey bolsters the validity of a negative global trend in gender preference gaps across birth cohorts.

Further analysis reveals that the dynamics in gender gaps in patience, risk-taking, trust, and prosociality are not driven by between-country heterogeneity in the levels of economic development and gender equality. Within-country gender preference gaps are only weakly and unsystematically associated with between-country heterogeneity in income per capita and gender equality (Tables S.10–S.13). Moreover, the results also document a decline in gender preference gaps across birth cohorts when controlling for income per capita and gender equality.

However, the size of the cohort dynamics in gender preference gaps can vary across country samples that differ with respect to economic development and gender equality. When we stratify our sample by Organisation for Economic Co-operation and Development (OECD) member status and a gender parity index, gender gaps in patience, risk-taking, trust, and prosociality decline less in more developed and emancipated countries. In OECD member states—which are predominantly Western, educated, industrialized, rich, and democratic—the estimated changes in gender preference gaps in the Global Preferences Survey per birth decade are comparatively smaller and only marginally (or not at all) significant; in non-OECD countries, they are comparatively larger and highly significant (Figure 3, Panel a). Gender gaps also decline less in more gender-equal societies (Figure 3, Panel b). Similar results hold for the World Values Survey (Figure S.4), and for gender gaps without age correction (Figures S.5 and S.6).

Finally, further analyses reveal that the decline in gender preference gaps across birth cohorts not only pertains to differences in preference means between men and women but also to differences in the variability of preferences (standard deviations) between men and women



(a) By economic development

(b) By gender equality

Note: This figure shows coefficient estimates and 95% confidence intervals from regressions of within-country gender preference gaps in the Global Preferences Survey on linear birth decade trends. The coefficients reflect the estimated changes in gender preference gaps per birth decade (i.e., cohort trends). The data comprise 76 countries observed over 7 birth decades. An observation is a within-country gender gap per birth decade. The dependent variable is the absolute difference in means of age-corrected preferences between men and women. All preference measures are standardized to mean 0 and standard deviation 1 on the respective global samples such that gender preference gaps are expressed in standard deviations of the corresponding preference measures (see Methods). The figure shows heterogeneity in the estimated changes in gender preference gaps per birth decade by level of economic development in terms of OECD member status (Panel a) and by level of gender equality (Panel b). A country is defined as gender-equal if its gender parity score in the World Economic Forum's gender parity index (Hausmann et al. 2012) exceeds the median. All specifications include country fixed effects. Confidence intervals are based on standard errors that are clustered at the country level.

Figure 3: Estimated changes in gender gaps per birth decade by economic development and gender equality

(Figure S.7). This finding complements decreasing gender gaps in preference means and suggests that the shapes of the preference distributions of men and women are also more similar among later-born cohorts.

4 Discussion

Our findings provide evidence of a global decline in gender gaps across birth cohorts in patience, risk-taking, trust, and prosociality, demonstrating that men and women are more similar in these traits among younger birth cohorts than among older ones. This pattern emerges in two separate data sets, which are representative of more than 90 percent of the world's population and gross domestic product.

We interpret our evidence of shrinking gender preference gaps as convergence in patience, risk-taking, trust, and prosociality between men and women across birth cohorts. This interpretation rests on the assumption that age and cohort effects in these preference measures are separable, which is common in psychology and economics literature. Without this assumption, it is fundamentally impossible to disentangle age from cohort patterns—an issue that applies

to related contributions as well. Our results document remarkably similar cohort variation in gender preference gaps, both with and without age corrections, across two distinct data sets. This consistency provides indirect support for the assumption's plausibility and bolsters our finding of within-country convergence in men's and women's patience, risk-taking, trust, and prosociality across birth cohorts.

As the age correction could potentially absorb a portion of the country-specific and period-specific cohort variation, the estimates with and without age correction can be interpreted as bounds for the true cohort variation. The estimated coefficients for the uncorrected measures of patience, risk-taking, trust, and prosociality capture variation across both age groups and birth cohorts, thereby acting as an upper bound for the change in gender gaps that is due to cohort variation. In contrast, the estimated coefficients for the age-corrected preference measures reflect changes in gender preference gaps that have been purged of age-specific variation and, in the cross-sectional data of the Global Preferences Survey, potentially of some cohort-specific variation. These estimates can be interpreted as a lower bound of the change in gender preference gaps due to cohort variation, so long as the age correction adequately accounts for the age profiles in the respective preference measures. Our evidence of the stability of the estimated changes in gender gaps across birth cohorts in the World Values Survey, using both parametric and non-parametric age corrections, supports the plausibility of this assumption (see Figure S.3, Panel b).

Recent evidence has pointed to greater variability in preferences among men than among women (Thöni and Volk 2021). This finding suggests the importance of considering within-gender variability of preference measures for the analysis of gender differences in behavior and outcomes. Our result of shrinking gender preference gaps in both means and standard deviations across birth cohorts indicates convergence in the preference distributions of men and women.

Previous literature has proposed alternative explanations for gender differences in personality traits. These include evolutionary theories and theories of perceived gender roles as the result of socialization and differentials in social power (Schmitt et al. 2017; Galinsky et al. 2024). According to evolutionary theories, gender gaps in preferences and traits are innate and reflect the adaptation of preferences and traits to specific geographic, climatic, and cultural environments in the ancestral past and their selective transmission across generations (e.g., Alesina et al. 2013; Giuliano and Nunn 2021; Nunn 2022). Supporting this evolutionary perspective, cross-country differences in biological, cultural, and economic factors have been found to explain gender

differences in personality (Kaiser 2019). The fact that greater economic development relaxes material and social constraints that characterize agricultural societies could explain wider gender preference gaps in developed and more gender-equal countries (Schmitt et al. 2008; Falk and Hermle 2018; Connolly et al. 2020).

According to theories of the social determination of gender roles, gender gaps in personality reflect the specialization and division of labor, societal roles, and social power by gender (Schmitt et al. 2008). These roles may change with socioeconomic conditions. For instance, with a diminishing reliance of labor markets on physical and biological factors and increasing gender equality, gender differences in personality tend to weaken over time (Donnelly and Twenge 2016; Connolly et al. 2020).

Our evidence suggests that social rather than innate factors are the primary drivers of gender gaps in patience, risk-taking, trust, and prosociality insofar as the mechanisms giving rise to the gender gaps in these dimensions parallel those for other personality traits. If preferences are formed during the impressionable years of adolescence and remain fairly stable thereafter, as suggested by the prevalent view in literature (Stigler and Becker 1977; Krosnick and Alwin 1989; Schildberg-Hörisch 2018), then the observed pattern of gender preference convergence across birth cohorts might result from transformative processes related to globalization, technological progress, sectoral transformation, and institutional change. These changes expose men and women to increasingly similar environments regarding information, lifetime experiences, and socioeconomic conditions during the ages of preference formation. Cohort variation might thus reflect a convergence in macroeconomic or other contextual conditions during the impressionable years of adolescence, rather than long-run evolutionary factors.

The finding of declining gender gaps in patience, risk-taking, trust, and prosociality across birth cohorts also complements previous literature that has found greater gender preference gaps in high-income countries and countries with greater gender equality (Falk and Hermle 2018; Cuevas et al. 2021). Recent evidence suggests that this finding disappears when considering variation within cultural clusters of countries (Berggren and Bergh 2025). By accounting for systematic between-country differences in gender preference gaps via country fixed effects, we document a decline in preference gaps across birth cohorts. Gender preference gaps converge faster in less developed and more gender-unequal countries and more slowly in richer and more gender-equal societies. Although the estimated cohort patterns are not in all cases statistically significant, our results qualify a common conclusion from cross-country studies: greater gender

preference gaps in more developed countries do not imply that gender gaps in economic and social preferences widen as countries develop. Instead, our evidence demonstrates that greater gender gaps in patience, risk-taking, trust, and prosociality in richer and more gender-equal countries can occur alongside convergence in preferences between men and women across birth cohorts in those countries.

In an increasingly connected world, cohort replacement predicts further convergence in gender preference gaps. Recent evidence supports this view, showing that economic and social preferences have also become more similar among later-born cohorts worldwide (Kotschy and Sunde 2023). The evidence of a decline in within-country gender preference gaps presented in this paper constitutes an important facet of this preference convergence: despite greater gender differentiation in preference levels among Western, educated, industrialized, rich, and democratic countries (Falk and Hermle 2018; Cuevas et al. 2021), gender preference gaps tend to shrink as societies develop. Our evidence of narrowing gender preference gaps across birth cohorts aligns with the convergence in socioeconomic outcomes between men and women observed in many countries in recent years and suggests this trend might continue.

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S.1 Supplementary Appendix: Preference Measures

Global Preferences Survey

The Global Preferences Survey provides individual measures for six preferences: time preference, risk preference, trust, altruism, positive reciprocity, and negative reciprocity. These measures are constructed from responses to one or several survey items and standardized to have mean zero and variance one. We describe the detailed content of the respective survey items subsequently.

Patience. The patience measure (time preference) is constructed by combining a qualitative and a quantitative survey item. The qualitative survey item asked respondents to assess their willingness to forego something beneficial today in order to benefit more from that in the future on a scale from 0 (unwilling) to 10 (very willing). The quantitative item confronted respondents with five interdependent choices between an immediate payment and varying future payments with a 12-month delay, assuming no inflation. Payments were adjusted to average income in a country to establish comparability. Both items were combined into a single composite measure using weights derived through validation of the survey items (see Falk et al. 2023, for details).

Risk-taking. The risk-taking measure (risk preference) is constructed by combining a qualitative and a quantitative survey item. The qualitative item asked respondents to assess their willingness to take risks on a scale from 0 (unwilling) to 10 (very willing). The quantitative item presented respondents with a sequence of five hypothetical interdependent choices between a varying safe payment and a binary lottery offering either a positive payment or no payment, each with 50 percent probability. To ensure comparability across countries, payments were adjusted based on purchasing power parity and relative to median household income for each country. Both items were combined into a single composite measure using weights derived through validation of the survey items (see Falk et al. 2023, for details).

Trust. The trust measure (social preference, belief) is based on respondents' agreement with the statement, "As long as I am not convinced otherwise, I assume that people have only the best intentions." Respondents indicated their agreement on a scale from 0 (does not apply) to 10 (fully applies).

Prosociality. We constructed a prosociality measure (social preference) by combining the survey measures for altruism, positive reciprocity, and negative reciprocity. We calculated the arithmetic mean of the standardized values for altruism, positive reciprocity, and negative reciprocity and standardized that measure to have mean zero and standard deviation one.

The altruism measure is constructed by combining a qualitative and a quantitative survey item. The qualitative item asked respondent to assess their willingness to give to good causes without expecting anything in return on a scale from 0 (unwilling) to 10 (very willing). The quantitative item asked respondents to imagine a hypothetical a lottery win equivalent to €1,000 and indicate how much of that win they would donate to charity. Both items were combined into a single composite measure using weights derived through validation of the survey items (see Falk et al. 2023, for details).

The positive reciprocity measure is constructed by combining a qualitative and a quantitative survey item. The qualitative survey item asked respondents to assess their willingness to return a favor, measured on a scale from 0 (not willing) to 10 (very willing). The quantitative item asked respondents to imagine receiving help with directions and to indicate, on a scale from €0 to €30 (in increments of €5), how much they would give as a thank-you gift. Both items were combined into a single composite measure using weights derived through validation of the survey items (see Falk et al. 2023, for details).

The negative reciprocity measure is constructed by combining three qualitative survey items. These items asked respondents to assess on a scale from 0 (not willing) to 10 (very willing) their willingness to i) take revenge in case of being treated very unjustly, even at a cost; ii) to punish someone who treated the respondent unfairly, even at a cost; and iii) to punish someone who treated others unfairly, even at a cost. The items were combined into a single composite measure using weights derived through validation of the survey items (see Falk et al. 2023, for details).

World Values Survey

The World Values Survey contains several items that are frequently used as proxy measures for patience, risk-taking, trust, and prosociality. These measures are standardized to have mean zero and variance one. We describe the detailed content of the respective survey items subsequently.

Patience. The patience measure (time preference) is based on responses to a question about qualities that children can be encouraged to learn at home. Respondents are asked which of up

to five qualities they consider to be especially important. The respective measure takes value 1 if respondents mention thrift (saving money and things), and 0 otherwise.

Risk-taking. The risk-taking measured (risk preference) is based on responses to a question about how important it is to the respondent to experience adventure and taking risks on a scale from 1 (very much like me) to 6 (not at all like me).

Trust. The trust measure (social preference, belief) is based on respondents' agreement with the statement, "As long as I am not convinced otherwise, I assume that people have only the best intentions." Respondents indicated their agreement on a scale from 1 (agree strongly) to 5 (disagree strongly).

Prosociality. The prosociality measure (social preference) is based on responses to a question about qualities that children can be encouraged to learn at home. Respondents are asked which of up to five qualities they consider to be especially important. The respective measure takes value 1 if respondents mention unselfishness, and 0 otherwise.

S.2 Supplementary Appendix: Additional Figures and Tables

Table S.1: List of countries in sample: Global Preferences Survey

Country	In OECD (as of 2012)	Country	In OECD (as of 2012)
Afghanistan	no	Kazakhstan	no
Algeria	no	Kenya	no
Argentina	no	Lithuania	no
Australia	yes	Malawi	no
Austria	yes	Mexico	yes
Bangladesh	no	Morocco	no
Bolivia	no	Netherlands	yes
Bosnia & Herzegovina	no	Nicaragua	no
Botswana	no	Nigeria	no
Brazil	no	Pakistan	no
Cambodia	no	Peru	no
Cameroon	no	Philippines	no
Canada	yes	Poland	yes
Chile	yes	Portugal	yes
China	no	Republic of Korea	yes
Colombia	no	Republic of Moldova	no
Costa Rica	no	Romania	no
Croatia	no	Russian Federation	no
Czechia	yes	Rwanda	no
Egypt	no	Saudi Arabia	no
Estonia	yes	Serbia	no
Finland	yes	South Africa	no
France	yes	Spain	yes
Georgia	no	Sri Lanka	no
Germany	yes	Suriname	no
Ghana	no	Sweden	yes
Greece	yes	Switzerland	yes
Guatemala	no	Thailand	no
Haiti	no	Türkiye	yes
Hungary	yes	Uganda	no
India	no	Ukraine	no
Indonesia	no	United Arab Emirates	no
Iran	no	United Kingdom	yes
Iraq	no	United Republic of Tanzania	no
Israel	yes	United States of America	yes
Italy	yes	Venezuela	no
Japan	yes	Vietnam	no
Jordan	no	Zimbabwe	no

Note: This table lists all 76 countries in the sample and their member status in the Organisation of Economic Co-operation and Development (OECD) as of 2012. In the regression analysis, Suriname is omitted because of missing data for gross domestic income per capita at the time of birth.

Table S.2: List of countries in sample: World Values Survey

Country	Waves	In OECD (as of 2012)	Country	Waves	In OECD (as of 2012)
Albania	3, 4	no	Malaysia	5–7	no
Algeria	4, 6	no	Maldives	7	no
Andorra	5, 7	no	Mali	5	no
Argentina	1–7	no	Mexico	2–7	yes
Armenia	3, 6, 7	no	Mongolia	7	no
Australia	1, 3, 5–7	yes	Montenegro	3, 4	no
Azerbaijan	3, 6	no	Morocco	4–7	no
Bangladesh	3, 4, 7	no	Myanmar	7	no
Belarus	2, 3, 6	no	Netherlands	5–7	yes
Bolivia	7	no	New Zealand	3, 5–7	yes
Bosnia & Herzegovina	4	no	Nicaragua	7	no
Brazil	3, 5–7	no	Nigeria	2–4, 6, 7	no
Bulgaria	3, 5	no	North Macedonia	3, 4	no
Burkina Faso	5	no	Norway	3, 5	yes
Canada	1, 2, 4, 5, 7	yes	Pakistan	3, 4, 6, 7	no
Chile	2–7	yes	Palestine	6	no
China	2–7	no	Peru	3–7	no
Colombia	3, 5–7	no	Philippines	3, 4, 6, 7	no
Croatia	3	no	Poland	3, 5, 6	yes
Cyprus	5–7	no	Puerto Rico	3, 4, 7	no
Czechia	2, 3, 7	yes	Qatar	6	no
Dominican Republic	3	no	Republic of Korea	2–7	yes
Ecuador	6, 7	no	Republic of Moldova	3–5	no
Egypt	4–7	no	Romania	3, 5–7	no
El Salvador	3	no	Russian Federation	2, 3, 5–7	no
Estonia	3, 6	yes	Rwanda	5, 6	no
Ethiopia	5, 7	no	Saudi Arabia	4	no
Finland	3, 5	yes	Serbia	3–5, 7	no
France	5	yes	Singapore	4, 6, 7	no
Georgia	3, 5, 6	no	Slovakia	2, 3, 7	yes
Germany	3, 5–7	yes	Slovenia	3, 5, 6	yes
Ghana	5, 6	no	South Africa	2–6	no
Greece	7	yes	Spain	2–6	yes
Guatemala	5, 7	no	Sweden	1–6	yes
Hong Kong	5–7	no	Switzerland	2, 3, 5	yes
Hungary	3, 5	yes	Taiwan	3, 5–7	no
India	2–6	no	Tajikistan	7	no
Indonesia	4, 5, 7	no	Thailand	5–7	no
Iran	4, 5, 7	no	Trinidad & Tobago	5, 6	no
Iraq	4–7	no	Tunisia	6, 7	no
Israel	4	yes	Türkiye	2–7	yes
Italy	5	yes	Uganda	4	no
Japan	1–7	yes	Ukraine	3, 5–7	no
Jordan	4–7	no	United Kingdom	3, 5, 7	yes
Kazakhstan	6, 7	no	United Republic of Tanzania	4	no
Kenya	7	no	United States of America	1–7	yes
Kuwait	6	no	Uruguay	3, 5–7	no
Kyrgyzstan	4, 6, 7	no	Uzbekistan	6	no
Latvia	3	no	Venezuela	3, 4, 7	no
Lebanon	6, 7	no	Vietnam	4, 5, 7	no
Libya	6, 7	no	Yemen	6	no
Lithuania	3	no	Zambia	5	no
Macao	7	no	Zimbabwe	4, 6, 7	no

Note: This table lists all 106 countries and territories in the sample, the waves in which they were observed, and their member status in the Organisation of Economic Co-operation (OECD) and Development as of 2012.

Table S.3: Descriptive statistics

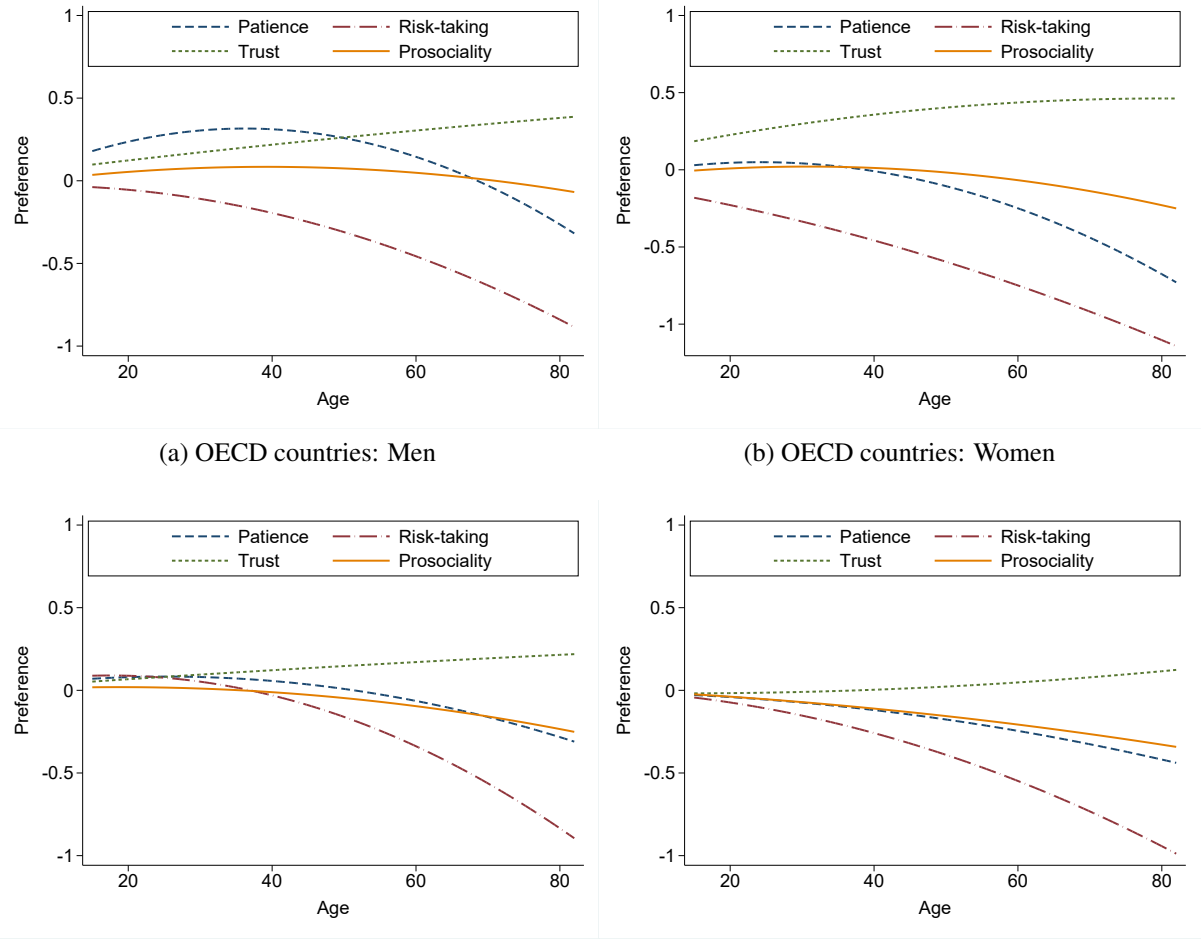
Variable	Observations	Mean	Standard deviation	Minimum	Maximum
Panel (a): Gender preference gaps in Global Preferences Survey					
Patience	513	0.19	0.16	0.00	0.99
Patience (age-corrected)	513	0.12	0.12	0.00	0.78
Risk-taking	513	0.26	0.18	0.00	1.01
Risk-taking (age-corrected)	513	0.12	0.13	0.00	0.92
Trust	513	0.19	0.17	0.00	1.04
Trust (age-corrected)	513	0.13	0.13	0.00	1.19
Prosociality	513	0.12	0.11	0.00	0.86
Prosociality (age-corrected)	513	0.09	0.08	0.00	0.54
Panel (b): Gender preference gaps in World Values Survey					
Patience	1,792	0.14	0.13	0.00	1.42
Patience (age-corrected)	1,792	0.09	0.09	0.00	0.92
Risk-taking	720	0.25	0.17	0.00	1.24
Risk-taking (age-corrected)	720	0.09	0.11	0.00	1.18
Trust	1,791	0.13	0.13	0.00	1.28
Trust (age-corrected)	1,791	0.09	0.09	0.00	0.76
Prosociality	1,780	0.13	0.13	0.00	1.32
Prosociality (age-corrected)	1,780	0.09	0.09	0.00	1.48

Note: This table shows descriptive statistics for gender preference gaps based on 513 gender gaps covering 76 countries and observed over up to 7 birth decades in the Global Preferences Survey (Panel a) and based on 1,792 gender gaps covering 106 countries and territories observed over up to 7 waves and 7 birth decades in the World Values Survey (Panel b). Each gender gap corresponds to a unique country–period–cohort cell. Reported numbers reflect the absolute difference in means between men and women within birth decades, where means are calculated for each gender within country, period, birth decade-specific cells. Data in the Global Preferences Survey and the World Values Survey are standardized to mean 0 and standard deviation 1 on the respective global samples, and gender preference gaps are expressed in standard deviations of the corresponding preference measures.

Table S.4: Descriptive statistics by OECD member status

	OECD countries			Non-OECD countries		
Variable	Observations	Mean	Standard deviation	Observations	Mean	Standard deviation
Panel (a): Gender preference gaps in Global Preferences Survey						
Patience	174	0.23	0.20	339	0.16	0.14
Patience (age-corrected)	174	0.14	0.13	339	0.11	0.11
Risk-taking	174	0.29	0.17	339	0.25	0.19
Risk-taking (age-corrected)	174	0.11	0.11	339	0.13	0.14
Trust	174	0.18	0.16	339	0.19	0.18
Trust (age-corrected)	174	0.11	0.09	339	0.14	0.15
Prosociality	174	0.12	0.10	339	0.12	0.11
Prosociality (age-corrected)	174	0.08	0.07	339	0.09	0.08
Panel (b): Gender preference gaps in World Values Survey						
Patience	590	0.14	0.12	1,202	0.13	0.13
Patience (age-corrected)	590	0.09	0.09	1,202	0.09	0.09
Risk-taking	227	0.26	0.14	493	0.25	0.18
Risk-taking (age-corrected)	227	0.08	0.07	493	0.10	0.12
Trust	595	0.14	0.12	1,196	0.13	0.13
Trust (age-corrected)	595	0.09	0.08	1,196	0.09	0.09
Prosociality	584	0.13	0.13	1,196	0.13	0.13
Prosociality (age-corrected)	584	0.09	0.10	1,196	0.09	0.09

Note: This table shows descriptive statistics for gender preference gaps by Organisation for Economic Co-operation and Development (OECD) member status. The descriptive statistics are based on 513 gender gaps covering 76 countries and observed over 7 birth decades in the Global Preferences Survey (Panel a) and based on 1,792 gender gaps covering 106 countries and territories observed over 7 waves and 7 birth decades in the World Values Survey (Panel b). Each gender gap corresponds to a unique country–period–cohort cell. Reported numbers reflect the absolute difference in means between men and women within birth decades, where means are calculated for each gender within country, period, birth decade-specific cells. Data in the Global Preferences Survey and the World Values Survey are standardized to mean 0 and standard deviation 1 on the respective global samples, and gender preference gaps are expressed in standard deviations of the corresponding preference measures.



(a) OECD countries: Men

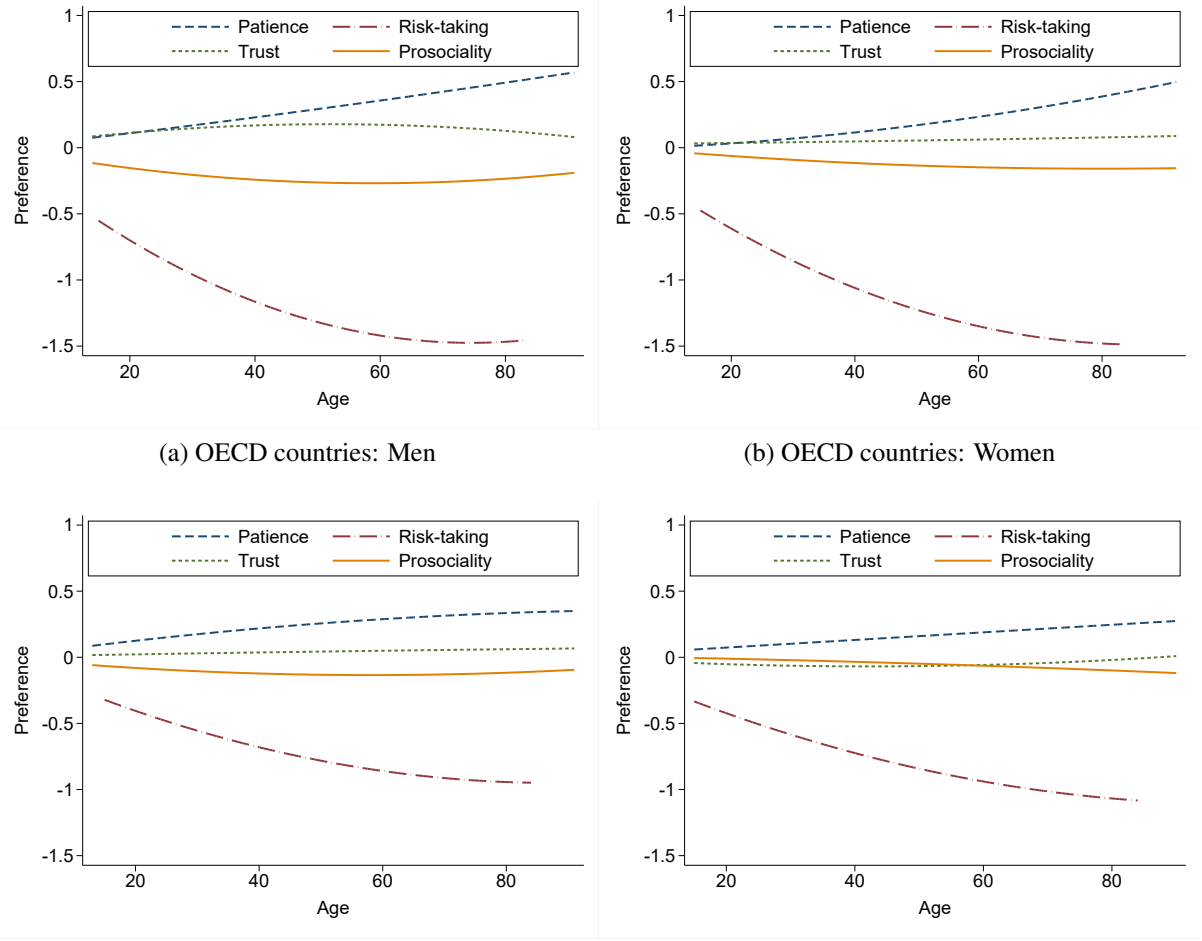
(b) OECD countries: Women

(c) Non-OECD countries: Men

(d) Non-OECD countries: Women

Note: This figure shows average age profiles in individual preferences by gender and OECD member status in the Global Preferences Survey. Panel (a) shows men in OECD countries, Panel (b) shows women in OECD countries, Panel (c) shows men in non-OECD countries, and Panel (d) shows women in non-OECD countries. Each graph is an augmented component plus residuals plot showing how preferences vary with age. The vertical axis represents the component of a preference that is predicted by a quadratic age trend plus the residuals from a regression on country fixed effects. All preference measures are standardized to mean 0 and standard deviation 1 on the respective global samples such that age profiles are expressed in standard deviations of the corresponding preference measures.

Figure S.1: Age profiles by economic development and gender: Global Preferences Survey



(a) OECD countries: Men

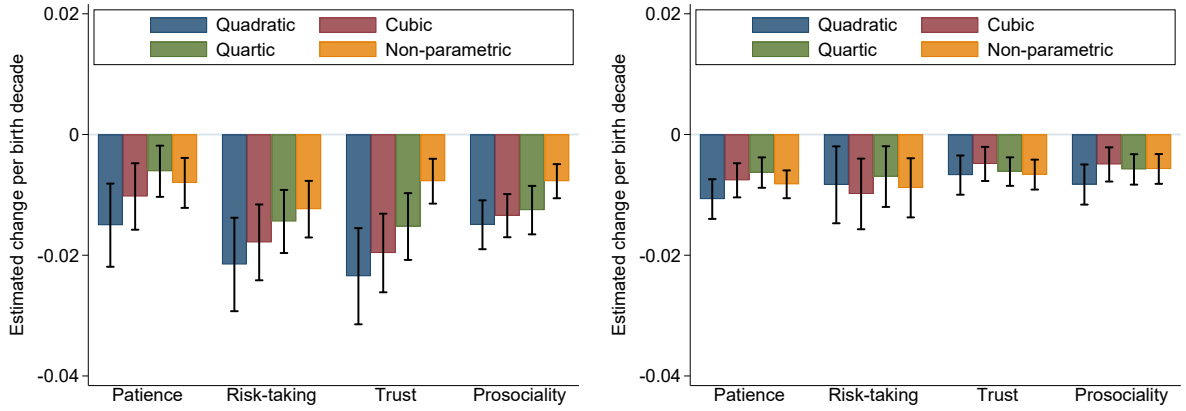
(b) OECD countries: Women

(c) Non-OECD countries: Men

(d) Non-OECD countries: Women

Note: This figure shows average age profiles in individual preferences by gender and OECD member status in the World Values Survey. Panel (a) shows men in OECD countries, Panel (b) shows women in OECD countries, Panel (c) shows men in non-OECD countries, and Panel (d) shows women in non-OECD countries. Each graph is an augmented component plus residuals plot showing how preferences vary with age. The vertical axis represents the component of a preference that is predicted by a quadratic age trend plus the residuals from a regression on country–period fixed effects. All preference measures are standardized to mean 0 and standard deviation 1 on the respective global samples, such that age profiles are expressed in standard deviations of the corresponding preference measures.

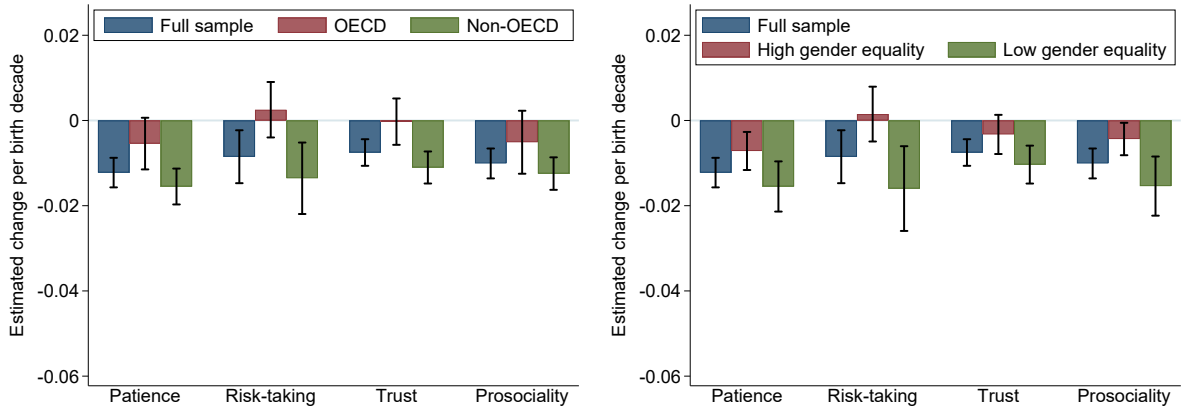
Figure S.2: Age profiles by economic development and gender: World Values Survey



(a) Global Preferences Survey (b) World Values Survey

Note: This figure shows coefficient estimates and 95% confidence intervals from regressions of within-country gender preference gaps on linear birth decade trends in the Global Preferences Survey (Panel a) and in the World Values Survey (Panel b). The coefficients reflect the estimated changes in gender preference gaps per birth decade (i.e., cohort trends). An observation is a within-country gender gap per birth decade. Data for the Global Preferences Survey (GPS) comprise 76 countries observed over 7 birth decades. Data for the World Values Survey (WVS) comprise 106 countries observed over 7 birth decades and up to 7 survey waves (1981–2022). The dependent variable is the absolute difference in age-corrected preference means between men and women, where means are separately calculated for each gender within country, period, birth decade-specific cells. The age correction in Panel (a) is performed with country-specific age trends that are i) quadratic, ii) cubic, iii) quartic, or iv) non-parametric (derived from estimates based on 10-year age bins). The age correction in Panel (b) is performed with country wave-specific age trends that are i) quadratic, ii) cubic, iii) quartic, or iv) non-parametric (derived from estimates based on 10-year age bins). All preference measures are standardized to mean 0 and standard deviation 1 on the respective global samples such that gender preference gaps are expressed in standard deviations of the corresponding preference measures (see Methods). Specifications in Panel (a) include country fixed effects, whereas specifications in Panel (b) include country–period fixed effects. Confidence intervals are based on standard errors that are clustered at the country level.

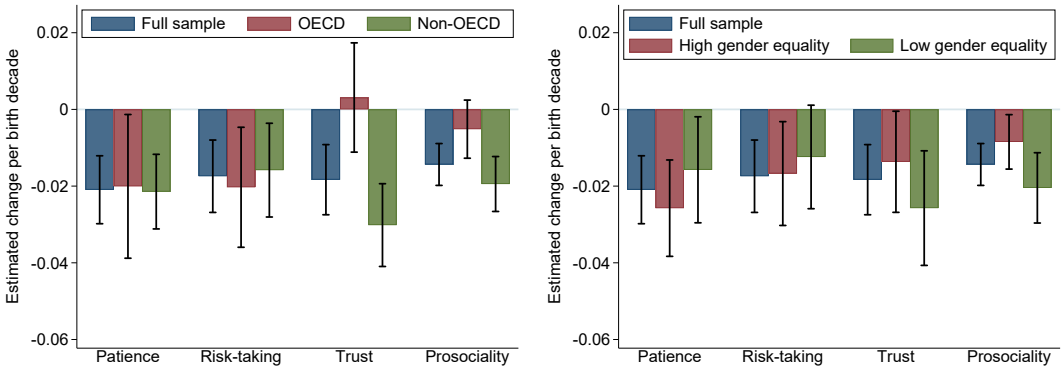
Figure S.3: Estimated changes in gender gaps per birth decade: Alternative age corrections



(a) By economic development (b) By gender equality

Note: This figure shows coefficient estimates and 95% confidence intervals from regressions of within-country gender preference gaps on linear birth decade trends in the World Values Survey. The coefficients reflect the estimated changes in gender preference gaps per birth decade (i.e., cohort trends). The data comprise 106 countries observed over 7 birth decades and up to 7 survey waves (1981–2022). An observation is a within-country gender gap per birth decade. The dependent variable is the absolute difference in means of age-corrected preferences between men and women, where means are separately calculated for each gender within country, period, birth decade-specific cells. Age-corrected preference measures have been purged of country, period, gender-specific age profiles. All preference measures are standardized to mean 0 and standard deviation 1 on the respective global samples such that gender preference gaps are expressed in standard deviations of the corresponding preference measures (see Methods). The figure shows heterogeneity in the estimated changes in gender preference gaps per birth decade by level of economic development in terms of OECD member status (Panel a) and by level of gender equality (Panel b). A country is defined as gender-equal if its gender parity score in the World Economic Forum's gender parity index (Hausmann et al. 2012) exceeds the median. All specifications include country–period fixed effects. Confidence intervals are based on standard errors that are clustered at the country level.

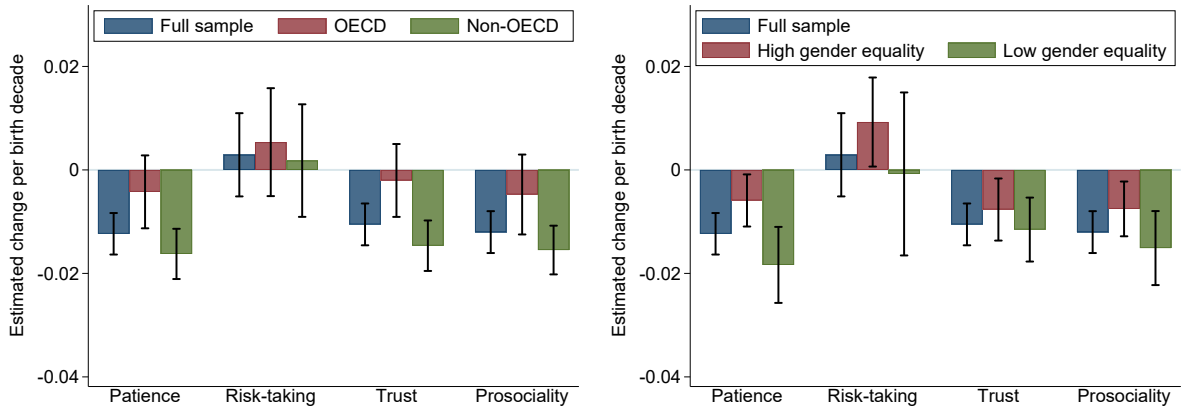
Figure S.4: Estimated changes in gender gaps per birth decade by economic development and gender equality



(a) By economic development (b) By gender equality

Note: This figure shows coefficient estimates and 95% confidence intervals from regressions of within-country gender preference gaps on linear birth decade trends in the Global Preferences Survey. The coefficients reflect the estimated changes in gender preference gaps per birth decade (i.e., cohort trends). The data comprise 76 countries observed over 7 birth decades. An observation is a within-country gender gap per birth decade. The dependent variable is the absolute difference in means of preferences between men and women, where means are separately calculated for each gender within country, period, birth decade-specific cells. All preference measures are standardized to mean 0 and standard deviation 1 on the respective global samples such that gender preference gaps are expressed in standard deviations of the corresponding preference measures (see Methods). The figure shows heterogeneity in the estimated changes in gender preference gaps per birth decade by level of economic development in terms of OECD member status (Panel a) and by level of gender equality (Panel b). A country is defined as gender-equal if its gender parity score in the World Economic Forum's gender parity index (Hausmann et al. 2012) exceeds the median. All specifications include country fixed effects. Confidence intervals are based on standard errors that are clustered at the country level.

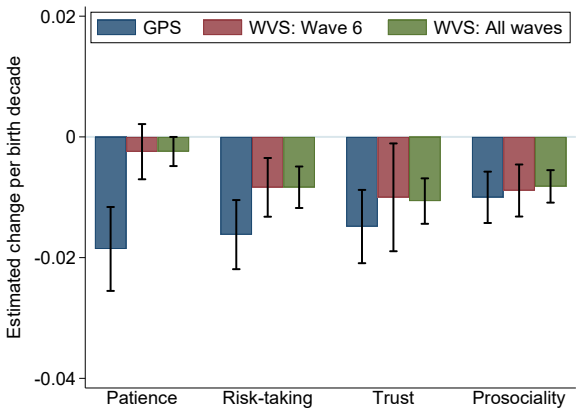
Figure S.5: Estimated changes in gender gaps per birth decade by economic development and gender equality: Results without correction for age profiles in preference measures



(a) By economic development (b) By gender equality

Note: This figure shows coefficient estimates and 95% confidence intervals from regressions of within-country gender preference gaps on linear birth decade trends in the World Values Survey. The coefficients reflect the estimated changes in gender preference gaps per birth decade (i.e., cohort trends). The data comprise 106 countries observed over 7 birth decades and up to 7 survey waves (1981–2022). An observation is a within-country gender gap per birth decade. The dependent variable is the absolute difference in means of preferences between men and women, where means are separately calculated for each gender within country, period, birth decade-specific cells. All preference measures are standardized to mean 0 and standard deviation 1 on the respective global samples such that gender preference gaps are expressed in standard deviations of the corresponding preference measures (see Methods). The figure shows heterogeneity in the estimated changes in gender preference gaps per birth decade by level of economic development in terms of OECD member status (Panel a) and by level of gender equality (Panel b). A country is defined as gender-equal if its gender parity score in the World Economic Forum's gender parity index (Hausmann et al. 2012) exceeds the median. All specifications include country–period fixed effects. Confidence intervals are based on standard errors that are clustered at the country level.

Figure S.6: Estimated changes in gender gaps per birth decade by economic development and gender equality: Results without correction for age profiles in preference measures



Note: This figure shows coefficient estimates and 95% confidence intervals from regressions of within-country gender preference gaps on linear birth decade trends. The coefficients reflect the estimated changes in gender preference gaps per birth decade (i.e., cohort trends). An observation is a within-country gender gap per birth decade. Data for the Global Preferences Survey (GPS) comprise 76 countries observed over 7 birth decades. Data for the World Values Survey (WVS) comprise 106 countries observed over 7 birth decades and up to 7 survey waves during 1981–2022. All preference measures are standardized to mean 0 and standard deviation 1 on the respective global samples. The dependent variable is the absolute difference in standard deviations of age-corrected preferences between men and women, where standard deviations are separately calculated for each gender within country, period, birth decade-specific cells. Age-corrected preference measures have been purged of country, gender-specific age profiles in the cross-sectional data from the Global Preferences Survey and of country, period, gender-specific age profiles in the longitudinal data from the World Values Survey. Specifications for the Global Preferences Survey include country fixed effects, whereas specifications for the World Values Survey include country–period fixed effects. Confidence intervals are based on standard errors that are clustered at the country level.

Figure S.7: Estimated changes in gender variability gaps per birth decade: Global Preferences Survey vs. World Values Survey

Table S.5: Estimated decline in gender gaps between 1950 and 1980 birth decades

	Patience	Risk-taking	Trust	Prosociality
	(1)	(2)	(3)	(4)
Panel (a): Global Preferences Survey				
Change in gender gaps (in %)	-23.1***	-21.6***	-35.4***	-32.0***
	(5.3)	(3.9)	(6.0)	(4.3)
Panel (b): World Values Survey				
Change in gender gaps (in %)	-18.8***	-8.6***	-11.3***	-21.6***
	(2.8)	(3.2)	(2.6)	(3.9)

Note: This table shows estimated changes in gender preference gaps in the Global Preferences Survey (Panel a) and the World Values Survey (Panel b) between the 1950 and 1980 birth decades. Values are calculated by combining the estimated cohort coefficients (derived from the regressions for age-corrected preference measures in Table 1) with the uncorrected gender preference gaps in 1950 and then multiplying the results by 3. The estimated changes and their standard errors (in parentheses) are reported in percent.

Table S.6: Variation in gender gaps explained by cohort fixed effects and country fixed effects

Gender gap in	Patience		Risk-taking		Trust		Prosociality	
	Cohort FE	Country FE	Cohort FE	Country FE	Cohort FE	Country FE	Cohort FE	Country FE
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Panel (a): Global Preferences Survey								
Uncorrected preference measures								
R^2	0.073	0.249	0.041	0.202	0.092	0.141	0.049	0.183
Observations	513	513	513	513	513	513	513	513
Age-corrected preference measures								
R^2	0.094	0.258	0.107	0.194	0.145	0.150	0.125	0.170
Observations	513	513	513	513	513	513	513	513
Panel (b): World Values Survey								
Uncorrected preference measures								
R^2	0.077	0.070	0.067	0.158	0.078	0.085	0.062	0.098
Observations	1,792	1,792	720	720	1,780	1,780	1,791	1,791
Age-corrected preference measures								
R^2	0.069	0.074	0.058	0.161	0.088	0.082	0.043	0.104
Observations	1,792	1,792	720	720	1,780	1,780	1,791	1,791

Note: This table shows how much variation in within-country gender preference gaps is explained by cohort and country fixed effects (R^2), where cohorts correspond to birth decades. Results are shown for 76 countries observed over 7 birth decades in the Global Preferences Survey (Panel a) and for 106 countries and territories observed over 7 birth decades and up to 7 survey waves during 1981–2022 in the World Values Survey (Panel b). An observation is a within-country gender gap per birth decade. The dependent variable is the absolute difference in means of preferences between men and women (top of Panels a and b) or the absolute difference in means of age-corrected preferences between men and women (bottom of Panels a and b), where means are separately calculated for each gender within country, period, birth decade-specific cells. Age-corrected preference measures have been purged of country gender-specific age profiles in the Global Preferences Survey and of country, period, gender-specific age profiles in the World Values Survey, with preference measures in the World Values Survey additionally corrected for period fixed effects before aggregation.

Table S.7: Estimated changes in within-country gender gaps per birth decade under the assumption of stable age profiles in the World Values Survey

Gender gap in	Patience (1)	Risk-taking (2)	Trust (3)	Prosociality (4)
Dependent variable: Gender gaps without correction for age profiles in preferences				
Birth decade	-0.012***	0.003	-0.011***	-0.012***
	(0.002)	(0.004)	(0.002)	(0.002)
R^2	0.23	0.29	0.24	0.24
Clusters	106	77	106	106
Observations	1,792	720	1,791	1,780
Dependent variable: Gender gaps with correction for age profiles in preferences				
Birth decade	-0.013***	-0.009***	-0.010***	-0.013***
	(0.002)	(0.003)	(0.002)	(0.002)
R^2	0.22	0.22	0.23	0.24
Clusters	106	77	106	106
Observations	1,792	720	1,791	1,780

Note: This table shows coefficient estimates from ordinary least squares regressions of within-country gender preference gaps on linear birth decade trends. The coefficients reflect the estimated changes in gender preference gaps per birth decade (i.e., cohort trends). Results are shown for 106 countries and territories observed over 7 birth decades and up to 7 survey waves during 1981–2022 in the World Values Survey. An observation is a within-country gender gap per birth decade. The dependent variable is the absolute difference in means of preferences (top panel) or the absolute difference in means of age-corrected preferences (bottom panel), where means are separately calculated for each gender within country, period, birth decade-specific cells. Age-corrected preference measures have been purged of country, gender-specific age profiles. All preference measures are standardized to mean 0 and standard deviation 1 on the respective global samples such that gender preference gaps are expressed in standard deviations of the corresponding preference measures (see Methods). Specifications include country–period fixed effects. Standard errors are clustered at the country level and reported in parentheses. Asterisks indicate significance levels: * $p < 0.1$; ** $p < 0.05$; *** $p < 0.01$.

Table S.8: Estimated changes in within-country gender gaps per birth decade: Cohort-specific age profiles in World Values Survey

Gender gap in	Patience (1)	Risk-taking (2)	Trust (3)	Prosociality (4)
Dependent variable: Gender gaps without correction for age profiles in preferences				
Birth decade	-0.012***	0.003	-0.011***	-0.012***
	(0.002)	(0.004)	(0.002)	(0.002)
R^2	0.23	0.29	0.24	0.24
Clusters	106	77	106	106
Observations	1,792	720	1,791	1,780
Dependent variable: Gender gaps with correction for age profiles in preferences				
Birth decade	-0.008***	-0.005***	-0.007***	-0.010***
	(0.001)	(0.001)	(0.001)	(0.001)
R^2	0.31	0.45	0.34	0.31
Clusters	106	77	106	106
Observations	1,792	720	1,791	1,780

Note: This table shows coefficient estimates from ordinary least squares regressions of within-country gender preference gaps on linear birth decade trends. The coefficients reflect the estimated changes in gender preference gaps per birth decade (i.e., cohort trends). Results are shown for 106 countries and territories observed over 7 birth decades and up to 7 survey waves during 1981–2022 in the World Values Survey. An observation is a within-country gender gap per birth decade. The dependent variable is the absolute difference in means of preferences (top panel) or the absolute difference in means of age-corrected preferences (bottom panel), where means are separately calculated for each gender within country, period, birth decade-specific cells. Age-corrected preference measures have been purged of country, cohort, gender-specific age profiles. All preference measures are standardized to mean 0 and standard deviation 1 on the respective global samples such that gender preference gaps are expressed in standard deviations of the corresponding preference measures (see Methods). Specifications include country–period fixed effects. Standard errors are clustered at the country level and reported in parentheses. Asterisks indicate significance levels: * $p < 0.1$; ** $p < 0.05$; *** $p < 0.01$.

Table S.9: Estimated changes in gender gaps by age and cohort

Gender gap in	Patience (1)	Risk-taking (2)	Trust (3)	Prosociality (4)
Panel (a): Age and cohort variation (no age correction)				
Age group	0.013**	-0.009	-0.006	0.001
	(0.006)	(0.009)	(0.006)	(0.006)
Birth decade	-0.009	-0.010	-0.019***	-0.010*
	(0.006)	(0.009)	(0.006)	(0.005)
R^2	0.08	0.07	0.13	0.10
Clusters	77	68	77	77
Observations	11,520	4,561	11,323	11,435
Panel (b): Age and cohort variation (age-corrected preference measures, stable age profiles)				
Age group	0.011*	0.006	-0.006	-0.000
	(0.006)	(0.008)	(0.005)	(0.005)
Birth decade	-0.012*	-0.006	-0.021***	-0.013**
	(0.006)	(0.008)	(0.005)	(0.005)
R^2	0.08	0.06	0.13	0.09
Clusters	77	68	77	77
Observations	11,520	4,561	11,323	11,435
Panel (c): Age and cohort variation (age-corrected preference measures, period-specific age profiles)				
Age group	0.009	0.008	-0.004	0.002
	(0.006)	(0.008)	(0.005)	(0.005)
Birth decade	-0.013**	-0.005	-0.019***	-0.010*
	(0.005)	(0.008)	(0.005)	(0.005)
R^2	0.08	0.07	0.13	0.09
Clusters	77	68	77	77
Observations	11,520	4,561	11,323	11,435
Panel (d): Age and cohort variation (age-corrected preference measures, period-specific age profiles)				
Age group				
<25	-0.021	-0.013	0.068*	0.016
	(0.039)	(0.068)	(0.036)	(0.040)
25–34	-0.028	-0.017	0.051	0.002
	(0.033)	(0.055)	(0.032)	(0.031)
35–44	-0.031	-0.014	0.037	-0.006
	(0.025)	(0.043)	(0.028)	(0.026)
45–54	-0.012	-0.010	0.036*	-0.011
	(0.020)	(0.031)	(0.021)	(0.019)
55–64	-0.008	0.016	0.021	-0.006
	(0.013)	(0.024)	(0.016)	(0.015)
65+	ref.	ref.	ref.	ref.
Birth year	-0.017**	-0.007	-0.027***	-0.016**
(estimates × 10)	(0.008)	(0.013)	(0.007)	(0.008)
R^2	0.09	0.07	0.13	0.09
Clusters	77	68	77	77
Observations	11,520	4,561	11,323	11,435

Note: This table shows coefficient estimates from ordinary least squares regressions of within-country gender preference gaps on linear birth decade and age group trends (Panels a–c) or on linear birth decade and arbitrary age group trends (Panel d). The coefficients reflect the estimated changes in gender preference gaps per birth decade (i.e., cohort trends) and per 10-year age group. Results are shown for 77 countries and territories observed over 7 birth decades (69 birth years) and up to 7 survey waves during 1981–2022 in the World Values Survey. An observation is a within-country gender gap per birth year. The dependent variable is the absolute difference in means of uncorrected preferences (Panel a) or the absolute difference in means of age-corrected preferences (Panels b, c, and d), where means are separately calculated for each gender within country, period, birth year-specific cells. Age-corrected preference measures have been either purged of country, gender-specific age profiles (Panel b) or of country, period, gender-specific age profiles (Panels c and d). All preference measures are standardized to mean 0 and standard deviation 1 on the respective global samples such that gender preference gaps are expressed in standard deviations of the corresponding preference measures (see Methods). Specifications include country–period fixed effects. Standard errors are clustered at the country level and reported in parentheses. Asterisks indicate significance levels: * $p < 0.1$; ** $p < 0.05$; *** $p < 0.01$.

Table S.10: Gender gaps without age correction: Global Preferences Survey

Controlling for	Economic development (1)	Gender equality (2)	Cohort trends (3)	Full controls (4)	Cohort variation and fixed effects (5)
Panel (a): Gender gap in patience					
Log income per capita	0.023**	—	—	0.019**	—
	(0.010)	—	—	(0.009)	—
Gender equality	—	0.584***	—	0.459***	—
	—	(0.162)	—	(0.147)	—
Birth decade	—	—	-0.022***	-0.021***	-0.021***
	—	—	(0.005)	(0.005)	(0.005)
R^2	0.02	0.04	0.07	0.11	0.31
Clusters	75	70	70	70	70
Observations	507	475	475	475	475
Panel (b): Gender gap in risk-taking					
Log income per capita	0.011	—	—	0.016**	—
	(0.008)	—	—	(0.006)	—
Gender equality	—	0.158	—	0.057	—
	—	(0.208)	—	(0.202)	—
Birth decade	—	—	-0.015***	-0.015***	-0.015***
	—	—	(0.005)	(0.005)	(0.005)
R^2	0.00	0.00	0.03	0.04	0.23
Clusters	75	70	70	70	70
Observations	507	475	475	475	475
Panel (c): Gender gap in trust					
Log income per capita	-0.007	—	—	-0.011	—
	(0.008)	—	—	(0.010)	—
Gender equality	—	0.150	—	0.175	—
	—	(0.144)	—	(0.144)	—
Birth decade	—	—	-0.019***	-0.019***	-0.019***
	—	—	(0.005)	(0.005)	(0.005)
R^2	0.00	0.00	0.04	0.05	0.22
Clusters	75	70	70	70	70
Observations	507	475	475	475	475
Panel (d): Gender gap in prosociality					
Log income per capita	-0.009*	—	—	-0.010*	—
	(0.005)	—	—	(0.005)	—
Gender equality	—	-0.051	—	-0.022	—
	—	(0.093)	—	(0.085)	—
Birth decade	—	—	-0.013***	-0.014***	-0.014***
	—	—	(0.003)	(0.003)	(0.003)
R^2	0.01	0.00	0.06	0.07	0.20
Clusters	75	70	70	70	70
Observations	507	475	475	475	475

Note: This table shows coefficient estimates from ordinary least squares regressions of within-country gender preference gaps on economic development, gender equality, and linear birth decade trends. The cohort coefficients reflect the estimated changes in gender preference gaps per birth decade (i.e., cohort trends). Results are shown for 75 countries observed over 7 birth decades in the Global Preferences Survey. An observation is a within-country gender gap per birth decade. The dependent variable is the absolute difference in means of patience (Panel a), willingness to take risks (Panel b), trust (Panel c), or prosociality (Panel d), where means are separately calculated for each gender within country, period, birth decade-specific cells. All preference measures are standardized to mean 0 and standard deviation 1 on the respective global samples such that gender preference gaps are expressed in standard deviations of the corresponding preference measures (see Methods). Economic development is measured with log 2012 real gross domestic product per capita in national accounts obtained from Penn World Tables (Feenstra et al. 2015). Gender equality is proxied by the World Economic Forum's gender parity index (Hausmann et al. 2012). Specification (5) includes country fixed effects. Standard errors are clustered at the country level and reported in parentheses. Asterisks indicate significance levels: * $p < 0.1$; ** $p < 0.05$; *** $p < 0.01$.

Table S.11: Gender gaps with age correction: Global Preferences Survey

Controlling for	Economic development (1)	Gender equality (2)	Cohort trends (3)	Full controls (4)	Cohort variation and fixed effects (5)
Panel (a): Gender gap in patience					
Log income per capita	0.014**	—	—	0.008	—
	(0.006)	—	—	(0.006)	—
Gender equality	—	0.257**	—	0.192*	—
	—	(0.109)	—	(0.106)	—
Birth decade	—	—	-0.015***	-0.015***	-0.015***
	—	—	(0.004)	(0.004)	(0.004)
R^2	0.02	0.01	0.06	0.08	0.32
Clusters	75	70	70	70	70
Observations	507	475	475	475	475
Panel (b): Gender gap in risk-taking					
Log income per capita	-0.017***	—	—	-0.018***	—
	(0.006)	—	—	(0.006)	—
Gender equality	—	-0.027	—	0.029	—
	—	(0.115)	—	(0.110)	—
Birth decade	—	—	-0.020***	-0.020***	-0.020***
	—	—	(0.004)	(0.004)	(0.004)
R^2	0.02	0.00	0.09	0.11	0.30
Clusters	75	70	70	70	70
Observations	507	475	475	475	475
Panel (c): Gender gap in trust					
Log income per capita	-0.010*	—	—	-0.010	—
	(0.006)	—	—	(0.007)	—
Gender equality	—	-0.078	—	-0.064	—
	—	(0.113)	—	(0.111)	—
Birth decade	—	—	-0.022***	-0.022***	-0.023***
	—	—	(0.004)	(0.004)	(0.004)
R^2	0.01	0.00	0.11	0.12	0.29
Clusters	75	70	70	70	70
Observations	507	475	475	475	475
Panel (d): Gender gap in prosociality					
Log income per capita	-0.009***	—	—	-0.012***	—
	(0.003)	—	—	(0.004)	—
Gender equality	—	-0.026	—	0.006	—
	—	(0.055)	—	(0.049)	—
Birth decade	—	—	-0.015***	-0.015***	-0.015***
	—	—	(0.002)	(0.002)	(0.002)
R^2	0.02	0.00	0.13	0.16	0.29
Clusters	75	70	70	70	70
Observations	507	475	475	475	475

Note: This table shows coefficient estimates from ordinary least squares regressions of within-country gender preference gaps on economic development, gender equality, and linear birth decade trends. The cohort coefficients reflect the estimated changes in gender preference gaps per birth decade (i.e., cohort trends). Results are shown for 75 countries observed over 7 birth decades in the Global Preferences Survey. An observation is a within-country gender gap per birth decade. The dependent variable is the absolute difference in means of patience (Panel a), willingness to take risks (Panel b), trust (Panel c), or prosociality (Panel d), where means are separately calculated for each gender within country, period, birth decade-specific cells. Preference measures have been purged of country, gender-specific age profiles. All preference measures are standardized to mean 0 and standard deviation 1 on the respective global samples such that gender preference gaps are expressed in standard deviations of the corresponding preference measures (see Methods). Economic development is measured with log 2012 real gross domestic product per capita in national accounts obtained from Penn World Tables (Feenstra et al. 2015). Gender equality is proxied by the World Economic Forum's gender parity index (Hausmann et al. 2012). Specification (5) includes country fixed effects. Standard errors are clustered at the country level and reported in parentheses. Asterisks indicate significance levels: * $p < 0.1$; ** $p < 0.05$; *** $p < 0.01$.

Table S.12: Gender gaps without age correction: World Values Survey

Controlling for	Economic development	Gender equality	Cohort trends	Full controls	Cohort variation and country–period fixed effects
	(1)	(2)	(3)	(4)	(5)
Panel (a): Gender gap in patience					
Log income per capita	-0.000	—	—	-0.002	—
	(0.004)	—	—	(0.005)	—
Gender equality	—	-0.122	—	-0.129	—
	—	(0.079)	—	(0.087)	—
Birth decade	—	—	-0.014***	-0.014***	-0.015***
	—	—	(0.003)	(0.003)	(0.003)
R^2	0.00	0.00	0.04	0.04	0.22
Clusters	103	85	85	85	85
Observations	1,751	1,037	1,037	1,037	1,037
Panel (b): Gender gap in risk-taking					
Log income per capita	0.008	—	—	0.012	—
	(0.010)	—	—	(0.013)	—
Gender equality	—	-0.147	—	-0.236	—
	—	(0.139)	—	(0.175)	—
Birth decade	—	—	0.003	0.003	0.003
	—	—	(0.005)	(0.005)	(0.005)
R^2	0.00	0.00	0.00	0.01	0.29
Clusters	75	69	69	69	69
Observations	707	655	655	655	655
Panel (c): Gender gap in trust					
Log income per capita	0.004	—	—	-0.005	—
	(0.004)	—	—	(0.006)	—
Gender equality	—	-0.061	—	-0.045	—
	—	(0.105)	—	(0.097)	—
Birth decade	—	—	-0.011***	-0.011***	-0.012***
	—	—	(0.003)	(0.003)	(0.003)
R^2	0.00	0.00	0.02	0.03	0.14
Clusters	103	85	85	85	85
Observations	1,750	1,031	1,031	1,031	1,031
Panel (d): Gender gap in prosociality					
Log income per capita	0.000	—	—	-0.006	—
	(0.004)	—	—	(0.005)	—
Gender equality	—	-0.104	—	-0.086	—
	—	(0.103)	—	(0.106)	—
Birth decade	—	—	-0.014***	-0.014***	-0.015***
	—	—	(0.003)	(0.003)	(0.003)
R^2	0.00	0.00	0.04	0.04	0.16
Clusters	103	85	85	85	85
Observations	1,739	1,037	1,037	1,037	1,037

Note: This table shows coefficient estimates from ordinary least squares regressions of within-country gender preference gaps on economic development, gender equality, and linear birth decade trends. The cohort coefficients reflect the estimated changes in gender preference gaps per birth decade (i.e., cohort trends). Results are shown for up to 103 countries and territories observed over up to 4 waves and up to 7 birth decades in the World Values Survey. An observation is a within-country gender gap per birth decade. The dependent variable is the absolute difference in means of patience (Panel a), willingness to take risks (Panel b), trust (Panel c), or prosociality (Panel d), where means are separately calculated for each gender within country, period, birth decade-specific cells. All preference measures are standardized to mean 0 and standard deviation 1 on the respective global samples such that gender preference gaps are expressed in standard deviations of the corresponding preference measures (see Methods). Economic development is measured with log 2012 real gross domestic product per capita in national accounts obtained from Penn World Tables (Feenstra et al. 2015). Gender equality is proxied by the World Economic Forum's gender parity index (Hausmann et al. 2012). Specification (5) includes country–period fixed effects. Standard errors are clustered at the country level and reported in parentheses. Asterisks indicate significance levels: * $p < 0.1$; ** $p < 0.05$; *** $p < 0.01$.

Table S.13: Gender gaps with age correction: World Values Survey

Controlling for	Economic development	Gender equality	Cohort trends	Full controls	Cohort variation and country–period fixed effects
	(1)	(2)	(3)	(4)	(5)
Panel (a): Gender gap in patience					
Log income per capita	-0.003	—	—	-0.004	—
	(0.002)	—	—	(0.004)	—
Gender equality	—	-0.132**	—	-0.123*	—
	—	(0.056)	—	(0.062)	—
Birth decade	—	—	-0.015***	-0.015***	-0.016***
	—	—	(0.002)	(0.002)	(0.002)
R^2	0.00	0.01	0.08	0.09	0.29
Clusters	103	85	85	85	85
Observations	1,751	1,037	1,037	1,037	1,037
Panel (b): Gender gap in risk-taking					
Log income per capita	-0.021***	—	—	-0.024**	—
	(0.007)	—	—	(0.009)	—
Gender equality	—	-0.105	—	0.070	—
	—	(0.077)	—	(0.104)	—
Birth decade	—	—	-0.007**	-0.007**	-0.008**
	—	—	(0.003)	(0.003)	(0.004)
R^2	0.03	0.00	0.01	0.05	0.25
Clusters	75	69	69	69	69
Observations	707	655	655	655	655
Panel (c): Gender gap in trust					
Log income per capita	0.002	—	—	0.001	—
	(0.003)	—	—	(0.005)	—
Gender equality	—	-0.059	—	-0.076	—
	—	(0.065)	—	(0.061)	—
Birth decade	—	—	-0.009***	-0.009***	-0.010***
	—	—	(0.002)	(0.002)	(0.002)
R^2	0.00	0.00	0.03	0.04	0.17
Clusters	103	85	85	85	85
Observations	1,750	1,031	1,031	1,031	1,031
Panel (d): Gender gap in prosociality					
Log income per capita	-0.001	—	—	-0.004	—
	(0.003)	—	—	(0.004)	—
Gender equality	—	0.014	—	0.022	—
	—	(0.061)	—	(0.067)	—
Birth decade	—	—	-0.012***	-0.012***	-0.013***
	—	—	(0.003)	(0.003)	(0.003)
R^2	0.00	0.00	0.05	0.05	0.14
Clusters	103	85	85	85	85
Observations	1,739	1,037	1,037	1,037	1,037

Note: This table shows coefficient estimates from ordinary least squares regressions of within-country gender preference gaps on economic development, gender equality, and linear birth decade trends. The cohort coefficients reflect the estimated changes in gender preference gaps per birth decade (i.e., cohort trends). Results are shown for up to 103 countries and territories observed over up to 4 waves and up to 7 birth decades in the World Values Survey. An observation is a within-country gender gap per birth decade. The dependent variable is the absolute difference in means of patience (Panel a), willingness to take risks (Panel b), trust (Panel c), or prosociality (Panel d), where means are separately calculated for each gender within country, period, birth decade-specific cells. Preference measures have been purged of country, gender-specific age profiles. All preference measures are standardized to mean 0 and standard deviation 1 on the respective global samples such that gender preference gaps are expressed in standard deviations of the corresponding preference measures (see Methods). Economic development is measured with log 2012 real gross domestic product per capita in national accounts obtained from Penn World Tables (Feenstra et al. 2015). Gender equality is proxied by the World Economic Forum's gender parity index (Hausmann et al. 2012). Specification (5) includes country–period fixed effects. Standard errors are clustered at the country level and reported in parentheses. Asterisks indicate significance levels: * $p < 0.1$; ** $p < 0.05$; *** $p < 0.01$.