Work-life and work-work balance in universities and research centers in Russia. What can we do to stop reinforcing gender gaps?

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Abstract

The paper explores the gender aspects of "work-work balance" and "work-life balance" in Russian academia. We rely on the survey of 2,342 academic economists (January 2021) at Russian universities and research centers. In the work-work balance framework (Griffin, 2022), we discuss the problems that appear inside organizations: occupying multiple functional roles and conflicting demands within one job. Work-life balance (Lester, 2015) we associate primarily with parenthood. All balances (actually imbalances) are closely related by the different roles women and men play in an organization and private life.

Introduction

Studies have shown that women are more likely to face challenges regarding work-life and work-work balances in academia. Women often have to juggle more responsibilities, both professionally and at home. Women are more likely to leave academia, are less represented in senior positions (Sheltzer & Smith, 2014), and have less grant support (Witteman, 2019). Also, for most countries and research fields has been shown publication gap – women publish fewer papers than men (Larivière et al., 2013; Huang et al., 2020). One possible explanation for the publication gap lies in the work-life balance framework, namely the unequal impact of parenthood on mothers and fathers. Within the academic community, perceptions persist that the absence of children is an essential factor in academic success (Morgan et al., 2021). Parenthood creates a new need to devote time to child care, but it does not imply an equal workload for women and men due to different heterogeneous socialization. Women, on average, have more childcare responsibilities than men (Misra et al., 2012) and thus are less likely to reallocate time funds in ways that combine motherhood and conform to notions of

being a “successful scientist” (Wolf-Wendel & Ward, 2016). The work-work balance is also shifting—fathers are more likely to reallocate their time to academic work, while mothers are shifting their academic focus from research to teaching (Misra et al., 2012). Thus, parenthood may reduce available research time for women to a greater extent than for men (Joecks et al., 2014).

There are several institutional characteristics of Russian academia. After the collapse of the Soviet Union, state spending on education and science was cut. As a result – lower salaries for academic staff and the prestige of an academic track (Prakhov & Rudakov, 2018) and decreased the proportion of male faculty in 90-s and early 00-s (Fig S1) because men tend to focus on jobs with higher salaries and are relatively more risk-averse (Rudakov & Prakhov, 2021). The proportion of female employees in higher education in Russia has been consistently high, over 60% in recent years (see Fig S2). However, Russian women are less represented in higher academic positions and academic management (Sterligov, 2017). Russian universities have a high bonus for administrative tasks, a modest bonus for research, and no bonus for teaching (Prakhov, 2019). Hence, the question of how activities are distributed within the profession (work-work balance) and how this is reflected in the strategies that women and men choose concerning work-life balance.

Academic fields are not equal in gender composition – the balance within individual academic fields can be skewed toward a relatively higher representation of women (Pedagogy, Philology) and or men (Mathematics, Physics) (Larivière et al., 2013). For this reason, we chose Economics, which in Russia is characterized by a relative gender balance in terms of numerical composition, to study the gender aspects of parenthood. We rely on the survey of 2,342 academic economists (January 2021) at Russian universities and research centers. The gender structure of this field (Economics) allows us to get a broad and gender-balanced picture (62% of the sample is female). We asked questions about their academic career, teaching and research experience, parenthood, and dissertation defense.

The paper begins to define the strategies women and men use from a work-work balance point of view. We show that women are more involved in teaching and administrative work, and men are more involved in research. We detect that fewer women are in higher positions and doing “status” work – they are mentoring more undergraduates and fewer Ph.D. students.

Women are more likely to identify themselves "rather as a teacher" than "rather as a researcher," and having children reinforces this shift. After that, we define the strategies women and men use from a work-life balance point of view. Our particular interest is the strategy of postponing parenthood in favor of defending the Ph.D. thesis.

Results

The academic organizations predominantly represent by universities. It employs 89.7% of women and 81.7% of men (Fig 1). The scientific sector (research institutes, the Russian Academy of Sciences) employs 8.4% of women and 13.4% of men. The Other group includes various enterprises and state bodies – 1.9% of women and 4.9% of men work there. Thus, for women, the main organization is significantly more often the organization of the university sector than for men. At the same time, organizations from the scientific sector are the main organization significantly more often for men. Within the university sector, there is a group of leading universities[1]. A different picture is observed from the whole university sector – the share of women in leading universities is lower than men. At the same time, the gender composition in the leading universities can be called more gender-balanced – the gap between the share of women and men is significant only at lower levels of significance.

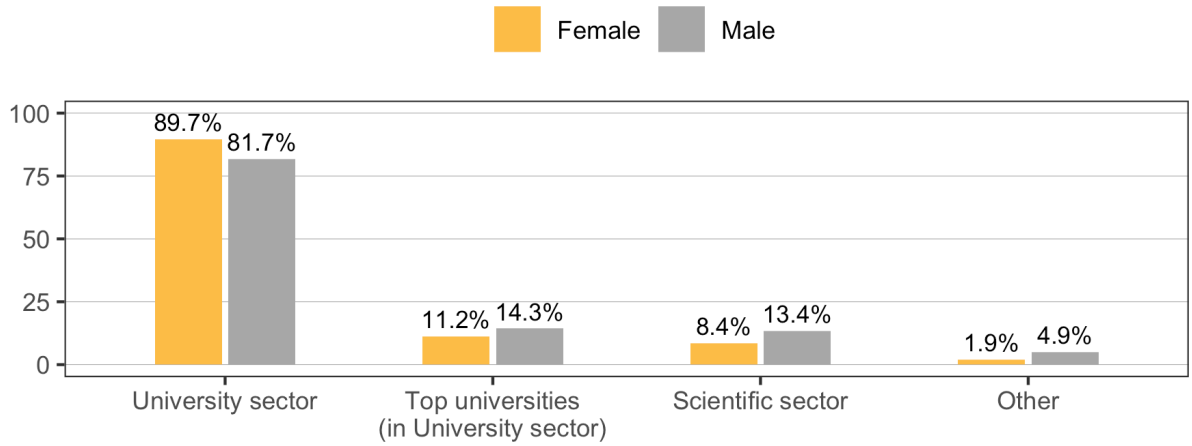

Figure 1: Distribution of women and men by type of organization.

[1] The *leading group* includes 23 universities: 21 universities participating in Project 5-100 (www.5top100.ru/en/), Moscow State University, and St. Petersburg State University.

1. Work-work balance

The most common positions in our sample are assistant professor, professor, and senior researcher (Table 1). Moreover, there are significantly more professors and senior research assistants among men and assistant professors and lecturers among women.

Table 1. Distribution of women and men by position.

	Women (N=1494)	*Men (N=901)*	*Overall (N=2395)*
Assistant Professor	793 (53.1%)	309 (34.3%)	1102 (46.0%)
Professor	194 (13.0%)	202 (22.4%)	396 (16.5%)
Senior Researcher	89 (6.0%)	78 (8.7%)	167 (7.0%)
Head of Department	83 (5.6%)	61 (6.8%)	144 (6.0%)
Lecturer	109 (7.3%)	33 (3.7%)	142 (5.9%)
Ph.D. student	41 (2.7%)	30 (3.3%)	71 (3.0%)
Assistant Lecturer	32 (2.1%)	17 (1.9%)	49 (2.0%)
Researcher	24 (1.6%)	19 (2.1%)	43 (1.8%)
Other positions	129 (8.6%)	152 (16.9%)	281 (11.7%)

We asked academic economists about their professional activities during the calendar year. The most common activity among academic economists, both women, and men, is teaching at the university. Also, teaching at the university is the only activity where women participate significantly more often than men – 88% of women taught at the university, with 78% of men (chi = 36.83, $p < 0.001$) (Fig 2). Some activities have no significant gender differences: 20-22% of women and men had experience managing a department/faculty/unit, and 24-26% had experience working on business contracts with an external customer. Some activities had a higher prevalence among men. For example, 31.6% of men and only 20.6% of women had experience as a researcher, 32% of men and 27% of women performed research on scientific grants, and 35% of men and 25% of women were reviewers for Russian journals.

Q: What professional activities did you have to do during this year?

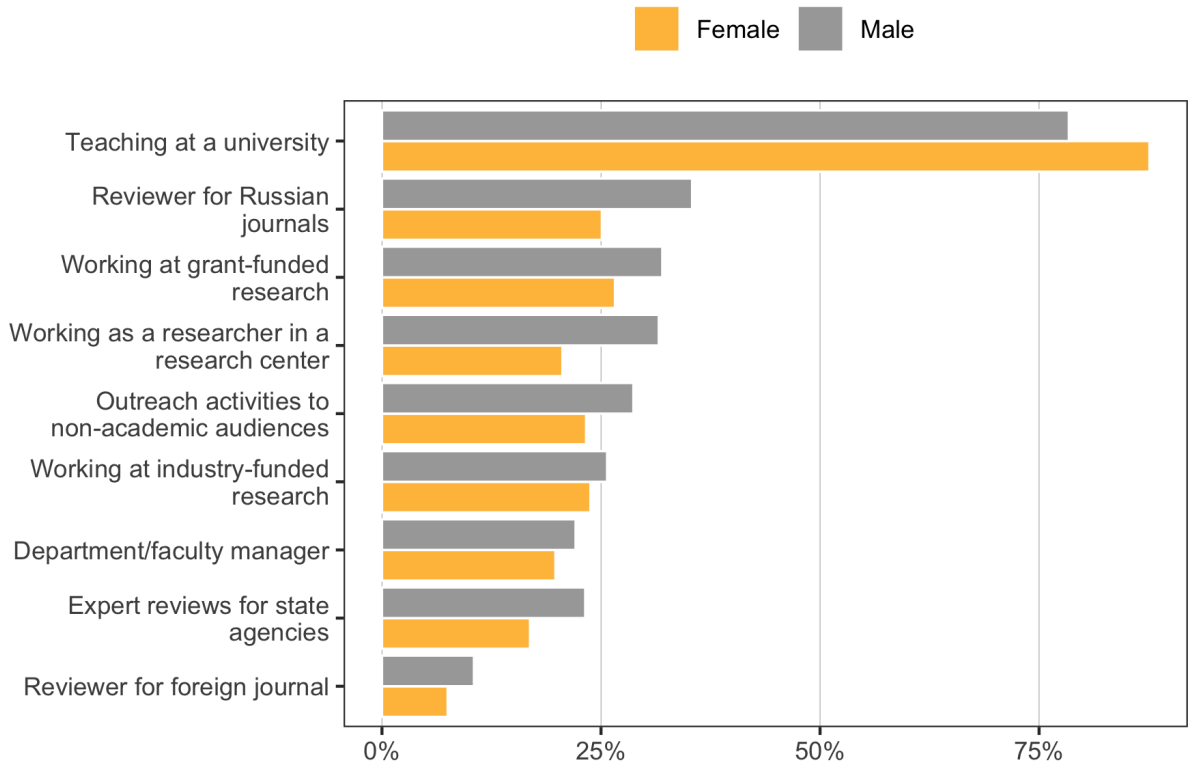

Figure 2: Professional activities.

Men were significantly more often supervised higher-level papers, such as Ph.D. and DS theses (Fig 3). However, there were no significant differences in the number of theses they currently supervise at the BA/MA level. On average, women in our sample supervised 2.25 PhDs and 0.26 DS, while men supervised 4.22 PhDs and 0.59 DS (p-value < 0.01).

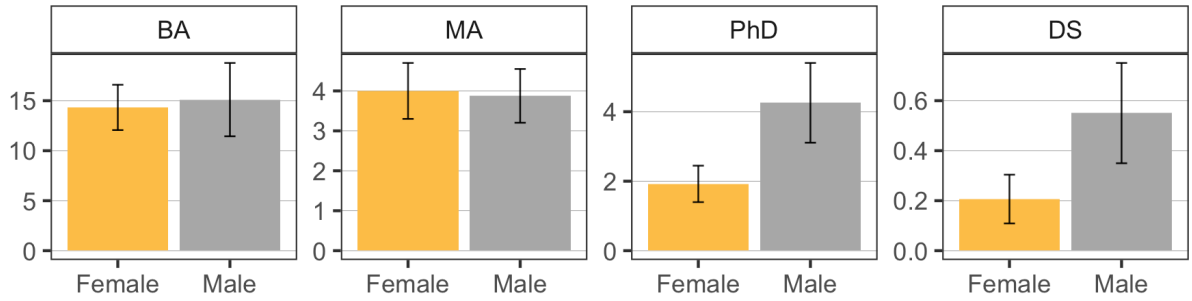

Figure 3: Supervising.

2. Work-life balance

According to the survey results, 76% of academic economists have at least one child. The most common answer among women is one child (40%), and among men – two children (34%) (Table 3). On average, there are more children per man than per woman – 1.45 children per man versus 1.20 per woman ($t = -5.68$; $p < 0.001$).

Table 3: Distribution of women and men by having children.

	Women (N=1494)	*Men (N=901)*
No children	346 (23.2%)	210 (23.3%)
One child	600 (40.2%)	254 (28.2%)
Two children	457 (30.6%)	302 (33.5%)
Three or more	81 (5.4%)	125 (13.9%)
No answer	10 (0.7%)	10 (1.1%)

Mean (SD)	1.20 (0.889)	1.45 (1.16)
Median [Min, Max]	1.00 [0, 6.00]	1.00 [0, 6.00]
No answer	10 (0.7%)	10 (1.1%)

On average, women and men in our sample became parents for the first time at age 27 (age of appearance of a first child for women 26.5 years, for men 28.1 years; $t = -5.95$, $p < 0.001$). While, on average, women became parents for the first time before men, the age of the Ph.D. did not differ and was 32.2 years for women and 31.8 years for men ($t = 1.22$, $p = 0.224$). The age of the DS also did not differ and averaged 45 years (Table S1).

The average age of having a first child in the general population in Russia has shifted toward later ages in recent years (see Fig S3). The age at which academic economists become parents for the first time is also increasing (Fig 3A). More mature women and men in our survey first became parents earlier than respondents in the younger age groups. In addition, we found that the age of protection differed for different generations of respondents. Younger respondents (both women and men) defended their Ph.D. earlier than more mature respondents (Fig 3B).

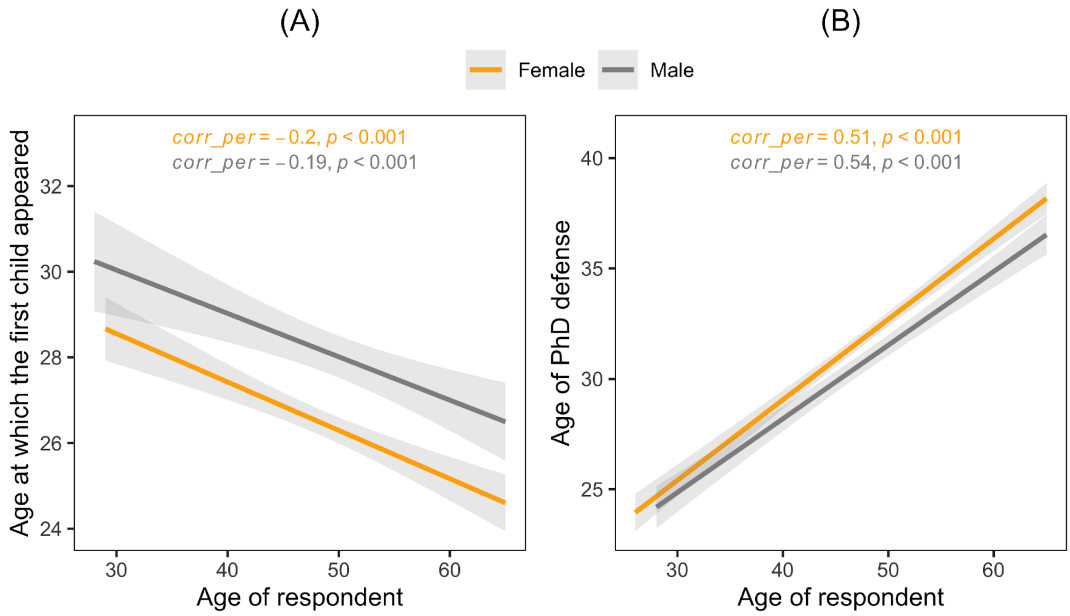

Figure 3. The dynamics of the age of having a first child and the age of defending a Ph.D. in generations of economists

For women, the defense of the Ph.D. and the appearance of the first child are separated, on average, by six years: the baby and, after that – Ph.D. The order is the same for men, but the events are, on average, separated by four years. The average value for women tells us more about the age structure of the sample – more women preferred to become parents first and then defend their Ph.D. than those who postponed parenthood. If we move away from the average value, we see a two-humped distribution for women (Fig 4). There is a drop in the area around the first child's appearance – there are very few women who defended their Ph.D. in the first few years after having a child, but there is a peak of defense for 2–3 years before the baby and a second peak of defense 4–5 years after the baby. For men, we see a distribution with one peak – in the area of the appearance of the first child.

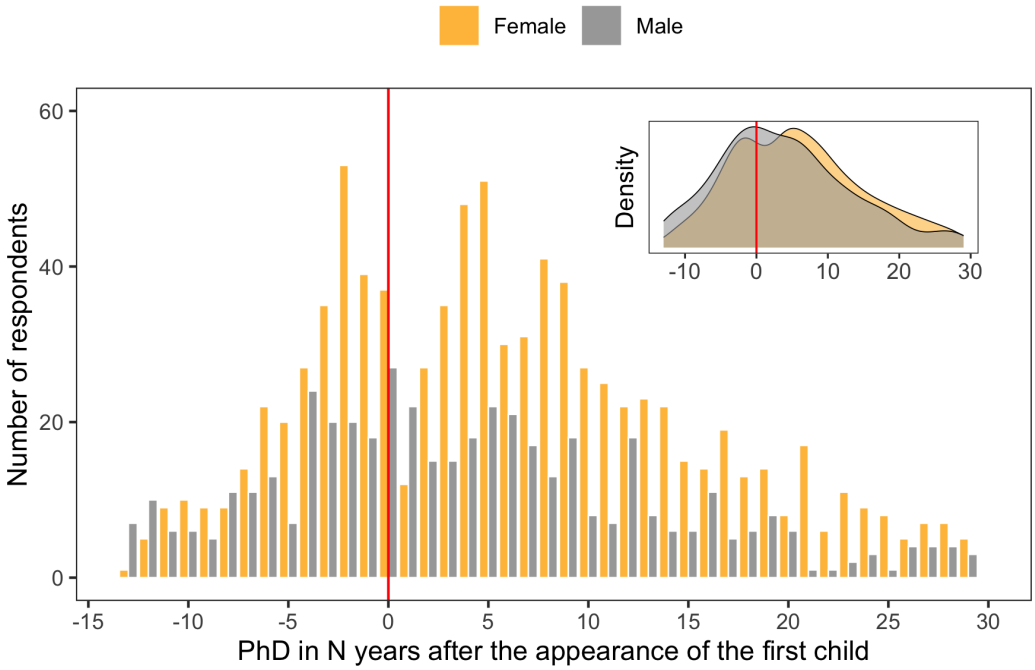

Figure 4: How the Ph.D. defense and the appearance of the first child are separated in time.

In our sample, most respondents have teaching experience (83%; see Fig 1) and publication experience (100%; a condition of being in the sample). At the same time, women and men responded differently to the question of whom they consider themselves to be, “rather as a researcher who also does teaching” or “rather as a teacher who also does research.” Women, on average, tended to think of themselves “rather as a teacher” more often than men: 64% of women chose this characteristic and the one closest to this characteristic (Fig 5A). A neutral response was chosen by 18% of the women. The characteristic “rather as a researcher” and the closest to this characteristic were chosen by 18% of women. Among male economists, the proportion of those who consider themselves “rather as a researcher” (39%) is comparable to the proportion who consider themselves “rather as a teacher” (38%). We get additional detail if we look at how women and men answered this question regarding having children. The gender bias in responses becomes less pronounced for people without children: 52% of women and 47% of men without children consider themselves «rather as a teacher” (Fig 5B). In the same group, there is a maximum convergence in the proportion of people who consider themselves “rather as a researcher” (20% of women and 29% of men).

Q: Do you think of yourself more as a scientist who also does teaching or as a teacher who does science?

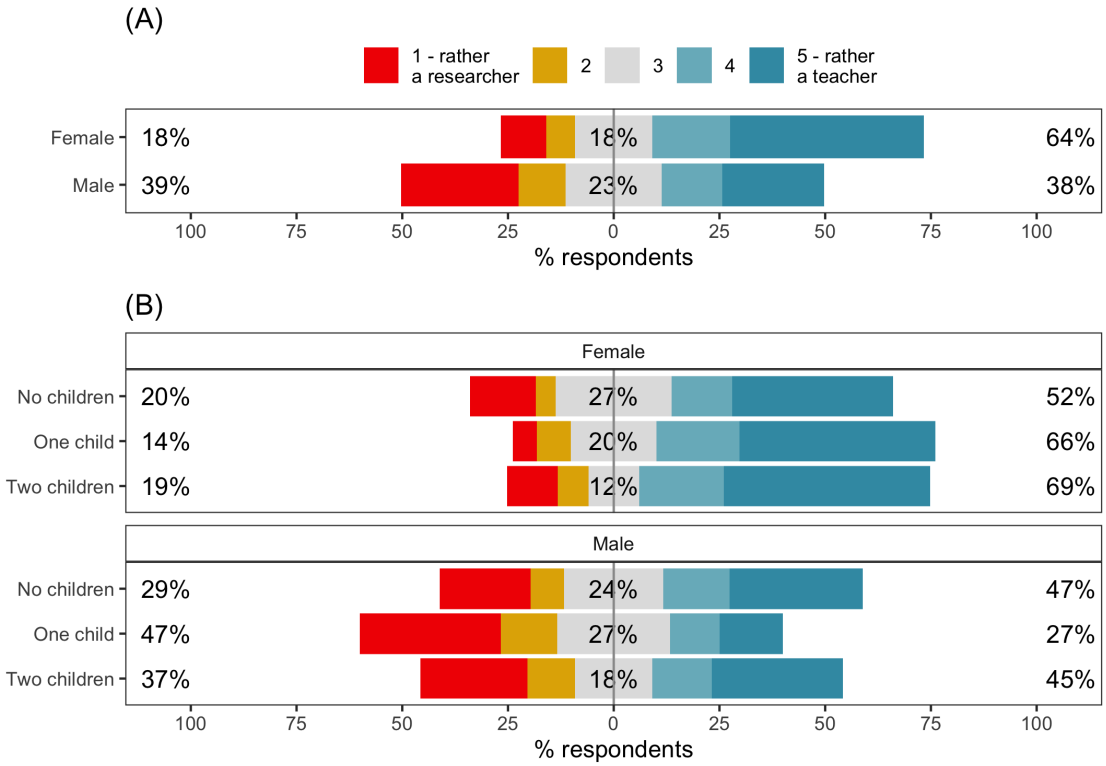

Figure 5: Self-definition “rather as a teacher” or “rather as a researcher”

Conclusions

We can fix several trends in the example of Russian academic economists:

First, younger generations of economists, on average, tend to postpone parenthood and defend their PhDs earlier, compared to more mature academic economists. This trend can be observed in many countries worldwide, and not only in academia, where women and men prefer to become parents after they achieve particular career successes or other life goals.

Second, there is a significant divergence in the types of academic activities women and men engage in within the profession. Women, on average, are more likely to define themselves “rather as a teacher.” There are several possible explanations for why the gender structure of academic employment looks this way, and it hinges on the question of the cause and the effect. If internal causes are primary, women initially understand the academic profession as predominantly teaching relatively more often than men. Thus, they go to academia purposefully to realize themselves as teachers. In this case, research activities are incidental to

them and are needed to fulfill the contract requirements. Also, women may see their fulfillment in parenthood and choose the academy because it provides relatively more flexible employment. Thus, research will not be a priority for them, and they may be more likely to choose the answer "rather as a teacher." One might also suggest the opposite, that external reasons are primary, i.e., the environment in their organization: women initially aim for research activities, but they may be relatively more likely to encounter barriers to doing so and be "pushed out" into the teaching track. Barriers can be related to relatively higher administrative burdens and invisible work, parenting that penalizes mothers more than fathers, relatively less grant funding, and possible discriminatory practices in hiring and career advancement.

In connection with the above, the particular interest is how women and men explain gender imbalances in economics. In our survey, we asked respondents about it, but we cannot exclude the possibility that the respondents answered in a way that falls within the socially approved answer (Fig 6).

Q: There are significantly more men than women among famous economists. What do you think is the role of each factor in explaining this phenomenon? (If you take the influence of all factors as 100%)

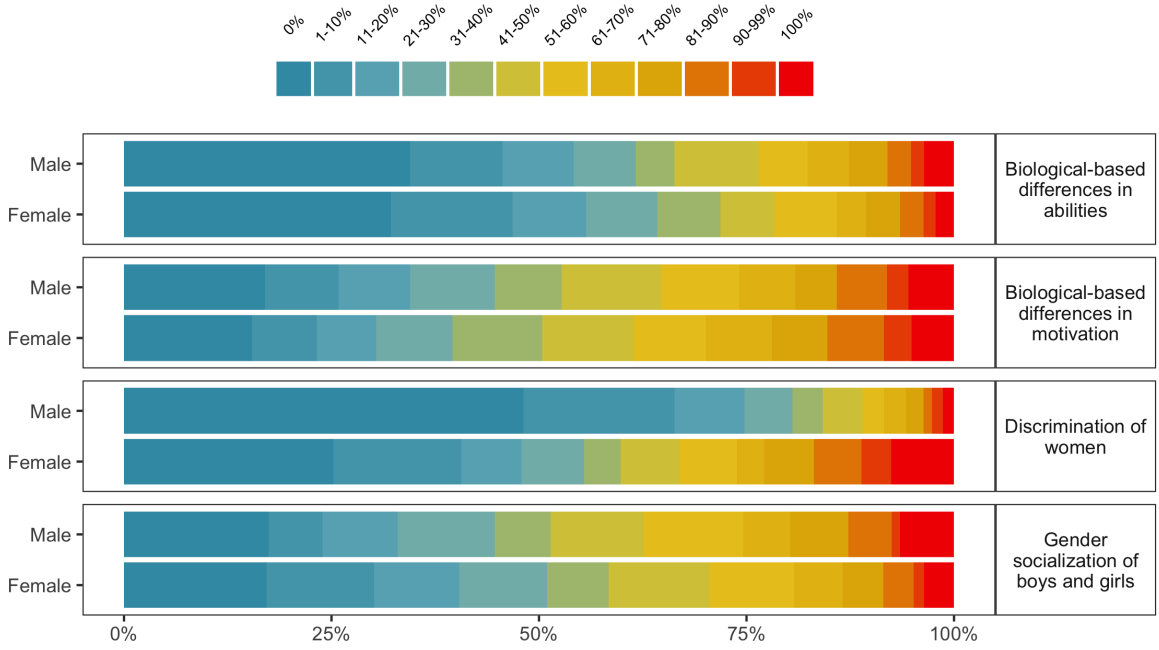

Figure 6. Personal evaluation of gender disparities.

The option that there are fewer famous economists among women because of "biological-based differences in abilities" is expectedly unpopular. Although, on average, men prefer this explanation more frequently than women. However, the difference in this item between women and men is insignificant. At the same time, an exciting point can be noticed in the item "Discrimination of women" – men more often deny this factor's impact. In contrast, women more often noted its importance. It can tell us that women feel discrimination within their organizations, although we cannot describe how this manifests in specific practices.

Supplementary materials

Supplementary material for this paper is available at https://github.com/hellche/egos2023.

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