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KEYWORDS

social norms | Gender norms | Representative surveys | Framing effects | double standards

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Discussion Paper Series

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Discussion paper n. 18/2025

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Gender equality norms across generations: Evidence from a representative sample*

Francesca Barigozzi†, Caterina Gaggini‡
and Natalia Montinari§

December 2024

Abstract

Using a representative survey of the Italian population (N=1,501), we elicit gender norms regarding the sharing of domestic chores within couples, employing the methodology of Krupka and Weber (2013). Two vignettes present hypothetical scenarios in which the partners' labor supply, chore allocations, and the gender of the partner proposing a specific chore allocation vary. Participants are asked to rate the social appropriateness of different chore allocations across scenarios that combine these dimensions. We find evidence of a framing effect and a gender double standard among the middle and older generations, but not among the younger generation, in which we observe a decline in adherence to the 'male breadwinner' model. These findings suggest that the younger generation is endorsing a more progressive gender norms. We also show that perceived social norms display a significant association with women's labor market outcomes based on administrative data at the regional level.

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Gender equality norms across generations: Evidence from a representative sample

Non-technical summary

This paper investigates how gender norms regarding domestic chore allocation vary across generations in Italy and whether these norms correlate with women's labor market outcomes. Using a representative survey of 1,501 participants from Italy, the authors employ a methodology designed to elicit social norms by asking participants to evaluate the social appropriateness of various household chore allocations in hypothetical scenarios. These scenarios vary based on the partners' working statuses and the gender of the partner proposing the chore allocation.

The findings reveal generational differences in gender norms. Younger participants demonstrate more progressive attitudes, challenging traditional norms such as the "male breadwinner" model, which is more strongly adhered to by middle-aged and older participants. Specifically, younger adults are less likely to judge chore allocations unequally distributed by gender as socially appropriate. In contrast, older generations exhibit a "gender double standard," whereby women proposing unequal allocations favoring themselves are judged more harshly than men in similar scenarios.

Additionally, the study highlights the role of framing effects. The gender of the partner proposing the chore allocation significantly influences perceptions of its appropriateness, particularly among older participants. A woman suggesting a self-beneficial allocation is judged more negatively than a man proposing the same arrangement. These framing effects and double standards diminish among younger participants, suggesting a shift towards egalitarian views.

The authors also explore the association between perceived gender norms and regional labor market data from ISTAT. They find that social norms, as elicited through the survey, correlate with women's labor force participation rates at the regional level, lending external validity to the findings. For example, regions with more progressive norms tend to have higher female labor market participation.

Overall, the study demonstrates how gender norms evolve across generations and highlights the persistence of traditional attitudes among older cohorts. The research underscores the importance of addressing deep-rooted social norms to promote gender equality in both domestic and professional spheres. It offers valuable insights into how cultural shifts could impact gender roles and labor market dynamics in Italy and similar contexts.

1 Introduction

Gender norms change slowly, and despite the recent improvements in women's labor market prospects, society still maintains different expectations for women and men. Childcare and household chores remain predominantly female tasks, whereas men are expected to invest in their careers primarily. Italy stands out as a negative benchmark in official statistics (OECD, 2019) and in comparative studies on gender gaps in time use based on time-diary surveys. Specifically, Italy presents one of the largest gender gap in time devoted to informal childcare and household work along all stages of the life course (see, among others, Anxo et al. (2011); Craig and Mullan (2011); Gimenez-Nadal and Molina (2020)). According to the Harmonized European Time Use Survey (HETUS) in 2010 Italy had one of the of highest gender gaps in time spent in on household and family care activities, with a 2.47 daily hours gap. This gap was not balanced by the gap in paid work, which Eurostat estimated to be of 1.52 daily hours in 2010. More recent data is available, for example, in 2014 the gender gap in total work (paid and unpaid) for dual earner couples where both partner work full time was approximately 1 hour in a working day, Cappadozzi (2019); see also Barigozzi et al. (2023). As an explanation, all the authors point to Italian strong social norms on gender roles.

Ostrom (2000) defines social norms as "shared understandings about actions that are obligatory, permitted, or forbidden" (pp. 143–144). This definition enlightens two features of social norms: that they apply to actions rather than outcomes and, more importantly, that they must be *jointly recognized by a group*.

Recent experimental literature uses coordination games carried out among groups in the field or in the lab to elicit social norms (see Krupka and Weber (2013), and reference within). Participants in experiments are provided monetary incentives to match the responses of others. Thus, participants play a pure matching coordination game whose goal is to anticipate the extent to which others will rate behavior as socially appropriate or inappropriate. In other words, coordination games are used to elicit participants' second-order beliefs. Specifically, according to Krupka and Weber (2013), a social norm is defined as the *mode of participants' second-order beliefs*. This elicitation method presents the advantage of being in line with Ostrom's idea that *collectively* approving or disapproving given behaviors in a specific group is at the very heart of the definition of social norms. Conversely, empirical papers typically identify a social norm as the personal value that prevails in a given population; i.e. as the average first-order belief.[1] However, a major limitation of the experimental literature is that the group of participants in the experiment is necessarily small and, being mostly composed of university students, may not be representative of the entire society, especially for matters such as gender norms. To overcome such limitations, we use the same methodology to elicit social norms as in Krupka and Weber (2013) but apply it to a representative sample of the Italian population (N = 1,501).

[1] In Section 1.2, we provide a detailed comparison of the Krupka and Weber methodology and the methodology used in the empirical literature.

We elicit social norms on gender roles as (incentivized) modal responses in a coordination game. In the coordination game, we ask respondents to match the choice of a group of people similar to them regarding gender, age, and residence area. In such a way, we create homogeneous subgroups in which respondents guess modal responses. In addition, we control for respondents' personal characteristics (e.g., civil status, education, employment status, presence of children, etc.) and personality traits.
Our sample is representative in terms of the three key characteristics that define the groups analyzed: gender, age, and area of residence. These characteristics are likely to significantly shape perceptions of gender norms (see Section 2.1 for discussion). Regarding respondents' age, the sample is representative across three age groups: 25–34, 35–59, and 50–64. These cohorts allow us to assess whether, and in what ways, older age groups hold more conservative gender norms compared to younger groups. In other words, comparing social norms elicited from groups of different ages offers valuable insight into the evolution of gender norms in society.

To measure social norms we use two vignettes and ask participants to rate the social appropriateness of several scenarios guessing the judgement given by most people in their reference group. In our vignettes, a couple is deciding how to share domestic chores. The vignettes differ depending on whether the two partners have or not the same working status. In addition, we varied, between subjects, the gender of the partner who proposes the domestic chores allocation. Our focus on the allocation of domestic chores is motivated by a documented trend in time use: while gender gaps in time allocated to domestic chores remain substantial, showing no or very limited trend toward reduction, gender gaps in time devoted to childcare activities, though still significant, are narrowing among the highly educated. See, among others, Gimenez-Nadal and Molina (2020). Our empirical analysis is guided by a simple model in which partners contribute time to a family's public good and experience disutility when deviating from a shared social norm regarding socially approved divisions of domestic chores.
We use vignettes to elicit respondents' opinions for several reasons. First, vignettes provide a standardized scenario that all respondents consider, ensuring comparability of responses across individuals. Second, they offer a context that helps respondents understand abstract concepts. Third, by varying the working situation of the partners in our vignettes, we can analyze how this variation influences respondents' judgments. Finally, vignettes can reduce social desirability bias because respondents are asked to comment on a hypothetical situation and not to report about their personal choices.

Our main results are the following. We document (i) the existence of a framing effect affecting the perception of chores allocations' social appropriateness; (ii) the existence of a gender double standard in judging deviation from the equality norm, and (iii) a decline of the "male as the breadwinner model" among young adults. Finally, we show that (iv) perceived social norms display a significant association with women's labor market outcomes based on administrative data at the regional level. This suggests that

perceived norms elicited using our vignettes display external validity in explaining labor market outcomes.

More in detail, results (i) and (ii) are obtained by focusing on the vignette where partners have the same labor market status. Result (i) indicates that the gender of the person proposing a chores allocation greatly affects how socially acceptable this proposal is perceived to be by the middle and the elder generation, but not the young adults. Specifically, in elder groups, a woman who proposes a distribution of chores that benefits herself but harms her partner is stigmatized more than a man making the same proposal.

Concerning result (ii), we find that deviations from the equality norm are judged asymmetrically by the middle and the elder generation, evidencing the existence of a double standard. A woman who offers to contribute less than her partner to household chores is rated by the middle and the elder generation as less appropriate than when offering to contribute more. But the same does not hold for a man in a similar situation.

Result (iii) is obtained by focusing on the vignette where partners are not participating equally in the labor market because the female partner works part-time. We find that the probability of perceiving an equal share of family chores as appropriate decreases monotonically with the age of the groups/age of respondents, with the oldest group holding a more "traditional" social norm compared to the intermediate and the youngest age group. Those three results together suggest that young adults perceive more progressive gender norms than the oldest and intermediate age groups.

Finally, as for result (iv), inspired by Fortin (2005) we conduct an external validity exercise and study the association between the elicited social norm and the Italian female labor market participation in different geographical areas. We document a positive association between our measure of social norms and female labor market participation at the age and geographical area level.

The rest of the paper is organized as follows: Section 1.1 discusses our contribution to the growing literature on gender norms. Section 2 describes the survey and the experimental treatment; Section 3 presents our hypotheses, Section 4 sketches a theoretical model. Finally, Section 5 presents the results, and Section 6 concludes.

1.1 Related literature

Our study relates to the experimental literature that employs Krupka and Weber's methodology to elicit social norms. In both laboratory and field settings, social norms measured as participants' incentivized second-order beliefs have been found to predict behavior in various situations, including prosocial behavior, bribery, discrimination, and saving behavior (e.g., Gächter et al. (2013); Burks and Krupka (2012); Barr et al. (2018); Fromell et al. (2021)). Unlike previous studies in Experimental Economics, we apply Krupka and Weber's methodology to a representative sample of the Italian population.[2]

[2]While we acknowledge that second-order beliefs about gender may be influenced by gender stereotypes, we do not address gender stereotypes explicitly. See Bordalo et al. (2019) for laboratory ex-

Our paper is also related to the literature examining the relationship between gender norms and women's economic outcomes, aimed at understanding whether social norms constrain women's labor market choices. Fortin (2005) uses the World Values Survey (WVS) to analyze the impact of attitudes toward gender roles, competition, and various aspects of work on women's employment decisions and part-time status among employed women.[3] Similarly, Fernández and Fogli (2005), Bertrand et al. (2015), Fortin (2005), Kleven et al. (2019), and Bertrand et al. (2021) examine the association between labor market outcomes and agreement with statements from representative surveys such as the WVS, the European Values Survey, the International Social Survey Programme (ISSP), or the International Values Survey. Our final section on external validity compares the explanatory power of social norms regarding gender roles elicited through Krupka and Weber's methodology with social norms measured via agreement with statements from representative surveys.

Additionally, we share a specific focus on the evolution of gender norms in society with Fortin (2005) and Bertrand et al. (2021). However, unlike those papers, which address the issue by comparing subsequent waves of the same survey, we analyze three different age groups interviewed in our survey. As mentioned in the Introduction, our survey is representative also concerning three age ranges of respondents (25–34, 35–59, and 50–64), enabling us to disaggregate and compare their responses based on age.

Our study is also related to Bursztyn et al. (2020) and particularly to Cortés et al. (2022). Bursztyn et al. (2020) investigate the prevailing gender norm among Saudi Arabian men regarding women working outside the home. They ask a sample of Saudi Arabian men whether they agree or disagree with the statement: "In my opinion, women should be allowed to work outside of the home." Participants are then asked, and incentivized, to estimate the percentage of other participants who agree with the statement, providing a measure of misperception of the social norm. Although both our study and Bursztyn et al. (2020) involve eliciting second-order beliefs, the definition of social norms and the study objectives differ. Bursztyn et al. (2020) implicitly define a social norm as the prevalent first-order belief (i.e., the prevalent personal value, either agree or disagree), while we adopt Krupka and Weber's approach and define a social norm as the mode of second-order beliefs. In terms of objectives, Bursztyn et al. (2020) focus on the misperception of the gender norm regarding women working outside the home among young men in Saudi Arabia and study how information can serve as a policy intervention against conservative norms. Our study, in contrast, aims to analyze the

periments that explore how gender stereotypes shape beliefs about the ability of oneself and others in different categories of knowledge.

[3]Specifically, agreement with the statement "When jobs are scarce, men have more right to a job than women" stands out as the most powerful explanatory factor of cross-country differences in female employment rates and the gender pay gap. This statement captures the perception of the man as the breadwinner, as well as discriminatory attitudes against working women. Agreement with the statement "A working mother can establish just as warm and secure relationship with her children as a mother who does not work" is closely associated with women's employment status and mother's guilt.

evolution of gender norms in a representative survey of the Italian population using vignettes that offer standardized scenarios, ensuring contextualization and comparability across individuals. For an excellent survey explaining the different methodologies for measuring social norms, and linking the experimental literature to the approach followed by Bursztyn et al. (2020), see Nosenzo and Görges (2020).

The study most closely related to ours is Cortés et al. (2022). They explore how second-order beliefs shape first-order beliefs using two vignettes and an informational treatment presented to a representative sample from the New York Fed's Survey of Consumer Expectations. For the first vignette, respondents are asked about their second-order beliefs regarding the perceived appropriateness of "A mother with a preschool child working when her husband has a job, she receives a job offer she likes and pays well, and a high-quality, free public pre-kindergarten is available." Half of the respondents are then given information about second-order beliefs of other respondents of the same gender and state of origin before being asked about their own first-order beliefs. The second vignette is similar but considers high and low opportunity costs of the mother receiving the job offer. Cortés et al. (2022) primarily aims to understand the role of misperceptions and information gaps in the persistence of gender norms in the U.S. In contrast, our study compares gender norms across three representative subsamples with different age to trace the evolution of norms. Similar to Bursztyn et al. (2020), Cortés et al. (2022) implicitly define social norms as the prevalent first-order belief, while we use the mode of second-order beliefs. Nevertheless, our study shares methodological similarities with theirs as both papers present two vignettes to a representative sample.

Finally, Barigozzi and Montinari (2023) analyze data from the same representative survey used in this paper. They compare two methodologies for measuring social norms: Krupka and Weber's experimental approach (the mode of incentivized second-order beliefs) and the approach commonly used in the empirical literature (the prevalent first-order belief). They examine two prescriptive statements, i.e., "When jobs are scarce, men should have more rights to a job than women," and "A woman should be ready to reduce the time devoted to her job for family reasons." Barigozzi and Montinari (2023) show that analyses based on personal values produce a significantly more progressive proxy of gender norms than those elicited through coordination games. Specifically, they find that most respondents report first-order beliefs that are more progressive than second-order beliefs, possibly due to desirability or self-image biases. This effect occurs regardless of whether respondents correctly perceive others' beliefs. Overall, this paper suggests that the risk of noisy elicitation of social norms due to social desirability bias remains high in those studies that identify social norms with first-order beliefs; and more so when social norms are changing relatively fast like gender norms.

2 The representative Survey

We designed a survey that provides incentivized elicitation of social norms over possible action choices determining different degrees of gender equality in the allocation of housework between two partners of opposite sex. We collected data on a representative sample of the Italian population (N=1,501).[4] Representativeness holds with respect to the following characteristics: gender (male, 41.57%; female, 58.43%), age range ($25-34$ (19.85%); $35-59$ (52.43%); $50-64$ (27.71%)), residence area (North (47.90%), Center (18.92%) and South of Italy (33.18%)) and, education (percentage of people holding a tertiary degree: 35.38%), see Table 1. Descriptive statistics are provided in Tables A1 in the Appendix, while a comparison of our dataset with data from ISTAT (2019) is provided in Table OA1 of the Online Appendix.

The data was collected by the professional company Scenari S.r.l. in June 2020 from a panel of $10,000$ participants using the computer-assisted web interviewing (CAWI) methodology.[5] On average, participants spent 23.4 minutes completing the survey (standard deviation: 29.83 min).

Note that we used a commercial survey company that employs quota-sampled panels, a common approach in survey research (see, among others, Stantcheva (2023)). While this method allows for a good approximation of population characteristics based on observable variables, we acknowledge that there may be some self-selection in the decision to enroll in the panel. To check this, we compared the observable characteristics of our sample to the population data provided by ISTAT (see Table OA1 in the Online Appendix). However, as with all non-probability sampling methods, there may be dimensions in which our sample is not fully representative, a common issue for research utilizing survey experiments (see, among others, Alesina et al. (2023) and Settele (2022)).

The survey is organized in 3 parts (see Table 2): in the first part, participants answered questions on their demographic information and household composition. In the second part, we elicited social norms following the methodology introduced by Krupka and Weber (2013); we proposed four vignettes and a question composed of five claims to measure social norms and personal values.[6]

For each of the four vignettes, and each of the five claims, participants were asked to guess the answer chosen by the majority of people similar to them for gender, age group, and residence area, i.e. their second-order beliefs. The four vignettes were presented in random order, but always before the question containing the claims. Participants were unable to go back to previously answered questions, and they were unaware of the content of the different parts of the survey.

[4] The size of our sample is in between the two most recent waves of the WVS for Italy, i.e. wave 5 ($N = 1,012$) and wave 7 ($N = 2,282$).

[5] CAWI is an internet surveying technique whose main advantage is to have a lower cost compared to other methods, basically because there is no need for interviewers to hold the survey.

[6] The two vignettes involving a child are not analyzed in this paper, so we avoid going into detail about them. The results are partially replicated and available on request. The five claims are not included in this study. Some of them are analyzed in Barigozzi and Montinari (2023).

	North		Center		South and Islands	
Age group	Male	Female	Male	Female	Male	Female
Age 25-34	63	67	20	26	58	64
Age 35-49	133	244	68	92	105	145
Age 50-64	91	121	32	46	54	72
Total	287	432	120	164	217	281
N (M+F)	719		284		498	

Table 1: Groups size in the representative sample (N=1,501).

Note: The sample (N=1,501) was collected in June 2020, it is representative with respect to gender (male, female), age range (25-34; 35-49; 50-64), and residence area (North, Center, and South of Italy). The table displays the eighteen groups relevant to our social norm elicitation.
The North includes the regions of the North-West (Liguria, Lombardy, Piedmont, Aosta Valley) and those of the North-East (Emilia-Romagna, Friuli Venezia Giulia, Trentino-Alto Adige, Veneto). The Center includes the regions of Lazio, Marche, Tuscany, and Umbria. The Mezzogiorno includes the regions of Southern Italy (Abruzzo, Basilicata, Calabria, Campania, Molise, Apulia) and the insular regions (Sardinia, Sicily).

The four vignettes differ along two dimensions (within-subject variation): i) the presence of children or not, ii) whether the two partners have or not the same working status. In addition, we varied, between subjects, the gender of the partner who proposes the allocation of the chores. More details on the vignettes and the social norms elicitation is provided in the next section.

The company offers incentives to motivate members of the panel to take part in surveys adopting a point-based system. Participants receive points for each survey they complete, depending on the survey length. Every 50 points they can get a 10 Euros Amazon gift card. For our survey, the company offered 20 points; in part 2, we provided additional incentives as part of the (incentivized) norm elicitation: participants who correctly guessed the answer given by most individuals in their reference group were rewarded with 3 Euros per correct guess paid for with an Amazon gift card. At the beginning of part 2 participants were informed that after the completion of the data collection, one of the questions presented in part 2 as well as 10% of participants (i.e. $N = 150$) would be randomly selected to receive the earnings associated with their correct guesses.[7,8]

In the third part, participants answered questions about i) their employment, and the employment of other members of their household; ii) the allocation of the chores within their household (before, during, and after the lockdown associated with the first wave of the COVID-19 emergency); iii) their (unincentivized) personal values on the same questions encountered in part 2 (i.e. the vignettes, and the question with the five

[7] A translation of the explanations shown to the participants is presented in the Online Appendix Table OA2.

[8] Charness et al. (2016) provide evidence that paying for only a subset of individuals or for a subset of decisions is as effective as the "pay all" approach. See also Burks and Krupka (2012) who ran a social norm elicitation and randomly selected 25% of participants for the payment of the social norm elicitation task. Eventually, one of the four vignettes was randomly selected for payment. Of the 150 participants randomly selected, 39% provided 2 correct answers out of 3 in the vignette, earning on average 5 Euros, for a total cost of 745 Euros, paid for incentives.

	Survey sections
Part 1	Demographic and household composition
Part 2	Incentivized norms elicitation following Krupka and Weber (2013)
Part 3	Chores allocation in the household
	Personal values (unincentivized)
	Employment, political orientation, personality traits,...

Table 2: Survey sections.

Vignette Part-Time: Asymmetry between partners	
Imagine Giulio and Silvia: they are either married or cohabiting. Giulio works twice as many hours as Silvia and earns about twice as much. They have no children and no one to help them with household chores.	
Questions	
How would most people similar to you (i.e., of your same gender, age group, and living in the same geographic area) evaluate Silvia (Giulio)'s behavior in the following scenarios?	
$V1_1$	Silvia (Giulio) is willing to take care of up to $\frac{1}{4}$ ($\frac{3}{4}$) of the household chores and leaves $\frac{3}{4}$ ($\frac{1}{4}$) of them to Giulio (Silvia).
$V1_2$	Silvia (Giulio) is willing to evenly split the household chores with Giulio (Silvia).
$V1_3$	Silvia (Giulio) is willing to take care of up to $\frac{3}{4}$ ($\frac{1}{4}$) of the household chores and leaves $\frac{1}{4}$ ($\frac{3}{4}$) of them to Giulio (Silvia).
Possible answers	Definitely Inappropriate, Somewhat Inappropriate, Somewhat Appropriate, Definitely Appropriate

Table 3: Text of Vignette Part-Time depicting asymmetry between partners.

claims); iv) their political orientation, the relative importance of different spheres of life (e.g. family, work, friends); v) some personality traits (TIPI, Gosling et al. (2003), cognitive reflection tests, Frederick (2005)).

2.1 Gender Norms Elicitation

Participants were presented with a set of vignettes depicting a hypothetical situation where one of the partners of a fictional couple chooses how to divide household chores; see the bottom part of the Online Appendix Table OA2. We focus on vignettes Part-Time and Full-Time reproduced in Tables 3 and 4. While the male partner always works full-time, the female partner's labor market participation differs in the two vignettes. Specifically, in Vignette Part-Time (Table 3), the female partner works part-time (*part-time female partner*); in Vignette Full-Time (Table 4), she works full-time (*full-time female partner).*[9]

Respondents were randomly exposed either to the version of the Vignettes where the female partner is proposing the chores allocation (54.26%) or to the version where the male partner is proposing the allocation (45.74%). In other words, we vary between subjects the gender of the partner proposing the housework sharing. As we explain when stating our hypothesis, we expect that the identity of the partner proposing the allocation significantly influences how the allocation is perceived.

[9]We could have included more detailed descriptions in the vignettes (e.g., specifying which household chores are involved in task-sharing or whether partners share their income). However, we deliberately chose not to ask for judgments on such highly specific scenarios to avoid making the vignette overly complex and narrowly focused.

Table A2 in Appendix controls that randomization worked by testing differences by proposer's gender in our variables of interest.
Table 3 and Table 4 present the woman (man) proposing versions.
Respondents are asked to judge three scenarios within each vignette. In the first scenario, the female (or male) partner is willing to do most of the household work. In the second, partners share the household work equally. In the third, the female (or male) partner is willing to take on only a small share of the household work.

To elicit gender norms, respondents were asked to rate the social appropriateness of every possible household work allocation as they thought their reference group would. Specifically, respondents were asked to guess how most people in their reference group would judge the social appropriateness of each allocation using a four-point Likert scale (Very Inappropriate, Somewhat Inappropriate, Somewhat Appropriate, Very Appropriate). Following Krupka and Weber (2013), we did not include a neutral option on the Likert scale as this would result in the risk of respondents using the neutral point as a coordination device (instead of the norm).
A reference group is a set of people characterized by the same gender (male, female), age range (25-34; 35-59; 50-64), and residence area (North, Center, and South and Islands of Italy). The fact that groups are contingent on gender is quite natural, given our focus on gender norms. For example, respondents may think that men hold more conservative beliefs than women on the role of women in society. In addition, groups are contingent on the respondents' age because younger people might hold less conservative beliefs than older people. Likewise, it has been observed that new generations tend to be more progressive than older ones, as respondents' replies in older and more recent waves of the WVS indicate (see, among many others, Fortin, 2005). Finally, our groups are contingent on the region where respondents live because it has been shown that social norms differ substantially in Italy between the North and South, with residents in the South being more conservative than those in the North (see, among others, Del Boca 2002 and Bigoni et al. 2016).
To sum up, participants play a pure matching coordination game whose goal is to anticipate the extent to which others similar to them will rate scenarios as socially appropriate or inappropriate. This implies that we elicit respondents' second-order beliefs. Then, following Krupka and Weber (2013), we define social norms as the mode of the distribution of second-order beliefs reported by members of a group on a specific scenario for each vignette.
Note that each participant encountered each vignette twice, first in part 2 (where incentivized second-order beliefs, or perceived social norms are elicited) and then in part 3 of the survey (where unincentivized first order beliefs or personal values are elicited). We only implement one sequence of elicitation, collecting the incentivized measures first and then the unincentivized ones.[10]

[10]Robustness of Krupka and Weber (2013)'s method with respect to the order of elicitation of first and second-order beliefs is reported by König-Kersting (2021), along with more general evidence of

Vignette Full-Time: Equality between partners	
Antonio and Francesca are either married or cohabiting partners. They both work the same number of hours, earn roughly the same amount of money, and have similar career trajectories. They have no children and no one to help them with household chores.	
Questions	
How would most people similar to you (i.e., of your same gender, age group, and living in the same geographic area) evaluate Francesca (Antonio)'s behavior in the following scenarios?	
$V1_1$	Francesca (Antonio) is willing to take care of up to $\frac{1}{4}$ ($\frac{3}{4}$) of the household chores and leaves $\frac{3}{4}$ ($\frac{1}{4}$) of them to Antonio (Francesca).
$V1_2$	Francesca (Antonio) is willing to evenly split the household chores with Antonio (Francesca).
$V1_3$	Francesca (Antonio) is willing to take care of up to $\frac{3}{4}$ ($\frac{1}{4}$) of the household chores and leaves $\frac{1}{4}$ ($\frac{3}{4}$) of them to Antonio (Francesca).
Possible answers	Definitely Inappropriate, Somewhat Inappropriate, Somewhat Appropriate, Definitely Appropriate

Table 4: Text of Vignette Full-Time depicting equality between partners.

3 Hypotheses

In this section, we present our main hypothesis.

Our first hypothesis is that proposing both an advantageous and a disadvantageous chore allocation is judged differently based on the proposer's gender. In other words, focusing on Vignette Full-Time, as illustrated in Section 4.1, framing effects influence the perception of social appropriateness. Specifically:

Hypothesis 1. Framing effects: *The gender of the individual proposing a chores allocation significantly influences the perceived social appropriateness of these allocations. A woman suggesting an allocation that is self-beneficial but detrimental to her partner is anticipated to receive harsher judgments compared to a man in an equivalent scenario.*

To test this hypothesis, we focus on Vignette Full-Time, where both partners have similar working conditions. In the simple model presented in the next section, we consider a unitary couple whose partners maximize their joint utility by contributing to the family's public good, simultaneously deciding how much time to devote to household chores. Given their similar working conditions, we assume that both partners experience the same disutility when allocating time to household chores. Notably, it is reasonable to assume an egalitarian social norm whereby contributing equally to the family's public good through an equal share of household chores is considered socially appropriate. Deviating from this egalitarian norm generates a disutility, inspired by Fehr and Schmidt (2006), in which contributing less to the public good is perceived as more inappropriate than contributing more. Respondents in the representative survey are asked to assess how inappropriate their reference group perceives deviations from equality norms to be, depending on whether the male or female partner takes the initiative. According to Hypothesis 1, we expect that when the female partner proposes a self-beneficial allocation

the robustness of this methodology to several variations: i.e. to the timing of play of the game with respect to the elicitation (d'Adda et al. (2016)) and to the interests at the stake of the respondent (i.e. stakeholder or spectator, Erkut et al. (2015)).

of time devoted to chores, she will be judged more harshly than her partner.
We will also check if different age groups are characterized by different perceptions of framing effects.
Our second hypothesis speculates on the existence of a gender double standard.

Hypothesis 2. Gender Double Standard: *Irrespective of the partner who is proposing the allocation, women are judged as more socially inappropriate than men for self-beneficial deviations from equal contribution to household duties.*

To test this hypothesis we focus again on Vignette Full-Time and specifically analyze the perceived social appropriateness of deviations from the equal-contribution scenario depending on the gender of the person who benefits from the deviation, irrespective of the partner who is proposing the allocation. As illustrated in our simple model, we compare social judgments regarding deviations from the egalitarian norm for men and women. If a double standard exists, the allocation in which the woman contributes less and the man contributes more will be rated as less appropriate than the mirror-image allocation, where the woman contributes more and the man contributes less.
We will also check if different age groups are characterized by different perceptions of the gender double standard.
In line with previous literature, this hypothesis aims to investigate the role of gendered norms and expectations as a root cause of gendered behavior in the household; see, among others, Thébaud et al. (2021). In this context, gender beliefs encompass both descriptive and prescriptive aspects: people generally believe not only that women do more housework but also that they *should* do more housework. Crucially, one does not need to personally subscribe to these gender norms to be influenced by them. As pointed out by Ridgeway and Correll (2004), even if individuals reject these gendered norms and do not evaluate men and women differently based on a specific behavior, they may still perceive that most others would. This widespread assumption—that others believe women should primarily handle housework—can significantly influence individuals' behavior.

The last hypothesis refers to the decline of the "male breadwinner model" across generations.

Hypothesis 3. Decline of the male breadwinner model: *The traditional model, where the male partner's main sphere is the workplace while the female partner's main sphere is the household, is no longer perceived as the social norm by young adults. They tend towards a more egalitarian family norm where partners should share household duties equally.*

To test this hypothesis we focus on Vignette Part-Time and specifically analyze the perceived social appropriateness of the equal-contribution scenario splitting the sample

by the three age groups and focusing on the differences in the perceived social norms (and in the resulting social norm) by age group. A progressive decline of the "male as the breadwinner" and the rise of a "dual-earner" model has been documented by Trappe et al. (2015) across all OECD countries. However, the pace and nature of this transition vary significantly from one country to another; see von Gleichen and Seeleib-Kaiser (2018). Within this context, Italy is considered among the countries where the weakening of the male breadwinner is modest due to its strong cultural and normative adherence to traditional gender roles, as well as an institutional political framework that does not readily support substantial reform. This combination of deep-rooted cultural values and a resistant political environment makes significant changes to gender norms particularly challenging. For example, Italy implemented mixed and belated policy changes, introducing gender-neutral parental leave only in 2000, and father participation remains markedly low. Moreover, although the availability of childcare for children under three has improved, reaching a national coverage rate of 24% in 2010, significant regional disparities persist. For example, in southern Italy, the enrolment rate for this age group was still less than 4% in 2010; see Del Boca et al. (2015).

Before moving to the illustration of our simple model, a couple of remarks are useful. First, throughout the paper, we refer to differences across generations, or age groups. We cannot claim these differences to be permanent as they could be related to differences in life stages, e.g., younger people might still have to go through parenthood, life experience, etc (see also the concluding section on this point). Second, while this study was not pre-registered, the choice of sample dimensions and treatment variations reflects our ex-ante hypotheses about the factors most likely to influence social norms. We ensured the representativeness of our sample by selecting demographic variables—such as gender, age, residence area, and education level—that we hypothesized would be critical in shaping societal views and behaviors around gender norms, particularly in household work and childcare. Likewise, our treatment variations were guided by the expectation that framing influences the formation of normative expectations.

4 A stylized model of time allocation to household chores with gender norms

In this section, we propose a stylized model to represent the partners' situation as illustrated in the vignettes, as well as the social norm regarding contributions to household chores within a couple.

We assume that a couple's welfare is given by the following expression:

$$W = U\left(B(t_f + t_m), C_f(t_f), C_m(t_m), N^f\left(t_f^N, t_m^N, t_f, t_m\right), N^m\left(t_f^N, t_m^N, t_f, t_m\right)\right); \quad (1)$$

where t_g, with $g \in \{f, m\}$, is time devoted to household work by the partner whose

gender is g, i.e., female or male. The function $B(t_f + t_m)$ denotes the benefit from a household public good which is increasing in the total time devoted to household work. The time devoted by the two partners to household chores, t_f and t_m, are thus perfectly substitutable. We let $B' > 0$, $B'' < 0$ and $B(0) = 0$.

The function $C_g(t_g)$, with $g \in \{f, m\}$, is the disutility from time spent in household work by the partner whose gender is g. The function $C_g(.)$ is strictly increasing and strictly convex: $C'_g(.) > 0$, $C''_g(.) > 0$. Labor supplies and the corresponding returns (e.g., market wages) are not explicitly modelled, but differences in the shape of the functions $C_f(.)$ and $C_m(.)$ can capture possible asymmetries in the time spent in the labor market by each of the partners, as indicated in the two vignettes. Finally, $U(.)$ is a function such that: $\frac{\partial U}{\partial B} > 0$, $\frac{\partial U}{\partial C_g} < 0$, $\frac{\partial U}{\partial N^g} < 0$ and $\frac{\partial^2 U}{\partial B^2} < 0$, $\frac{\partial^2 U}{\partial C_g^2} < 0$ and $\frac{\partial^2 U}{\partial (N^g)^2} < 0$, where $g \in \{f, m\}$.

Not conforming to the social norm regarding the distribution of chores within the couple results in disutility ($\frac{\partial U}{\partial N^g} < 0$). The term N^g, with $g \in \{f, m\}$, represents the disutility generated by the social norm for each partner. Specifically:

$$N^f\left(t_f^N, t_m^N, t_f, t_m\right) = \gamma_f \max\left\{\frac{t_f^N}{t_f^N + t_m^N} - \frac{t_f}{t_f + t_m}; 0\right\} + \rho_f \max\left\{\frac{t_f}{t_f + t_m} - \frac{t_f^N}{t_f^N + t_m^N}; 0\right\};$$
$$N^m\left(t_f^N, t_m^N, t_f, t_m\right) = \gamma_m \max\left\{\frac{t_m^N}{t_f^N + t_m^N} - \frac{t_m}{t_f + t_m}; 0\right\} + \rho_m \max\left\{\frac{t_m}{t_f + t_m} - \frac{t_m^N}{t_f^N + t_m^N}; 0\right\};$$

where t_g^N and $\frac{t_g^N}{t_f^N + t_m^N}$ are the time spent in household work and the share of time spent in household work that are socially appropriate for gender g, respectively.

The functions $N^g\left(t_f^N, t_m^N, t_f, t_m\right)$ is such that the norm is "binding" when a partner's share of household work is lower or higher than prescribed by the norm. The larger the social sanction for the partner contributing less (contributing more) to household chores, the larger the parameter γ (the parameter ρ). Hence, γ_g (respectively ρ_g), with $g \in \{f, m\}$, denotes the size of the disutility created by the norm for a partner of gender g who is contributing to household chores less (respectively more) than socially prescribed by the norm. We expect that $\gamma_g \geq \rho_g$, $\forall g \in \{f, m\}$, because society is likely to disapprove a self-beneficial behavior more that a self-sacrificing one.[11]

When choosing the amount of time to devote to household chores, the partners take the values t_g^N, $g \in \{f, m\}$, as given. Assuming an interior solution, the first-order conditions of welfare (1) with respect to the amount of time devoted to household work by the two partners are:

$$\frac{\partial U}{\partial B}\frac{\partial B}{\partial t_g} + \frac{\partial U}{\partial C_g}\frac{dC_g}{dt_g} + \frac{\partial U}{\partial N^g}\frac{\partial N^g}{\partial t_g} = 0, \text{ with } g \in \{f, m\}; \tag{2}$$

where, because of perfect substitutability in partners' contributions to the family public

[11] This is reminiscent of Fehr and Schmidt (2006), who examine preferences for fairness. They differentiate between envy, which arises in the context of a disadvantageous allocation, and fairness concerns, which emerge in the case of an advantageous allocation. Experimental evidence shows that the disutility from a disadvantageous allocation is greater than that from an advantageous allocation of the same magnitude.

good, $\frac{\partial B}{\partial t_f} = \frac{\partial B}{\partial t_m}$.

All the combinations t_f^* and t_m^* that simultaneously satisfy the system generated by the two first-order conditions (2) are solutions to the welfare maximization problem. In the vignettes, either the male or the female partner proposes how to share household chores inside the couple and respondents to the representative survey are asked to judge the behavior of the partner who is proposing the chores' allocation. Note that the partner proposing the allocation is irrelevant in the present model because we are considering a unitarian couple where partners jointly maximize the function W.[12]

We assume that the following three allocations, described in both Vignette Part-Time and Vignette Full-Time, satisfy the system of the two first-order conditions expressed by (2):

$$A_{V1} \equiv \left(\frac{t_f}{t_f+t_m} = \frac{1}{4}, \frac{t_m}{t_f+t_m} = \frac{3}{4}\right),$$
$$A_{V2} \equiv \left(\frac{t_f}{t_f+t_m} = \frac{1}{2}, \frac{t_m}{t_f+t_m} = \frac{1}{2}\right),$$
$$A_{V3} \equiv \left(\frac{t_f}{t_f+t_m} = \frac{3}{4}, \frac{t_m}{t_f+t_m} = \frac{1}{4}\right).$$

With their beliefs about social approval/disapproval of the three mentioned allocations, respondents to the representative survey are characterizing the relative sizes of the parameters γ_g and ρ_g, $g \in \{f, m\}$, appearing in the norm functions $N^g\left(t_f^N, t_m^N, t_f, t_m\right)$. Finally, we expect that the respondents' perception about the size of the parameters γ_g and ρ_g, is also affected by the gender of the partner proposing the allocation, as stated in the vignette. Hence, we can add a superscript i that indicates who is proposing the allocation in the vignette:

$$\gamma_g^i \text{ and } \rho_g^i,\ g \in \{f, m\},\ i \in \{mp, wp\},$$

where mp corresponds to "man proposing" and wp corresponds to "woman proposing".

4.1 Full-time working female partner (Vignette Full-Time)

Vignette Full-Time states that partners have the same working situation and suggests that labor market incomes and labor supplies are the same. Hence, it is reasonable to assume that the partners' cost of devoting time to household chores is the same and $C_m(.) = C_f(.) = C(.)$.

Given the symmetry between partners, a norm of equal contributions to household work is likely to exist and be expected by the respondents of the representative survey. Let us denote the Egalitarian Norm as $N_E \equiv \left(\frac{t_f^N}{t_f+t_m} = \frac{1}{2},\ \frac{t_m^N}{t_f+t_m} = \frac{1}{2}\right)$.

This egalitarian norm generates social disapproval when partners do not contribute equally to the public good.

[12]Note that when both partners have the same working conditions (Vignette Full-Time), we do not anticipate significant differences in their bargaining weights. In contrast, when the female partner works part-time (Vignette Part-Time), assuming greater bargaining power for the male partner might be appropriate in a collective model. However, since our focus is on measuring social approval of equal contribution (see the explanation of Hypothesis 3 in Section 4.2 below), incorporating bargaining weights in a collective model would add unnecessary complexity. This explains why we model a unitarian couple.

When $t_m < \frac{1}{2} < t_f$, the male partner experiences disutility, denoted by $\gamma_m \left(\frac{1}{2} - \frac{t_m}{t_f+t_m}\right)$, because he deviates from the egalitarian norm with an advantageous allocation of time. Simultaneously, the female partner suffers disutility, represented by $\rho_f \left(\frac{t_f}{t_f+t_m} - \frac{1}{2}\right)$, as she deviates from the egalitarian norm with a disadvantageous allocation of time. The parameters γ_m and ρ_f indicate the strength of social disapproval and, consequently, the cost of deviating from the social norm.

If $t_m > \frac{1}{2} > t_f$, the opposite situation occurs. The male partner experiences disutility $\rho_m(\frac{t_m}{t_f+t_m} - \frac{1}{2})$ and the female partner suffers disutility $\gamma_f \left(\frac{1}{2} - \frac{t_f}{t_f+t_m}\right)$.

Let us consider the three possible allocations.

- In A_{V2}, where $\frac{t_f}{t_f+t_m} = \frac{t_f^N}{t_f^N+t_m^N} = \frac{t_m}{t_f+t_m} = \frac{t_m^N}{t_f^N+t_m^N} = \frac{1}{2}$, partners adhere to the norm and, thus, do not experience disutility.
- In A_{V1},where $\frac{t_f}{t_f+t_m} = \frac{3}{4} > \frac{t_m}{t_f+t_m} = \frac{1}{4}$, the norm is binding for both partners. One can check that $\gamma_m \left(\frac{1}{2} - \frac{t_m}{t_f+t_m}\right) = \frac{1}{4}\gamma_m$ and $\rho_f \left(\frac{t_f}{t_f+t_m} - \frac{1}{2}\right) = \frac{1}{4}\rho_f$. Hence, the overall disutility from deviations from the norm in allocation A_{V1} is $\frac{1}{4}(\gamma_m + \rho_f)$.
- In A_{V3}, where $\frac{t_f}{t_f+t_m} = \frac{1}{4} < \frac{t_m}{t_f+t_m} = \frac{3}{4}$, the disutilities from deviating from the norm are $\frac{1}{4}\gamma_f$ and $\frac{1}{4}\rho_m$, respectively. Thus, in allocation A_{V3}, overall disutility from deviations from the norm is $\frac{1}{4}(\gamma_f + \rho_m)$.

It follows from the reasoning above that allocations A_{V1} and A_{V3}, representing two symmetric deviations from the Egalitarian Norm, will be judged equally socially inappropriate if and only if $\gamma_m + \rho_f = \gamma_f + \rho_m$.

We are now ready to state how the two hypotheses based on Vignette Full-Time can be interpreted using this simple model.

Framing effect. We expect that the cost of deviating from the egalitarian norm depends on the gender of the partner proposing the allocation of chores. Specifically, we expect that the self-beneficial allocation is judged more severely when proposed by the woman than when proposed by the man: $\gamma_f^{wp} \geq \gamma_m^{mp}$. This implies that allocation A_{V3} (where the woman is proposing that she contributes less) should be rated as less appropriate than its mirror image allocation A_{V1} (where the man is proposing that he contributes less). We are instead agnostic as for the parameter ρ_g^i and do not hold any specific expectation on whether $\rho_m^{mp} \gtrless \rho_f^{wp}$. This explains our **Hypothesis 1**.

Gender Double Standard. A Gender double standard exists if, irrespective of the partner who is proposing the allocation, the two deviations from the egalitarian norm (contributing more or contributing less) are judged differently according to the partners' gender: $\gamma_m + \rho_f \neq \gamma_f + \rho_m$. In particular, we expect that the judgment gap between contributing more and contributing less is larger for the female than for the male partner: $\gamma_m + \rho_f < \gamma_f + \rho_m$. If a double standard

exists, the allocation A_{V3} (woman contributing less and man contributing more) will be rated as less appropriate than its mirror image allocation A_{V1} (woman contributing more and man contributing less). This motivates our **Hypothesis 2**.

4.2 Part-time working female partner (Vignette Part-Time)

Here, the male partner devotes to market labor twice as much time as the female partner and earns twice as much labor income, this implies that $C_m(.) > C_f(.)$. In words, the disutility from time spent in household work is now higher for the male partner. Hence, it is plausible to assume that the social norm is now such that:

$$\frac{t_f^N}{t_f^N + t_m^N} > \frac{1}{2} > \frac{t_m^N}{t_f^N + t_m^N} \Rightarrow \left(t_f^N - t_m^N\right) > 0. \tag{3}$$

Note that the closer $\frac{t_f^N}{t_f^N + t_m^N}$ and $\frac{t_m^N}{t_f^N + t_m^N}$ are to $\frac{1}{2}$, the closer society is to the Egalitarian Norm.

Let us consider the allocation entailing equality of contributions:
$A_{V2} = \left(\frac{t_f}{t_f + t_m} = \frac{1}{2}, \frac{t_m}{t_f + t_m} = \frac{1}{2}\right)$. Under (3), the total disutility from norm deviation generated by such allocation is:

$$\gamma_f \left(\frac{t_f^N}{t_f^N + t_m^N} - \frac{1}{2}\right) + \rho_m \left(\frac{1}{2} - \frac{t_m^N}{t_f^N + t_m^N}\right); \tag{4}$$

where the female partner is deviating from the norm because she does not contribute enough, while the male partner contributes too much. Intuitively, the perceived total disutility expressed in (4) is inversely related to the perceived social appropriateness of allocation A_{V2}.

Decline of the "male as the breadwinner" model. Our **Hypothesis 3** states that the respondents' perception of the difference $\left(t_f^N - t_m^N\right)$ in Vignette Part-Time is age-specific. As a consequence, respondents will rate total disutility in (4) according to their age group. In other words, when the male partner spends twice as much time on market labor and earns twice as much income as the female partner, we expect that the appropriateness of the equal share of family chores described in allocation A_{V2} decreases in the age groups. This means that:

$$\left(t_f^N - t_m^N\right)_{25\text{-}34} < \left(t_f^N - t_m^N\right)_{35\text{-}49} < \left(t_f^N - t_m^N\right)_{50\text{-}64}.$$

5 Results

Our results are presented in three steps; first at the aggregated and, second, at the individual level. Finally, in the last step, we highlight the correlation between social norms elicited in our sample and the outcome of female labor market outcomes measured by administrative data.

To aggregate individual answers, following a common procedure in the experimental literature (see, e.g. Krupka and Weber (2013) and Barr et al. (2018))[13] we use the *appropriateness norm rating* obtained by converting subjects' answers to numerical values. Specifically, we attribute to every Likert scale item a numerical counterpart: Very Appropriate is associated with the value $+1$, Somewhat Appropriate with $+0.33$, Somewhat Inappropriate with -0.33, finally, Very Inappropriate is associated with -1. In this way, we represent Likert scale items as evenly spaced, this allows us to perform parametric tests but imposes an additional assumption on our data. To take into account this assumption, we replicate our tests using non-parametric tests that do not impose evenly spacing on our Likert scale items.[14]

In all our analyses, we use sample weights, which guarantee the representativeness of our sample for within/between-group comparison and regression analysis.[15] Whenever we use statistical tests, we follow the Benjamini-Hochberg False Discovery Rate method (Benjamini and Hochberg (1995)) for multiple test adjustment: we sort the p-values in ascending rank and multiply each by the number of separate tests being performed before dividing each by its rank- thus greater adjustments are made to smaller p-values. Table 5 and Table 6 present the distribution of answers for Vignette Part-Time and Vignette Full-Time's answers; the social norm for each of the three scenarios[16] is enclosed in a rectangle, "strong" norms (i.e. norms that are shared by the majority of our respondents) are in boldface.

5.1 Framing and Gender Double Standard

In this section we focus on Vignette Full-Time which depicts a set-up where the partners share the same working situation: they work the same number of hours per week and earn the same amount of money. At the aggregate level, Table 6 shows the distribution of *perceived social norms and the elicited social norms* for the three allocations of household tasks. The elicited social norm is that of appropriateness of the equal contribution to household chores, when partners are ex-ante equal in the labor market. While any departure from equal contribution is perceived as socially inappropriate; we elicit norms

[13] The same transformation was used among others by Chang et al. (2019), d'Adda et al. (2016), Erkut et al. (2015), Gächter et al. (2017), Gächter et al. (2013), Kimbrough and Vostroknutov (2016), Schneeberger and Krupka (2021) and Veselỳ (2015).

[14] When a test has been replicated using non-parametric tests, we report whether the result holds, or not.

[15] Specifically, we implement the command "svy" in Stata.

[16] In what follows, we always refer to "woman contributes less", "equal contribution", and "man contributes less" as our three scenarios.

suggesting that the degree of social inappropriateness varies depending on which gender contributes less in the unequal distribution of chores scenarios.

Vignette Part-Time			
	Woman contributes less	Equal contribution	Man contributes less
Very Inappropriate	**57.38**	11	10.03
Somewhat Inappropriate	25.63	33.73	17.47
Somewhat Appropriate	13.37	34.49	40.98
Very Appropriate	3.62	20.79	31.52
Mean Rating	-.5782	.1004	.2925

Table 5: Family Norm, Vignette Part-Time

Vignette Part-Time: "Imagine Giulio and Silvia: they are married or cohabiting. Giulio works twice as many hours as Silvia and earns about twice as much. They have no children and no one to help them with the housework." The elicited social norms are enclosed in a rectangle; strong norms (i.e., norms shared by the majority of the sample) are presented in boldface.

Vignette Full-Time			
	Woman contributes less	Equal contribution	Man contributes less
Very Inappropriate	49.34	1.83	32.44
Somewhat Inappropriate	32.55	6.27	34.12
Somewhat Appropriate	14.44	24.75	25.88
Very Appropriate	3.67	**67.15**	7.56
Mean Rating	-.5164	.7142	-.2761

Table 6: Family Norm, Vignette Full-Time

Vignette Full-Time: "Imagine Antonio and Francesca: they are married or cohabiting. They both work the same number of hours, earn roughly the same amount of money, and have the same career trajectories. They have no children and no one to help them with the housework." The elicited social norms are enclosed in a rectangle; strong norms (i.e., norms shared by the majority of the sample) are presented in boldface.

We first focus on our treatment, i.e., the gender of the partner who is proposing the allocation of household chores described in the three scenarios. Following our Hypothesis 1, we examine the existence of framing effects. Specifically, we analyze whether the gender of the proposer affects perceptions of social norms in allocations where one partner contributes less than the other. According to our Hypothesis 1, we examine whether a woman proposing an allocation that benefits[17] her (and disadvantages her partner) is judged as more socially inappropriate than a man proposing an allocation that benefits him. This allows us to explore whether normative societal expectations differ based on the gender of the proposer in scenarios of unequal contribution.

[17]In what follows, when we talk about allocations benefiting a partner, we refer to allocations that result in a lower share of house chores for that partner, this in turn implies that the other partner will enjoy an allocation that disadvantage him/her, i.e., such that he/she has a higher share of house chores.

Table 7 presents the distribution of the answers for Vignette Full-Time in the three scenarios by age group, distinguishing between "woman proposing" and "man proposing" (our treatments) in panels a) and b), respectively.

Panel a) Woman Proposing									
	Woman Contributes Less			Equal Contribution			Man Contributes Less		
	25-34	35-49	50-64	25-34	35-49	50-64	25-34	35-49	50-64
Very Inappropriate	**56.84**	**58.15**	**63.62**	.95	1.56	1.24	25.51	22.19	25.65
Somewhat Inappropriate	30.5	28.17	26.41	5.43	4.72	4.88	40.52	33.85	36.8
Somewhat Appropriate	9.12	10.94	8.27	23.23	28.19	23.77	26.3	32.91	28.42
Very Appropriate	3.54	2.74	1.7	**70.39**	**65.53**	**70.11**	7.68	11.05	9.12
Mean Rating	-.6036	-.6109	-.6791	.7531	.7171	.751	-.2252	-.1145	-.1929
Panel b) Man Proposing									
	Man Contributes Less			Equal Contribution			Woman Contributes Less		
Very Inappropriate	49.9	37.21	42.91	1.7	3.22	2.08	32.96	32.81	41.92
Somewhat Inappropriate	28.46	33.07	31.64	5.49	8.64	8.36	37.26	41.77	35.02
Somewhat Appropriate	17.19	23.29	21.25	23.34	26.23	22.06	24.4	19.68	18.74
Very Appropriate	4.45	6.42	4.2	**69.48**	**61.91**	**67.49**	5.38	5.74	4.32
Mean Rating	-.4917	-.3402	-.4214	.7367	.645	.6993	-.3182	-.3436	-.4297
Panel c) Mean Differences (p-value), framing									
	Proposer's Advantage			Equality			Recipient's Advantage		
Age group: 25–34	-.1119	(.1827)		.0164	(.7825)		.0930	(.2780)	
Age group: 35–49	-.2707	(.0000)		.0721	(.1079)		.2291	(.0000)	
Age group: 50–64	-.2577	(.0000)		.0517	(.3180)		.2368	(.0003)	
Panel d) Mean Differences (p-value), woman versus man contributes less									
	age group: 25–34			age group: 35–49			age group: 50–64		
Woman Proposing	-.3784	(.0000)		-.4965	(.0000)		-.4861	(.0000)	
Man Proposing	.1734	(.0351)		-.0035	(1.0000)		-.0083	(.8961)	

Table 7: Family Norm by proposer's gender and age groups, Vignette Full-Time

Vignette Full-Time: "Imagine Antonio and Francesca: they are married or cohabiting. They both work the same number of hours, earn roughly the same amount of money, and have the same career trajectories. They have no children and no one to help them with the housework."
Panel c) Benjamini-Hochberg adjusted p-values in parenthesis refer to a test of equality within age groups. Results are replicated with Wilcoxon rank-sum test. Panel d) Benjamini-Hochberg adjusted p-values in parenthesis refer to a test of equality of woman and man contributes less scenario within age groups. Results are replicated with Wilcoxon rank-sum test.

Table 7 shows that the elicited norm for the equal contribution scenario is Very Appropriate across all age groups, regardless of the proposer's gender. Proposing an advantageous allocation is consistently judged as Very Inappropriate, but this view seems to be more prevalent when the proposer is the female partner, and less so when the proposer is male.

A second difference we observe in Table 7 refers to the young and middle generations: the allocation where the woman contributes less is judged by the majority as Very Inappropriate when the proposer is a woman, while it is considered Somewhat Inappropriate when the proposer is the man. Figure A1 in the Appendix presents the same results contained in Table 7 using the norm function by age group.

To formally test our Hypothesis 1, in panel c) of Table 7 we test the null hypotheses of equality of means between woman and man proposing, in the three scenarios considered by the Vignette Full-Time: (i) proposer's advantage, i.e. the proposer is contributing

less; (ii) equal contribution; (iii) recipient's advantage, i.e. the receiver contributes less than the proposer. For each scenario, panel c) of Table 7 reports the mean differences,[18] and the adjusted p-valued in parenthesis. Results are coherent with our Hypothesis 1, as we do find significant differences in the mean ratings for cases (i) and (iii) for the middle and elder age groups. That is, we find that the two elder age groups exhibit a framing effect: the proposer contributing less (more) is rated differently based on their gender.
These findings can be summarized as follow:

Result 1, Framing: *Framing effects are documented for mid-lifers and seniors, but not for young adults. In the two elder groups, a woman proposing a self-benefiting chore distribution is perceived to be less socially appropriate than a man proposing a self-benefiting chore distribution, while a man proposing self-sacrificing arrangements is perceived as less socially appropriate than a woman proposing a self-sacrificing arrangement. This disparity disappears among young adults.*

The finding that a woman proposing a chore distribution favorable to herself yet unfavorable to her partner is perceived as less appropriate than a man doing the same thing can be attributed to entrenched gender roles. Traditionally, domestic responsibilities are viewed as the woman's domain; thus, when a woman attempts to assign more household tasks to her partner, it defies these stereotypes and invites greater societal sanction. Conversely, the observation that a man suggesting a chore allocation that is less favorable for himself, but beneficial to his partner faces more negative judgment than a woman reflects traditional notions of masculinity. A man assuming primary responsibility for domestic chores challenges conventional masculine roles, leading to societal disapproval. Among young adults, however, such counter-stereotypical behaviors do not seem to be sanctioned, possibly indicating a positive shift towards gender-neutral and egalitarian attitudes in managing household responsibilities within Italian society.

Next, we look at the existence of a gender double standard, i.e., a woman is judged as more socially inappropriate than a man for deviations from an equal contribution to domestic chores, irrespective of the gender of the proposer. Figure 1 presents the norm function for Vignette Full-Time on the overall sample, by proposer's gender. Table A3 in the Appendix presents the elicited norms together with tests associated with framing and gender double standard without splitting by age.
Figure 1 depicts a double standard in the treatment "woman proposing" but not in the one "man proposing." When the woman proposes the chores allocation, the woman contributing less/man contributing more scenario is perceived as less socially appropriate than the mirror image scenario of woman contributing less/man contributing more.

[18] When we talk about mean differences, we refer to differences between mean ratings. In this case, the mean differences refer, for example, to the difference between the mean rating for the proposer's advantage scenario in the age group 25–34 woman proposing, and the mean rating for the proposer's advantage scenario in the age group 25–34 man proposing.

Conversely, no double standard occurs when the man proposes the very same allocations. The two deviations from equal contributions are judged in the same way when the man proposes the deviation. In terms of the model, all this implies that $\gamma_m^{wp}+\rho_f^{wp} < \gamma_f^{wp}+\rho_m^{wp}$, as we stated in our Hypothesis 2, but $\gamma_m^{mp}+\rho_f^{mp} \sim \gamma_f^{mp}+\rho_m^{mp}$. In other words, Figure 1 suggests that the gender double standard is driven by the "woman proposing" treatment.

To verify the previous observation, let's move back to Table 7. In panel d) of Table 7, within each age group, we test the hypothesis of equality of mean (ratings) between the woman and the man contributing less in the two treatments. Thus, we test whether the woman contributing less is rated as appropriate as the man contributing less when she offers, or receives the chores allocation; this hypothesis is rejected at any level for the woman proposing treatment, and at the 5% significant level for the younger generation in the man proposing treatment. Notably, we find negative deviations for the woman proposing and a positive deviation for the man proposing in the younger age group. In other words, it looks like the younger generation expects a social sanction both for the woman and the man offering to contribute less.
To further analyze the incidence of double standard we conduct an analysis at the individual level.

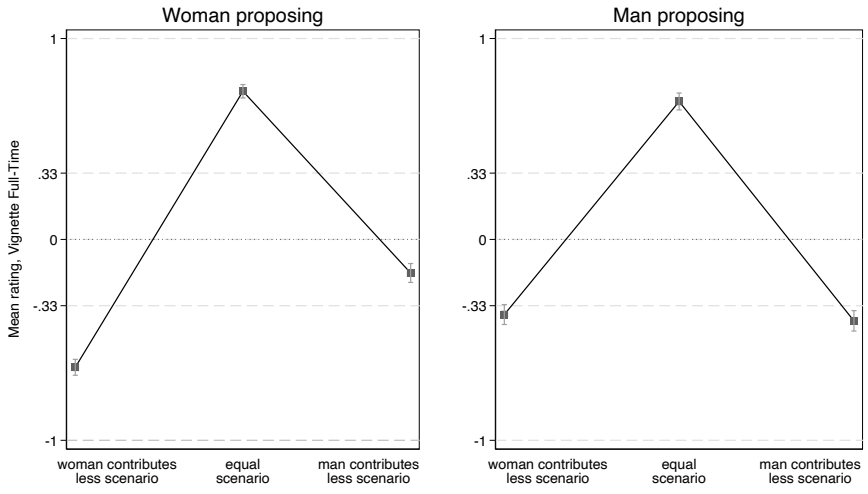


Figure 1: Norm function for Vignette Full-Time: "Imagine Antonio and Francesca: they are married or cohabiting. They both work the same number of hours, earn roughly the same amount of money, and have the same career trajectories. They have no children and no one to help them with the housework.". 95% Confidence intervals are displayed.

Table 8 presents the average marginal effects for the logistic regression estimating the probability of identifying a norm that rates the "woman contributes less" scenario as less socially appropriate than the "man contributes less" scenario in the overall sample (to ease comparison, we report the mean of the dependent variable: 0.397). For a description of all the variables used in our analysis see Table A1 in the Appendix. In model (1)

we control for our reference group categories, together with a dummy for the framing. In model (2) we add controls for the respondent having relocated to a different geographical area; for example, the category 'Moved North' identifies respondents who are resident in a macro-area that is northern than the one in which the respondent was born. We lost 58 observations as we either did not have reliable information on the macro-area of birth or because of a foreign place of birth. In model (3), we add controls for civil status and the respondent's parenthood. Model (4) adds controls on education and job status. Table OA3 in the Appendix presents additional models controlling for a set of personality traits (model (5)) and a set of controls at the municipality level (model (6)) using data from the Urban Index (https://www.urbanindex.it). We find some evidence of a difference in this probability for the young generation only in model (1), but the coefficient is no longer significant once we add controls. The sign of the coefficient for young adults is, however, negative, as expected. Thus, we find that young adults are less likely to exhibit a gender double standard, but we no longer capture this once we add controls on family formation. Not surprisingly, we find a statistically significant effect of the gender of the proposer of the workload allocation: when the allocation is proposed by the woman, the probability of perceiving a norm of higher inappropriateness for her (with respect to the male partner) is increased by about 27pp. While this result is in line with an idea of fairness, it is liked to our Hypothesis 1 on framing.

In what follows, we briefly describe results from other regressions carried out to better understand the gender double standard and its link with framing. In the online Appendix, Table OA3 presents results from additional models including controls on personality traits (model (5)), and municipality characteristics (model (6)). In Table OA4, we replicated the estimates contained in Table 8, including interactions between gender, geographical areas, proposer's gender, and age groups. Panel a) model (1) includes interactions between age groups and gender, model (2) includes interactions between age groups and geographical areas, and model (3) includes interactions between age, gender, and geographical area. All specifications include a control for the gender of the proposer. We find suggestive evidence that the estimates for the younger generation are driven by the males in the South and Islands, while the effects for the middle-aged generation seem to be driven mostly by the males in the center. Panel b) includes interactions between the gender of the proposer and the gender of the respondent. We would like to stress that these regressions provide only suggestive evidence, and are intended to try to cast a light on determinants of differences in elicited norms between generations.

In the appendix, Table A4 replicates Table 7 aggregating over our treatments.

Again in the appendix, Table A5 and Table A6 replicate Table 8 disaggregating by our treatments. Thus, they present the average marginal effects for the logistic regression estimating the probability of identifying a norm that rates the "woman contributes less" scenario as less socially appropriate than the "man contributes less" scenario, respectively in the woman proposing and man proposing treatments. Thus, we are interested in possible drivers of the gender double standard. The set of independent variables is the same as used in Table 8. In Table A5 we are unable to find statistically significant

effects, yet it is worth noting that being in the younger age group is associated with a lower (yet not statistically significant) probability of judging a woman proposing to do less as less appropriate than a woman proposing to do more, this difference (approximately 4pp, where the mean of our dependent variable is .526) switches sign once we add additional controls on family formation. In Table A6 we find that the younger generation is associated with a lower probability of identifying a norm that punishes the man offering to do more, more than the man offering to do less, when he proposes the chores allocation (approximately 11pp, where the mean of our dependent variable is .245). This is in line with our results from Table 7, and suggests a possible shift in the younger generation's attitudes toward more egalitarian gender norms.
Hereafter, we summarize the results of the gender double standard.

Result 2, Gender double standard: *In the context of full-time dual-earner couples, a woman contributing less than her partner is perceived as less socially appropriate than a man in a similar situation. However, this is generally true only for the woman proposing scenario. When the man proposes the chores allocation, the woman contributing less (i.e., the man offering to contribute more) is not perceived as less socially appropriate and instead appears to be rated as more appropriate in the younger generation. Thus, we find evidence of a gender double standard such that (for the middle and elder generation) a woman offering to contribute less is rated as less socially appropriate than a woman offering to do more, while a man offering to do less is not rated differently than a man offering to do more.*

Despite a prevailing egalitarian norm for dual-earner couples where partners have similar working conditions, the middle and the older generations hold a societal view that stigmatizes a woman relatively more for contributing less to domestic chores than for contributing more. However, this different judgment does not occur for the male partner who is judged in the same way when deviating from equal contributions with a self-beneficial or a self-harming allocation. This is in line with the idea of the "woman as the traditional homemaker," as women seem to be expected to be available to do more housework. Notably, the younger generation does not share this view, possibly suggesting a shift from the traditional homemaker model for young adults.
Furthermore, considering our treatment "man/woman proposing," we observe that in the middle and elder generations a deviation from the equal contribution that favors the woman is rated as less socially appropriate when she proposes such allocation, but the same doesn't hold when the proposer is the man. This is, once again, in line with the traditional homemaker model, as a woman is stigmatized more for proposing a self-beneficial deviation from equality, while a man does not face the corresponding unequal societal judgment. Again, this does not hold for the younger generation, who rate a man deviating from equality the same whether he proposes a self-beneficial allocation or an allocation that benefits his partner.

	(1)	(2)	(3)	(4)
Dependent Variable	1 if identifies a norm stigmatizing the "Woman contributes less" more than the "Man contributes less" scenario, 0 otherwise			
Female	-0.052	-0.035	-0.041	-0.042
	(0.0275)	(0.0280)	(0.0281)	(0.0304)
Age Groups (Baseline: 50-64)				
25-34	-0.078*	-0.078*	-0.049	-0.040
	(0.0376)	(0.0381)	(0.0416)	(0.0418)
35-49	0.024	0.021	0.026	0.033
	(0.0311)	(0.0317)	(0.0320)	(0.0318)
Geographical Areas (Baseline: South and Islands)				
North	-0.021	-0.018	-0.016	-0.009
	(0.0310)	(0.0331)	(0.0329)	(0.0332)
Centre	-0.020	-0.038	-0.033	-0.028
	(0.0399)	(0.0418)	(0.0417)	(0.0419)
Relocated to a different Geographical Area (Baseline: Did not move)				
Moved North		0.038	0.038	0.042
		(0.0423)	(0.0429)	(0.0427)
Moved South		0.072	0.064	0.061
		(0.0713)	(0.0704)	(0.0704)
Civil Status (Baseline: Single, Widower, Separated-Divorced)				
Married or Cohabitant			0.049	0.052
			(0.0344)	(0.0343)
Having Children			0.043	0.039
			(0.0336)	(0.0336)
Framing: Woman Proposing	0.276***	0.277***	0.277***	0.277***
	(0.0273)	(0.0277)	(0.0276)	(0.0275)
Controls				
Education/Job	-	-	-	✓
Observations	1501	1443	1443	1443
* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$				

Table 8: **Gender Double Standard, Vignette Full-Time**

Average marginal effects for the probability of rating the woman contributing less scenario less appropriate than the man contributing less scenario. In columns (2)-(4) we loose data on 58 observations as we do not have reliable information on the geographical area at birth, or as respondents were born abroad.

5.2 Decline of the "Male as the Breadwinner" Model

Vignette Part-Time describes the set-up in which the partners are ex-ante unequal: the male partner works and earns about twice as much as the female partner depicting the traditional "male as the breadwinner model". Table 5 presents the distribution of answers to Vignette Part-Time at the aggregate level as well as the mean rating for each scenario. When the woman contributes less, most respondents expect other group members to judge this scenario as Very Inappropriate. Interestingly, both the scenario where partners contribute equally and the scenario where the man contributes less than the woman are judged as Somewhat Appropriate by the majority of respondents. However, there is a slight difference in the percentages: 34.49% of respondents feel that equal contribution is Somewhat Appropriate, while a higher 40.98% believe the same when

the man contributes less. Moreover, when comparing the mean ratings between these two scenarios, the difference is statistically significant (mean difference: -.1921; t-test for the equality of means p-value = .0000).[19] Note that these answers suggest that more effort exerted in household work by the woman could, in principle, compensate for the larger effort exerted in the labor market by the man.
To test our third hypothesis predicting a decline of the "male as the breadwinner" model among young adults, we disaggregate answers by age group.

Figure 2 presents the mean rating for Vignette Part-Time and the three different scenarios evaluated distinguishing between the three age groups. The three scenarios display an appropriateness rating decreasing in the age groups.
Table A7, in the Appendix, presents the elicited norms for different age groups. According to Hypothesis 3 we elicit a norm that is more in line with the "male as breadwinner model" for the elder generation (compared to the middle and young). In particular, we find that for the scenario where men contribute less the elicited norm is Somewhat Appropriate for all generations. For the scenario "Equal contribution" the elicited norms differ across generations: for the elder generation is Somewhat Inappropriate while for the other two generations is Somewhat Appropriate.
We next test this by performing t-tests for the equality of means for each scenario, between age groups. For example, column 1 compares age groups 25–34 vs 35–49 and presents the difference in the mean ratings for the "woman contributes less" scenario between the two age groups, and reports the p-value associated with a test of equality of means in parenthesis.
In addition, we find a statistically significance difference in the "equal contribution" scenario between the younger and the two elder generations, which partially confirms our third hypothesis.

To dig deeper into the determinants of respondents' perceived norms, we present the average marginal effects for a logistic model in Table 9. We estimated the probability that respondents expect most people in their reference group to rate the equal contribution scenario in Vignette Part-Time as either Very Appropriate or Somewhat Appropriate. This reflects the likelihood of perceiving the gender norm regarding household work as egalitarian, even when the male partner contributes significantly more to the labor market. To ease comparison, we report that the mean of our dependent variable in model (1) is .553. In Table 9, we include the same controls as in Table 8.

Table 9 shows that being a young adult or mid-lifer is associated with a positive and significant increase in the probability of perceiving the gender norm as egalitarian, compared to the older age group. Specifically, the probability increases by approximately 13 to 15 percentage points for young adults and around 9 percentage points for mid-lifers. All other controls, including geographical areas of living, are not significant.[20]

[19] This result is replicated with the Wilcoxon rank-sum test.
[20] Table OA5 in the Online Appendix presents the full set of estimates. We find a positive association

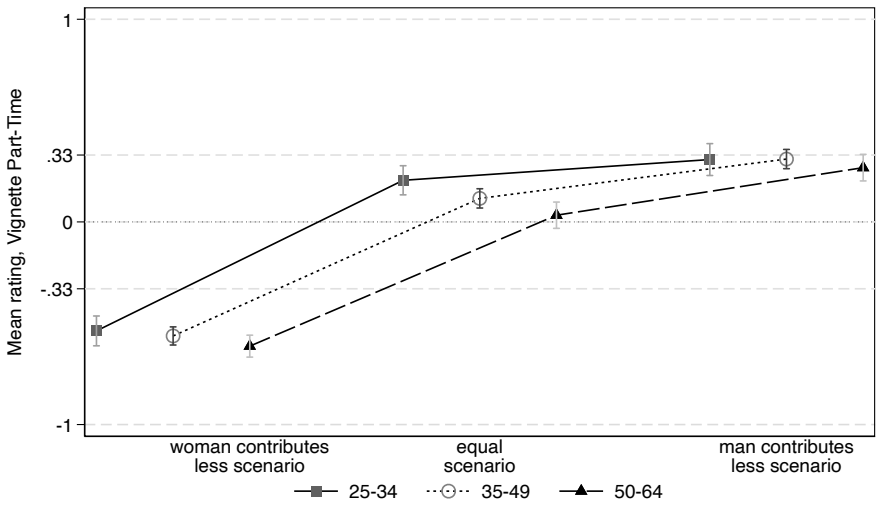


Figure 2: Norm function for Vignette Part-Time: "Imagine Giulio and Silvia: they are married or cohabiting. Giulio works twice as many hours as Silvia and earns about twice as much. They have no children and no one to help them with the housework."
95% Confidence Intervals are shown.

We replicated the estimates contained in Table 9 including interactions between gender, geographical areas, proposer's gender, and age groups. Table OA6 in the Online Appendix presents the results for those interactions. Specifically, Panel a) model (1) includes interactions between age groups and gender, model (2) includes interactions between age groups and geographical areas, and model (3) includes interactions between age, gender, and geographical area. All specifications include a control for the gender of the proposer. We do not find evidence that a specific group is driving the estimates for the younger generation, while the effects for the mid-lifers seem to be driven mostly by the North. Finally, Panel b) presents the interaction between the gender of the proposer and the gender of the respondent.
The main results from this section are summarized below.

Result 3, Decline of the breadwinner model: *When the male partner works and earns twice as much as the female partner, the probability of perceiving a norm of appropriateness for the equal share of family chores decreases monotonically in the age groups.*

We interpret this result as the "decline of the man as the breadwinner model" in favor or the "dual-earner model". Younger generations appear to embrace a more progressive norm, where progressiveness is defined as a more equitable distribution of household chores within the couple. It is important to note that, in this context, progressiveness does not necessarily imply an equal share of all activities within the couple but

between reporting "work" as the most important trait in life, and strongly disagreeing with the claim "A woman should be ready to reduce the time devoted to her job for family reasons." Finally, we find a negative association with the trait conscientiousness.

specifically refers to a fairer division of household responsibilities.

Model	(1)	(2)	(3)	(4)
Dependent Variable	1 if identifies Very or Somewhat Appropriate as norm in the equal share scenario, 0 otherwise			
Independent Variables				
Female	-0.019	-0.018	-0.015	-0.025
	(0.0291)	(0.0296)	(0.0297)	(0.0318)
Age Groups (Baseline: 50-64)				
25-34	0.143***	0.145***	0.131**	0.126**
	(0.0404)	(0.0409)	(0.0436)	(0.0439)
35-49	0.085**	0.092**	0.088**	0.087*
	(0.0327)	(0.0332)	(0.0337)	(0.0338)
Geographical Area of Residence (Baseline: South and Islands)				
North	0.055	0.038	0.036	0.040
	(0.0329)	(0.0350)	(0.0349)	(0.0356)
Centre	0.009	-0.016	-0.018	-0.016
	(0.0424)	(0.0436)	(0.0436)	(0.0440)
Relocation to a different Geographical Area (Baseline: did not move)				
Moved North		0.044	0.040	0.038
		(0.0452)	(0.0453)	(0.0451)
Moved South		-0.063	-0.059	-0.059
		(0.0748)	(0.0756)	(0.0755)
Civil Status (Baseline: Single, Widower, Separated-Divorced)				
Married or Cohabitant			-0.002	-0.001
			(0.0368)	(0.0367)
Having Children			-0.031	-0.028
			(0.0353)	(0.0352)
Framing: Woman Proposing	0.009	0.003	0.003	0.005
	(0.0291)	(0.0296)	(0.0296)	(0.0297)
Controls				
Education & Job Status	-	-	-	✓
Observations	1501	1443	1443	1443

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Table 9: **Decline of the breadwinner model, Vignette Part-Time**

Average marginal effects for the probability of rating the equality scenario Very Appropriate or Somewhat Appropriate. In columns (2)-(4) we loose 58 observations as we do not have reliable information on the geographical area of birth, or as respondents were born abroad.

To what extent is the younger generation different from the two elder generations? To answer this question, we performed additional analysis. When respondents are asked to assign points to different dimensions of life based on their perceived importance, the results suggest that generations are indeed different.[21] Specifically, we find that young respondents assign more importance to their professional career compared to the respondents in the other age groups (Benjamini-Hochberg adjusted pvalues for t-tests on the number of points assigned to the work dimension: age group 25-34 vs age group 35-49: difference=.78 p-value=.535; age group 25-34 vs age group 50-64: difference=5.11 p-value=.0005; age group 35-49 vs age group 50-64: difference=4.33 p-value=.0002).

[21] The question asks "Assign a total of 100 points to indicate the degree of importance you currently give to these areas of your life." The areas, presented in random order, are the following: a) My free time (e.g., hobbies, sports, recreational activities, and socializing with friends); b) My community (e.g., volunteer, union, and political organizations); c) My work, d) My religion (religious activities and beliefs); e) My family.

To understand whether we are capturing a real change in the social norm, we investigate further.

Before considering the first analysis, recall that we are eliciting *perceived* social norms. One might think that different elicited norms may derive from different probabilities of guessing second-order beliefs correctly across generations. Therefore, we examine the probability of correctly identifying the social norm within the reference group to check whether it is affected by age. Results from this exercise are presented in Table OA7 in the Online Appendix. We define a dummy variable that equals 1 if the individual correctly identifies the response most commonly given by his/her reference group (i.e., correctly guesses the social norm) and 0 otherwise. Findings from these regressions indicate that age does not predict the probability of correctly perceiving the social norm. Therefore, we can rule out the possibility that the observed responses from younger participants are due to a greater ability to identify second-order beliefs compared to the oldest age group. In conclusion, we find no support for the idea that our estimates are influenced by participants' ability to correctly perceive the norm.

Second, we examine participants' personal opinions on the same vignette, expressed after the incentivized procedure, and relate these responses to their views on perceived social norms. To this end, we replicate the analysis in Table A7 and the regressions in Table 9 using personal opinions instead of perceived norms. Specifically, we estimate a model for the probability of personally rating the equal contribution scenario as Very Appropriate or Somewhat Appropriate. Results from this analysis are reported in the Online Appendix, in Tables OA8 and OA9, respectively.

Table OA8 shows distributions and mean ratings by age groups that are more similar to each other compared to those displayed in Table A7. Table OA9 documents that the coefficients associated with the age groups do not achieve statistical significance.

To sum up, we do not find evidence that the senior generation holds more traditional *personal opinions* compared to the younger age groups.

Together, evidence from this section suggests that we are observing a shift in social norms among young Italians, moving away from the male breadwinner model toward a more egalitarian view of the couple.

5.3 Second-Order Beliefs and Labor Market Outcomes

In this section, we explore the association between our measures of social norms and women's labor market outcomes in Italy. We focus on the "equal contribution" scenario from Vignette Part-Time and exploit administrative data on female labor market outcomes from the Italian Institute of Statistics (ISTAT). This analysis is inspired by Fortin (2005), who examined how country-specific agreement with certain statements from the World Values Survey (WVS)—used as proxies for social norms—correlates with differences in women's labor market outcomes across countries. Similarly, we explore how age and geographical variations in perceived norms in Italy correlate with differences in

female employment rate for Italian women aged 20-64.[22] We use publicly available data provided by ISTAT for the years 2018-2020, at the age and geographical area level. The years 2018-2020 were selected to align with the timing of the representative survey.

Italy's geographical disparities, which are among the most studied at the country level (see, among others, Bigoni et al. (2016), Putnam (1994) and Putnam (2000)), offer a compelling backdrop for this analysis. These disparities are evident in labor market indicators, where northern regions typically outperform southern regions. In 2020, the overall employment rate for men in Italy was 71.8%, compared to 52.1% for women, highlighting a significant gender gap of almost 20 percentage points. Regionally, male employment rates ranged from 60.5% in the south to 78.9% in the north. The variation in female employment rates was even greater, ranging from 34.6% in the south to 62.6% in the north.

The lower employment rates for women in southern Italy reflect the much scarcer availability of childcare services, as noted by Del Boca (2002); Del Boca et al. (2004); and Del Boca and Saraceno (2005). This scarcity correlates positively with the documented relationship between mothers' labor supply and childcare provision; see De Henau et al. (2010).

Despite the limited sample size, the pronounced geographical heterogeneity within Italy provides valuable insights into the relevance of social norms analyzed in this study. We believe this can offer intriguing perspectives on the local influences shaping labor market dynamics for women.

With this objective in mind, we run the set of OLS regressions reported in Table 10. Specifically, we regress employment rates from ISTAT administrative data and proxies of social norms calculated at the macro-area level using sample weight estimates. Following Fortin (2005), these social norm proxies are computed considering only male respondents to mitigate endogeneity issues. A description of the data used and their sources is provided in Table OA10 in the Online Appendix.

In all models, the dependent variable is the yearly employment rate, over three years, by age group and geographical area; this results in a total of 27 observations. Our list of controls includes the fraction of women holding a high school degree and the fraction holding a university degree at age and geographical area level for the years 2018–2020. In addition, as a proxy for regional spending on daycare services, we include the number of authorized places in public daycare per 100 children aged 0–2 years at the geographical area level for the years 2018–2020. Other controls for geographical macro-areas, age groups, and years are included in the analysis.

In models 2–5 of Table 10, we include proxies for social norms. As mentioned earlier, as a proxy for social norms, Fortin (2005) uses responses to statements from the WVS that elicit respondents' personal opinions (first-order beliefs). We also gather personal opinions in our representative survey. To assess the external validity of social norms

[22] Female employment rate is defined as the percentage of employed women aged 20-64 relative to the total number of women in the same age group.

elicited as first-order beliefs (as in Fortin (2005)) versus second-order beliefs (following Krupka and Weber (2013)'s methodology), we use two proxies based on first-order beliefs (see models (3) and (5)) and two proxies based on second-order beliefs (see models (2) and (4)) in Table 10.
In models (2) and (3), social norms are defined as the fraction of male respondents who rate the equal contribution scenario in Vignette Part-Time as Somewhat Appropriate or Very Appropriate, based on second-order and first-order beliefs, respectively. In models (4) and (5), social norms are instead defined as the mean appropriateness rating among male respondents in Vignette Part-Time, again using second-order and first-order beliefs, respectively.

Using either the fraction of respondents or the mean appropriateness rating yields similar qualitative results. However, only the social norm proxies based on second-order beliefs show a significant association with the female employment rate (see models (2) and (4)). In contrast, proxies based on first-order beliefs do not reach statistical significance. This analysis indicates a positive and significant association between perceived approval (i.e., respondents' second-order beliefs) for equal sharing of household responsibilities and female employment.
As expected, all models also show that the fraction of women holding a university degree is positively associated with female employment.

Although not causal, these findings suggest that measures of social norms based on Krupka and Weber (2013)'s methodology have explanatory power. Furthermore, they highlight the crucial link between gender equality in the household and women's participation in the labor market.

	(1)	(2)	(3)	(4)	(5)
University degree	0.008*	0.007*	0.007	0.006*	0.007
	(0.0030)	(0.0027)	(0.0037)	(0.0027)	(0.0037)
High school degree	0.001	-0.001	-0.001	-0.001	-0.001
	(0.0021)	(0.0020)	(0.0027)	(0.0020)	(0.0028)
Childcare	0.007	0.008	0.008	0.008	0.008
	(0.0290)	(0.0217)	(0.0282)	(0.0214)	(0.0281)
Proxy of Social Norms					
Fraction SA/VA (SoB)	-	0.191**	-	-	-
		(0.0500)			
Fraction SA/VA (FoB)	-	-	0.143	-	-
			(0.0968)		
Mean rating (SoB)	-	-	-	0.179**	-
				(0.0452)	
Mean Rating (FoB)	-	-	-	-	0.095
					(0.0630)
Geographical Areas (Omitted category: South and Islands)					
North	0.137	0.119	0.136	0.128	0.130
	(0.5017)	(0.3728)	(0.4863)	(0.3687)	(0.4846)
Centre	0.048	0.036	0.064	0.045	0.054
	(0.5946)	(0.4442)	(0.5765)	(0.4392)	(0.5744)
Age Groups (Omitted category: 50-64)					
25-34	-0.145	-0.133	-0.093	-0.113	-0.091
	(0.0761)	(0.0700)	(0.0947)	(0.0698)	(0.0951)
35-49	0.006	0.021	0.034	0.038	0.044
	(0.0487)	(0.0438)	(0.0580)	(0.0441)	(0.0615)
Wave (Omitted category: 2019)					
2020	-0.032*	-0.031**	-0.030*	-0.030**	-0.030*
	(0.0121)	(0.0093)	(0.0123)	(0.0095)	(0.0121)
2021	-0.037	-0.034	-0.031	-0.031	-0.031
	(0.0303)	(0.0247)	(0.0306)	(0.0251)	(0.0304)
Constant	0.107	0.070	0.096	0.171	0.172
	(0.4405)	(0.3299)	(0.4190)	(0.3279)	(0.4184)
Observations	27	27	27	27	27
Adjusted R^2	0.981	0.987	0.981	0.987	0.982

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Table 10: Association between elicited social norms and women's labor market outcomes from administrative data

Results from OLS regression, the dependent variable is female employment rate retrieved from ISTAT data for years 2018-2020 at age and geographical area level. High school degree and University degree identify the fraction of women holding a high school degree and the fraction holding a university degree at age and geographical area level for the years 2018–2020. Childcare includes the number of authorized places in public daycare per 100 children aged 0–2 years at the geographical area level for the years 2018–2020. The Proxies of Social Norms are included both for the first-order beliefs (as in Fortin (2005)) and as second-order beliefs (following Krupka and Weber (2013)'s methodology), and as a Fraction or as Mean Rating. In all models we include controls for geographical macro-areas, age groups, and years. Robust standard error in parenthesis.

6 Conclusions

Using a representative survey of the Italian population (N=1,501), we elicit social norms as second-order beliefs through the Krupka-Weber method (Krupka and Weber (2013)). Our sample is representative with respect to gender, age, and residence area, i.e. individual characteristics affecting perceptions of gender norms. As for respondents' age, representativeness holds across three age groups, 25–34, 35–59, and 50–64, that we use to compare gender norms across generations.
Our study includes two vignettes depicting hypothetical scenarios for a couple in which the female partner may work full-time or part-time, as well as a simple model in which partners contribute time to a family public good and experience disutility when deviating from a shared norm regarding socially approved divisions of domestic chores.

When partners in the vignette have similar labor market conditions, participants in our survey view equal contributions to domestic chores as socially appropriate. However, we observe a framing effect: women who propose self-beneficial allocations face greater social stigma than men making similar offers. Notably, this judgment gap is absent among the youngest generation. Additionally, women are perceived as more socially appropriate when taking primary responsibility for domestic chores (i.e., offering chore allocations that benefit their partner) compared to men exhibiting the same behavior.
We also document a "gender double standard" for the middle and elder generations: women are stigmatized more for deviations from equal contributions that favor themselves, but men are not. Interestingly, the younger generation exhibits social stigma for deviations from equal contributions that are self-beneficial for the proposer both for women and for men.

When partners in the vignette have different labor market conditions because the female partner works part-time, we find that the probability of viewing equal contributions to domestic chores as the social norm decreases consistently across older age groups. Our third result thus suggests that young Italian adults perceive more progressive norms than other age groups.
Taken together, these findings suggest that younger generations are moving away from the traditional male breadwinner/female homemaker model.

Finally, we provide evidence of a positive association between social norms measured using Krupka and Weber (2013)'s methodology and female labor market participation as captured by Italian administrative data. This lends external validity to our measure of gender norms and suggests that second-order beliefs can reflect views that influence (or are influenced by) societal patterns even better than first-order beliefs.

As a caveat, we acknowledge that while our representative sample enables us to elicit gender equality norms across generations as they currently stand, it does not allow us to conclude that the differences we observe represent permanent shifts. Therefore, we cannot exclude the possibility that the youngest generation may adopt less progressive norms as they grow older and, for example, go through family formation. Nevertheless, we believe it is important to map these differences even if possibly merely transitory. If we expect norms to affect people's behavior, knowing what kind of norms people perceive at different ages is important.
To conclude, while we believe it is important to elicit norms at different life stages, more research is needed to understand whether and how these norms change over time, as well as to identify the drivers of such changes. For example, among young adults, there may be a greater tendency to view the reduced labor market participation of the female partner working part-time as an unfortunate result of labor market frictions. A woman may settle for a part-time job due to limited prospects and opportunities for female candidates in the job market. Consequently, the unequal labor market effort between partners could be perceived as a temporary and undesired situation, one that does not necessarily justify an unequal distribution of household work.

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Appendix

Table A1: Summary Statistics

Variable	Frequency		Description
Female	58.43		Female respondent
Male	41.57		Male respondent
North	47.90		Geographical area of residence
Centre	18.92		Geographical area of residence
South and Islands	33.18		Geographical area of residence
25-34	19.85		Age group
34-49	52.43		Age group
50-64	27.71		Age group
Woman	54.10		Proposer's gender
Man	45.90		Proposer's gender
Children	58.63		Respondent has children
Married or Cohabitant	72.15		Respondent is married/ cohabiting
University Degree	35.38		Respondent has a tertiary degree
Employed	63.82		Respondent is working
Free Time	16.85		Most important life dimension
Community Involvement	3.93		Most important life dimension
Work	22.78		Most important life dimension
Family	70.55		Most important life dimension
Centre Right[23]	24.38		Political orientation
Cognitive Reflection Test	13.26		Two out of three correct answers to the CRT
Risk Attitude	58.36		Above the median[24] attitude towards risk
Trust Attitude	16.66		Respondent trusts most people
Strongly Agree	6.06		To claim 5
Agree	29.91		To claim 5
Disagree	28.98		To claim 5
Strongly Disagree	35.04		To claim 5
Less than 5,000	4.55		Inhabitants of the city of residence
Between 5,000 and 10,000	7.99		Inhabitants of the city of residence
Between 10,000 and 50,000	53.9		Inhabitants of the city of residence
Variable	**Mean**	**sd**	**Description**
Big 5 Personality Traits			
Agreeableness	5.31	1.09	Good-natured, cooperative, trustful
Conscientiousness	5.52	1.12	Orderly, responsible, dependable
Emotional Stability	4.54	1.24	Calm, non neurotic, non easily upset
Openness to Experience	4.28	1.05	Intellectual, imaginative, independent-minded
Extraversion	4.00	1.37	Talkative, assertive, energetic
Gini Index	.21	0.02	Provice of residence's gini index[25]
Male/Female Employment Ratio	1.52	0.29	Province of residence's ratio male to female employment ratio (employed wrt the resident population of 15 years or more).[26]

We report frequencies for categorical variables; mean and standard deviations for continuous variables included in the analysis. A description is presented for each variable together with the source for those that were not surveyed.

[23]Centre-right comprehends: Lega, Forza Italia, and Fratelli d'Italia (respective shares: 56.01%, 19.13%, 24.86%).

[24]Risk Attitude has a median of 6 in a scale where 0 stands for "absolutely not willing to take risks"and 10 stands for "absolutely willing to take risks".

[25]Source: urbanindex.it; Atlante PRIN Postmetropoli, elaborazioni su dati MEF - Ministero dell'Economia e della Finanza.

[26]Source: ISTAT 8milaCensus and own calculations.

Table A2: Randomization check

Variable	Man Proposing	Woman Proposing	Mean Difference	p-value
Female	55.42	61.97	.066	0.3472
Male	38.03	44.58	-.066	0.1736
Geographical Area				
North	48.33	47.54	0.008	0.9218
Center	19.45	18.47	0.010	0.9326
South and Isles	32.22	33.99	-.018	0.9954
Age Group				
25-34	20.90	18.97	0.019	0.8488
35-49	50.94	53.69	-.028	0.9787
50-64	28.16	27.34	0.008	0.9127
Children	59.36	58.00	.014	0.9636
Married or Cohabitant	72.86	71.55	.013	1.0000
University Degree	36.44	34.48	.019	0.9795
Working	60.81	66.38	-.056	0.2152
Important dimensions in life				
Free Time	16.40	17.24	-.008	0.9418
Community Involvement	4.06	3.82	.002	0.9146
Work	22.35	23.15	-.008	0.9689
Family	69.81	71.18	-.014	1.0000
Political orientation				
Centre Right	26.27	22.78	.035	0.5688
Personality Traits				
Cognitive Reflection Test	13.79	18.35	-.046	0.1924
Risk Attitude	57.62	58.99	-.014	1.0000
Trust Attitude	15.53	17.61	-.021	1.0000
Big Five Personality Traits				
Agreeableness	5.30	5.32	-.020	0.939
Conscientiousness	5.46	5.57	-.118	0.2822
Emotional Stability	452	4.56	-.042	1.0000
Openness to Experience	4.29	4.28	.008	0.9157
Extroversion	4.04	3.96	.084	0.9959
Claim: A woman should be ready to reduce the time devoted to her job for family reasons				
Strongly Agree	6.10	6.03	.001	0.9605
Agree	29.61	30.17	-.006	0.8628
Disagree	28.59	29.31	-.007	0.8911
Strongly Disagree	35.70	34.48	.012	0.9605
Municipality size: Inhabitants				
Less than 5,000	3.92	5.06	-.011	1.0000
Between 5,000 and 10,000	8.70	7.38	.013	0.9862
Between 10,000 and 50,000	53.56	54.19	-.006	0.8851
ISTAT data at the municipality level				
Gini Index	0.21	0.21	-.001	0.9126
Male/Female Employment Ratio	1.51	1.54	-.027	0.5627

We report frequencies for categorical variables; mean and standard deviations for continuous variables. Benjamini-Hochberg adjusted p-values are presented, the p-values refer to a test of equality of means between woman-proposing and man-proposing samples.

Table A3: Family Norm by proposer's gender, Vignette B

Panel a) Woman Proposing			
	Woman Contributes Less	Equal Contribution	Man Contributes Less
Very Inappropriate	**60.06**	1.31	24.21
Somewhat Inappropriate	27.93	4.92	36.31
Somewhat Appropriate	9.53	25.48	29.85
Very Appropriate	2.48	**68.29**	9.63
Mean Rating	-.6365	.7376	-.1671
Panel b) Man Proposing			
Very Inappropriate	36.61	2.43	42.21
Somewhat Inappropriate	38.04	7.87	31.52
Somewhat Appropriate	20.28	23.90	21.18
Very Appropriate	5.08	**65.80**	5.09
Mean Rating	-.374	.6866	-.4054
Panel c) Mean Differences (p-value), framing			
	Proposer's Advantage	Equality	Recipient's Advantage
	-.2311 (.0000)	.0510 (.0630)	.2069 (.0000)
Panel d) Mean Differences (p-value), woman versus man contributes less			
Woman Proposing	-.4695 (.0000)	Man Proposing	.0314 (.3855)

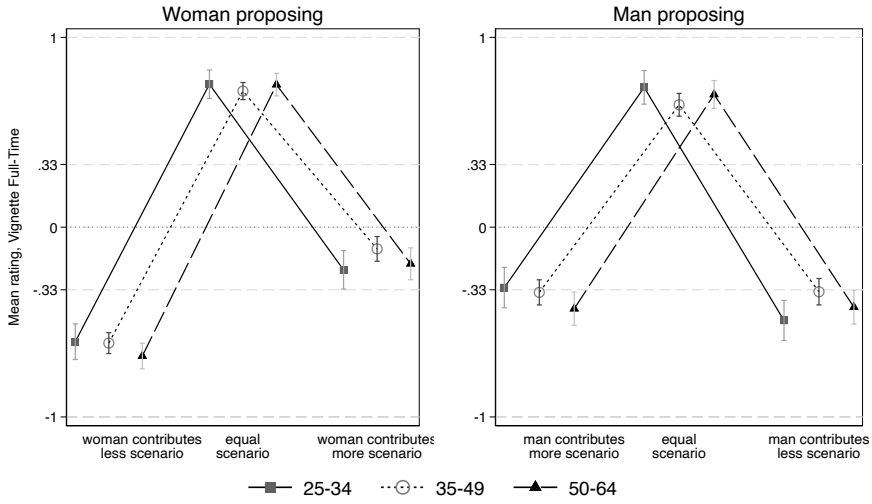


Figure A1: Norm function for Vignette B: "Imagine Antonio and Francesca: they are married or cohabiting. They both work the same number of hours, earn roughly the same amount of money, and have the same career trajectories. They have no children and no one to help them with the housework."
The plot on the left represents the norm function for the respondents exposed to the "Woman proposing" treatment, on the left is the norm function for the respondents exposed to the "Man proposing" treatment. 95% Confidence intervals are displayed.

	Woman Contributes Less			Equal Contribution			Man Contributes Less		
	25-34	35-49	50-64	25-34	35-49	50-64	25-34	35-49	50-64
Very Socially Inappropriate	45.49	47.06	**53.46**	1.3	2.29	1.63	37.1	28.76	33.73
Somewhat Socially Inappropriate	33.72	34.12	30.44	5.46	6.44	6.51	34.78	33.51	34.39
Somewhat Socially Appropriate	16.38	14.76	13.17	23.28	27.33	22.97	21.97	28.7	25.07
Very Socially Appropriate	4.41	4.05	2.93	**69.96**	**63.95**	**68.88**	6.14	9.03	6.82
Mean Rating	-.4679	-.494	-.5624	.7453	.6856	.7268	-.3519	-.2132	-.2999

Panel a) Mean Differences, gender double standard within (between)

	25-34 (vs 35-49)	35-49 (vs 50-64)	50-64 (vs 25-34)
p-value	.0097 (.0069)	.0000 (.7131)	.0000 (.0213)

Panel b) Mean Differences, within scenario between generations

25-34 vs 35-49	.0261	(.6140)	.0597	(.1558)	-.1387	(.0218)
25-34 vs 50-64	.0945	(.1310)	.0185	(.6248)	-.052	(.3832)
35-49 vs 50-64	.0684	(.1323)	-.0412	(.2595)	.0867	(.1444)

Table A4: Family norm by age groups, Vignette B

Vignette B: "Imagine Antonio and Francesca: they are married or cohabiting. They both work the same number of hours, earn roughly the same amount of money, and have the same career trajectories. They have no children and no one to help them with the housework.". The elicited social norm is presented inside a box, and strong norms (i.e., norms shared by the majority of the sample) are presented in boldface.
In Panel a), Benjamini-Hochberg adjusted p-values referring to a test of equality of means in the woman and man contributes less scenario within age groups and between age groups are shown in parenthesis (results are replicated with Wilcoxon rank-sum test.). In Panel b), Benjamini-Hochberg adjusted p-values in parenthesis, the p-values refer to a test of equality between age groups in each scenario.

	(1)	(2)	(3)	(4)
Dependent Variable	1 if identifies a norm punishing the "Woman contributes less" more than the "Man contributes less" scenario, 0 otherwise			
Woman Proposing				
Female	-0.056	-0.048	-0.054	-0.046
	(0.0394)	(0.0398)	(0.0398)	(0.0430)
North	-0.046	-0.055	-0.055	-0.054
	(0.0446)	(0.0467)	(0.0466)	(0.0474)
Centre	-0.056	-0.098	-0.094	-0.096
	(0.0577)	(0.0594)	(0.0590)	(0.0594)
25–34	-0.041	-0.045	0.005	0.013
	(0.0570)	(0.0569)	(0.0617)	(0.0621)
35–49	0.026	0.017	0.028	0.033
	(0.0443)	(0.0450)	(0.0452)	(0.0451)
Moved North		0.091	0.091	0.095
		(0.0597)	(0.0603)	(0.0602)
Moved South		0.028	0.011	0.008
		(0.1035)	(0.1039)	(0.1042)
Having Children			0.067	0.064
			(0.0480)	(0.0483)
Married or Cohabitant			0.062	0.062
			(0.0486)	(0.0488)
Controls				
Education and Job				✓
Observations	812	786	786	786

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Table A5: Gender double standard in the woman proposing sample, Vignette B.

Average marginal effects for the probability of rating the woman contributing less scenario less appropriate than the man contributing less scenario in the woman proposing sample. In columns (2)-(4) we loose data on 26 observations as we do not have reliable information on the geographical area at birth, or as respondents were born abroad.

	(1)	(2)	(3)	(4)
Dependent Variable	1 if identifies a norm punishing the "Woman contributes less" more than the "Man contributes less" scenario, 0 otherwise			
Man Proposing				
Female	-0.053	-0.029	-0.034	-0.043
	(0.0374)	(0.0383)	(0.0389)	(0.0427)
North	0.001	0.016	0.021	0.034
	(0.0431)	(0.0460)	(0.0456)	(0.0449)
Centre	0.017	0.019	0.024	0.041
	(0.0538)	(0.0556)	(0.0558)	(0.0553)
25–34	-0.116*	-0.117*	-0.104*	-0.093
	(0.0475)	(0.0484)	(0.0522)	(0.0524)
35–49	0.021	0.023	0.023	0.037
	(0.0433)	(0.0438)	(0.0448)	(0.0443)
Moved North		-0.025	-0.025	-0.018
		(0.0529)	(0.0539)	(0.0537)
Moved South		0.105	0.104	0.103
		(0.0958)	(0.0939)	(0.0936)
Having Children			0.026	0.024
			(0.0460)	(0.0463)
Married or Cohabitant			0.033	0.034
			(0.0480)	(0.0477)
Controls				
Education and Job				✓
Observations	689	657	657	657

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Table A6: Gender double standard in the man proposing sample, Vignette B.

Average marginal effects for the probability of rating the woman contributing less scenario less appropriate than the man contributing less scenario in the man proposing sample. In columns (2)-(4) we loose data on 32 observations as we do not have reliable information on the geographical area at birth, or as respondents were born abroad.

Table A7: Family norm by age groups, Vignette A

	Woman Contributes Less			Equal Contribution			Man Contributes Less		
	25-34	35-49	50-64	25-34	35-49	50-64	25-34	35-49	50-64
Very Socially Inappropriate	**54.61**	**56.71**	**59.42**	6.13	10.72	13.68	9.96	9.09	10.98
Somewhat Socially Inappropriate	26.21	25.19	25.78	30.61	31.71	37.25	15.56	17.11	18.77
Somewhat Socially Appropriate	14.5	13.96	12.22	39.54	36.99	29.54	42.71	41.88	39.25
Very Socially Appropriate	4.69	4.14	2.58	23.72	20.59	19.53	31.77	31.92	31
Mean Rating	-.5379	-.5628	-.6131	.2054	.1161	.033	.3077	.3101	.2678
				Mean Differences					
25-34 vs 35-49		.0249	(.6421)		.0893	(.1911)		-.0024	(.9588)
25-34 vs 50-64		.0752	(.241)		.1724	(.0046)		.0399	(.5721)
35-49 vs 50-64		.0503	(.2887)		.0831	(.1292)		.0423	(.2887)

Vignette A: "Imagine Giulio and Silvia: they are married or cohabiting. Giulio works twice as many hours as Silvia and earns about twice as much. They have no children and no one to help them with the housework.". The elicited social norm is presented inside a box, strong norms (i.e. norms shared by the majority of the sample) are presented in boldface. Benjamini-Hochberg adjusted p-values in parenthesis, the p-values refer to a test of equality between age groups in each scenario.

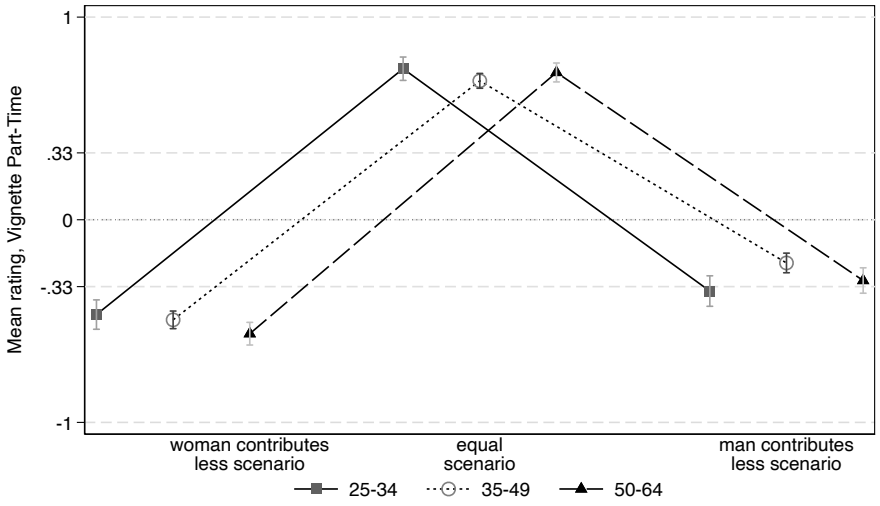


Figure A2: Norm function for Vignette B: "Imagine Antonio and Francesca: they are married or cohabiting. They both work the same number of hours, earn roughly the same amount of money, and have the same career trajectories. They have no children and no one to help them with the housework." The solid line represents the norm function for the younger generation, the dashed line represents the norm function for the middle-aged generation, and the dotted line represents the norm function for the older generation. 95% Confidence intervals are displayed.

Online Appendix

Table OA1: Representativeness

	Italian Population			Survey Sample		
Age Range	**25-34**	**35-49**	**50-64**	**25-34**	**35-49**	**50-64**
			North-West			
Males	2.58	5.33	5.36	2.56	5.30	5.33
Females	2.48	5.25	5.52	2.48	5.26	5.52
Overall	5.06	10.58	10.87	5.05	10.55	10.85
			North-East			
Males	1.86	3.88	3.92	1.84	3.84	3.89
Females	1.81	3.85	4.03	1.81	3.83	4.01
Overall	3.67	7.73	7.95	3.64	7.67	7.91
			Centre			
Males	1.94	3.94	3.91	1.94	3.94	3.90
Females	1.88	4.05	4.19	1.90	4.07	4.21
Overall	3.82	8.00	8.10	3.84	8.01	8.11
			South and Islands			
Males	3.81	6.55	6.53	3.83	6.56	6.54
Females	3.67	6.66	6.99	3.71	6.70	7.03
Overall	7.48	13.22	13.52	7.54	13.25	13.57

Data extraction: April 21^{st} 2023 from I.Stat. Reference period: 2019

Table OA3: Gender double standard, Vignette B

	(1)	(2)	(3)	(4)	(5)	(6)
Dependent Variable	1 if identifies a norm punishing the "Woman contributes less" more than the "Man contributes less" scenario, 0 otherwise					
Independent Variables						
Female	-0.052	-0.035	-0.041	-0.042	-0.034	-0.046
	(0.0275)	(0.0280)	(0.0281)	(0.0304)	(0.0300)	(0.0322)
Age Groups (Baseline: 50-64)						
25-34	-0.078*	-0.078*	-0.049	-0.040	-0.037	-0.009
	(0.0376)	(0.0381)	(0.0416)	(0.0418)	(0.0404)	(0.0445)
35-49	0.024	0.021	0.026	0.033	0.017	0.055
	(0.0311)	(0.0317)	(0.0320)	(0.0318)	(0.0307)	(0.0333)
Geographical Areas (Baseline: South and Islands)						
North	-0.021	-0.018	-0.016	-0.009	-0.018	-0.021
	(0.0310)	(0.0331)	(0.0329)	(0.0332)	(0.0331)	(0.0488)
Centre	-0.020	-0.038	-0.033	-0.028	-0.036	-0.034
	(0.0399)	(0.0418)	(0.0417)	(0.0419)	(0.0403)	(0.0520)
Relocated to a different Geographical Area (Baseline: Did not move)						
Moved North		0.038	0.038	0.042	0.054	0.039
		(0.0423)	(0.0429)	(0.0427)	(0.0419)	(0.0447)
Moved South		0.072	0.064	0.061	0.068	0.016
		(0.0713)	(0.0704)	(0.0704)	(0.0678)	(0.0734)
Civil Status (Baseline: Single, Widower, Separated-Divorced)						
Married or Cohabitant			0.049	0.052	0.036	0.047
			(0.0344)	(0.0343)	(0.0341)	(0.0361)
Having Children			0.043	0.039	0.027	0.048
			(0.0336)	(0.0336)	(0.0331)	(0.0365)
Framing: Woman Proposing	0.276***	0.277***	0.277***	0.277***	0.269***	0.257***
	(0.0273)	(0.0277)	(0.0276)	(0.0275)	(0.0267)	(0.0286)
University Degree				-0.077**	-0.063*	-0.071*
				(0.0275)	(0.0279)	(0.0293)
Employed				-0.016	0.008	-0.008
				(0.0323)	(0.0318)	(0.0355)
Important spheres of life						
Free time					-0.007	0.014

					(0.0435)	(0.0460)
Community Involvement					-0.002	0.024
					(0.0690)	(0.0738)
Work					0.015	-0.009
					(0.0390)	(0.0415)
Family					0.069	0.045
					(0.0382)	(0.0413)
Centre right					0.051	0.047
					(0.0325)	(0.0349)
TIPI						
Agreeableness					0.000	0.008
					(0.0142)	(0.0157)
Conscientiousness					0.011	0.009
					(0.0135)	(0.0145)
Emotional stability					-0.012	-0.017
					(0.0120)	(0.0126)
Openness					0.003	-0.000
					(0.0144)	(0.0155)
Extraversion					-0.019	-0.017
					(0.0107)	(0.0115)
Cognitive Reflection Test						
2 correct answers					0.087*	0.101**
					(0.0364)	(0.0387)
Risk attitude above median					0.027	0.028
					(0.0289)	(0.0308)
Trust time most of the time					-0.010	-0.032
					(0.0358)	(0.0383)
Claim[27] (Baseline: Strongly Agree)						
Claim 5 A					-0.018	-0.024
					(0.0599)	(0.0666)
Claim 5 D					-0.118	-0.114
					(0.0607)	(0.0668)
Claim 5 SD					-	-
					0.237***	0.241***
					(0.0598)	(0.0664)
Municipality inhabitants (Baseline: More than 50,000)						
Less than 5,000						0.123
						(0.0914)
Between 5,000 and 10,000						-0.052
						(0.0693)
Between 10,000 and 50,000						0.026
						(0.0443)
Gini index						-0.225
						(0.9688)
Male to female employment ratio						-0.067
						(0.0678)
Observations	1501	1443	1443	1443	1443	1243

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Average marginal effects for the probability of rating the woman contributing less scenario less appropriate than the man contributing less scenario. In columns (2)-(4) we loose data on 58 observations as we do not have reliable information on the geographical area at birth, or as respondents were born abroad. In column (6) we loose additional 200 individuals since we are not able to match all municipalities in our dataset.

[27]"A woman should be ready to reduce the time devoted to her job for family reasons"

Table OA2: Survey text

Participants were shown the following text (here translated from Italian):
"When answering the next 5 questions, you can win an Amazon voucher if you guess the answer chosen by most people *similar to you* who are responding to this survey. By similar to you, we mean: of your same gender, in your age group (i.e., AGE GROUP), and residing in your same geographical area (i.e., AREA)." "When all participants have completed the questionnaire, we will conduct two drawings: 1) We will randomly select 1 out of the next 5 questions. 2) We will randomly select 150 participants from those who have completed the survey (out of 1500 people). "Among the 150 selected, those who correctly guessed the answer given by the majority of other participants similar to them on the selected question will receive 3 euros for each correct answer. The amount earned by each of the selected participants will be sent by Scenari Srl."

At the beginning of the elicitation part, participants were presented the following text (here translated from Italian):
"In the next 4 questions, you will read descriptions of situations where a couple has to decide how to organize the management of household tasks and childcare. For each situation, you will be given a brief description of the partners' jobs and the possible solutions they have adopted. You will be asked to evaluate different organizational choices made by the partners of a couple, indicating for each one whether most people similar to you would consider them "socially appropriate" or "socially inappropriate". By "socially appropriate" organizational choices, we mean family decisions that most people agree are the "correct" or "right" thing to do. Another way to think about what we mean is that if someone organizes their family life in a socially appropriate way, then no one else can judge that person negatively for their choices."

Table OA4: Gender double standard, models with interactions

	(1)	(2)	(3)
Dependent Variable	1 if identifies a norm punishing the "Woman contributes less" more than the "Man contributes less" scenario, 0 otherwise		
Panel a) AME for a change in age groups (baseline: 50-64)			
25–34			
Male	-0.099		
	(0.0565)		
Female	-0.058		
	(0.0497)		
North		-0.013	
		(0.0541)	
Centre		-0.050	
		(0.0932)	
South and Islands		-0.179**	
		(0.0623)	
North × Male			0.008
			(0.0815)

North × Female			-0.039
			(0.0710)
Centre × Male			0.008
			(0.1308)
Centre × Female			-0.107
			(0.1293)
South and Islands × Male			-0.309**
			(0.0962)
South and Islands × Female			-0.057
			(0.0791)
35–49			
Male	-0.001		
	(0.0486)		
Female	0.048		
	(0.0392)		
North		0.026	
		(0.0435)	
Centre		0.083	
		(0.0702)	
South and Islands		-0.013	
		(0.0565)	
North × Male			-0.055
			(0.0673)
North × Female			0.106
			(0.0550)
Centre × Male			0.237*
			(0.1004)
Centre × Female			-0.072
			(0.0958)
South and Islands × Male			-0.072
			(0.0922)
South and Islands × Female			0.041
			(0.0667)
Panel a) AME for a change in proposer's gender (baseline: Man proposing)			
Male			0.278***
			(0.0423)
Female			0.274***
			(0.0345)
Observations	1501	1501	1501

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Average marginal effects for the change in the probability of rating the woman contributing less scenario less appropriate than the man contributing less scenario with respect to age groups and proposer's gender.

Table OA5: Decline of the bread-winner model, Vignette A

Model	(1)	(2)	(3)	(4)	(5)	(6)
Dependent Variable:	1 if identifies Very or Somewhat Appropriate as norm in the equal share scenario, 0 otherwise					
Independent Variables						
Female	-0.019	-0.018	-0.015	-0.025	-0.019	-0.037
	(0.0291)	(0.0296)	(0.0297)	(0.0318)	(0.0319)	(0.0340)
Age Groups (Baseline: 50-64)						
25—34	0.143***	0.145***	0.131**	0.126**	0.119**	0.146**
	(0.0404)	(0.0409)	(0.0436)	(0.0439)	(0.0426)	(0.0456)
35–49	0.085**	0.092**	0.088**	0.087*	0.096**	0.104**
	(0.0327)	(0.0332)	(0.0337)	(0.0338)	(0.0331)	(0.0356)
Geographical Area of Residence (Baseline: South and Islands)						
North	0.055	0.038	0.036	0.040	0.028	0.051
	(0.0329)	(0.0350)	(0.0349)	(0.0356)	(0.0366)	(0.0543)
Centre	0.009	-0.016	-0.018	-0.016	-0.020	0.008
	(0.0424)	(0.0436)	(0.0436)	(0.0440)	(0.0429)	(0.0558)
Relocation to a different Geographical Area (Baseline: did not move)						
Moved North		0.044	0.040	0.038	0.038	0.064
		(0.0452)	(0.0453)	(0.0451)	(0.0435)	(0.0458)
Moved South		-0.063	-0.059	-0.059	-0.085	-0.056
		(0.0748)	(0.0756)	(0.0755)	(0.0777)	(0.0835)
Framing: Woman Proposing	0.009	0.003	0.003	0.005	0.013	-0.022
	(0.0291)	(0.0296)	(0.0296)	(0.0297)	(0.0290)	(0.0312)
Civil Status (Baseline: Single, Widower, Separated-Divorced)						
Married or Cohabitant			-0.002	-0.001	0.005	0.003
			(0.0368)	(0.0367)	(0.0362)	(0.0382)
Having Children			-0.031	-0.028	-0.011	-0.033
			(0.0353)	(0.0352)	(0.0349)	(0.0379)
University Degree				0.031	0.018	0.008
				(0.0305)	(0.0309)	(0.0327)
Employed				-0.022	-0.042	-0.038
				(0.0335)	(0.0334)	(0.0364)
Free time					-0.012	0.001
					(0.0439)	(0.0460)
Community Involvement					0.069	0.077
					(0.0724)	(0.0740)
Work					0.079*	0.100*
					(0.0397)	(0.0416)
Family					0.008	0.035
					(0.0406)	(0.0426)
Centre right					-0.012	-0.016
					(0.0346)	(0.0374)
TIPI						
Agreeableness					-0.005	-0.013
					(0.0154)	(0.0168)
Conscientiousness					-0.039**	-0.043**
					(0.0144)	(0.0156)
Emotional Stability					0.013	0.022
					(0.0129)	(0.0137)
Openness					0.005	0.005
					(0.0154)	(0.0172)
Extraversion					0.000	0.000
					(0.0114)	(0.0125)
Cognitive Reflection Test						
2 correct answers					-0.040	-0.020
					(0.0403)	(0.0429)
Risk attitude above median					0.014	0.003
					(0.0311)	(0.0328)
Trust most of the time					0.024	0.038
					(0.0388)	(0.0407)

Claim[28] **(Baseline: Strongly Agree)**						
Agree					-0.009	0.075
					(0.0684)	(0.0704)
Disagree					0.108	0.187**
					(0.0694)	(0.0710)
Strongly Disagree					0.195**	0.267***
					(0.0692)	(0.0706)
Municipality inhabitants (Baseline: More than 50,000)						
Less than 5,000						0.078
						(0.0898)
Between 5,000 and 10,000						0.123
						(0.0688)
Between 10,000 and 50,000						0.021
						(0.0493)
Gini index						0.630
						(1.0323)
Male to female employment ratio						0.092
						(0.0771)
Observations	1501	1443	1443	1443	1443	1243

*$p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Average marginal effects for the probability of rating the equality scenario Very Appropriate or Somewhat Appropriate. In columns (2)-(5) we loose 58 observations as we do not have reliable information on the geographical area of birth, or as respondents were born abroad. In column (6) we loose additional 200 individuals since we are not able to match all municipalities in our dataset.

[28]"A woman should be ready to reduce the time devoted to her job for family reasons"

Table OA6: Decline of the bread-winner model, models with interactions

Model	(1)	(2)	(3)
Dependent Variable	1 if identifies Very or Somewhat Appropriate as norm in the equal share scenario, 0 otw		
Panel a) AME for a change in age groups (baseline: 50–64)			
25–34			
Male	0.127*		
	(0.0610)		
Female	0.159**		
	(0.0528)		
North		0.165**	
		(0.0568)	
Centre		0.235*	
		(0.1002)	
South and Islands		0.063	
		(0.0686)	
North × Male			0.136
			(0.0842)
North × Female			0.198**
			(0.0755)
Centre × Male			0.075
			(0.1535)
Centre × Female			0.387**
			(0.1206)
South and Islands × Male			0.134
			(0.1038)
South and Islands × Female			-0.011
			(0.0893)
34–49			
Male	0.064		
	(0.0507)		
Female	0.105*		
	(0.0415)		
North		0.150***	
		(0.0454)	
Centre		0.088	
		(0.0738)	
South and Islands		-0.007	
		(0.0597)	
North × Male			0.197**
			(0.0689)
North × Female			0.104
			(0.0589)
Centre × Male			-0.043
			(0.1116)
Centre × Female			0.210*
			(0.0873)
South and Islands × Male			-0.059
			(0.0933)
South and Islands × Female			0.044
			(0.0751)
Panel b) AME for a change in proposer's gender (baseline: Man proposing)			
Male			0.026
			(0.0453)
Female			-0.008
			(0.0373)
Observations	1501	1501	

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Average marginal effects for the change in the probability of rating the equality scenario Very Appropriate or Somewhat Appropriate with respect to age groups and proposer's gender.

Table OA7: Misperception in Vignette A

	(1)	(2)	(3)	(4)
Dependent Variable	1 if correctly identifies the norm in the "Equal contribution" scenario			
25–34	-0.057			
	(0.0405)			
35–49	-0.014			
	(0.0318)			
			25–34	
North	-0.016		-0.020	
	(0.0321)		(0.0571)	
Centre	-0.032		-0.060	
	(0.0414)		(0.1028)	
Female	0.004	-0.051		
	(0.0285)	(0.0536)		
Woman Proposing	-0.028			
	(0.0286)			
Male		-0.063		
		(0.0607)		
South and Islands			-0.098	
			(0.0677)	
North × Male				0.036
				(0.0821)
North × Female				-0.076
				(0.0787)
Centre × Male				-0.180
				(0.1508)
Centre × Female				0.054
				(0.1337)
South and Islands × Male				-0.117
				(0.1041)
South and Islands × Female				-0.077
				(0.0864)
			35–49	
Male		-0.035		
		(0.0491)		
Female		0.007		
		(0.0405)		
North			-0.039	
			(0.0450)	
Centre			0.010	
			(0.0710)	
South and Islands			0.007	
			(0.0573)	
North × Male				-0.055
				(0.0696)
North × Female				-0.023
				(0.0570)
Centre × Male				-0.080
				(0.1014)
Centre × Female				0.095
				(0.0926)
South and Islands × Male				0.021
				(0.0903)
South and Islands × Female				-0.006
				(0.0714)
Observations	1501	1501	1501	1501

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Column (1) presents the average marginal effects, columns (2)-(4) presents the average marginal effects for a change in age group (baseline: 50–64).

Table OA8: Vignette A, Self

	Woman Contributes Less			Equal Contribution			Man Contributes Less		
	25-34	35-49	50-64	25-34	35-49	50-64	25-34	35-49	50-64
Very Socially Inappropriate	48.35	49.71	55.24	5.31	10.67	10.35	11.44	10.11	12.76
Somewhat Socially Inappropriate	29.58	31.12	29.73	37.79	31.24	36.24	16.2	18.63	19.42
Somewhat Socially Appropriate	18.21	15.06	11.27	34.58	36.44	30.66	48.11	46.36	39.45
Very Socially Appropriate	3.87	4.1	3.75	22.33	21.65	22.75	24.25	24.9	28.37
Mean Rating	-.4823	-.5091	-.5758	.1596	.127	.1056	.2334	.2394	.2223
Mean Differences (pvalues)									
25-34 vs 35-49	.0268 (.6421)			.0326 (.1911)			-.006 (.9588)		
25-34 vs 50-64	.0935 (.2410)			.054 (.0046)			.0111 (.5721)		
35-49 vs 50-64	.0667 (.2887)			.0214 (.1292)			.0171 (.4583)		

Vignette A: "Imagine Giulio and Silvia: they are married or cohabiting. Giulio works twice as many hours as Silvia and earns about twice as much. They have no children and no one to help them with the housework.". The prevalent personal value is inside a box. Benjamini-Hochberg adjusted p-values in parenthesis, the p-values refer to a test of equality between age groups in each scenario, these results are not replicated with Wilcoxon rank-sum test .

Table OA9: Decline of the bread-winner model, personal values. Vignette A (Self)

Model	(1)	(2)	(3)	(4)
Dependent Variable	1 if rates Very or Somewhat Appropriate in the equal share scenario, 0 otherwise			
Independent Variables				
Female	-0.030	-0.025	-0.022	-0.031
	(0.0291)	(0.0297)	(0.0298)	(0.0319)
Age Groups (Baseline: 50-64)				
25-34	0.034	0.033	0.021	0.014
	(0.0411)	(0.0417)	(0.0442)	(0.0447)
35-49	0.047	0.050	0.050	0.046
	(0.0325)	(0.0331)	(0.0336)	(0.0338)
Geographical Area of Residence (Baseline: South and Islands)				
North	0.012	0.007	0.006	0.007
	(0.0328)	(0.0349)	(0.0348)	(0.0355)
Centre	-0.065	-0.077	-0.080	-0.081
	(0.0426)	(0.0442)	(0.0441)	(0.0444)
Relocation to a different Geographical Area				
Moved North		-0.003	-0.001	-0.005
		(0.0450)	(0.0449)	(0.0450)
Moved South		-0.018	-0.015	-0.014
		(0.0748)	(0.0747)	(0.0748)
Civil Status (Baseline: Single, Widower, Separated-Divorced)				
Married or Cohabitant			-0.041	-0.041
			(0.0367)	(0.0367)
Having Children			-0.009	-0.006
			(0.0354)	(0.0354)
Framing: Woman Proposing	0.003	-0.004	-0.004	-0.002
	(0.0292)	(0.0297)	(0.0297)	(0.0297)
Controls				
Education/Job				✓
Observations	1501	1443	1443	1443

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Average marginal effects for the probability of rating the equality scenario Very Appropriate or Somewhat Appropriate in the personal values. In columns (2)-(4) we loose 58 observations as we do not have reliable information on the geographical area of birth, or as respondents were born abroad.

Table OA10: Data sources

Variable	description	source
Employment	Fraction of employed women at age and geographical area level	Istat data (downloaded in July 2024).
University degree	Fraction of women with a university degree at age and geographical area level	Own elaboration based on Istat data, "Forze di lavoro – dati trasversali trimestrali " first trimester data (downloaded in July 2024)
High school degree	Fraction of women with a high-school degree (4-5 years) at age and geographical area level	Own elaboration based on Istat data, "Forze di lavoro – dati trasversali trimestrali " first trimester data (downloaded in July 2024)
Childcare	Authorized places for 100 children aged 0-2 years at geographical area level.	Istat data (downloaded in July 2024).
Fraction SA/VA (SoB)	Fraction of male answering Somewhat Appropriate/Very Appropriate as second order belief in Vignette A	Survey data
Fraction SA/VA (FoB)	Fraction of male answering Somewhat Appropriate/Very Appropriate as first order belief in Vignette A	Survey data
Mean Rating (SoB)	Mean rating for males' second order beliefs in Vignette A	Survey data
Mean Rating (FoB)	Mean rating for males' first order beliefs in Vignette A	Survey data

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