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Equality in household labor allocation among married and cohabiting individuals in Italy: the role of unions history

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Abstract

This study focuses on the allocation of household labor in Italy, finely differentiating between various forms of married and unmarried cohabiting unions. Specifically, currently married and cohabiting individuals are differentiated on the basis of the type of their first union. We employ data on individuals' partnership histories from the 2016 "Families and Social Subjects" survey, which allows us to consider the role of previous (marital or non-marital) unions and, for currently or previously married individuals, whether or not they cohabited before marriage. A composite index measuring gender equality in household labor allocation is constructed based on different domestic tasks, weighting each task according to how time consuming the associated activity is. Results highlight the importance of considering the first union to explain the division of household labor even within later relationships. In particular, for men, cohabitation does not, as one might expect, mean a more egalitarian division of labor, once selection factors are taken into account and independently from the type of previous relationships. However, considering activities by gender, some signals of a greater participation in female-typed tasks are observed for married and cohabiting men who experienced previous (premarital) cohabitations. For women, instead, cohabitation implies a more egalitarian way to share household labor, if it is a first union or in any situation for which it was the first approach to life as a couple. Cohabitation does not imply a more egalitarian division of labor for women if their first union was a marriage. These differences in household labor allocation for women mainly follow from those observed in female-typed tasks, whereas couple differences in male-typed activities are weaker.

Keywords: Cohabitation, Marriage, Household labor allocation, Gender equality, Italy

Introduction

Historically, household labor has been considered a gendered activity, associated largely with women. With the increase in female labor force participation starting in the late twentieth century, numerous studies have investigated whether a decrease in this gendered specialization has occurred. Though there is some evidence of increased involvement of men in household labor, an egalitarian division within couples seems far from being achieved (Davis & Greenstein, 2004; McMunn et al., 2020). As alternative forms

of union other than marriage began to spread (cohabitation in particular, Kiernan, 2002; Pirani & Vignoli, 2016), scholars started to explore potential differences between marriages and cohabitations in terms of household labor allocation. Analyses have sought to discern whether individuals living in unmarried cohabitations share household tasks in a more egalitarian way compared to their married counterparts (Arosio, 2017; Chao, 2022; Coltrane, 2000; Davis et al., 2007; Shelton & John, 1993; Siminski & Yetsenga, 2022; Stratton, 2023; Yang, 2024). Despite the numerous studies analyzing how household labor is allocated between partners across union types, there is no univocal evidence of a more egalitarian division of household tasks among cohabitations compared to marriages. This may, in part, be due to different meanings associated with these types of union. Differences in the gendered allocation of household labor between marriages and cohabitations might be indeed larger in contexts where cohabitation is less institutionalized and less widespread (Bianchi et al., 2014; Domínguez-Folgueras, 2012).

A more detailed differentiation between various forms of married and unmarried cohabiting unions, considering also the role of previous unions, could shed greater light on this question (Meggiolaro, 2014). Most previous work distinguishes only between currently married and currently cohabiting individuals (Arosio, 2017; Bianchi et al., 2014; Yang, 2024), or considers only currently married individuals, differentiating between those with and without premarital cohabitation (Batalova & Cohen, 2002; Davis et al., 2007; Stratton, 2023). Yet, a few studies suggest that it may be relevant to jointly consider the type of union, the premarital cohabitation for currently married individuals (Baxter, 2005), as well as any previous unions (Meggiolaro, 2014).

Accounting for previous unions may be particularly important as these have become increasingly common. Re-partnering is now a widespread phenomenon, especially in countries with decades of higher separation and divorce rates (Beaujouan, 2012; Mortelmans, 2020). Though, this is also increasingly observed in contexts such as Italy, where, if later than other countries (Salvini & Vignoli, 2011), divorces are on the rise and so is the incidence of second marriages (Istat, 2021a). In addition, the prevalence of couples in informal unions has increased and, due to their higher instability, so has the re-partnering of previously cohabiting individuals (for Italy, see De Rose & Meli, 2022; De Rose et al., 2008).

Equally important to consider is the role of premarital cohabitation. While in the Italian context marriage is still the most common way to start a first union and the propensity to wed continues to be stronger than in other countries, the incidence of premarital cohabitation has grown rapidly in recent decades (Fraboni & Meli, 2015; Impicciatore & Billari, 2012).

In this paper, we focus on the allocation of household labor within married and cohabiting couples in Italy, paying particular attention to different types of marriages and cohabitations. Specifically, we differentiate individuals currently married for the first time according to whether or not they experienced premarital cohabitation. We then distinguish between currently married and cohabiting individuals according to whether or not they had experienced a previous union, and if so, the type of the first one (marriage or cohabitation). This finer distinction relies on the theoretical perspectives suggesting the importance of accumulation of experiences of premarital cohabitation and previous unions (Aughinbaugh, 2010; Sullivan, 1997; West & Zimmerman, 2009). To our

knowledge, we are among the first to investigate differences in the allocation of household labor between marriages and cohabitation using such detailed distinctions.

Italy offers an intriguing context for study. From a demographic standpoint, an increasing diffusion of less traditional family strategies have been observed, with some decades of delay with respect to continental and Northern European countries (Pirani & Vignoli, 2016; Pirani et al., 2021). From a socio-economic perspective, the role of women has changed very rapidly, including increases in educational attainment and greater labor market participation (Istat, 2021b). At the same time, however, societal arrangements and welfare provisions have not evolved correspondingly (e.g., flexibility in working conditions) and traditional gender roles still persist within many families (Anxo et al., 2011; Cutillo & Centra, 2017; Mussida & Patimo, 2021).

Previous studies on whether unmarried cohabitations have a more egalitarian household labor allocation than marriages referred to Italy paint a complex picture. Domínguez-Folgueras (2012) observes more egalitarian household allocation among cohabitations than marriages, with cohabiting men showing higher time investment in household labor than their married counterparts. Other studies confirm a more egalitarian division of household labor among cohabitations than among marriages, even after controlling for sociodemographic and household characteristics, although this difference is due to a lower contribution by cohabiting women rather than to a higher contribution by men, for whom the differences between married and cohabiting individuals disappear once selection factors are taken into account (Arosio, 2017; Bianchi et al., 2014; Meggiolaro, 2014). Meggiolaro (2014) meanwhile finds that also having experienced a previous union does not result in a more egalitarian household labor allocation in the current union (of any type), once having controlled for sociodemographic and household characteristics. This would suggest that selection due to preexisting characteristics completely accounts for differences in household labor allocation across couples (Meggiolaro, 2014).

However, these studies use data that are now quite dated (Domínguez-Folgueras, 2012; Meggiolaro, 2014) or do not distinguish between different types of marriages and cohabitations (Arosio, 2017; Bianchi et al., 2014; Domínguez-Folgueras, 2012). Moreover, in some of these analyses, potential selection factors, such as those connected with individual's gender ideology, are not controlled for (Bianchi et al., 2014; Domínguez-Folgueras, 2012).

Here, we employ most recent data from the “Families and Social Subjects” (FSS) survey conducted in Italy by the Italian National Institute of Statistics (ISTAT) in 2016. The survey contains rich information on union histories, individuals' sociodemographic characteristics, as well as cultural aspects. Our study thus provides a more up to date analysis, wherein we distinguish between different types of marriages and cohabitations and take into account important potential selection factors, related to the characteristics of the household, the respondent, and his/her partner, as well as on certain values and orientations of the respondents.

Data from the FSS survey furthermore allow to consider different types of household tasks, whereas previous work is largely based on aggregate measures of household allocation, a potential limitation given that men and women tend to take on different domestic tasks (Domínguez-Folgueras, 2012). In particular, household labor allocation

was measured through a composite indicator, structured in three sub-components, which considers different domestic tasks, weighted proportionally to how time consuming the activity is. Specifically, the weights are estimated by considering the average time spent by individuals on each activity, according to data obtained by “Time Use Survey” (TUS) carried out in Italy in 2013.

The paper is organized as follows. “[The Italian context](#)” section describes the Italian context in detail. “[Literature review and hypotheses: the role of cohabitation in the division of household labor](#)” section provides a literature review and our hypotheses. “[Methods](#)” section presents the data and our analytical strategy, followed by results in “[Results](#)” section. Conclusions are in “[Discussion](#)” section.

The Italian context

Italy provides an interesting case for two main reasons. First, non-marital unions have become widespread later than in other European countries (Di Giulio et al., 2019; Kieran, 2002). This late diffusion of cohabiting unions has been accompanied by a number of other changes, starting in the 1970s: marriages have declined in number, age at wedding and at first child have risen, fertility has reduced, and divorce rates have increased (Bianchi et al., 2014; Salvini & Vignoli, 2011). Although unmarried cohabitation in Italy has spread more slowly than in other European countries, between the end of the twentieth century and the first decade of the 2000s, it has seen an increasing trend, especially in the northern areas of the country (Pirani & Vignoli, 2016; Pirani et al., 2021). As mentioned, marriages have meanwhile decreased (Pirani & Vignoli, 2016): as illustrated in Fig. 1, between 1995 and 2015, the total number of marriages dropped from 290,000 to 194,000 (Istat, 2000, 2019a), whereas in approximately the same years the number of cohabiting unions rose from 227,000 to 1,159,000 (Istat, 2016). While around 4% of all partnered individuals aged 25–54 lived in non-marital cohabitation in 2000, this valued reached 16% in 2019 (Tomassini & Vignoli, 2023).

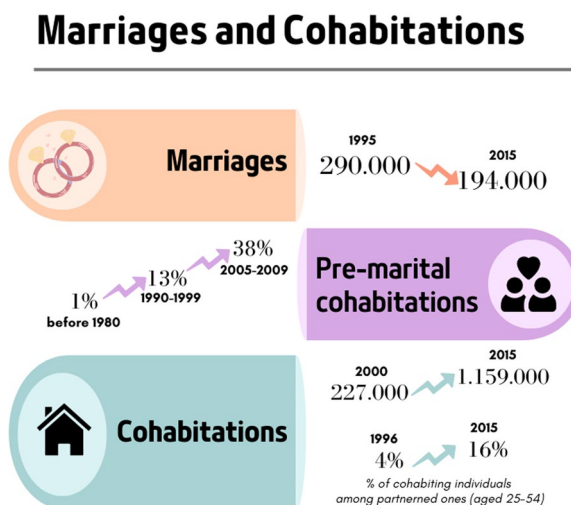


Fig. 1 Statistics on cohabitations, premarital cohabitations, and marriages

In addition to couples who are cohabiting, more and more married couples live together before wedding: only about 1 percent of the marriages celebrated before 1980 were preceded by cohabitation; this percentage increased to 13 percent for marriages celebrated between 1990 and 1999, reaching 38 percent among marriages celebrated between 2005 and 2009 (Fraboni & Meli, 2015; Impicciatore & Billari, 2012). Despite these changes, Italy still tends to maintain a traditional family structure. Indeed, cohabitation remains a relatively limited phenomenon compared to other places (Di Giulio et al., 2019): for example, in 2011, the percentage of people older than 20 who are living with a partner in a consensual union is 5.2 in Italy; the same percentage is 8.9 in Spain, 14.7 in France, and 19.2 in Sweden.¹

Another particularity of the Italian context concerns the more traditional gender roles within the family. Whereas in Northern European countries couples tend to share household tasks much more than they did in the past, the same does not hold true in many Mediterranean countries, Italy being a prime example. Italy has always been characterized by the importance given to the male-breadwinner family model (De Rose et al., 2008), and while there are signals of a transition away from this model, traditional gender roles persist. Comparative time-use data show that, indeed, the gender division of household tasks is heavily asymmetric in Italy (Altintas & Sullivan, 2016). The unbalanced distribution of household labor within Italian couples is not only observed when the woman is a housewife, but also when she works full time (Istat, 2019b). A similar dynamic characterizes childcare, with low levels of involvement on the part of fathers, while mothers bear most of the responsibility for childcare and childrearing activities (Smith Koslowski, 2008). That said, there are some indications of a shift, especially among the most highly educated couples (Dotti Sani, 2018).

Thus, results on the Italian case could also provide important insights for all those contexts, for example typical in Mediterranean countries, that are changing from very traditional patterns to more modern ones, both as regards family forms and gender roles.

Literature review and hypotheses: the role of cohabitation in the division of household labor

Why cohabitation should be associated with more egalitarian sharing

The research on housework in Western countries generally finds a more egalitarian division of household labor among cohabiters than among married individuals, although cohabiting women still spend more time on housework than cohabiting men (Baxter, 2005; Davis et al., 2007; Domínguez-Folgueras, 2012; South & Spitze, 1994; Stratton, 2023). The literature offers several explanations, the first highlighting an incomplete institutionalization of cohabitation. This concept was originally proposed by Cherlin (1978) for remarried and stepfamilies and later extended by other scholars to non-marital unions (e.g., Baxter, 2005; Kuperberg, 2012). The argument is that an incomplete institutionalization of cohabitation creates unclear expectations for domestic work among cohabiting individuals. Marriage, in contrast, is institutionalized according to traditional norms, where the gendered division of labor is such that women take on primary responsibility for household work. Though, this incomplete

¹ Data from the OECD Family Database <http://www.oecd.org/els/family/database.htm>.

institutionalization also leaves open the possibility of negotiating more egalitarian arrangements of household labor than in the case of marriage (Cherlin, 2004).

A second explanation links the more egalitarian household labor allocation among cohabitations than marriages to the selection of cohabiters. In this view, cohabiters and married individuals differ on a series of key sociodemographic characteristics and attitudes that may lead to differ patterns of household labor allocation. Scholars have related these different characteristics and orientations to the main theoretical perspectives explaining the allocation of household labor within couples: the *relative resources perspective* (the partner who earns less does more domestic tasks), the *time availability perspective* (the partner who spends less time in the labor market is more involved in household labor), and the *gender ideology perspective* (orientations towards gender roles influence household allocation within a couple). For a discussion of these frameworks in explaining differing household labor allocation across couples, see, for example, Aassve et. al. (2014). For instance, labor force participation is higher for cohabiting than for married women (Kerr et al., 2006; Shelton & John, 1993) and thus, according to the relative resources and time availability perspectives, cohabiting women may spend less time on household work than married women. Cohabiting and married individuals differ also in terms of gender roles ideologies. Various studies document that cohabiting individuals have on average more liberal orientations and are more supportive of non-traditional family roles (Batalova & Cohen, 2002; Baxter, 2005) than are married people. According to the gender ideology perspective, they should thus share household labor in a more egalitarian way than their married counterparts. Similarly, marriages and cohabitations may differ in household labor allocation due to differences in household composition (for example, married couples are more likely to have children than are cohabiting couples; in turn, children imply greater household labor, particularly for women as they traditionally bear more responsibility for childcare).

A similar explanation for why domestic labor may be shared more equitably among cohabiting than married individuals relates to the so-called specialization and trading model (Becker, 1973; Oppenheimer, 1997). The argument being that married individuals are more likely to divide their paid and unpaid labor along gendered lines, since gains to marriage are greatest when men and women specialize, respectively, in paid and unpaid work (Bardasi & Taylor, 2008; Treas, 2008). Though individuals in cohabiting unions might also specialize, this makes more sense when the time horizon is longer (Stratton, 2004). Uncertainty about the duration of the relationship is more common in cohabiting unions, and their greater instability and shorter term nature (compared with marriages) creates a disincentive to specialize. Egalitarian household labor allocation might thus be more common among cohabitations than among marriages, with differences decreasing when the duration or expected duration of the current relationship is taken into account (Stratton, 2004). In this perspective, the duration of a relationship is a measure of uncertainty. Having children can similarly be considered a measure of expected duration, arguably implying more specialization (and less egalitarian allocation of household labor). Again, if cohabitations are selected for certain characteristics such as lower duration and fewer children (e.g., Musick & Michelmores, 2015; Wu & Penning, 2018), they consequently present lower specialization in household labor.

Thus, according to these various perspectives (with the exception of that connected with the incomplete institutionalization of cohabitation), differences in household labor allocation between marriages and cohabitations should decrease (and eventually disappear) after controlling for potential selection factors of cohabiters. Previous research shows mixed results. While some studies document a persistence in differences in the domestic division of labor across couples once potential confounders are taken into account and thus support the hypothesis of cohabitation as a more egalitarian union in itself, in line with the theory of incomplete institutionalization of cohabitation (Baxter, 2005; Davis et al., 2007), others studies demonstrate that in contexts where cohabitations are less common, selection of cohabiters may be stronger and completely account for differences in household labor allocation (for men in Italy: Meggiolaro, 2014).

The role of unions history

Despite evidence suggesting a more egalitarian division of household labor among cohabiters than among married individuals, a number of scholars show that cohabiters do not always differ in their household labor allocation compared to married individuals (Chao, 2022; Pepin et al., 2018).

This may be due to the difficulties connected with the complexity of controlling for all sources of selection, and it is possible that not all confounding factors are considered. However, and most importantly, it has to be considered that neither marriages nor cohabitations are homogeneous groups, calling for further characterization within each. We may expect that it would be important distinguishing between different types of couples, differentiating among first marriages according to whether they were preceded by premarital cohabitation, and accounting for whether currently married and cohabiting individuals experienced previous unions, and of what type was the first one (marriage or cohabitation).

Taking into account the experience of a premarital cohabitation for currently married individuals allows to verify whether married individuals who cohabited with their current partner before wedding are more similar to cohabiting individuals. Indeed, several empirical studies suggest that patterns established during premarital cohabitation are carried over into marriage (Batalova & Cohen, 2002; Baxter, 2005; Stratton, 2023). Former cohabiters may thus bring more egalitarian experiences of cohabitation into their subsequent marriage. However, other scholars observe no differences between directly married individuals and those who wed after a period of premarital cohabitation (Baxter et al., 2010; Meggiolaro, 2014; Yang, 2024).

With regard to the experience of previous unions, two main opposite mechanisms are at play. The first relates to the experience of previous union dissolution: some studies document that a not egalitarian division of household labor may be associated with union dissolution (Coltrane, 2000; Norman et al., 2018; Ruppanner et al., 2018). If not egalitarian divisions lead to union instability, in a sort of adaptive strategy, individuals in subsequent unions might be more likely to share in a more egalitarian way household labor with their new partners. In other words, in subsequent relationships, individuals may try to negotiate a more egalitarian allocation to attenuate the potential risk of relationship failure (Sullivan, 1997). Women might be particularly prone to seeking a more egalitarian division in the new union and less likely to reduce their paid work

time so as to protect themselves in the case of a further union disruption (Aughinbaugh, 2010). A second mechanism is connected with the so-called 'doing gender' perspective (West & Zimmerman, 1987, 2009) and establishes that strong traditional gender norms and behaviors characterizing a first union persist even in second or higher order unions. Here, the division of household labor depends on one's views on gender attitudes, rather than on the union rank. According to this theory, individuals who entered marriage as their first union should carry a less egalitarian household labor division into subsequent unions, while those who entered cohabitation as their first union should bring more egalitarian house labor allocation into subsequent unions.

Empirical evidence on the role of previous unions in the division of household labor in current unions is scarce and gives ambiguous results, suggesting that both mechanisms may be at play. Looking at France, Solaz (2015) finds no differences in women's time in housework between first and successive unions, while men in successive unions increased time in housework. In contrast, in Germany, women who experienced a previous union decrease the time devoted to housework in their current union, while men's time remains similar between first and second unions (Beblo & Solaz, 2018). Similarly, in the United Kingdom, Ishii-Kuntz and Coltrane (1992) and Sullivan (1997) observe that women in second unions spend less time on household labor, while men's time persists almost unvaried. Lozano and Garcia-Roman (2022) provide empirical support for a less traditional division of housework among re-partnered individuals in Europe, though with differences across countries. With regard to Italy, Meggiolaro (2014) shows that having experienced a previous union does not imply a more egalitarian household labor allocation in the current union, of any type. This unexpected result might be better understood by considering the type of previous union experience (Meggiolaro, 2014). This observation forms the starting point of our study. With the exception of a recent study by Lozano and Garcia-Roman (2022)—which, to the best of our knowledge is the first to test the importance of taking into account previous-union type (albeit this was not their focus)—we are among the first to differentiate current relationships by kind of prior (first) relationship.

Hypotheses

The starting point of this paper is the importance of considering the heterogeneity of marriages and cohabitations, and thus, of distinguishing not only between currently cohabiting and married individuals, but also considering previous unions, taking into account that this effect may differ according to whether the latter was a marriage or a cohabitation. Specifically, here, we consider the type of first (previous) union, as this represents the way individuals first approached a co-residential relationship. In a context such as the Italian one, we expect that the mechanism connected with an adaptive strategy—where individuals in subsequent unions may be more likely to share in a more egalitarian way household labor with their new partners—applies when the first union was a cohabitation. In contrast, since in Italy the institution of marriage strongly defines the norms and expectations of roles within the couple, we associate marriage as a first union with strong traditional gender norms, which then persist in subsequent unions.

In the light of these theoretical perspectives and the specificities of Italian context, we may expect that differences in household labor allocation between marriages and

cohabitations, in the direction of more equality among cohabiters, persist after controlling for potential selection factors of cohabiters. Even if in Italy cohabitations are still less common than in other European countries, some signals of novelty are emerging and thus we suppose that selection of cohabiters does not completely account for differences in household labor allocation as found instead in previous studies for Italy (for men in Italy: Meggiolaro, 2014). The hypothesis of cohabitation as a more egalitarian union in itself, net of selection factors, in line with the theory of incomplete institutionalization of cohabitation (Baxter, 2005; Davis et al., 2007), is here declined also according to the experience of previous unions, and the type of the (first) previous union.

Specifically, we formulate the following hypotheses for the relationship between household labor allocation and the type of union, net of selection of cohabiters:

HP 1: Currently cohabiting individuals have not necessarily a more egalitarian household labor allocation than currently married individuals, and, in particular, this depends on whether they are in their first union or not, and, for those in subsequent unions, on the type of first union:

This hypothesis is divided into the following:

HP 1a: Currently cohabiting individuals in their first union have a more egalitarian household labor allocation than directly married individuals in their first union (that can be considered the most traditional form of union); this is in line with the hypothesis of cohabitation as a more egalitarian union in itself; HP 1b: Currently cohabiting individuals who experienced previous unions and for whom the first union was a cohabitation have a more egalitarian household labor allocation than directly married individuals in their first union; in this case, both the mechanism connected with an adaptive strategy and the 'doing' gender' perspective (also connected with the an incomplete institutionalization of cohabitation) act in the direction of more egalitarian arrangements for individuals in subsequent unions;

HP 1c: Currently cohabiting individuals who experienced previous unions and for whom the first union was a marriage have the same household labor allocation of directly married individuals in their first union; indeed, in Italy the institution of marriage strongly defines the norms and expectations of roles within the couple, and thus, we may expect that the experience of cohabitation and its incomplete institutionalization is not enough to modify the strong traditional gender norms characterizing marriage and which then persist in subsequent unions.

As regards currently married individuals, we may expect that both the experience of premarital cohabitation and the type of first union, for those with previous unions, have to been considered. Specifically:

HP 2: Currently married individuals in their first union who cohabited with their spouse before marriage have a more egalitarian household labor allocation than their directly married counterpart; this is connected with the hypothesis of cohabitation

as a more egalitarian union in itself, and the concept of incomplete institutionalization of cohabitation. We may expect that the patterns established during premarital cohabitation are carried over into marriage.

HP 3a: Currently married individuals who experienced previous unions and for whom the first union was a cohabitation have a more egalitarian household labor allocation than individuals in their first union who directly married; we may expect, indeed, that this is the result of the mechanism connected with the adaptive strategy for which individuals in subsequent unions may be more likely to equally share household labor with their new partners.

HP 3b: Currently married individuals who experienced previous unions and for whom the first union was a marriage have the same household labor allocation of directly married individuals in their first union; in this case where the first union was a marriage the adaptive strategy connected with the experience of previous unions does not hold, since in Italy the institution of marriage defines strong traditional gender norms, which then persist in subsequent union.

Methods

Data and key variables

Data come from the “Families and Social Subjects” survey, conducted by ISTAT in 2016. The survey comprises a sample of 24,753 people aged 18 and older, drawn from population registers through a two-stage sampling design. Individuals are surveyed investigating a broad range of their socio-economic, demographic, and family characteristics. The survey includes, in particular, detailed information on household labor allocation between partners, as well as gender ideologies and individuals’ partnership histories.

Although the survey collected rich information on household members, the respondent’s partner was not interviewed. In other words, partner information, including her/his participation in household labor, is reported by the respondent and thus household labor allocation is measured through the respondent’s own perceptions. Given this, and following the approach of previous studies (e.g., Arosio, 2017; Bianchi et al., 2014; Meggiolaro, 2014), we carried out separate analyses for men and women.

We consider individuals living with a partner at the time of interview (14,662), age 20 to 59 (8959), who responded the main questions about previous or current unions or those concerning who carries out the different household activities, for a total of 8,754 individuals (46.9 percent male and 53.1 percent female). Detailed partnership histories of these individuals allow us to consider the role of previous first (marital or non-marital) unions and, for currently or previously married individuals, whether or not they cohabited before marriage. We thus differentiate between seven groups of individuals (Table 1):

- *Directly married in first union*: currently married in first union without premarital cohabitation;
- *Married in first union with premarital cohabitation*: currently married in first union preceded by premarital cohabitation;

Table 1 Partnership history percentage distribution, separately for men and women

	Men	Women	Total
Directly married in first union	65.1	69.7	67.5
Married in first union with premarital cohabitation	15.8	13.6	14.6
Married after a previous cohabitation	3.7	2.3	2.9
Married after a previous marriage	1.8	1.8	1.8
Cohabiting in first union	8.7	8.2	8.4
Cohabiting after a previous cohabitation	3.2	2.7	2.9
Cohabiting after a previous marriage	1.6	1.7	1.6
Total = 100	4,108	4,646	8,754

- *Married after a previous cohabitation*: currently married in their second or higher order unions, for which the first union was a cohabitation or a premarital cohabitation;
- *Married after a previous marriage*: currently married in their second or higher order unions, for which the first union was a direct marriage;
- *Cohabiting in first union* currently cohabiting in first union;
- *Cohabiting after a previous cohabitation* currently cohabiting in their second or higher order unions, for which the first union was a cohabitation or a premarital cohabitation;
- *Cohabiting after a previous marriage* currently cohabiting in their second or higher order unions, for which the first union was a marriage.

The first group, comprising those currently married in their first union without premarital cohabitation (that is the most traditional form of unions and the reference group in our hypotheses), is the largest (67.5 percent), reflecting the fact that the traditional family model continues to be the most widespread in Italy. That said, a considerable portion of the sample had experienced a cohabitation at some point of their life (30.6 percent). In addition, a notable percentage was in a second or higher order union (9.4 percent).

To measure gender equality in household labor allocation, we considered a battery of questions concerning the following activities: (a) grocery shopping, (b) preparing daily meals, (c) cleaning the house, (d) doing laundry, (e) ironing, (f) doing small repairs around the house, (g) paying bills and keeping other financial records, (h) organizing social activities. The possible answers to these questions were: (1) “always respondent”, (2) “usually respondent”, (3) “respondent and partner about equally”, (4) “usually partner”, (5) “always partner”, (6) “usually someone else”. Because respondents can be of either gender, we transformed the responses into (– 2) “always the woman”, (– 1) “usually the woman”, (0) “woman and man about equally”, (1) “usually the man”, and (2) “always the man”. We included answer 6 “usually someone else” in category 0, under the assumption that the decision to outsource household labor represents an ability and willingness to equally allocate.

Although both men and women tend to overestimate their commitment to household labor compared to that of their partner (actually, literature is not unanimous on

Table 2 Household labor allocation within couples: percentage distribution of different tasks

	Always the woman	Usually the woman	Woman and man about equally	Usually the man	Always the man	Total
Men						
Grocery shopping	9.6	32.3	37.0	11.7	9.4	100.0
Preparing daily meals	18.3	39.3	21.1	12.2	9.1	100.0
Cleaning the house	21.2	39.5	21.7	9.9	7.7	100.0
Doing the laundry	29.6	39.3	11.8	10.1	9.2	100.0
Ironing	31.0	37.9	11.5	10.2	9.4	100.0
Doing small repairs around the house	3.1	6.3	15.9	24.1	50.6	100.0
Paying bills and keeping other financial records	9.8	16.6	28.2	17.7	27.7	100.0
Organizing social activities	4.7	13.9	67.4	7.6	6.4	100.0
Women						
Grocery shopping	39.8	22.7	29.4	6.8	1.3	100.0
Preparing daily meals	56.8	23.2	15.1	4.0	0.9	100.0
Cleaning the house	61.3	21.6	15.3	1.6	0.2	100.0
Doing the laundry	72.9	17.4	7.9	1.4	0.4	100.0
Ironing	73.0	15.2	10.1	1.3	0.4	100.0
Doing small repairs around the house	5.9	5.8	19.6	41.0	27.7	100.0
Paying bills and keeping other financial records	25.4	10.0	26.9	24.0	13.7	100.0
Organizing social activities	11.8	7.9	67.2	9.9	3.2	100.0

the direction of this bias, see, for example Christopher, 2021; Kamo, 2000; Lee & Waite, 2015), the first five activities (a–e) are clearly mainly carried out by women (Table 2). Doing small repairs around the house is primarily a male task; paying bills and keeping other financial records is a more shared activity between men and women, but still remains a predominantly male activity; organizing social activities is the most shared activity.

Household labor allocation and type of couple: analytical strategy and descriptive results

To measure gender equality in household labor allocation, we define a composite indicator aimed at summarizing how partners share household labor within the couple by considering the tasks investigated through the FSS Survey. The composite indicator consists of three sub-components defined according to who within the couple usually performs that task: predominantly female activities, predominantly male activities and neutral activities (for details, see Fig. 2).

With respect to previous studies (see, for example Aassve et al., 2014; Lozano & Garcia-Roman, 2022), the composite indicator we propose takes into account the fact that different activities are not equally demanding. Specifically, weights were applied within the sub-components: keeping in mind how the responses were transformed (ranging from -2 when it is *always the woman* to 2 when it is *always the man*, with 0 indicating equal share), each sub-component's score is obtained as the weighted sum of the scores associated with the activities it includes. Finally, the score of the composite indicator is

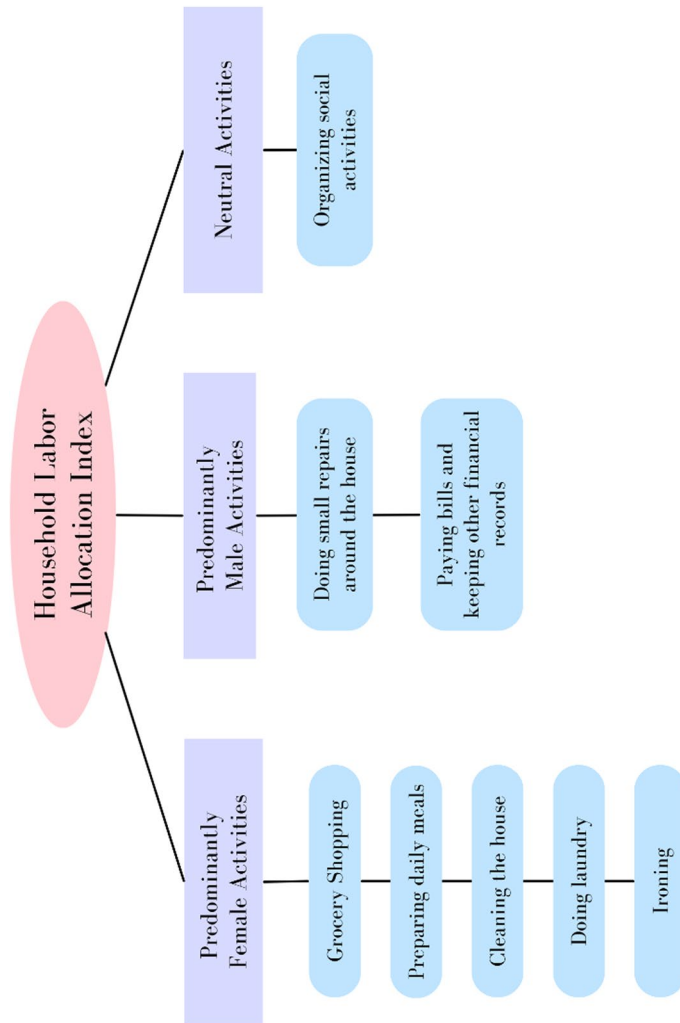


Fig. 2 Framework of the household labor allocation index

Table 3 Weights and normalized weights for each task

Task	Weights % of time over 24 h	Normalized weights
Grocery shopping	0.95	0.09
Preparing daily meals	4.60	0.40
Cleaning the house	3.40	0.31
Doing laundry	0.45	0.04
Ironing	0.45	0.04
Doing small repairs around the house	0.20	0.02
Paying bills and keeping other financial records	0.95	0.09
Organizing social activities	0.10	0.01

obtained as the simple sum of the scores of its sub-components. Each weight is assumed to be proportional to the burden associated to the task. In particular, our aim was to define each weight to be proportional to how time consuming the associated activity is. For this purpose, the weights are estimated by considering the average time spent by individuals (% over the 24 h) on each activity, according to data obtained by “Time Use Survey” (TUS) carried out in Italy in 2013. TUS is a nationally representative cross-sectional time diary survey which record detailed information about respondents’ activities during the survey day, which allows us to estimate the time spent by individuals on each household activity. Since there is no perfect correspondence between the tasks detected in the FSS survey and those considered in the TUS, some assumptions were made. Specifically, the time devoted to “Goods and services purchasing” defined by TUS was split between two tasks investigated through FSS: *grocery shopping* [task (a) in FSS] and *paying bills and keeping other financial records* [task (g)], while the time spent in “Washing, ironing and other laundry care” was divided between *doing laundry* [task (d)] and *ironing* [task (e)]. The average time used for “Construction and Repairs” was used to weigh *doing small repairs* [task (f)], and that spent on “Family management” for *organizing social activities* [task (h)]. Finally, the weights for *preparing daily meals* and *cleaning the house* [task (b) and (c), respectively] were estimated using the time spent, respectively, for “Cooking, dishing and tidying up dishes” and “Cleaning and tidying up the house”. The weights are normalized with respect to the total, so they sum to 1. Table 3 shows the final weights associated to each task. Preparing daily meals and cleaning the house are the most demanding and time-consuming activities.

The obtained index ranges from -2 to 2 with negative values reflecting gender inequality in the division of the household labor, where the woman is doing most of the tasks within the couple, and positive values also implying gender inequality, but where it is instead the man who is doing more household work. Since frequencies for positive categories for almost all the activities considered are extremely low, as shown by the values reported in Table 2, in practice, we consider higher values as a measure of gender equality.

In Fig. 3, we see that household labor division is strongly biased against women, as reported by both men and women. As expected, the main cause of this unbalance is attributable to the sub-component of the index referring to female tasks, whose weight is greater within the index.

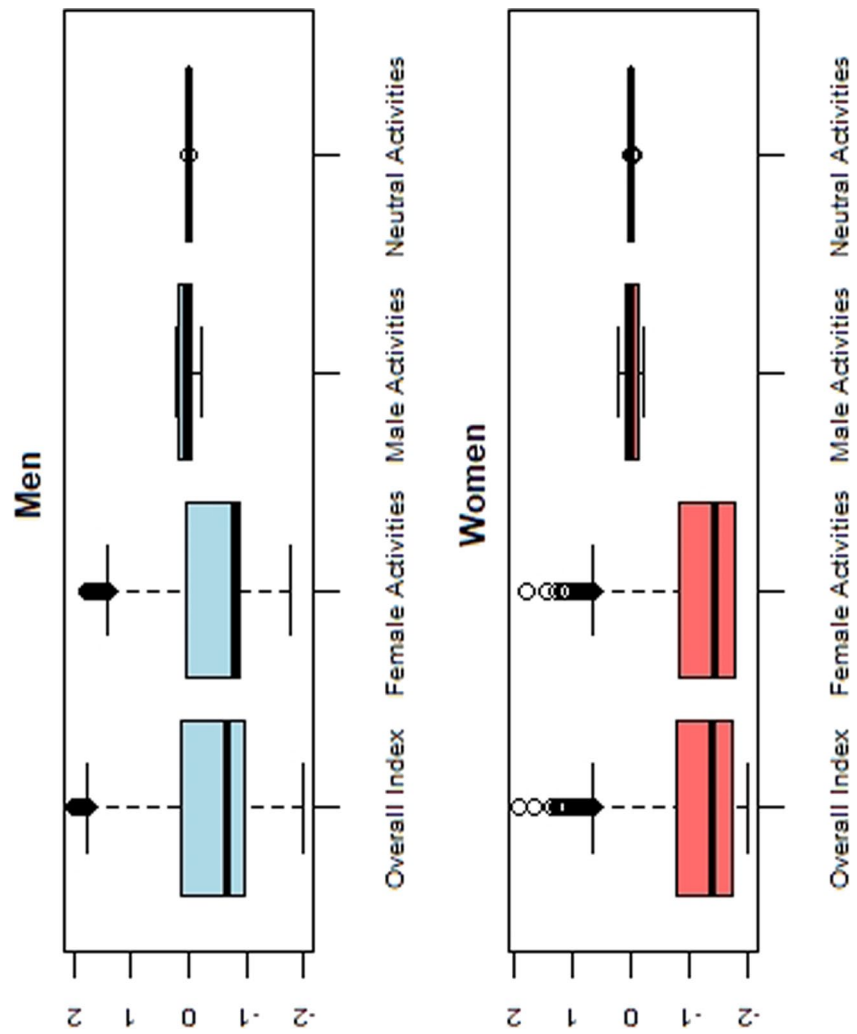


Fig. 3 Boxplot of the household labor allocation index and its sub-components for men and women

Table 4 Mean values for the household labor allocation index and its sub-components for men and women in different types of couple

	Household labor allocation index	
	Men	Women
Directly married in first union		
Overall index	− 0.39	− 1.26
Female activities	− 0.44	− 1.26
Male activities	0.05	0.00
Neutral activities	0.00	0.00
Married in first union with premarital cohabitation		
Overall index	− 0.38	− 1.02
Female activities	− 0.43	− 1.02
Male activities	0.05	0.00
Neutral activities	0.00	0.00
Married after a previous cohabitation		
Overall index	− 0.38	− 0.99
Female activities	− 0.44	− 0.97
Male activities	0.06	− 0.02
Neutral activities	0.00	0.00
Married after a previous marriage		
Overall index	− 0.17	− 1.22
Female activities	− 0.26	− 1.20
Male activities	0.09	− 0.02
Neutral activities	0.00	0.00
Cohabiting in first union		
Overall index	− 0.42	− 0.95
Female activities	− 0.47	− 0.96
Male activities	0.05	0.01
Neutral activities	0.00	0.00
Cohabiting after a previous cohabitation		
Overall index	− 0.29	− 1.01
Female activities	− 0.34	− 1.00
Male activities	0.05	− 0.01
Neutral activities	0.00	0.00
Cohabiting after a previous marriage		
Overall index	− 0.38	− 1.16
Female activities	− 0.44	− 1.16
Male activities	0.06	0.00
Neutral activities	0.00	0.00

In looking at the differences across types of couples (Table 4), considering the overall index, we note that currently married men with previous marriage and, to a lesser extent, cohabiting men after a previous cohabitation, declare a more egalitarian division of the household labor activities. In particular, for married men after a previous marriage this result is attributable to both greater cooperation in female activities and greater engagement in male activities. Directly married women in their first union, married and cohabiting women with a previous (first) marriage are characterized by a less egalitarian household labor allocation. These results are mainly attributable to the female-typed tasks; whereas the sub-component related to male-typed activities shows only weak

variability across the types of couple. The sub-component related to neutral activities does not show any variability across couples at all, both for men and for women, and will not be considered henceforth (multivariate analyses on this sub-component confirmed no couple differences).

In the next step of our analysis, we aim to verify whether these differences across union types persist when controlling for the characteristics of couples and partners. Due to the nature of the indexes (both the overall index and the sub-components considering gender-specific tasks), we apply quantile regression models, which estimate the conditional median of the response variable (Koenker & Bassett, 1978). Median regression can be used as a robust alternative to least squares regression or any Gaussian likelihood-based method (Koenker, 2005). In particular, quantile regression is more robust to non-normal errors and outliers. In our case, indeed, least square regression gave rise to non-normal residuals, probably because of the strong skewness in the data.

Additional information provided in the survey

The FSS survey provides a wealth of information on the characteristics of the household, the respondent, and his/her partner, as well as on certain values and orientations of the respondents, shown in the literature to be important in household labor allocation (e.g., Aassve et al., 2014; Baxter, 2005; Davis & Greenstein, 2004; Lozano & Garcia-Roman, 2022; Stratton, 2004). The inclusion of these variables in our models allows us to account for potential selection of individuals in different types of couples, and thus to verify our hypotheses.

For household characteristics, we consider the duration of the union, the presence of children, the family's economic resources, and area of residence. The duration of the current union is a measure of the degree of uncertainty about the future of the relationship (see, for example, Stratton, 2004), and is measured as the years passed since beginning of co-residence with the current partner. Similarly, the presence of children in the household can be used as a measure of expected duration, though is also, clearly, a proxy of household labor load. In particular, we consider both the number of children and their ages (following, among others, Arosio, 2017; Meggiolaro, 2014), defining a variable with five categories: no children in the household, one child older than 5, one child age 5 or younger, two or more children all older than 5, two or more children with at least one age 5 or younger. These two covariates allow thus to take into account the uncertainty about the duration of the relationship as a measure of the disincentive to specialize in the so-called specialization and trading model (Becker, 1973; Oppenheimer, 1997). In addition, a simple control variable considers a subjective measure of the family's economic resources differentiating between households with adequate or excellent resources from those with poor or insufficient resources. Finally, area of residence (North, Center, and South) allows to account for the traditional Italian North–South divide, and acts as a proxy for contextual, cultural, and institutional differences (Arosio, 2017; Meggiolaro, 2014).

With regard to the characteristics of the respondent and his/her partner, the survey includes information on their educational level and employment status. Both of these variables are commonly considered as control variables in studies examining differences in household labor allocation (e.g., Chao, 2022; Lozano & Garcia-Roman, 2022).

Specifically, we measure educational level with a four-category variable: low (highest degree achieved is lower secondary school or less), middle-low (vocational school diploma), middle (upper secondary education), high (tertiary education). For employment status, we consider whether only the respondent, only the partner, or both the respondent and his/her partner are employed; this specification allows to take into account the time availability perspective (Aassve et al., 2014).

Lastly, we consider the age of the respondent (measured by a categorical variable distinguishing four age groups: 20–29, 30–39, 40–49, 50–59) and two indexes of his/her attitudes. As concerns individual's attitudes, the underlying idea is to account for values connected with family and gender roles. Indeed, previous studies show that men and women with less traditional views about gender roles have a more egalitarian allocation of household labor (Lewin-Epstein et al., 2006; Lozano & Garcia-Roman, 2022; Nitsche & Grunow, 2016). In this way, we can account for the fact that cohabiting individuals may be selected for having more liberal orientations on average and for being more supportive of non-traditional family roles (Batalova & Cohen, 2002; Baxter, 2005) than married people. In the survey, respondents were asked to express the extent to which they agree on a set of statements, using a 5-point scale ranging from *strongly agree* to *strongly disagree*. Specifically, these statements were: (a) “marriage is an outdated institution”, (b) “a couple can live together without planning to marry”, (c) “a woman can have a child alone even if she does not want to have a stable relationship with a man”, (d) “a woman is fulfilled only if she has children”, (e) “children age 18–20 should leave the parental home”, (f) “it is right that unhappy spouses divorce, even if they have children”, (g) “if parents divorce, it is better for the child to stay with the mother than with the father”, (h) “when parents need care, it is natural that daughters take care of them more than sons”, (i) “being a housewife is as fulfilling for a woman as paid work”, (j) “cohabiting same-sex couples should have the same rights as a married couple”, (k) “a man is fulfilled only if he has children”, (l) “an employed mother can establish a good relationship with her children just like a mother who does not work”, (m) “a child needs parents who love him/her independently of their sex gender in order to grow up happy”, (n) “an employed mother can have a relationship with her children that is just as good as a mother who is not employed”, (o) “a child needs both a mother and a father to grow up happy”, (p) “there is no place for immigrants in Italy”, (q) “the presence of immigrants is a positive thing because it allows discussion with other cultures”, and (r) “the increase in immigrants promotes the diffusion of terrorism and criminality.”

We applied a factor analysis and obtained a three-factor solution. The first factor is linked with traditional attitudes towards family behaviors, with high values indicating this orientation; the second factor is connected with anti-immigration attitudes; and the third factor relates to gender equality, with high values indicating gender equality. In our analysis, we consider the first and third factors as those most pertinent to our topic of study.

Results

The role of couple type

Table 5 reports the coefficients of the quantile regression models for the index of household labor allocation as a whole and for its sub-components, separately for men and

Table 5 Quantile regression models for the household labor allocation index and its sub-components for men and women. Coefficients and p-value (only key covariate on the type of couple—for the complete models see Appendix)

	Men		Women	
	Coeff	p-value	Coeff	p-value
A) Household labor allocation index				
Intercept	− 0.57	0.00	− 1.44	0.00
Type of couple (ref: directly married in first union)				
Married in first union with premarital cohabitation	0.05	0.12	0.09	0.00
Married after a previous cohabitation	− 0.00	0.99	0.14	0.07
Married after a previous marriage	0.08	0.17	− 0.11	0.17
Cohabiting in first union	− 0.04	0.45	0.15	0.00
Cohabiting after a previous cohabitation	− 0.00	0.10	0.19	0.00
Cohabiting after a previous marriage	− 0.09	0.09	− 0.05	0.59
B) Female tasks				
Intercept	− 0.72	0.00	− 1.46	0.00
Type of couple (ref: directly married in first union)				
Married in first union with premarital cohabitation	0.05	0.01	0.10	0.00
Married after a previous cohabitation	0.05	0.03	0.17	0.00
Married after a previous marriage	0.05	0.23	− 0.07	0.42
Cohabiting in first union	0.02	0.58	0.14	0.00
Cohabiting after a previous cohabitation	0.04	0.09	0.25	0.00
Cohabiting after a previous marriage	− 0.07	0.00	0.01	0.90
C) Male tasks				
Intercept	0.05	0.00	− 0.03	0.00
Type of couple (ref: directly married in first union)				
Married in first union with premarital cohabitation	0.00	0.48	− 0.01	0.32
Married after a previous cohabitation	− 0.01	0.67	− 0.02	0.17
Married after a previous marriage	0.03	0.17	− 0.02	0.57
Cohabiting in first union	− 0.01	0.35	0.02	0.03
Cohabiting after a previous cohabitation	0.00	0.88	0.00	0.82
Cohabiting after a previous marriage	0.03	0.00	− 0.01	0.85

Appendix In bold: coefficients significant at less than 10%

women, describing the role of the type of union on equality in household labor allocation, net of all the possible covariates described above. The complete results, including also the coefficients for the control variables, are reported in Table 6 in the Appendix.

Keeping in mind how the overall index is obtained and considering that the intercept is negative for both men and women, a positive value of the coefficients suggests a decrease in female participation in household labor, and thus a more egalitarian allocation of household labor. A similar interpretation holds for the sub-component of the index related to female-typed tasks; instead, for the sub-component considering male-typed activities, the same is true for women but not for men: for the latter ones, a positive value of the coefficients means a greater contribution of men in the direction of a less egalitarian allocation.

Considering men and the overall household labor allocation index, results show that the only (weakly) significant coefficient is that referred to currently cohabiting men with previous unions for whom the first union was a marriage, who report an even less

egalitarian allocation than directly married men in first union, thus contrary to HP 1c, which assumed the same allocation of directly married individuals in their first union. In particular, going into the details of the sub-components of the index, for this type of couple a lower contribution of men to female activities and higher participation in male activities are observed (in the direction of a greater specialization of role in this type of couple). Going back to the overall household labor allocation index, the other coefficients related to the type of couple are not significant, suggesting no differences between the various types of union with respect to married men in first union. This is in line just with HP 3b: currently married men who experienced previous unions and for whom the first union was a marriage have the same household labor allocation with respect to directly married men in their first union. Instead, the other hypotheses are not confirmed: in particular, contrary to HP 1a and HP 1b, currently cohabiting individuals in their first union or who experienced a cohabitation as a first union do not have a more egalitarian household labor allocation with respect to directly married men in their first union. In addition, contrary to HP 2 and HP 3a, currently married men in their first union who cohabited with their spouse before marriage or who experienced previous unions, if their first union was a cohabitation, do not have a more egalitarian household labor allocation. Thus, for men, the hypothesis of cohabitation as a more egalitarian union in itself, connected with the concept of incomplete institutionalization of cohabitation, and the mechanism connected with an adaptive strategy in case of experience of previous cohabitations do not seem to hold. In contrast, the institution of marriage strongly defines the norms and expectations of roles within the couple. However, some signal of a greater contribution of men in household labor, in the direction of a more egalitarian household labor allocation, is found considering only female-typed tasks (Table 5B) in line with our hypotheses for some types of couple: specifically, for currently married men in their first union who cohabited with their spouse before marriage (confirming HP 2) or who experienced previous unions, if their first union was a cohabitation (confirming HP 3a) and for currently cohabiting individuals who experienced a cohabitation as a first union (confirming HP 1b).

The outcomes are completely different for women: results confirm all the hypotheses. Specifically, cohabitation can be mean a more egalitarian allocation of household labor (HP 1a and HP 1b) in line with the incomplete institutionalization of this form of union, but this is not true if it preceded by a finished marriage (HP 1c); thus, in Italy the institution of marriage strongly defines the norms and expectations of roles within the couple, and the traditional pattern established within a marriage persist in subsequent unions. The experience of premarital cohabitation also seems to play a significant role (HP 2), in the direction of a more egalitarian household labor allocation: the allocation established during premarital cohabitation are carried over into marriage. Lastly, the experience of previous unions, and the type of the first union, are important for currently married women in the direction of HP 3a and H 3b: currently married women who experienced previous unions have a more egalitarian household labor allocation than currently married women in their first union (reference category), if their first union was a cohabitation (HP 3a) and the same household labor allocation, if their first union was a marriage (HP 3b). Thus, as expected, the mechanism connected with the adaptive strategy for which individuals in subsequent unions may be more likely to share in a more egalitarian

way household labor with their new partners holds for a (first) previous cohabitation, but not for a (first) previous marriage. In the last case, the institution of marriage defines strong traditional gender norms, which then persist in subsequent union. All these results are confirmed considering female-typed tasks (Table 5B); whereas, for male-typed tasks (Table 5C), a greater contribution of women in these tasks (thus in the direction of lower gender specialization) is found only for cohabiting women in their first union. Thus, as found for men, couple differences in the allocation of household labor as a whole do not always reflect those in gender-specific tasks, particularly for male-typed activities.

Discussion

Historically, household labor has been considered a gendered activity, largely associated with women. The increase in female labor force participation and the spread of alternative forms of union other than marriage raises the question as to whether there has occurred a decrease in this gendered specialization.

Despite increasing interest in this issue, there is no univocal empirical evidence of a more egalitarian pattern of household allocation in cohabitations compared to marriages. Looking at the Italian case, we aim to shed greater light on this puzzle, considering a rapidly changing context: this suggests that our results could provide important insights for other countries that are experiencing changes from traditional to more modern family patterns. Findings of the current study may also be generalized to other contexts, since many control variables which allow to take into account, at least partially, the peculiarities of Italian case are considered in the analyses: detailed data on individual's gender roles attitudes and degree of traditionalism, but also on the area of residence and on both partners' educational level, are indeed available in the "Families and Social Subjects" survey and considered in the analyses.

In addition, our study is novel in the fine distinctions we make between different forms of married and unmarried cohabiting unions. Specifically, complete data on individuals' partnership histories collected in the survey allow to consider the role of previous (marital or non-marital) unions and, for currently or previously married individuals, whether or not they cohabited before marriage. Another strength of our paper is the construction of a composite index to measure gender equality in household labor allocation, obtained as a weighted average of eight items, in which each weight is proportional to how time consuming the associated activity is. The index is structured in different sub-components (reflecting the gender division of the activities) that are analyzed also separately. Results based on analyses on this index and its sub-components highlight the importance of considering, at least for women, the role of previous unions.

Unexpectedly, for men, cohabitation does not mean a more egalitarian allocation of household labor, once potential selection is taken into account, and, if cohabitation is preceded by a marriage, we find an even less egalitarian division than that observed among currently married men in their first union. Contrary to our hypotheses, for men, the incomplete institutionalization of cohabitation does not imply a more egalitarian household labor allocation, nor the mechanism connected with an adaptive strategy in case of experience of previous cohabitations holds. In contrast, the institution of marriage strongly defines the norms and expectations of roles within

the couple. These results emerge considering the allocation of household labor as a whole; more detailed analyses, considering the different activities of domestic labor, show some signals of a greater contribution of men in female-typed tasks for some individuals who experienced cohabitation (specifically, for currently married men in their first union who cohabited with their spouse before marriage or for whom the first unions was a cohabitation and for currently cohabiting men who experienced a cohabitation as a first union). These can be considered the first signals towards a more egalitarian household labor allocation in these types of couples.

Our hypotheses are instead completely confirmed for women. That is, cohabitation does imply a more egalitarian allocation of household labor, except the case it is preceded by a marriage. In this last case, the more traditional allocation typical of marriages carries over into the current non-marital union. The very strong role of marriage in defining more traditional patterns of household labor allocation is also observed when considering currently married women, in all cases in which marriage does not come after a previous cohabitation or a premarital cohabitation. In these cases, the more egalitarian allocation of household labor typical of cohabitation persist when the union is formalized through marriage. These results are mainly driven by the female sub-component of the index measuring household labor allocation; whereas for male-typed tasks no great couple differences emerge.

While our index is comparable to that employed by Aassve et. al. (2014), we consider more tasks, meaning we have a more complete framework of household labor allocation within couples. Indices used in other studies are, in fact, usually based on a single and general question asking who does more household tasks or inquiring about the total time spent on household labor, though without specifying exactly what these tasks were (Arosio, 2017; Davis & Greenstein, 2004; Meggiolaro, 2014). In addition, a strength of our index is that it takes into account the fact that different activities are characterized by different level of time consuming, weighting each task appropriately. The detailed analyses considering also the different sub-components of the overall index of household labor allocation offer some interesting suggestions on the types of tasks in which a more egalitarian allocation is far from being achieved also among more egalitarian couples.

Compared to previous studies on Italy, our paper offers new insights on the role of marriage and cohabitation in household labor allocation. Even if men continue to be not sensitive to the experience of cohabitation and previous unions (as also observed, for example, by Arosio, 2017; Bianchi et al., 2014; Meggiolaro, 2014), there are surely some signs of change among women choosing some forms of unions. Our findings furthermore underline the importance of distinguishing between different types of previous unions so as to better understand the role of cohabitation and, generally, the impact of partnership histories on household allocation across couples. This underlines the importance of considering the detail of partnership histories, which should be used also in other studies to disentangle the role of the type of couples on household labor allocation.

Clearly, our index gives not a precise measure of household labor allocation, such as those that can be derived from comprehensive time-use diary data (Bianchi et al., 2014; Domínguez-Folgueras, 2012; Sevilla-Sanz et al., 2010). This would indubitably give more detailed results, allowing to better explain the patterns observed in this

study. Future studies might thus consider jointly information on couple type such as that employed here, together with more fine-grained data on household labor allocation (including, for example, also childcare activities).

Appendix

See Table 6.

Table 6 Quantile regression models for the household labor allocation index and its sub-components for men and women. Coefficients and p-value (complete models)

	Men		Women	
	Coeff	p-value	Coeff	p-value
A) Household labor allocation index				
Intercept	-0.57	0.00	-1.44	0.00
Type of couple (ref: directly married in first union)				
Married in first union with premarital cohabitation	0.05	0.12	0.09	0.00
Married after a previous cohabitation	-0.00	0.99	0.14	0.07
Married after a previous marriage	0.08	0.17	-0.11	0.17
Cohabiting in first union	-0.04	0.45	0.15	0.00
Cohabiting after a previous cohabitation	-0.00	0.10	0.19	0.00
Cohabiting after a previous marriage	-0.09	0.09	-0.05	0.59
Respondent's age (ref: 20–29)				
30–39	-0.14	0.08	-0.03	0.55
40–49	-0.12	0.15	-0.04	0.48
50–59	-0.09	0.32	-0.04	0.54
Respondent's index of traditionalism	-0.06	0.00	-0.02	0.11
Respondent's index of gender roles	-0.00	0.51	0.00	0.739
Respondent's educational level (ref: low)				
Middle-low	0.02	0.60	0.08	0.06
Middle	0.08	0.00	0.08	0.01
High	0.11	0.02	0.24	0.00
Partner's educational level (ref: low)				
Middle-low	-0.03	0.43	-0.05	0.18
Middle	-0.02	0.40	0.11	0.00
High	0.02	0.60	0.09	0.02
Employment status (ref: man employed and woman not employed)				
Both man and woman employed	0.13	0.02	0.13	0.00
Man not employed and woman employed	0.68	0.00	0.65	0.00
Both man and woman not employed	0.26	0.00	0.32	0.00
Duration of the union	-0.00	0.09	-0.00	0.33
Presence of children in the household (ref: no children)				
One child age 5 or younger	-0.07	0.05	-0.08	0.03
One child older than 5	-0.11	0.01	-0.11	0.01
2 or more children, all older than 5	-0.13	0.00	-0.13	0.00
2 or more children, with at least one age 5 or younger	-0.09	0.02	-0.17	0.00
Economic resources of the family (ref: poor or insufficient)				
Sufficient, adequate or optimal	-0.03	0.27	0.03	0.14
Area of residence (ref: North)				
Center	0.12	0.00	-0.08	0.01
South	0.00	0.89	-0.15	0.00

Table 6 (continued)

	Men		Women	
	Coeff	p-value	Coeff	p-value
B) Female tasks				
Intercept	-0.72	0.00	-1.46	0.00
Type of couple (ref: directly married in first union)				
Married in first union with premarital cohabitation	0.05	0.01	0.10	0.00
Married after a previous cohabitation	0.05	0.03	0.17	0.00
Married after a previous marriage	0.05	0.23	-0.07	0.42
Cohabiting in first union	0.02	0.58	0.14	0.00
Cohabiting after a previous cohabitation	0.04	0.09	0.25	0.00
Cohabiting after a previous marriage	-0.07	0.00	0.01	0.90
Respondent's age (ref: 20–29)				
30–39	-0.05	(0.51)	-0.04	0.10
40–49	-0.04	(0.64)	-0.06	0.08
50–59	-0.03	(0.72)	-0.08	0.05
Respondent's index of traditionalism	-0.05	0.00	-0.01	0.04
Respondent's index of gender roles	-0.01	0.46	0.00	0.67
Respondent's educational level (ref: low)				
Middle-low	-0.02	0.25	0.06	0.07
Middle	0.03	0.05	0.07	0.00
High	0.06	0.03	0.24	0.00
Partner's educational level (ref: low)				
Middle-low	-0.00	0.80	-0.05	0.07
Middle	-0.02	0.29	0.03	0.00
High	0.04	0.03	0.06	0.00
Employment status (ref: man employed and woman not employed)				
Both man and woman employed	0.04	0.04	0.06	0.00
Man not employed and woman employed	0.69	0.00	0.71	0.00
Both man and woman not employed	0.24	0.00	0.37	0.00
Duration of the union	-0.00	0.17	-0.00	0.51
Presence of children in the household (ref: no children)				
One child age 5 or younger	-0.07	0.00	-0.06	0.02
One child older than 5	-0.07	0.01	-0.09	0.01
2 or more children, all older than 5	-0.09	0.00	-0.09	0.00
2 or more children, with at least one age 5 or younger	-0.08	0.00	-0.12	0.00
Economic resources of the family (ref: poor or insufficient)				
Sufficient, adequate or optimal	-0.02	0.17	0.01	0.34
Area of residence (ref: North)				
Center	0.06	0.01	-0.09	0.00
South	-0.00	0.75	-0.14	0.00
C) Male tasks				
Intercept	0.05	0.00	-0.03	0.00
Type of couple (ref: directly married in first union)				
Married in first union with premarital cohabitation	0.00	0.48	-0.01	0.32
Married after a previous cohabitation	-0.01	0.67	-0.02	0.17
Married after a previous marriage	0.03	0.17	-0.02	0.57
Cohabiting in first union	-0.01	0.35	0.02	0.03
Cohabiting after a previous cohabitation	0.00	0.88	0.00	0.82
Cohabiting after a previous marriage	0.03	0.00	-0.01	0.85

Table 6 (continued)

	Men		Women	
	Coeff	p-value	Coeff	p-value
Respondent's age (ref: 20–29)				
30–39	–0.01	0.16	–0.01	0.28
40–49	–0.01	0.26	0.00	0.95
50–59	–0.01	0.48	0.01	0.40
Respondent's index of traditionalism	–0.00	0.29	0.00	0.04
Respondent's index of gender roles	0.00	0.33	0.00	0.76
Respondent's educational level (ref: low)				
Middle-low	0.01	0.01	–0.03	0.03
Middle	0.04	0.00	–0.02	0.00
High	0.05	0.00	–0.01	0.25
Partner's educational level (ref: low)				
Middle-low	–0.02	0.02	0.03	0.00
Middle	–0.03	0.00	0.05	0.00
High	–0.01	0.43	0.06	0.00
Employment status (ref: man employed and woman not employed)				
Both man and woman employed	–0.00	0.97	0.04	0.00
Man not employed and woman employed	–0.01	0.05	0.02	0.01
Both man and woman not employed	0.00	0.97	0.01	0.19
Duration of the union	–0.00	0.76	–0.00	0.98
Presence of children in the household (ref: no children)				
One child age 5 or younger	–0.00	0.94	0.01	0.34
One child older than 5	–0.00	0.89	0.02	0.01
2 or more children, all older than 5	–0.01	0.43	0.00	0.56
2 or more children, with at least one age 5 or younger	–0.00	0.83	0.01	0.28
Economic resources of the family (ref: poor or insufficient)				
Sufficient, adequate or optimal	0.00	0.81	0.01	0.04
Area of residence (ref: North)				
Center	–0.01	0.22	0.01	0.13
South	0.02	0.01	>0.02	0.00

In bold: coefficients significant at less than 10%

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Author contributions

Manuela Scioni analyzed the data from the survey 'Families and Social Subjects' and proposed the composite indicator to measure the household labor allocation. Silvia Meggiolaro considered the empirical literature on the link between the type of union and equality in household labor allocation. Both authors interpreted the results of the analyses in the light of previous research. Both authors read and approved the final manuscript.

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Availability of data and materials

The data that support the findings of this study are available from the Italian National Institute of Statistics (ISTAT) but restrictions apply to the availability of these data, which were used under license for the current study, and so are not publicly available. Data are however available from the authors upon reasonable request and with permission of ISTAT.

Declarations

Competing interests

The authors declare that they have no competing interests.

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References

- Aassve, A., Fuochi, G., & Mencarini, L. (2014). Desperate housework: Relative resources, time availability, economic dependency, and gender ideology across Europe. *Journal of Family Issues*, 35(8), 1000–1022.
- Altintas, E., & Sullivan, O. (2016). Fifty years of change updated: Cross-national gender convergence in housework. *Demographic Research*, 35, 455–470.
- Anxo, D., Mencarini, L., Pailhé, A., Solaz, A., Tanturri, M. L., & Flood, L. (2011). Gender differences in time use over the life course in France, Italy, Sweden, and the US. *Feminist Economics*, 17(3), 159–195.
- Arosio, L. (2017). Marriage, cohabitation and participation in domestic labor: Men and women in contemporary Italy. *European Scientific Journal*, 13(8), 236–250.
- Aughinbaugh, A. (2010). The effect of remarriage on women's labor supply. *Journal of Population Economics*, 23, 1151–1176.
- Bardasi, E., & Taylor, M. (2008). Marriage and wages: A test of the specialization hypothesis. *Economica*, 75(299), 569–591.
- Batalova, J. A., & Cohen, P. N. (2002). Premarital cohabitation and housework: Couples in cross-national perspective. *Journal of Marriage and Family*, 64, 743–755.
- Baxter, J. (2005). To marry or not to marry. Marital status and the household division of labor. *Journal of Family Issues*, 26, 300–321.
- Baxter, J., Haynes, M., & Hewitt, B. (2010). Pathways into marriage: Cohabitation and the domestic division of labor. *Journal of Family Issues*, 31(11), 1507–1529.
- Beaujouan, É. (2012). Repartnering in France: The role of gender, age, and past fertility. *Advances in Life Course Research*, 17(2), 69–80.
- Beblo, M., & Solaz, A. (2018). New spouse, same chores? The division of household labor in consecutive unions. *Socio-Economic Review*, 18(1), 163–191.
- Becker, G. S. (1973). A theory of marriage: Part I. *Journal of Political Economy*, 81(4), 813–846.
- Bianchi, S., Lesnard, L., Nazio, T., & Raley, S. (2014). Gender and time allocation of cohabiting and married women and men in France, Italy, and the United States. *Demographic Research*, 31(8), 183–216.
- Chao, S. Y. (2022). Gender inequality in housework: Persistence and change by partnership and parenthood status in the early 2000s. *Journal of Family Issues*, 43(10), 2647–2671.
- Cherlin, A. (1978). Remarriage as an incomplete institution. *American Journal of Sociology*, 84, 634–650.
- Cherlin, A. (2004). The deinstitutionalization of American marriage. *Journal of Marriage and Family*, 66, 848–861.
- Christopher, E. (2021). Capturing conflicting accounts of domestic labour: The household portrait as a methodology. *Sociological Research Online*, 26(3), 451–468.
- Coltrane, S. (2000). Research on household labor: Modeling and measuring the social embeddedness of routine family work. *Journal of Marriage and the Family*, 62, 1208–1233.
- Cuttillo, A., & Centra, M. (2017). Gender-based occupational choices and family responsibilities: The gender wage gap in Italy. *Feminist Economics*, 23(4), 1–31.
- Davis, S. N., & Greenstein, T. N. (2004). Cross-national variations in the division of household labor. *Journal of Marriage and Family*, 66, 1260–1271.
- Davis, S. N., Greenstein, T. N., & Gerteisen Marks, J. P. (2007). Effects of union type on division of household labor: Do cohabiting men really perform more housework? *Journal of Family Issues*, 28(9), 1246–1272.
- De Rose, A., & Meli, E. (2022). Still believe it? An analysis of partnership trajectories after first union dissolution in Italy. *Rivista Italiana di Economia Demografia e Statistica*, 76(1), 167–178.
- De Rose, A., Racioppi, F., & Zanatta, A. L. (2008). Delayed adaptation of social institutions to changes in family behaviour. *Demographic Research*, 19, 665–704.
- Di Giulio, P., Impicciatore, R., & Sironi, M. (2019). The changing pattern of cohabitation: A sequence analysis approach. *Demographic Research*, 40, 1211–1248.
- Domínguez-Folgueras, M. (2012). Is cohabitation more egalitarian? The division of household labor in five European Countries. *Journal of Family Issues*, 34(12), 1623–1646.
- Dotti Sani, G. M. (2018). *Time use in domestic settings throughout the life course. The Italian case*. Springer.
- Fraboni, R., & Meli, E. (2015). *Coppie in prime nozze e in unione libera: Differenze e somiglianze nelle caratteristiche familiari e negli aiuti ricevuti*. <https://www4.istat.it/it/archivio/145432>
- Impicciatore, R., & Billari, F. C. (2012). Secularization, union formation practices, and marital stability: Evidence from Italy. *European Journal of Population*, 28(2), 119–138.
- Ishii-Kuntz, M., & Coltrane, S. (1992). Remarriage, stepparenting, and household labor. *Journal of Family Issues*, 13, 215–233.
- Istat. (2000). *Matrimoni, separazioni e divorzi. Anno 1997*. Istat.
- Istat. (2016). *Rapporto annuale 2016. La situazione del Paese*. Istat.
- Istat. (2019a). *Matrimoni e unioni civili. Anno 2018. Statistiche report*. Istat.
- Istat. (2019b). *I tempi della vita quotidiana – lavoro, conciliazione, parità di genere e benessere soggettivo*. Istat.
- Istat. (2021a). *Matrimoni, unioni civili, separazioni e divorzi. Anno 2019, Statistiche report*, 18. Istat.
- ISTAT. (2021b). *Livelli di istruzione e partecipazione alla formazione. Anno 2020, Statistiche report*. Istat.
- Kamo, Y. (2000). "He said, she said": Assessing discrepancies in husbands' and wives' reports on the division of household labor. *Social Science Research*, 29, 459–476.
- Kerr, D., Moyser, M., & Beaujot, R. (2006). Marriage and cohabitation: Demographic and socioeconomic differences in Quebec and Canada. *Canadian Studies in Population*, 33(1), 83–117.
- Kiernan, K. (2002). The state of European unions: An analysis of partnership formation and dissolution. In M. Macura & G. Beets (Eds.), *Dynamics of fertility and partnership in Europe. Insights and lessons from comparative research*. United Nations.

- Koenker, R. (2005). *Quantile regression*. Cambridge University Press.
- Koenker, R., & Bassett, G., Jr. (1978). Regression quantiles. *Econometrica*, 46(1), 33–50.
- Kuperberg, A. (2012). Reassessing differences in work and income in cohabitation and marriage. *Journal of Marriage and Family*, 74, 688–707.
- Lee, T. S., & Waite, L. J. (2015). Husbands' and wives' time spent on housework: A comparison of measures. *Journal of Marriage and Family*, 67, 328–336.
- Lewin-Epstein, N., Stier, H., & Braun, M. (2006). The division of household labor in Germany and Israel. *Journal of Marriage and Family*, 68(5), 1147–1164.
- Lozano, M., & Garcia-Roman, J. (2022). The division of housework and re-partnering in Europe: Is there a west/east divide? *Family Relations*, 71(4), 1762–1784.
- McMunn, A., Bird, L., Webb, E., & Sacker, A. (2020). Gender divisions of paid and unpaid work in contemporary UK couples. *Work, Employment and Society*, 34(2), 155–173.
- Meggiolaro, S. (2014). Household labor allocation among married and cohabiting couples in Italy. *Journal of Family Issues*, 35(6), 851–876.
- Mortelmans, D. (2020). *Divorce in Europe. New insights in trends, causes and consequences of relation break-ups*. SpringerOne.
- Musick, K., & Michelmore, K. (2015). Change in the stability of marital and cohabiting unions following the birth of a child. *Demography*, 52(5), 1463–1485.
- Mussida, C., & Patimo, R. (2021). Women's family care responsibilities, employment and health: A tale of two countries. *Journal of Family and Economic Issues*, 42, 489–507.
- Nitsche, N., & Grunow, D. (2016). Housework over the course of relationships: Gender ideology, resources, and the division of housework from a growth curve perspective. *Advances in Life Course Research*, 29, 80–94.
- Norman, H., Elliot, M., & Fagan, C. (2018). Does fathers' involvement in childcare and housework affect couples' relationship stability? *Social Science Quarterly*, 99(5), 1599–1613.
- Oppenheimer, V. K. (1997). Women's employment and the gain to marriage: The specialization and trading model. *Annual Review of Sociology*, 23(1), 431–453.
- Pepin, J. R., Sayer, L. C., & Casper, L. M. (2018). Marital status and mothers' time use: Childcare, housework, leisure, and sleep. *Demography*, 55(1), 107–133.
- Pirani, E., Guetto, R., & Rinesi, F. (2021). Le famiglie. In F. C. Billari & C. Tomassini (Eds.), *Rapporto sulla popolazione. L'Italia e le sfide della demografia*. Il Mulino.
- Pirani, E., & Vignoli, D. (2016). Changes in the satisfaction of cohabitators relative to spouses over time. *Journal of Marriage and Family*, 78(3), 598–609.
- Ruppanner, L., Brandén, M., & Turunen, J. (2018). Does unequal housework lead to divorce? Evidence from Sweden. *Sociology*, 52(1), 75–94.
- Salvini, S., & Vignoli, D. (2011). Things change: Women's and men's marital disruption dynamics in Italy during a time of social transformations, 1970–2003. *Demographic Research*, 24, 145–174.
- Sevilla-Sanz, A., Gimenez-Nadal, J. I., & Fernandez, C. (2010). Gender roles and the division of unpaid work in Spanish households. *Feminist Economics*, 16, 137–184.
- Shelton, B. A., & John, D. (1993). Does marital status make a difference: Housework among married and cohabiting men and women. *Journal of Family Issues*, 14, 401–420.
- Siminski, P., & Yetsenga, R. (2022). Specialization, comparative advantage, and the sexual division of labor. *Journal of Labor Economics*, 40, 851–887.
- Smith Koslowski, A. (2008). *Who cares? European fathers and the time they spend looking after their children*. VDM Verlag.
- Solaz, A. (2015). Union history and division of domestic work between partners. In A. Régnier-Loilier (Ed.), *The contemporary family in France*. Springer.
- South, S. J., & Spitze, G. D. (1994). Housework in marital and nonmarital households. *American Sociological Review*, 59, 327–347.
- Stratton, L. S. (2004). Specialization in household activities within cohabiting versus married households. IZA working paper.
- Stratton, L. S. (2023). Marriage versus cohabitation: How specialization and time use differ by relationship type. *Time use in economics* (pp. 187–218). Emerald Publishing Limited.
- Sullivan, O. (1997). The division of housework among "remarried" couples. *Journal of Family Issues*, 18, 205–224.
- Tomassini, C., & Vignoli, D. (2023). *Rapporto Sulla Popolazione. Le Famiglie in Italia. Forme, Ostacoli, Sfide*. Il Mulino.
- Treas, J. (2008). The dilemma of gender specialization: Substituting and augmenting wives' household work. *Rationality and Society*, 20(3), 259–282.
- West, C., & Zimmerman, D. H. (1987). Doing gender. *Gender & Society*, 1(2), 125–151.
- West, C., & Zimmerman, D. H. (2009). Accounting for doing gender. *Gender & Society*, 23(1), 112–122.
- Wu, Z., & Penning, M. J. (2018). Marital and cohabiting union dissolution in middle and later life. *Research on Aging*, 40(4), 340–364.
- Yang, Y. M. (2024). Premarital cohabitation and the gendered division of household labor in China. *Chinese Journal of Sociology*, 10(2), 274–312.

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