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Abstract

Stay-at-home policies due to the Covid-19 pandemic have drastically increased housework and childcare. During the lockdown, couples were harshly challenged by this novel situation which could notably redistribute roles and/or could also lead to intrahousehold conflicts. In this paper, we use individual data collected from an online survey on French partnered women during the confinement of the 2020 Spring to investigate the lockdown's effects on the household chores allocation and tensions in the couple. We show that the lockdown did not offer an opportunity to strongly renegotiate the housework and childcare division between the partners, as women still did the lion's share during this period. Men only changed their participation in household chores when they became a "quasi-leisure" because of the pandemic (as for shopping or playing with child). We also document that an unbalanced division of the increased household chores during the lockdown, in particular on cleaning and childcare, is directly linked to an increase of the intrahousehold conflicts. To conclude, this period did not structurally affect gender roles and stereotypes at home, despite minor intrahousehold changes.

Keywords

Covid-19, Housework, Childcare, Intrahousehold tensions, Gender roles

JEL Codes

D13, J12, J13, J16, J22

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1 Introduction

In France and all over the world where stay-at-home policies were implemented, the first lockdown of the Spring 2020 harshly affected and challenged partners in their households. The effects of this sudden forced coexistence impacted the household on the amount of housework and childcare (Farré et al., 2020; Del Boca et al., 2020), the occurrence of domestic tensions (Biroli et al., 2020) or even intimate partner violence (Arenas-Arroyo et al., 2020; Beland et al., 2020; Morgan and Boxall, 2020; Ravindran and Shah, 2020; Hsu and Henke, 2020). Witnesses of the domestic violence, the helplines also knew a dramatic rise of the distress calls in western countries (Leslie and Wilson, 2020; Bullinger et al., 2020; Miller et al., 2020) as well as in developing countries (Agüero, 2020; Perez-Vincent and Carreras, 2020). For France, we notice a rise by 44% of police interventions for family disputes while the calls to the helplines for domestic violence doubled.¹ Furthermore, 49% of the french couples reported intrahousehold conflicts due to the housework distribution during the lockdown, and one-third of the women who reported these frequent disputes suffered from verbal abuse.² From the 2020 Insee report on family and social inequality, we also note that 13% of the french couples (16% of the parents) reported more frequent disputes during the lockdown while women continued to do the lion's share of the housework (Barhoumi et al., 2020).

In this paper, we aim to investigate the link between household tasks distribution and intrahousehold conflict, addressing two intertwined research questions. (i) Has the lockdown induced a (re)distribution of household chores between the two partners? If yes, do men increase their participation in tasks that are perceived to have a female connotation? (ii) Does a more equal burden sharing reduce the likelihood that a woman reports that a conflict has occurred? Is there a relationship between the type of the task in which men participate and the incidence of conflicts? As the stay-at-home policies did not homogeneously affect workers, we explore the heterogeneities in the results according to the confinement status of the couple.³

We use original data, own-collected via an on-line survey between April 21 and May 10, 2020 on 2,907 partnered women.⁴ The survey collected fine-grained information on the housework and childcare contribution of the two partners as well as on the occurrence of conflicts in the couple before and during the lockdown.⁵ We show that only couples with kids where both partners stayed at home or where the woman was working

¹This information comes from France Inter's website, "Violences faites aux femmes : que s'est-il vraiment passé pendant le confinement ?", published on May 15 2020.

²These data are from an Ifop's survey "Enquête sur les conditions de logement des Français confinés et les tensions au sein des foyers" on a representative sample of 3 011 respondents, published on April 7 2020. Ifop also provided a similar study in 2019, where 45% of the french couples reported conflicts due to the division of the housework.

³Four types of confinement status are defined during the lockdown: (1) when both partners were confined at home, it is the basic situation in the stay-at-home policies; (2) when the woman was the only to work outside; (3) when the man was the only to work outside; (4) when both partners worked outside. Being an "essential worker" was a reason why some people continue to commute to their workplace in this period, as for instance in the construction industry, in supermarkets or in personal care services.

⁴The French president Emmanuel Macron announced the closure of kinder-gardens, schools and universities for an unspecified time in the speech he delivered on March 12, 2020, and he then imposed the total lockdown on March 16, 2020; going out of home was limited to essential tasks, such as food shopping and working (in cases in which working from home was unfeasible), plus the opportunity to walk or doing physical activities for at most one hour per day within a one kilometer radius from home.

⁵In the paper, we alternative name household tasks, household activities or household chores to indicate both housework (i.e. cleaning, laundry, shopping and cooking) and childcare (i.e. homework and playing).

outside during the lockdown significantly reduced the gender gap in both housework and childcare. Interestingly, for the totally confined parents, this change is particularly driven by the male participation in shopping and in playing with kids, the less female-connoted activities considered in this study. These two tasks could also be considered as a quasi-leisure in period of lockdown. This result claims the null-effect or, at most, the feeble impact of the lockdown on the household chores distribution. For most of the confinement statuses, we also find that conflictual situations arised when the gender gap of the household chores distribution increased during the lockdown. This result means that redistributing the burden of household tasks during the lockdown is likely to limit the disputes between partners. We notably document that the tensions mostly appeared when the gender imbalance increased in cleaning, the most time consuming and female-connoted household chore.

Our paper first contributes to the literature on the gendered division of household chores, and in particular to the relationship between gender preferences and the within-couple variation of household tasks allocation over time. The asymmetric allocation of the housework between partners has been largely lighted by seminal theoretical papers as in [Becker \(1965\)](#) or in [Gronau \(1977\)](#). Despite a large reduction of the gender gap in the labor market, women continue to do the lion's share of the housework (see the recent literature review by [Lachance-Grzela and Bouchard \(2010\)](#)), even if researchers notice that the division of the housework became more balanced and the gender gap converges over the life span ([Lam et al., 2012](#); [Leopold et al., 2018](#)). Exploiting changes in the labor market participation in the couple, some authors document some within-couple variation of the housework division. [Killewald and Gough \(2010\)](#) and [Foster and Stratton \(2018\)](#) show that the new-unemployed men increase the share of housework, but to just around half of the time devoted by women to them. [Álvarez and Miles-Touya \(2019\)](#) exploit a specific feature of the Spanish Time Use Survey to provide the evidence that men increase their contribution to housework in their non-working days, but to a lesser extent than women. Therefore, many unobservables factors as the social norms, stereotypes or preferences remain and are shaping the constant gender gap across cohorts. Using an experiment, [Couprie et al. \(2020\)](#) investigate the influence of the stereotypes and find that partners overspecialize their housework in accordance with their gender roles. As observed by [Kahneman et al. \(2004\)](#), household chores also differ in terms of pleasantness and physical effort. If [Auspurg et al. \(2017\)](#) do not find any little evidence of any systematic gender differences in preferences, [Stratton \(2012\)](#) show that men's preferences drive their commitment in housework.⁶ In this paper, we claim that men contribute more to chores that became a "quasi-leisure" in the lockdown period, showing that the gendered nature of a task seems to respond to its changing attractiveness rather than being a stable feature. This finding illustrates a possible change of men's preferences due to the constraints during the pandemic, modifying the division of the housework.

We also relate to the literature analyzing how the occurrence of conflicts within the couple is linked to the allocation of tasks between partners. The economic and sociological literature has addressed the question

⁶To our knowledge, the (economic) literature exploring heterogeneity of preferences for type of housework activities among partners is limited. [Van der Lippe et al. \(2013\)](#) suggest that gender preferences for housework matters for outsourcing. More interestingly, [Van Berkel and De Graaf \(1999\)](#) show that cooking and shopping are considered as enjoyable housework activities by men and women, while cleaning is disliked by both partners. This is in line with the work by [Shaw \(1988\)](#), who indicated that cooking was among the preferred housework tasks. Empirical work on housework, often uses the distinction between "female-typed housework", that includes laundry, housecleaning, washing dishes, and cooking and "total housework". Shopping is included in the second category, together with gardening, pets care and other tasks that can be considered as semi-leisure ([Kahneman et al., 2004](#))

whether the men's participation in household activities stabilizes marriage and reduces the risk of separation. According to the Becker's theory of specialization, we could expect the separation risk to decrease with partner's specialization because the partners' mutual dependence increases, e.g. women take care of household chores, men taking the role of breadwinner (Becker, 1981, 1985; Cooke, 2006). On the other hand, the separation risk could increase because of the dissatisfaction of the women who have to carry most of the burden at home. The risk could be higher for the couples where the woman has more bargaining power, because of her high education level or her high part of the total family income. Cooke (2006), Sigle-Rushton (2010) or Ruppanner et al. (2018) empirically show that the risk of separation is lower in couples where the man is more involved in housework (and childcare, where there are children). Conversely, Norman et al. (2018) found that father's involvement in childcare in the first year after the birth is associated with couple stability, but this is not always the case for his involvement in other tasks. According to Altintas and Sullivan (2016) and Van der Lippe et al. (2014), frictions about the allocation of the housework among partners is one of the main sources of marital conflict.⁷ In the context of the Covid19 pandemic, Beland et al. (2020), Birolì et al. (2020) and Hsu and Henke (2020) have documented an increase, respectively, in domestic violence and family tensions during the lockdown. This paper is directly linked to this literature, showing that an increase in the unbalanced division of the housework during a stressful situation as the lockdown rise the likelihood of conflicts among partners.

Finally, we contribute to the emerging literature on the effects of the stay-at-home policies during the Covid-19 pandemic, and notably the multifaceted implications of the lockdown on couples and households. Several papers have documented the quantitative increase of hours allocated to the household chores and childcare, and the change of couples' behaviour. For Spain, Farré et al. (2020) show a slight increase in the male partner's share of housework and childcare, but also that women still take the lion's share.⁸ In Italy, Del Boca et al. (2020) find that men increase the time they spend in gratifying tasks, as children related activities, rather than the time doing chores. Using data from England, Andrew et al. (2020) show that during the lockdown mother spent more time in housework and childcare than their partners. Using panel data on German families, Hank and Steinbach (2020) document that there is no fundamental changes in established patterns of couples' division of labor during the lockdown. In Italy and the US, Birolì et al. (2020) document that families experienced an increase of intra-household tensions, even if men increased their share of childcare and grocery shopping duties. To the best of our knowledge, our paper is the first exploring the link between the household chores division and the occurrence of conflicts between partners at the confinement period. Moreover, the issues related to family, couples and household during the pandemic still remain overlooked in the literature for France.

The rest of the paper is structured as follows: Section 2 describes our original dataset. The effect of the lockdown on the division of the housework and childcare related activities are presented in Section 3. We discuss the relationship between tasks distribution and the occurrence of the conflicts in Section 4. Section

⁷Related to this, some evidence exists on a negative association between the psychological distress and a more equal distribution of housework among partners (Lennon and Rosenfield, 1994; Kalmijn and Monden, 2012; Harryson et al., 2012). Carlson et al. (2016) show that a more egalitarian division of housework matters for sexual relations.

⁸Our data are particularly close to their dataset, who also have information on the time spent by respondents and partners on each type of task. They also showed that the increase in men's contribution to housework was mostly concentrated on the shopping activity.

5 concludes.

2 EICM Survey and Data

In order to investigate specific issues on the changes due to the pandemic and the lockdown in France, we conducted a real time survey using an on-line software from April 21 to May 10 2020.⁹ The survey was spread using different ways: (i) through the personal and professional networks of the authors, (ii) through a mass-emailing strategy that targeted metropolitan French kindergartens and primary schools and (iii) through a 5 days marketing campaign on Facebook and Twitter. Using social networks allowed us to increase our audience and balance our sample as they have randomly distributed the survey among the targeted population. The raw dataset was collected on 4,616 individuals under the name of *Enquête sur l'Impact Economique et social du COVID-19 sur les Ménages*(EICM). Although we did not explicitly target them in the distribution of the survey, most of our respondents were women.

This might be explained by the fact that women felt more concerned by the topics raised by the survey. The low number of male respondents prevents us to study the male perceptions on the intra-household relationships. Therefore, we only restrict our sample on the partnered women respondents with fully information since we are interested on intra-household relationships in this paper. We finally rely on a sample of 2,844 women, reporting basic information including location, education, civil status and working status before and during the lockdown. Each respondent reports the same information for her partner. The survey also provides information on the division of housework and childcare tasks before and during the lockdown.

As respondent intentionally participated to our survey and the data were not collected using a sampling design, our dataset is not representative of French women population. Table A1 reports comparisons between EICM dataset and INSEE data. Thanks to the great efforts in the distribution of the questionnaire, we observe that our sample is relatively well balanced at geographical level, except for an over-representation of women from AURA region and an under-representation of women from Ile de France region.¹⁰

We also find that our sample under-represents women without an university degree (59.85% in EICM compared to 75.4% in INSEE data). This selection bias could also be linked to the author's networks and the individual's preferences who lead the interest to participate at this survey. We thus weighted our estimates in order to correct for the under representativeness of lower educated women.¹¹

Table A2 presents the descriptive statistics on the outcome variables and on the covariates for the sample of women, both before and during the lockdown. More details on the described variables are given in the next sections.

⁹A first version of the survey was developed by Lidia Farré (Universitat de Barcelona) and Libertad Gonzales (Universitat Pompeu Fabra) with the aim of collecting early data on the labor market consequences as well as the intrahousehold relationships during the lockdown. Similar surveys were then spread in France, Italy, Germany and Austria. The French and the Italian versions included detailed questions on children time use, when respondents lived with their kids. The French version also added some questions on the conflicts between partners during the lockdown. The questionnaire is available from the authors upon request.

¹⁰The high number of respondents from the AURA region can be explained by the residence location of the authors, who spread in their own networks the survey.

¹¹All of our results remain stable when we do not reweight the estimates. These results are available from the authors upon request.

3 Intrahousehold division of the household chores during the lockdown

3.1 Time-use and division of household chores

This section explores the changes in the partners' contribution to housework and childcare activities during the Spring 2020 lockdown in France. The EICM survey collected information on all domestic chores and children related activities shared by the partners in the daily life. We focus on the main household chores (i.e. cleaning, cooking, laundry and shopping) and on two activities related to kids, helping with homework and playing.

Figure 1 graphically presents average hours spent in household tasks for women with and without children for the periods before and during the pandemic.¹² Unsurprisingly, the reported time spent in household chores was more important for women with children at home than for women without, both before and during lock-down. During the lockdown, we find a similar increase in the number of hours consecrated to the housework for the two groups of women. Moreover, the time spent by mothers in the educational activities with their kids considerably increased during the lockdown, from an average of 2 to more than 8 hours per week.

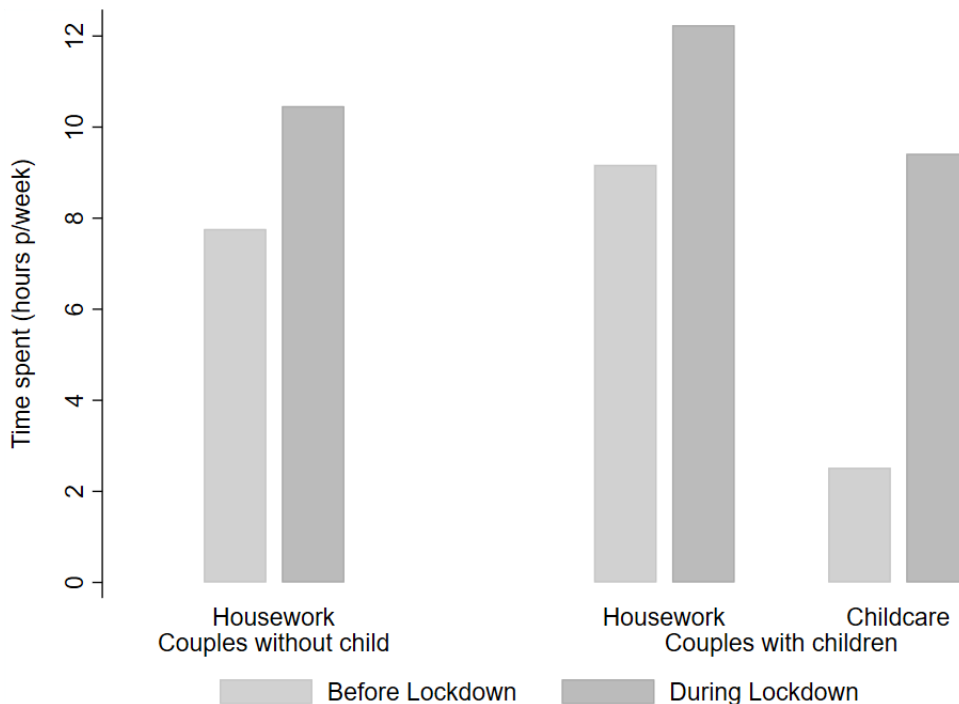


Figure 1: Time spent by women into household tasks

¹²We asked women the total number of weekly hours they devoted before and during the lockdown to the three following chores: cleaning, cooking and laundry. The time spent on shopping was not asked here because this activity can be reasonably assumed to be constant across the two periods. Using the *Enquête Emploi du Temps* from INSEE in 2010, we also find that this activity counts for less than 15% of the total of time spent in the major housework activities mentioned in our survey.

Respondents also reported the division of time between partners for each household chore before and during the lockdown. We draw this information using a Likert scale on woman participation in household chores, from which we created an index for the women’s share of household chores.¹³ This index is obtained by computing the mean of women participation in all tasks and ranges between 0 and 1. Correspondingly, we defined the men’s share as the reversed women’s involvement, i.e. 1 minus the women’s share.

Using the kernel density of this index of the housework division between the partners, we show that, on average, couples with children experience a more unequal household tasks’ distribution (Figure A1). We also note that the two types of couples do not diverge in terms of distribution of the index for the situations where male partner assume most of the housework burden.

Figure 2 shows for each task the gender gap in the division of the housework.¹⁴ First of all, we notice that women continue to do the lion’s share of the housework even during the pandemic as the tasks gap between partners remains positive. This finding is consistent with national data provided from the French national statistics institute, Insee, in [Barhoumi et al. \(2020\)](#). Second, we also observe that gender gaps before the lockdown are systematically higher for couples with children, indicating that the additional burden due to the presence of kids is mostly taken by women. Couples with children knew on average a strong reduction of the gap in shopping activities, while fathers also increased their participation in all activities except cleaning. Conversely in couples without children, men did not rise their share for most of the tasks, except for shopping which presents the highest redistribution. This is similar to results found in the literature by [Mangiavacchi et al. \(2020\)](#) in Italy and by [Farré et al. \(2020\)](#) in Spain, where the gender gap on shopping became negative during the lockdown.

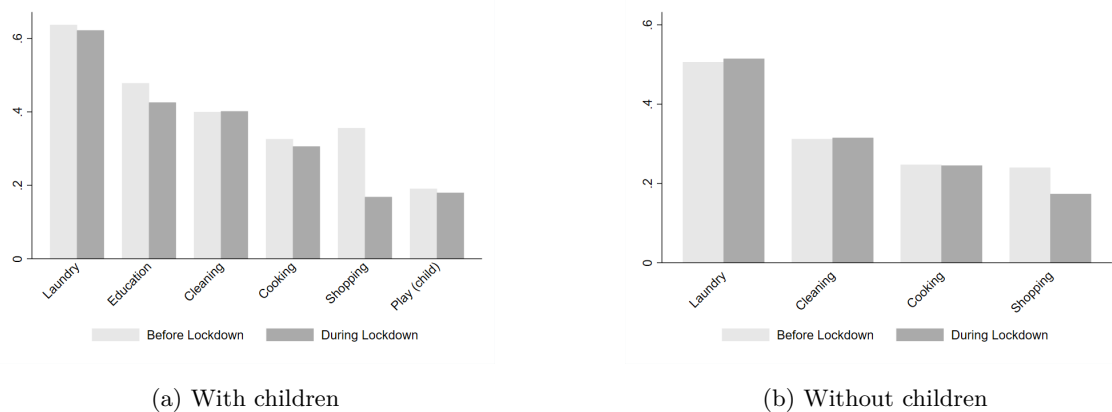


Figure 2: Evolution of tasks gap between partners into the household

The lockdown in France was accompanied by government statements promoting teleworking when it was

¹³For each task, we asked the question "Who is doing the activity in the considered period?". Respondents had the following choices: "always me"; "me most of the time"; "my partner and me equally"; "my partner most of the time"; "always my partner"; "another person". We attribute the values 1, 0.75, 0.5, 0.25 and 0 respectively to the first five previous options. Only a minority of respondents replied that another person took care of some tasks before the lockdown (less than 1%, except for the cleaning who was carried out by 4.4% by another person), while during the lockdown, all tasks were assumed at 99% by the respondent or partner. We attribute the value of 0.5 in the case where another person was doing the task.

¹⁴We computed the gender gap as the difference between the women’s share and the men’s share. When the gender gap is zero, the task is equally distributed among partners, while a negative gap means that men take care for most of the burden.

possible. We consequently differentiate in our survey four types of confinement status for couples: those where both partners worked outside during lock-down (1), those where only one out of the two partners worked outside, either the woman (2) or the man (3), and couples where both partners stayed at home (4). Figure 3 illustrates the evolution of the gender gap in housework and childcare across the four groups, computed on both couples with and without kids (except for children related activities). We observe a higher reduction in the gender gap when the woman only worked outside during the lockdown. Conversely, when men was the only one who worked outside, we observe an increase in the gender gap for all activities, except for shopping. Descriptives also indicate a very low reduction in the gender gap when both partners were working outside and when both were at home. These findings denote the high heterogeneity in the intrahousehold division of housework and childcare due to the confinement status of the partners.

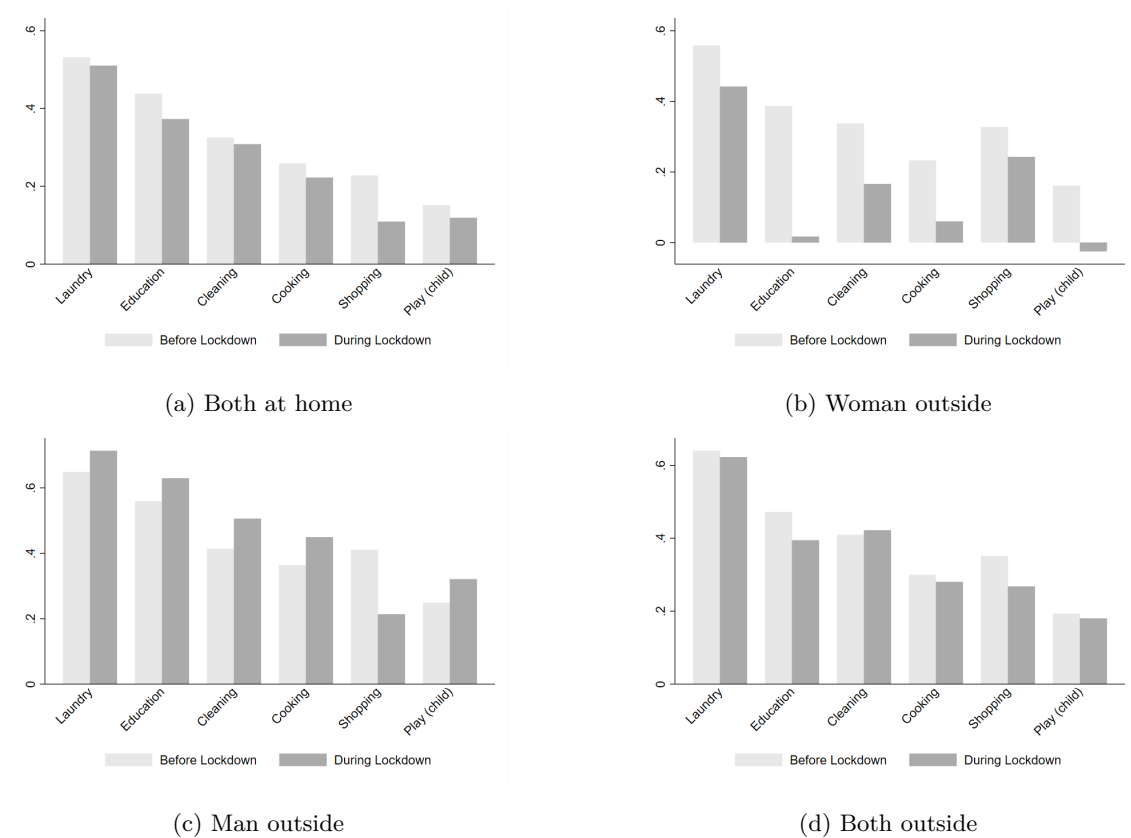


Figure 3: Evolution of tasks gap between partners into the household

We also explored the heterogeneity of the gender gap reduction across women education level. Our result indicates that the gender gap in housework and childcare before the lockdown is lower in couples for which woman has an education level above high school diploma.¹⁵ During the lockdown, we observe an higher reduction of this gap on education activities with kids for women having an university degree, while there is no other difference across women’s level of education for the other tasks.

¹⁵We do not present the figures for this heterogeneity in this paper. Descriptives are available from the authors upon request.

3.2 Model and results

Model

In this section, we question if the lockdown challenged the intrahousehold equilibrium of the couple. Our specification applies a basic panel fixed effects model with two time periods, before and during the pandemic, estimated as following:

$$Share_{its} = \theta_0 Lockdown_t + \theta_s Lockdown_t \times Status_s + \gamma X_{it} + u_i + \epsilon_{its} \quad (1)$$

Here, we denote with $Share_{it}$ the share of the housework done by the woman i in the period t and in the confinement status s . As described in the Section 3.1, our outcome is the simple average of the women's shares on each domestic task. We obtain a global index for the housework distribution taking values from 0 when all tasks were made by the partner to 1 when all tasks were made by the woman. This outcome does not include childcare related activities. For couples with kids, we also use an alternative outcome which computes both the average shares of the childcare and the housework done by the women.

As variables of interest, we simultaneously use the temporal dummy, called $Lockdown_t$, equal to 1 when the period is the lockdown, and its interactions with the different confinement status of the couple $Status_s$. Dummies related to the three couple situations for which one partner is working outside during the pandemic, $Status_s$, are described in the previous Section 3.1. The coefficient θ_0 consequently captures the effect of the lockdown on the tasks distribution when both partners stayed at home and θ_s are coefficients capturing the conditional effect to each s situation: (1) when the woman was working outside, (2) when the man was working outside, (3) when both partners were working outside. Therefore, we need to interpret total effects as $\theta_0 + \theta_s$ for each s situation. We also control for the labor market participation of the respondent and her partner: vector X includes a dummy equal to one if the respondent is working at the considered period and a similar dummy for her partner. These time-variant covariates allow us to take into account the change in the labor market which was heavily affected during the pandemic. u_i captures time-invariant characteristics for each respondent and household. ϵ_{its} is the error term.

Results

Main results are presented in Table 1. Column 1 presents the results of the specification in Eq. 1 on the full sample of respondents. These first results show that the effects of the lockdown on the housework sharing are heterogeneous across the confinement status. We add in column 2 an interactive term between the lockdown variable and a dummy equal to one for couples with kids. The coefficient in front of this interactive term is significant and positive, meaning that the effects for couples where both partners stay home (i.e. the reference category) are different according to the parent status. We consequently provide subsample analysis on couples without and with kids at home during the lockdown. These estimates are shown in column 3 and column 4, respectively.

These subsample analysis are graphically presented in the Figure 4, where we draw point estimates, 90% and 95% confidence intervals, as well as the sample distribution allocated for each confinement situation.¹⁶ For couples having kids at home, we find that there is a more equal division of the housework during the

¹⁶Although we present the 90% confidence intervals in the Figure 4 and in the following figures, we consider results as strictly significant only for coefficients with a pvalue lower than 0.05.

lockdown when both partners stayed at home. When the woman was the sole working outside the home, we find that the redistribution is stronger in her favour. On the other hand, when the man was the only one to work outside or when both partners worked outside, there is any significant change of the housework division during the pandemic. For couples without kids, we find that the distribution of the housework during the lockdown has not significantly changed, regardless of the confinement status.

Using as outcome an index based on both housework and childcare related activities, we estimate the Eq. 1 and present the result in the column 5 of the Table 1 for the couples with children. Effects are also graphically presented in Appendix, Figure A2. Our results remain stable to the inclusion of the childcare division in the outcome for most of the cases, except for the case where both partners worked outside during the lockdown which becomes significant.

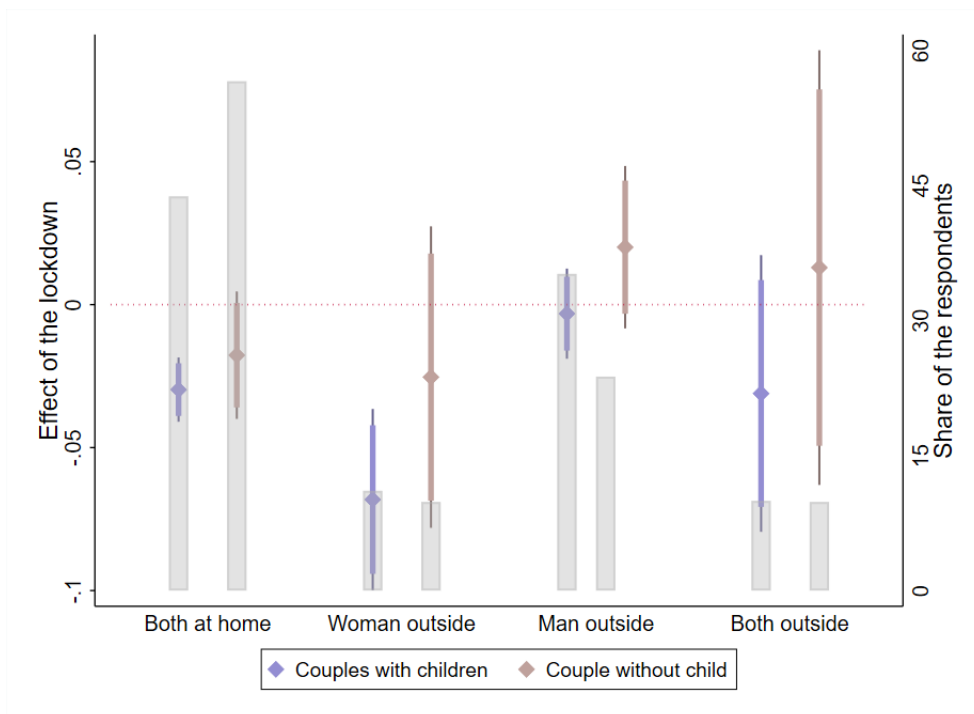


Figure 4: Effects of the lockdown on the housework division

Note: This figure presents the effects of the lockdown on the housework division between partners on subsamples of couples without and with children. Marginal effects of the lockdown are directly computed from the coefficients presented in the Table 1, columns 3 and 4, setting for different values of $Status_s$, confinement status of the couple, *i.e.* "both at home"; "woman outside"; "man outside"; "both outside". The left axis reports marginal effects values and the right axis reports the distribution of the confinement status among the subsample population.

In order to disentangle if the results presented above are driven by some of the task we included in our composite index, we re-estimate Eq. 1 using the share of work done by women in each activity as outcome. Results for couples with and without kids are graphically illustrated in Figure 5. We find that for couples with kids where both partners were at home, the redistribution effect is only led by shopping and playing with kids. For the other activities, we observe a statu quo in the distribution of the task. When the woman

Table 1: Lockdown and household chores division between partners

	Full sample		No Children	With Children	
	(1) ^a	(2) ^a	(3) ^a	(4) ^a	(5) ^b
Lockdown	-0.0225*** (0.00625)	-0.0120 (0.00785)	-0.0177 (0.0103)	-0.0297*** (0.00520)	-0.0294** (0.0102)
Children (=1) × Lockdown		-0.0236** (0.00884)			
Woman outside × Lockdown	-0.0272** (0.0114)	-0.0252** (0.0113)	-0.00767 (0.0229)	-0.0384** (0.0154)	-0.0869*** (0.0210)
Partner outside × Lockdown	0.0265*** (0.00809)	0.0319*** (0.00902)	0.0378* (0.0182)	0.0266*** (0.00742)	0.0597*** (0.0109)
Both outside × Lockdown	0.00399 (0.00901)	0.00785 (0.00936)	0.000531 (0.0137)	0.0105 (0.0120)	0.00560 (0.0244)
Work (Woman)	-0.0296* (0.0148)	-0.0296* (0.0149)	-0.0405** (0.0171)	-0.0213 (0.0174)	-0.0464** (0.0164)
Work (Man)	0.0533*** (0.00933)	0.0497*** (0.00907)	0.0434** (0.0190)	0.0539*** (0.00904)	0.0340** (0.0146)
Observations	5,688	5,688	2,458	3,230	3,230
R-squared	0.860	0.861	0.873	0.851	0.838
Labor market controls	Yes	Yes	Yes	Yes	Yes
Individual fixed effects	Yes	Yes	Yes	Yes	Yes

All results were estimated using fixed effects model based on panel data from EICM online survey collected in France from April 21 to 10 May 2020. Sample selection retains only partnered women respondents. Lockdown is a variable equal to one for confinement period. Children is a dummy equal to one if the couples lived with at least a child during the lockdown. Columns 1 to 2 present results on the full sample selection. Column 3 focus on couples without children. Columns 4 to 5 present results on the subsample of couples with at least one child.

All specifications use the covariates of the Eq. 1. We include the $Status_s$ referring to the confinement status of the members of the household as presented in Section 3.1. $Status_s$ are interacted with $Lockdown_t$ and presented according to the label of the category. The category of reference is when both partners stayed at home during the lockdown. Other covariates are related to the women and partners' labor market participation (here, Work (Woman) and Work (Man)).

^a : these estimates use as outcome the housework division, $Share_{it}$, as presented in the Eq. 1.

^b : this estimate uses as outcome a combined index using the average share of the childcare and the housework done by the woman.

Each estimates controls for individual fixed effects. Standard Errors in parentheses are clustered at regional level. ***, ** and * indicate significance at the 1%, 5% and 10% levels respectively.

is the sole household member working out of home, the man's contribution increases in all activities, except for shopping. This is the situation for which the redistribution is really effective between the partners. While we found a global no-effect when men worked outside during the lockdown, we note that they significantly reduced their participation in the main domestic tasks as cleaning, cooking or laundry as well as in childcare,

while they only raised their contribution in shopping. When both partners worked outside, we only find a redistribution in favour of women in doing homework with kids.¹⁷

For couples without kids, although the global housework index was non-significant, we observe a reduction in the woman's contribution in shopping activity for confined couples, even if this decrease is narrower than for couples with kids in the same situation. Interestingly, we also observe that women do more in the laundry activity when men worked outside during the pandemic. Other results for couples without kids are non-significant.

We can conclude that on average the lockdown did not lead to a large change in the intrahousehold division of the domestic chores. Changes are concentrated almost exclusively on couples with kids with at least one of the two partners being confined at home during the lockdown. In those situations where only one of two parents was working outside, the other was logically raising its contribution. Furthermore, for the shopping, the households rationally promoted the partner who was already out of the dwelling for working as in charge of this activity. The global effect of the households chores redistribution for couples who stayed at home during the pandemic is mainly due to the increase of men's participation in shopping and on a less extent to the increase of fathers' contribution in playing with kids activity. The effect found on shopping could be symptomatic of a circumstantial intrahousehold change rather than a structural one. This change can be explained with two alternative or complementary hypotheses. First, shopping could have been considered as a risky activity due to the pandemic, and men could have assumed their traditional role of 'protector' of the family, taking the risk upon themselves. In this scenario, shopping was likely to become a male-connoted task and partners conform to social gender roles (Couprie et al., 2020). A second explanation relates to the specific nature of shopping during the confinement. In a situation in which individuals had to stay at home and were only allowed to go out for essential tasks, shopping became an interesting activity (especially for those people working from home). Going to shopping might represent for them an escape from the forced cohabitation and can be seen as a kind of leisure. Remark that shopping is an activity that is traditionally carried out by women (before the lockdown, the women's share for shopping was on average at 67 per cent). The increase in the involvement of men in shopping during the lockdown suggests that the gendered nature of a task seems to respond to its (changing) attractiveness rather being a stable, essential feature of the task. Compared to the other tasks, shopping is also well identified by other household members during the lockdown and could help the protagonist to bargain his lower involvement in other housework.

¹⁷This result explains why we find a significant effect of lockdown on the share only when we include childcare in the index for couples where both partners worked outside.

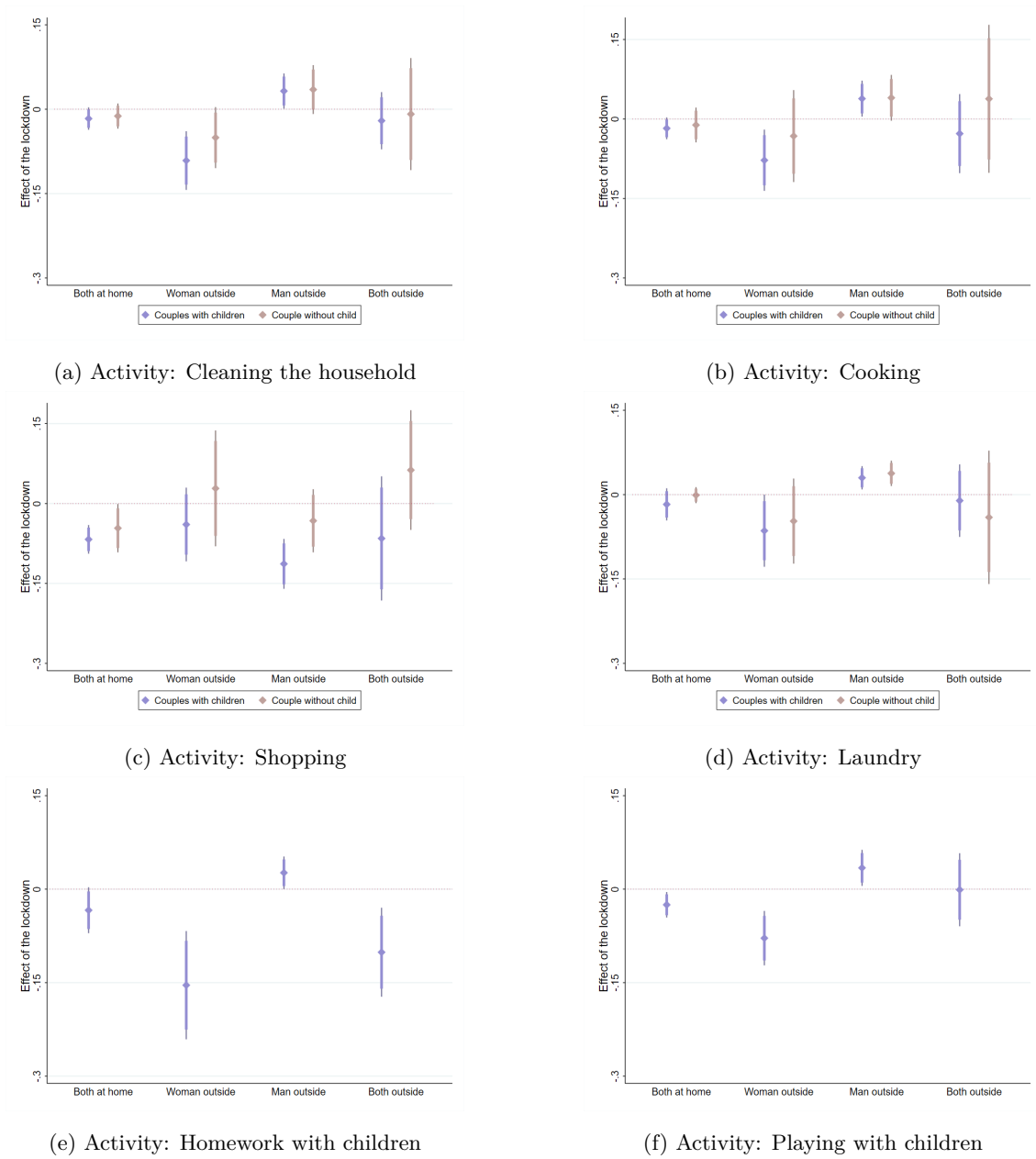


Figure 5: Effects of the lockdown on the household chores division
 Note: These figures present the effects of the lockdown on the division between partners of each household chore on subsamples of couples without and with children. Marginal effects of the lockdown are directly computed from the estimated coefficients of the Eq. 1 using as dependent variable the share done by woman in each activity and setting for different values of $Status_s$, confinement status of the couple, *i.e.* "both at home" ; "woman outside" ; "man outside" ; "both outside".

4 Intrahousehold conflicts occurrence and household chores division

In this section, we investigate the link between the share of household chores realized by women and the occurrence of the conflicts among partners.

4.1 The conflict measure

In the survey, each sampled woman reported if she has experienced more or less conflictual situations with her partner during the lockdown compared to the usual time. Figure 6 shows the proportion of women (with and without children) who declared having experienced more or fewer conflicts during the lockdown compared to the previous period. If most of the respondents did not declare any change, 28% of respondents with kids and 22% without kids reported an increase of the occurrence of conflict. Interestingly, this divergence between the types of couples is complying with data from the Insee's report about the French family during the lockdown, where couples with children are more likely to report disputes between partners (Barhoumi et al., 2020). For couples with children, the proportion of respondents declaring more conflict is slightly higher when the two adults stayed at home during the lockdown, or when the woman was the sole outside worker. For the couples without children, the share of women reporting more conflict is slightly lower when both individuals were working outside with regard to the other situations.¹⁸

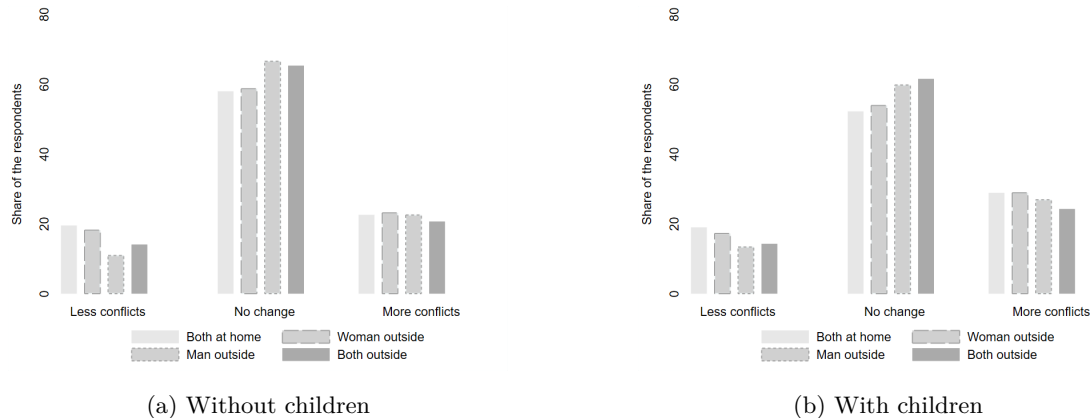


Figure 6: Occurrence of the conflicts into the households

In what follows, we investigate the effect of the lockdown on the conflict occurrence among partners as well as the relationship between conflicts and household chores division in confinement. More specifically, we wonder if the limited increase in the male participation into the household chores illustrated in the previous section reduced the likelihood of conflict occurrence in the couple.

4.2 Model and results

Model

¹⁸Investigating other dimensions which could lead to an increase of conflict, descriptives do not show that income inequality increases or decreases the occurrence of conflict.

In order to capture the effects of the lockdown and of the sharing of household tasks on conflict occurrence, we use as dependent variable $Conflict_{it}$ a dummy that take the value of one when the woman i experiences a more conflictual relationship with her partner at time t . Thus the dummy is equal to 1 at time t_0 , before the lockdown, if the couple's relationship improved during the lockdown, and zero otherwise. Symmetrically, the outcome is equal to 1 at time t_1 if the relationship worsened, and zero otherwise. For a couple that did not experience any change, the dummy is equal to 0 for both periods t_0 and t_1 .

We estimate a basic fixed effects model, as:

$$Conflict_{it} = \theta Lockdown_t + \alpha Share_{it} + \beta Share_{it} \cdot Lockdown_t + \theta_s Lockdown_t \times Status_s + \gamma X_{it} + u_i + \epsilon_{it} \quad (2)$$

where $Share_{it}$ denotes our main variable of interest, representing the average share of household chores done by the woman. More specifically, as in Section 3.2, we use two different indicators for $Share_{it}$: (i) the woman's share of housework and (ii) a composite indicator combining both housework and childcare activities.

Interacting this variable with $Lockdown_t$ allows us to capture the specific effect of the woman's share of tasks during the lockdown. As in Eq. 1, we control for the specific role played by the confinement status of the couple, interacting $Status_s$ with $Lockdown_t$. X_{it} is a vector of covariates that includes the employment status of the respondent and her partner before and during the pandemic. u_i captures time-invariant characteristics for each respondent and household. ϵ_{it} is the error term.

Results

We report results in Table 2. Column 1 first presents a parsimonious specification with $Lockdown$ and its interactions with $Status_s$ as sole variables of interest and X as other covariates for the full sample of respondents, i.e. for couples with and without children. From this result, we find that in average the occurrence of conflicts increased during the lockdown. In column 2, the specification adds the $Share_{it}$ variable and its interaction with the lockdown, on the full sample as well. Column (3) reports the results for the same model for couples without kids only, while column (4) for couples with kids only. Finally, the last column reports the coefficients on the with-kids-sample using as housework division variable the composite indicator with housework and childcare activities (column 5).

Given the number of interactive variables that are included in our models, we can not directly interpret the coefficients reported in Table 2 but rather total effects and non-linearity analysis.¹⁹ In order to clearly illustrate the results, we have drawn Figure 7 and Figure 8 reporting the results of the columns (3) and (4) respectively. These figures show the effect of the lockdown across the four different confinement situations and for all the possible values of the $Share_{it}$ variable.²⁰ We also present in these figures the distribution of

¹⁹Because of all the interactive terms into the Eq. 2, θ captures the effect of the lockdown when both $Share_{it}$ and $Status_s$ are equal to 0. The magnitude of the coefficient β measures the average effect, giving us the intuition whether the lockdown has a significant different effect conditionally to the value of the women's share and compared to the situation where the women's share equals zero (represented by the coefficient θ). As $Share_{it}$ is a continuous variable from 0 to 1, we need to perform non-linearity analysis according to the value of this variable in order to interpret the total effect. Moreover, as we included interactive terms between the lockdown dummy and the couple's confinement status among the controls, we also need to interpret each couple's situation during the pandemic.

²⁰Concretely for couples with both partners at home ($Status_s = 0$), it means interpreting total effects $\theta + \beta \cdot Share_{it}$, and computing this combined coefficients' values and standard errors for each potential value of $Share_{it}$ between 0 and 1; for

$Share_{it}$ during the lockdown across the subsample as well as the number of respondents in each confinement situation.

In the Figure 7 for couples without kids, we observe that only situations in which the woman was at home during the lockdown (87 per cent of women without kids) lead to a significant increase in the occurrence of the conflicts (Panels (a) and (c)). These effects become significant and positive when women did more than three quarters of the housework. Even if positive, the magnitude is low for couples where both partners stayed at home. In both these two confinement situations, few households are affected by the situation of an increase of conflicts during the lockdown due to the housework division because conflictual situations appeared only for the very unbalance cases of housework distribution.

For couples with kids, Figure 8 shows that there is a significant and positive relationship between women's share of housework during the lockdown and the increase of conflicts regardless of the couple's confinement status. When both partners worked outside during the lockdown, the effect is only significant and positive for extreme unequal intrahousehold distribution, i.e. for which women did almost totally the housework. Only a few sample couples (161) are in this confinement situation. When only the father was working outside, the turning point in the women's share of housework from which we observe a significant effect on conflict is lower than in the previous situation (72 per cent), indicating that the tolerance for an unequal distribution of chores is lower in this case. In this subsample, most of the couples of this subgroup experienced conflictual situation, because of the large prevalence of an unequal housework division during the lockdown. Finally, when the father stayed at home (i.e. when both parents stayed at home or only the mother was working outside), even a slight imbalance of the housework distribution leads to an increase of conflicts during the lockdown. Couples with partners both at home and couples with woman as the sole outside worker do not diverge on the housework threshold above which the division increased the occurrence of conflicts (respectively 59% and 56% of the women's share of housework). However notable differences emerge in the magnitude of the effects: as expected the effect is stronger when only father stayed at home, meaning that the risk of conflict is higher in this case. Adding the childcare division to our variable of interest, we find similar results, that are presented in column 5 of Table 2 and illustrated in the Figure A3.²¹

The divergence of housework threshold among the confinement statuses highlight different tolerance thresholds for an unbalanced division of household chores, higher when the male was working outside than when it was the female. This evidence could raise the issue of a continuity of the legitimization of the male status into the households. Even during the lockdown, when household chores quantitatively increased, males kept their privileged position. Indeed, more conflictual situations are likely to appear only with a very high imbalance when they are outside, therefore legitimizing their potential non-participation in housework.

We then look in detail at the role of each activity in the occurrence of the tensions among parents.²² Running the same model as in Eq. 2, we replaced the variable of interest, $Share_{it}$, by each share of the housework and childcare tasks done by the women. Estimated coefficients are presented in Appendix, Table A3. As for

couples where the woman was working outside during the lockdown $\theta + \beta \cdot Share_{it} + \gamma Status_s$ = only woman working outside; when the man was working outside: $\theta + \beta \cdot Share_{it} + \gamma Status_s$ = only man working outside; and when both were working outside: $\theta + \beta \cdot Share_{it} + \gamma Status_s$ = both partners working outside.

²¹The only difference is that the tolerance threshold lowers to 85 per cent when both partners worked outside when childcare is included in the index.

²²Because of the small effects we found on couples without kids, here we only focus on couples with kids.

the previous models, we cannot directly interpret the results using the unique coefficients. Once computed global coefficients and standard errors, we graphically illustrate the results for each of the four confinement status in Appendix Figure A4 for couples where both parents stayed at home, Figure A5 (Figure A6) for couples when the mother (father) was the only to work outside, and Figure A7 for couples when both parents worked outside.

For this latter situation, we find a significant and positive effect only for the activity named playing with children and exclusively for a very unequal division of the task. For all the other situations of confinement, increasing the woman's participation in any household chores during the lockdown increased the occurrence of intrahousehold conflicts. Remarkable differences emerge across activities, the magnitude of coefficients is systematically higher and the slope steeper for cleaning and for the two activities related to childcare. Indeed we can observe in Table A3 that for these three activities the average effect is significant at conventional confidence levels.

This means that conflicts in the couples particularly arose during the lockdown when women increased their participation in house cleaning and in childcare. Concentrating most of the housework time and being female-connoted, cleaning is perceived by women as the domestic activity which has fuelled the intrahousehold conflicts. Looking from the opposite side, we could say that an increase in male participation in these activities would significantly reduce the conflict between spouses in the lockdown period. Only a marginal reduction of conflicts is predicted when men increased their participation in the other household task, included shopping.

This indicates that the increased partner's contribution, notably in shopping, that was observed during the lockdown (see Section 3.2) did not allow to reduce significantly conflicts between partners. It is likely that the male's involvement in shopping is not considered as tough enough to balance the increase in the woman's burden during the lockdown. This last finding weakens the first explanation that we advanced in Section 3.2, and illustrate that the change of behaviour that we could assess from the male partner is rather circumstantial than structural, i.e. does not challenge the gendered stereotypes at home.

Table 2: Lockdown and effects of the household chores division on the occurrence of conflicts

	Full sample		No Children	With Children	
	(1)	(2)	(3)	(4)	(5)
Lockdown	0.0810** (0.0288)	-0.142 (0.0937)	-0.167 (0.148)	-0.0910 (0.108)	-0.257** (0.0923)
Housework share		0.0414 (0.158)	0.0320 (0.312)	0.0633 (0.238)	
Housework Share \times Lockdown		0.338** (0.118)	0.277 (0.198)	0.375*** (0.0983)	
Housework and Childcare Share					-0.104 (0.227)
H. and C. Share \times Lockdown					0.625*** (0.117)
Woman outside \times Lockdown	0.0545 (0.0935)	0.0667 (0.0961)	0.0627 (0.194)	0.0641 (0.0581)	0.0812 (0.0550)
Partner Outside \times Lockdown	0.0501 (0.0441)	0.0209 (0.0458)	0.0958 (0.0646)	-0.0586 (0.0958)	-0.0766 (0.0996)
Both Outside \times Lockdown	-0.0162 (0.0676)	-0.0332 (0.0646)	0.0506 (0.131)	-0.117 (0.0820)	-0.121 (0.0806)
Observations	5,688	5,688	2,458	3,230	3,230
R-squared	0.507	0.512	0.511	0.517	0.521
Labor Market Controls	Yes	Yes	Yes	Yes	Yes
Individual Fixed Effect	Yes	Yes	Yes	Yes	Yes

All results were estimated using fixed effects model based on panel data from EICM online survey collected in France from April 21 to 10 May 2020. Sample selection retains only partnered women respondents. Lockdown is a variable equal to one for confinement period. "Housework share" is the average share of housework done by the woman in the household, hence related to the intrahousehold housework division. "Housework and Childcare Share" is an index combining both latter measures. Columns 1 to 2 present results on the full sample selection. Column 3 focus on couples without children. Columns 4 to 5 present results on the subsample of couples with at least one child.

All specifications use the covariates of the Eq. 1. We include the $Status_s$ referring to the confinement status of the members of the household as presented in Section 3.1. $Status_s$ are interacted with $Lockdown_t$ and presented according to the label of the category. The category of reference is when both partners stayed at home during the lockdown. Other covariates are related to the women and partners' labor market participation.

Each estimates controls for individual fixed effects. Standard Errors in parentheses are clustered at regional level. ***, ** and * indicate significance at the 1%, 5% and 10% levels respectively.

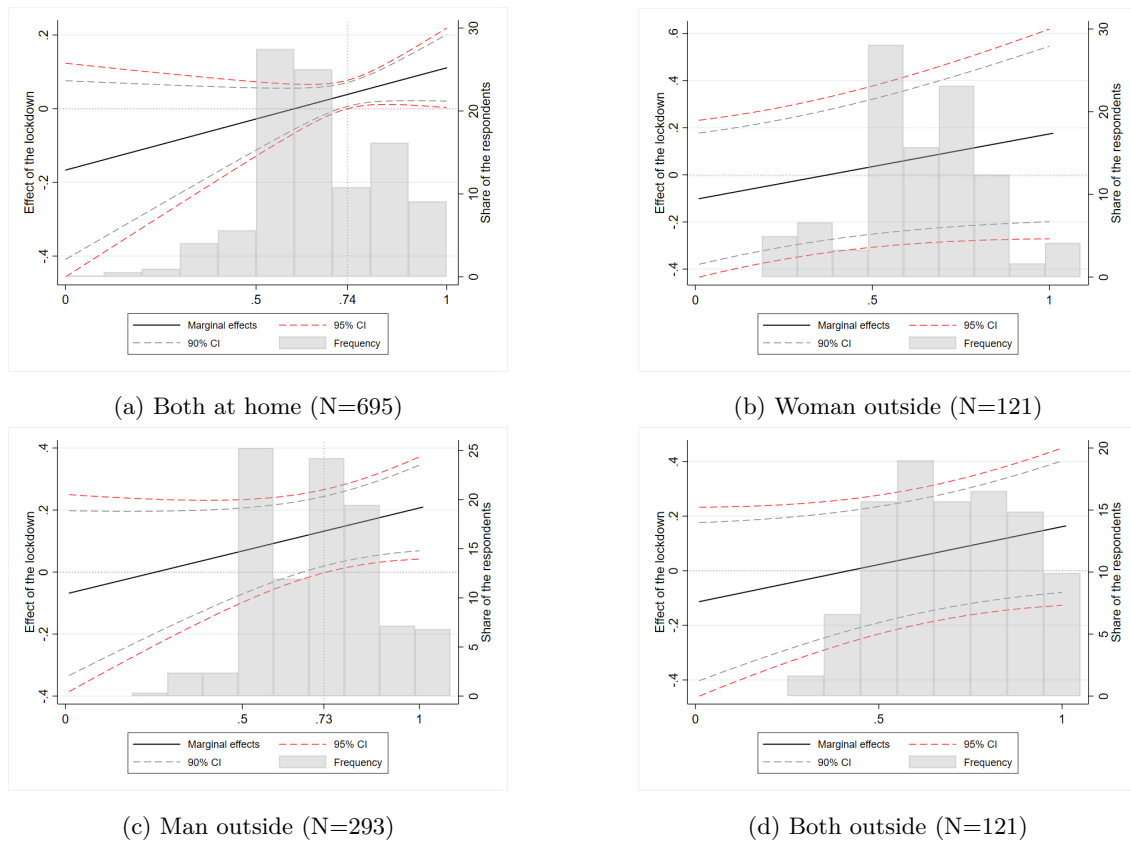


Figure 7: Effects of housework division on conflicts - Couples without children

Note: These figures present total effects of the housework division during the lockdown on the conflict occurrence between partners for couples without children. These effects are directly computed from the coefficients presented in the column 3 of the Table 2.

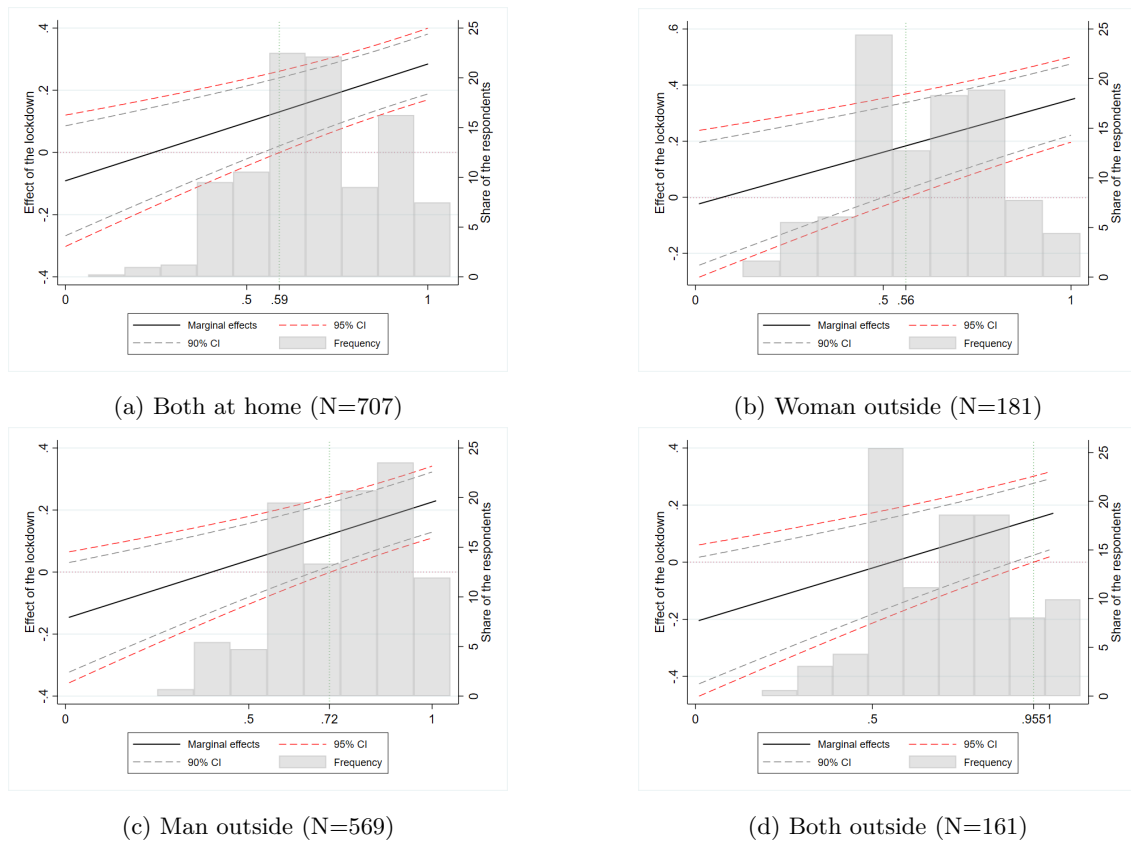


Figure 8: Effects of housework division on conflicts - Couples with children

Note: These figures present total effects of the housework division during the lockdown on the conflict occurrence between partners for couples with children. These effects are directly computed from the coefficients presented in the column 4 of the Table 2.

5 Conclusion

The allocation of household chores within couples is typically stable over time, with a gendered connotation of a large number of tasks (Akerlof and Kranton, 2010). The Covid-19 epidemic, and the ensuing lockdown that has been adopted in Spring 2020 by a large number of countries, has brought a sudden and unprecedented shock to this stable allocation. The lockdown has changed the amount of household chores to be performed, notably with a major increase in the time devoted to children who were constrained to home schooling, and with a reduced reliance on domestic workers. The time spent by french women doing housework increased by about 30 per cent, while they multiplied on average by three the time in helping children with their homeworks. The lockdown has also modified the opportunities to perform household tasks, and it has also given a “quasi-leisure” connotation to some household chores at a time in which the opportunity for usual leisure activities (or for simply going out of home) was greatly limited. Furthermore, the anxiety for the evolution of the epidemic and of its ensuing economic consequences, the disruption of social life and a forced cohabitation also contributed to increase the likelihood of the occurrence of conflicts and tensions between partners, which might have been intertwined with the unequal character of the allocation of the (increased) burden of household chores.

Based on original collected data during the Spring 2020 confinement in France, we investigated (i) if and how the first lockdown induced a (re)division of household chores between french partners and (ii) if there was a relationship between household chores (re)division and intrahousehold conflict.

The data analysis reveals that typical roles in the allocation of the household chores between couples have persisted in France. Women have taken care of most of the household chores, from 60 to 80 per cent according to the task, with a lower male participation in laundry, cleaning and in doing homeworks with kids (activities that individuals usually dislike). The confinement did not change this situation as the gender gap remained positive for all activities surveyed.

During the lockdown, substantial heterogeneities were observed on the task (re)distribution and conflicts among partners, notably according to the presence of children in the household and to the confinement status of the couple (i.e. if one, or both, or no partner was confined at home).

For the couples without kids, we did not observe on average any redistribution of household tasks. In that case, conflictual situations only increased with the share of work done by women for couples with an extremely unequal allocation of household chores, and when women were at home during the lockdown. For couples with kids, we also do not observe any changes in household chores division when both partners worked outside, except a small increase of father’s engagement helping kids with homework. Conversely, when only one of two was staying at home, due to the unemployment or the remote working, this member increased its share in household chores. This is particularly clear when the female was the sole outside worker of home, because male’s participation increased substantially in all tasks except in shopping. When man was the sole partner working outside, a disaggregation by tasks allowed us to observe that the increase in their participation in shopping was important in magnitude, and compensated the decrease in the participation in the other tasks. When both partners were confined at home, which count for 44 per cent of our sample parents, we observed a reallocation of tasks in favor of women but this effect was only led by two activities: shopping and playing with kids. For the other tasks, we indeed observed a statu quo in their division.

Facing to an quantitative increase of household chores, it is likely that fathers who were at home during

the lockdown felt compelled to increase their domestic contribution. Nevertheless, when possible (i.e. when women was at home), they preferred to increase only participation in activities already considered as enjoyable (as playing with kids, the task for which the gender gap was lower even before lockdown) or that became enjoyable given the limited set of activities out-of-home allowed during the lockdown (as shopping).

Conflicts among partners with kids increased with the share of household chores done by women, in particular when men stayed at home during the lockdown. Childcare and cleaning concentrated most of the tensions in the household, meaning that the unequal division of chores in these activities was perceived by women as a real intrahousehold inequality. This allows us to conclude that redistributing the burden of household activities during a stressful period, as the lockdown, helps to limit the disputes between partners, but the activities in which men engage are not neutral, i.e. conflicts do not notably decrease if men are involved in activities mostly seen as a leisure or "quasi-leisure".

According to our analysis, men behave in accordance to their gender role but their preferences are not stable, they adapt themselves to the contingent situation. A female-connoted activity like shopping became an almost exclusive prerogative of males when it gains in attractiveness. The gendered nature of a task seems thus to respond to its changing attractiveness rather than being a stable feature. This finding also illustrates that a possible change of male's preferences due to the constraints during the pandemic is able to modify the division of the household chores. However, this new negotiated equilibrium did not seem to be approved by women, since it did not imply a decrease in the risk of conflicts between partners. Our results indicate that women would rather prefer an higher men's involvement into less agreeable activities like cleaning. Finally, the lockdown missed the opportunity to redefine gendered roles at home and to impel a structural change at the intrahousehold level.

References

- Agüero, J. M. (2020). Covid-19 and the rise of intimate partner violence. *World development*, 137:105217.
- Akerlof, G. A. and Kranton, R. (2010). Identity economics. *The Economists' Voice*, 7(2).
- Altintas, E. and Sullivan, O. (2016). Fifty years of change updated: Cross-national gender convergence in housework. *Demographic Research*, 35:455–470.
- Álvarez, B. and Miles-Touya, D. (2019). Gender imbalance in housework allocation: a question of time? *Review of Economics of the Household*, 17(4):1257–1287.
- Andrew, A., Cattan, S., Costa Dias, M., Farquharson, C., Kraftman, L., Krutikova, S., Phimister, A., and Sevilla, A. (2020). The gendered division of paid and domestic work under lockdown.
- Arenas-Arroyo, E., Fernández-Kranz, D., and Nollenberger, N. (2020). Can't leave you now! intimate partner violence under forced coexistence and economic uncertainty.
- Auspurg, K., Iacovou, M., and Nicoletti, C. (2017). Housework share between partners: Experimental evidence on gender-specific preferences. *Social science research*, 66:118–139.
- Barhoumi, M., Jonchery, A., Lombardo, P., Le Minez, S., Mainaud, T., Raynaud, E., Pailhé, A., Solaz, A., and Pollak, C. (2020). Les inégalités sociales à l'épreuve de la crise sanitaire: un bilan du premier confinement.
- Becker, G. S. (1965). A theory of the allocation of time. *The economic journal*, pages 493–517.
- Becker, G. S. (1981). Altruism in the family and selfishness in the market place. *Economica*, 48(189):1–15.
- Becker, G. S. (1985). Human capital, effort, and the sexual division of labor. *Journal of labor economics*, 3(1, Part 2):S33–S58.
- Beland, L.-P., Brodeur, A., Haddad, J., and Mikola, D. (2020). Covid-19, family stress and domestic violence: Remote work, isolation and bargaining power. Technical report, GLO Discussion Paper.
- Biroli, P., Bosworth, S., Della Giusta, M., Di Girolamo, A., Jaworska, S., and Vollen, J. (2020). Family life in lockdown.
- Bullinger, L. R., Carr, J. B., and Packham, A. (2020). Covid-19 and crime: Effects of stay-at-home orders on domestic violence. Technical report, National Bureau of Economic Research.
- Carlson, D. L., Miller, A. J., Sassler, S., and Hanson, S. (2016). The gendered division of housework and couples' sexual relationships: A reexamination. *Journal of Marriage and Family*, 78(4):975–995.
- Cooke, L. P. (2006). “doing” gender in context: Household bargaining and risk of divorce in germany and the united states. *American Journal of Sociology*, 112(2):442–472.
- Couprie, H., Cudeville, E., and Sofer, C. (2020). Efficiency versus gender roles and stereotypes: an experiment in domestic production. *Experimental Economics*, 23(1):181–211.

- Del Boca, D., Oggero, N., Profeta, P., and Rossi, M. (2020). Women's and men's work, housework and childcare, before and during covid-19. *Review of Economics of the Household*, pages 1–17.
- Farré, L., Fawaz, Y., González, L., and Graves, J. (2020). How the covid-19 lockdown affected gender inequality in paid and unpaid work in spain.
- Foster, G. and Stratton, L. S. (2018). Do significant labor market events change who does the chores? paid work, housework, and power in mixed-gender australian households. *Journal of Population Economics*, 31(2):483–519.
- Gronau, R. (1977). Leisure, home production, and work—the theory of the allocation of time revisited. *Journal of political economy*, 85(6):1099–1123.
- Hank, K. and Steinbach, A. (2020). The virus changed everything, didn't it? couples' division of housework and childcare before and during the corona crisis. *Journal of Family Research*.
- Harryson, L., Novo, M., and Hammarström, A. (2012). Is gender inequality in the domestic sphere associated with psychological distress among women and men? results from the northern swedish cohort. *J Epidemiol Community Health*, 66(3):271–276.
- Hsu, L.-C. and Henke, A. (2020). Covid-19, staying at home, and domestic violence. *Rev Econ Household*.
- Kahneman, D., Krueger, A. B., Schkade, D. A., Schwarz, N., and Stone, A. A. (2004). A survey method for characterizing daily life experience: The day reconstruction method. *Science*, 306(5702):1776–1780.
- Kalmijn, M. and Monden, C. W. (2012). The division of labor and depressive symptoms at the couple level: Effects of equity or specialization? *Journal of Social and Personal Relationships*, 29(3):358–374.
- Killewald, A. and Gough, M. (2010). Money isn't everything: Wives' earnings and housework time. *Social Science Research*, 39(6):987–1003.
- Lachance-Grzela, M. and Bouchard, G. (2010). Why do women do the lion's share of housework? a decade of research. *Sex roles*, 63(11-12):767–780.
- Lam, C. B., McHale, S. M., and Crouter, A. C. (2012). The division of household labor: Longitudinal changes and within-couple variation. *Journal of Marriage and Family*, 74(5):944–952.
- Lennon, M. C. and Rosenfield, S. (1994). Relative fairness and the division of housework: The importance of options. *American journal of Sociology*, 100(2):506–531.
- Leopold, T., Skopek, J., and Schulz, F. (2018). Gender convergence in housework time: A life course and cohort perspective. *Sociological Science*, 5:281–303.
- Leslie, E. and Wilson, R. (2020). Sheltering in place and domestic violence: Evidence from calls for service during covid-19. Available at SSRN 3600646.
- Mangiavacchi, L., Piccoli, L., and Pieroni, L. (2020). Fathers matter: Intra-household responsibilities and children's wellbeing during the covid-19 lockdown in italy. *IZA Discussion Paper*, (13519).

- Miller, A. R., Segal, C., and Spencer, M. K. (2020). Effects of the covid-19 pandemic on domestic violence in los angeles. *NBER Working Paper*, (28068).
- Morgan, A. and Boxall, H. (2020). Social isolation, time spent at home, financial stress and domestic violence during the covid-19 pandemic. *Trends & Issues in Crime & Criminal Justice*, (609).
- Norman, H., Elliot, M., and Fagan, C. (2018). Does fathers' involvement in childcare and housework affect couples' relationship stability? *Social Science Quarterly*, 99(5):1599–1613.
- Perez-Vincent, S. M. and Carreras, E. (2020). Evidence from a domestic violence hotline in argentina. *Chapter 1, Inter-American Development Bank Technical Note N° IDB-TN-1956*.
- Ravindran, S. and Shah, M. (2020). Unintended consequences of lockdowns: Covid-19 and the shadow pandemic. Technical report, National Bureau of Economic Research.
- Ruppanner, L., Brandén, M., and Turunen, J. (2018). Does unequal housework lead to divorce? evidence from sweden. *Sociology*, 52(1):75–94.
- Shaw, S. M. (1988). Gender differences in the definition and perception of household labor. *Family relations*, pages 333–337.
- Sigle-Rushton, W. (2010). Men's unpaid work and divorce: Reassessing specialization and trade in british families. *Feminist economics*, 16(2):1–26.
- Stratton, L. S. (2012). The role of preferences and opportunity costs in determining the time allocated to housework. *American Economic Review*, 102(3):606–11.
- Van Berkel, M. and De Graaf, N. D. (1999). By virtue of pleasantness? housework and the effects of education revisited. *Sociology*, 33(4):785–808.
- Van der Lippe, T., Frey, V., and Tsvetkova, M. (2013). Outsourcing of domestic tasks: A matter of preferences? *Journal of Family Issues*, 34(12):1574–1597.
- Van der Lippe, T., Voorpostel, M., and Hewitt, B. (2014). Disagreements among cohabiting and married couples in 22 european countries. *Demographic Research*, 31:247–274.

6 Appendix

Table A1: EICM Survey and INSEE data

<i>Population</i>	EICM Survey		INSEE Data	
	N	Perc.	N	Perc.
AURA	1382	24.27	3,502,191	11.98
Bourgogne	316	5.55	1,285,025	4.40
Bretagne	286	5.02	1,503,368	5.14
Centre	254	4.46	1,152,027	3.94
Corse	12	0.21	146,103	0.50
Grand Est	558	9.8	2,457,718	8.41
HDF	418	7.34	2,519,188	8.62
IDF	452	7.94	5,141,444	17.59
Normandie	294	5.16	1,475,918	5.05
N. Aquitaine	478	8.39	2,742,949	9.38
Occitanie	526	9.24	2,662,784	9.11
P. Loire	294	5.16	1,639,994	5.61
PACA	408	7.17	2,268,086	7.76
Outre-Mer	16	0.28	740,094	2.53
<i>Education (Shares)</i>	N	Perc.		Perc.
High school diploma or less	3,404	59.85		75.4
Above high school diploma	2,284	40.15		24.4
Undetermined				0.2

Data survey are from EICM online collected in France from April 21 to 10 May 2020.

Statistics for French population at regional level are from INSEE - "Le Recensement de la population" in 2016. N is the number of households. AURA is the acronym for Auvergne-Rhone Alpes. HDF is the acronym for Haut-de-France. IDF is the acronym for Ile-de-France. PACA is the acronym for Provence Alpes Cote d'Azur.

Education levels are data from INSEE - "Enquete Emploi" in 2019. We combine several categories for comparison with our data. Education level called "High School Diploma or less" gathers all respondents with a high school diploma at maximum. It means those with no education, a CAP, a Brevet (equivalent to apprenticeship or other professional diploma) or a french baccalauréat (equivalent to an highschool level). Education level called "Above high school diploma" gathers all respondents with a level higher than a french baccalauréat.

Table A2: Summary statistics from the EICM survey

	N	Pre-lockdown		Lockdown	
		Mean	St. Dev.	Mean	St. Dev.
<i>Shares (indexes)</i>					
Woman's share of housework	2844	0.712	0.171	0.691	0.183
Woman's share of childcare	1615	0.680	0.184	0.668	0.206
Woman's share of housework and childcare	1615	0.715	0.147	0.691	0.164
<i>Shares (single tasks)</i>					
Woman's share of Shopping	2844	0.670	0.265	0.604	0.346
Woman's share of Laundry	2844	0.809	0.236	0.805	0.250
Woman's share of Cooking	2844	0.661	0.281	0.655	0.283
Woman's share of Cleaning	2844	0.706	0.236	0.701	0.248
Woman's share of Homeworks	1615	0.755	0.223	0.733	0.255
Woman's share of Playing with kids	1615	0.605	0.206	0.602	0.218
<i>Conflicts</i>					
Conflict between partners	2844	0.154	0.361	0.253	0.435
<i>Panel covariates</i>					
Woman is working	2844	0.758	0.428	0.564	0.496
Partner is working	2844	0.882	0.323	0.692	0.462
<i>Confinement status</i>					
Both at home	2844			0.453	0.498
Woman outside	2844			0.109	0.312
Man outside	2844			0.335	0.472
Both outside	2844			0.102	0.302

Data survey are from EICM online survey collected in France from April 21 to 10 May 2020. Sample retained for these summary statistics are only based on partnered women respondents.

"Woman's share" variables are directly linked to the housework division between partners. For each task, respondent could recall for the question "Who is doing the activity in the considered period?" the following choices: "always me"; "me most of the time"; "equally"; "my partner most of the time"; "always my partner"; "another person". We attribute the value from 1 to 0, gradually to the women's involvement in the task. Then, we compute the average share done by the women in the global housework and childcare to obtain the indexes presented in the "Shares (indexes)" panel.

"Conflicts" is a dummy variable that takes the value of one for the period when the woman experiences a more conflictual relationship with her partner, and 0 for the other period.

"Panel covariates" are variables related to the labor market participation of the woman and her partner before and during the lockdown. These dummies are equal to one if the woman (partner) was working during the considered period.

"Confinement status" are variables equal to one if the couple were in the corresponding situation during the lockdown, 0 otherwise.

Table A3: Conflicts and household chores division

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Lockdown	0.160** (0.0597)	0.0970 (0.0866)	0.0711 (0.145)	0.0886 (0.0663)	-0.0815 (0.102)	-0.122 (0.0720)	-0.104 (0.0599)
Shopping		-0.0345 (0.142)					
Shopping × Lockdown		0.106 (0.0799)					
Laundry			0.0262 (0.171)				
Laundry × Lockdown			0.112 (0.112)				
Cooking				0.169 (0.119)			
Cooking × Lockdown				0.117 (0.0884)			
Cleaning					-0.0211 (0.122)		
Cleaning × Lockdown					0.351*** (0.101)		
Homeworks						-0.289* (0.152)	
Homeworks × Lockdown						0.386*** (0.0988)	
Play							-0.119 (0.187)
Play × Lockdown							0.456*** (0.132)
Woman Outside × Lockdown	0.0389 (0.0571)	0.0340 (0.0615)	0.0500 (0.0580)	0.0619 (0.0610)	0.0727 (0.0481)	0.0649 (0.0438)	0.0598 (0.0479)
Partner Outside × Lockdown	-0.0245 (0.0928)	-0.0307 (0.0878)	-0.0357 (0.0923)	-0.0471 (0.0957)	-0.0585 (0.0934)	-0.0501 (0.0963)	-0.0542 (0.0933)
Both Outside × Lockdown	-0.102 (0.0800)	-0.108 (0.0812)	-0.107 (0.0803)	-0.102 (0.0802)	-0.117 (0.0821)	-0.112 (0.0764)	-0.110 (0.0774)
Observations	3,230	3,230	3,230	3,230	3,230	3,230	3,230
R-squared	0.510	0.512	0.511	0.514	0.518	0.518	0.520
Labor Market Controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Individual Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes

All results were estimated using fixed effects model based on panel data from EICM online survey collected in France from April 21 to 10 May 2020. Sample selection retains only partnered women respondents. Lockdown is a variable equal to one for confinement period. Each column present as variable of interest the share done by the woman in their household for the considered chore interacted with the lockdown variable.

All specifications use the covariates of the Eq. 2. We include the $Status_s$ referring to the confinement status of the members of the household as presented in Section 3.1. $Status_s$ are interacted with $Lockdown_t$ and presented according to the label of the category. The category of reference is when both partners stayed at home during the lockdown. Other covariates are related to the women and partners' labor market participation.

Each estimates controls for individual fixed effects. Standard Errors in parentheses are clustered at regional level. ***, ** and * indicate significance at the 1%, 5% and 10% levels respectively.

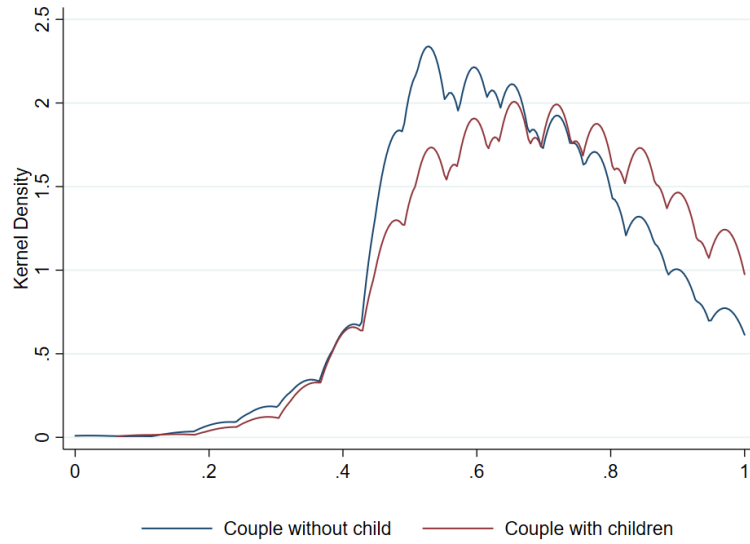


Figure A1: Kernel density of the average share of the tasks

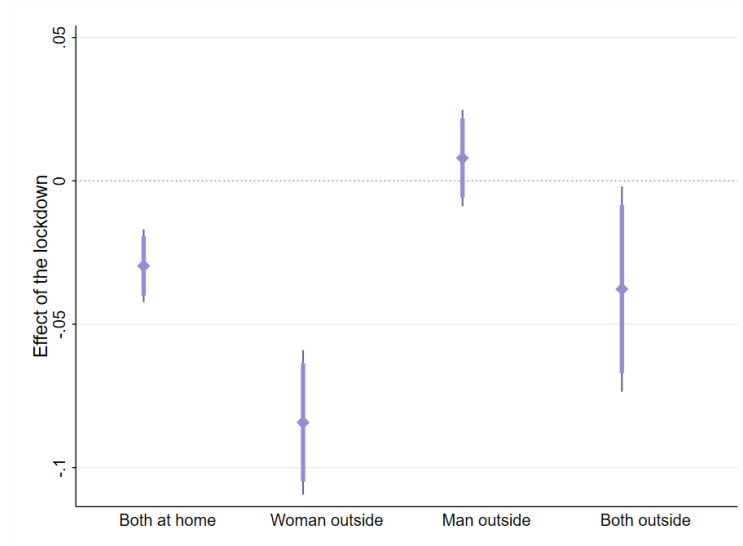


Figure A2: Effects of the lockdown on the housework and childcare division - Couples with children

Note: This figure presents the effects of the lockdown on the household chores (housework and childcare) division between partners on the subsample of couples with children. Marginal effects of the lockdown are directly computed from the coefficients presented in the Table 1, column 5, setting for different values of $Status_s$, confinement status of the couple, *i.e.* "both at home" ; "woman outside" ; "man outside" ; "both outside".

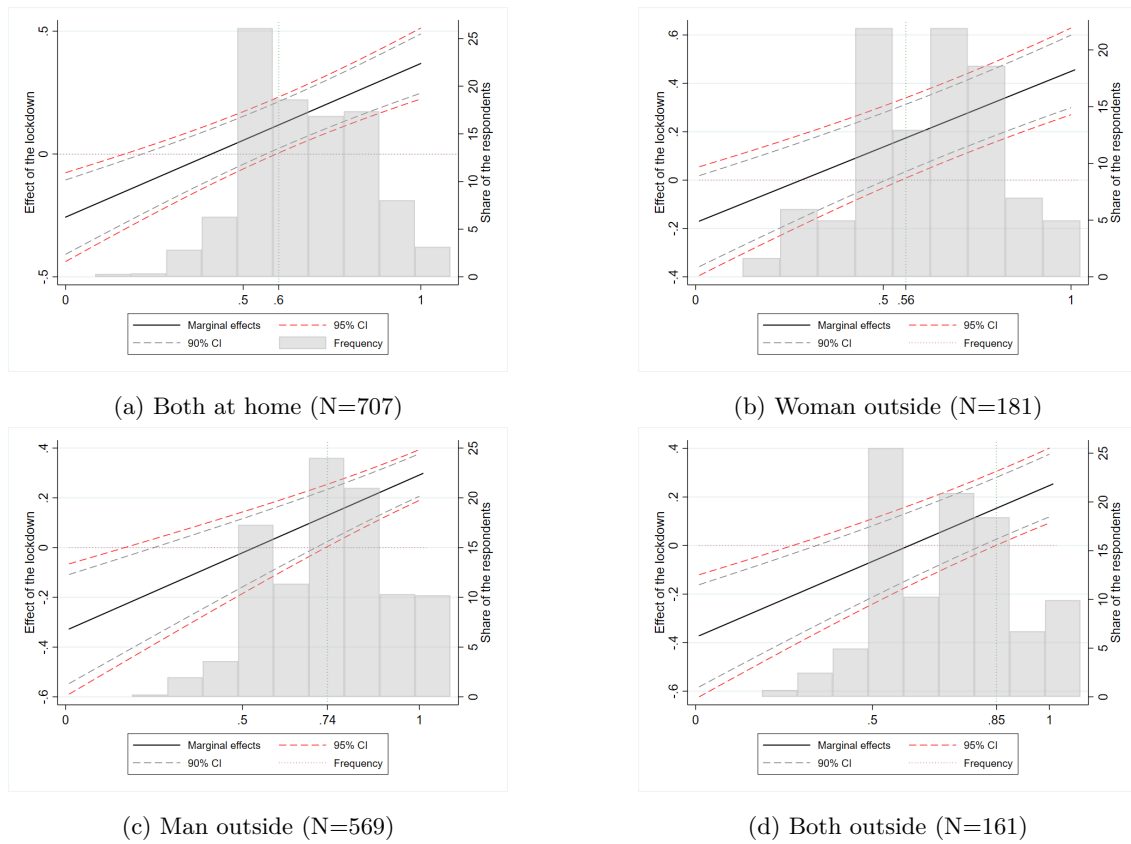


Figure A3: Effects of housework and childcare division on conflicts - Couples with children

Note: These figures present total effects of the housework and childcare division during the lockdown on the conflict occurrence between partners for couples with children. These effects are directly computed from the coefficients presented in the column 5 of the Table 2.

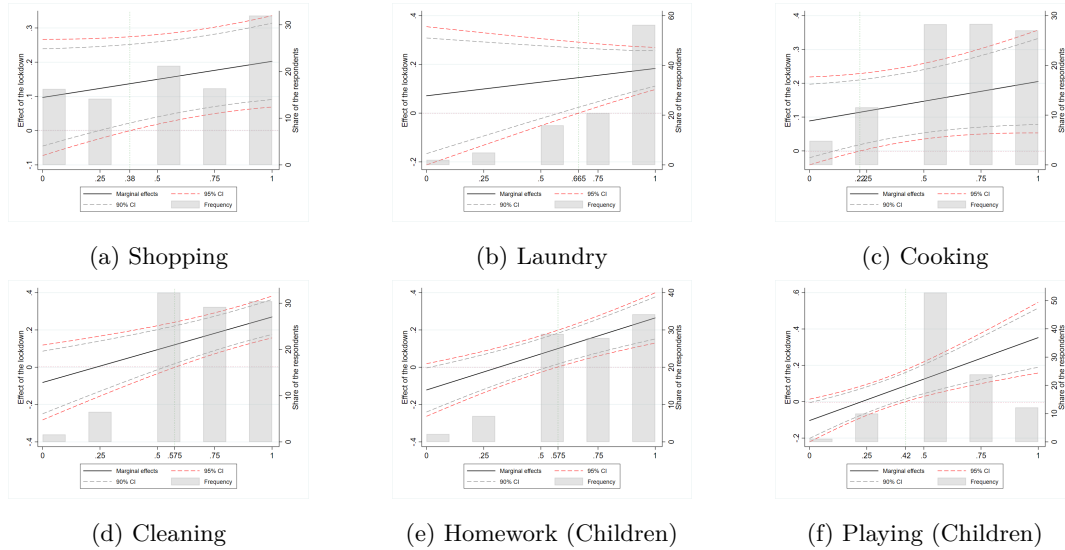


Figure A4: Effects of housework division on conflicts - Couples with children and both staying at home

Note: These figures present total effect of the household chores division during the lockdown on the conflict occurrence between partners. Total effects are directly linked to the coefficients presented in the Table A3 when $Status_s$ is equal to 1 when both partners were confined at home.

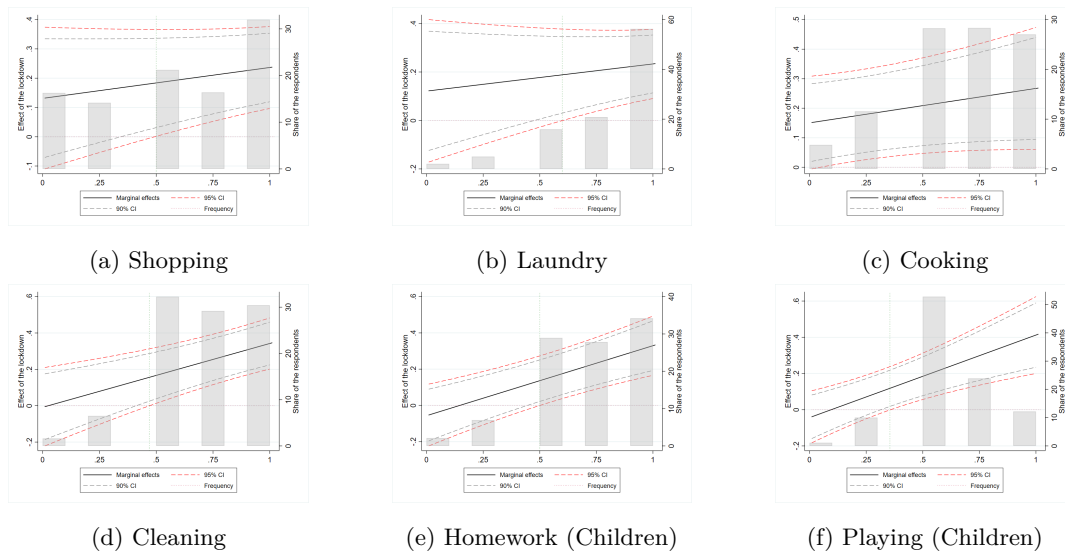


Figure A5: Effects of housework division on conflicts - Couples with children and woman working outside

Note: These figures present total effects of the household chores division during the lockdown on the conflict occurrence between partners. Total effects are directly linked to the coefficients presented in the Table A3 when $Status_s$ is equal to 1 when the woman was the sole outside worker during the lockdown.

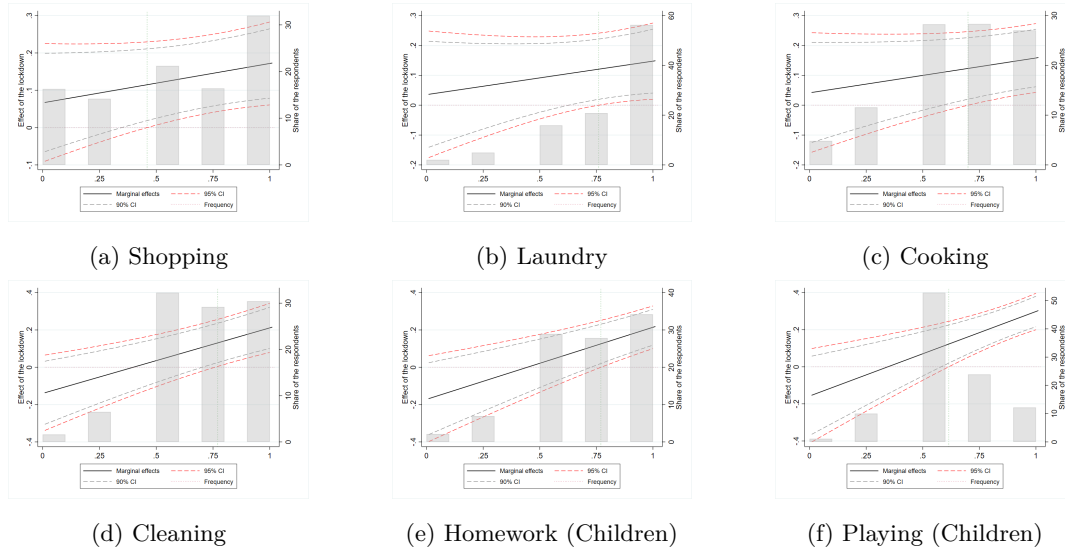


Figure A6: Effects of housework division on conflicts - Couples with children and man working outside

Note: These figures present total effects of the household chores division during the lockdown on the conflict occurrence between partners. Total effects are directly linked to the coefficients presented in the Table A3 when $Status_s$ is equal to 1 when the man was the sole outside worker during the lockdown.

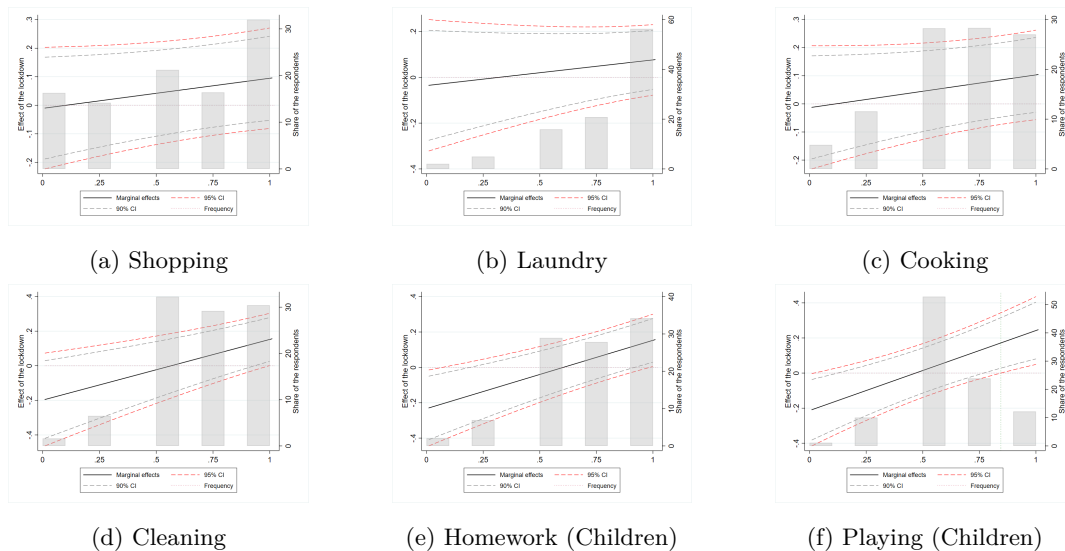


Figure A7: Effects of housework division on conflicts - Couples with children and working outside

Note: These figures present total effects of the household chores division during the lockdown on the conflict occurrence between partners. Total effects are directly linked to the coefficients presented in the Table A3 when $Status_s$ is equal to 1 when both partners were working outside during the lockdown.