

Explaining the Male Contribution to Household Labor: Does Peers' Behavior Matter?

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ABSTRACT

Notwithstanding a large strand of research over the last forty years, the gender division of household labor still remains a puzzle for social scientists. In this article, we concentrate on men's behavior because it has revealed to be particularly resistant to change: the movement toward equality in the division of household labor, occurred during the last decades, was mostly due to changes in women's behaviors rather than men's. To understand why the pace of male change has been so slow, we focus on a factor that has never been considered in the division of household labor: the role of peers' behavior. At the theoretical level, we address the problem within the framework of the diffusion of social innovations, like an egalitarian division of household labor is. At the methodological level, we introduce an experimental vignette design embedded in a survey. In this way, we deal with endogeneity issues that are typical in the estimation of peer effects. By showing randomized versions of the same story where peers' behavior is manipulated, we assess, through respondents' judgments, the likelihood that men's household labor changes as a consequence of peers' domestic behavior. Our findings show that peers count in pushing men to do more housework and childcare. However, their effect is constrained by other characteristics of the egalitarian division of household labor.

Keywords: Housework, Care Work, Experimental Methods, Diffusion of Social Innovations, Peers' Behavior.

Notwithstanding a large strand of research, the gender division of the household labor (DHL henceforth) still remains a puzzle for social scientists. The research work developed so far has been guided by several micro- and macro-level theoretical perspectives that have their own merits and faults. Yet, they did not fully explain why women continue to do so much at home, and men so little. However, understanding the processes leading to a greater gender egalitarianism is key to explain current trends (and trend reversals) in family behaviors such as union stability and fertility (Esping-Andersen & Billari, 2015).

In this study, we explore the possibility to consider an egalitarian DHL as a social innovation, which can be analyzed using the theoretical tools used to explain social diffusion processes. We focus our attention on an important mechanism of the diffusion of innovative ideas or behaviors, located in between the micro and the macro level: the peers' behavior. To the best of our knowledge, this factor has never been considered by previous research on the DHL, even if some attention has been devoted to the role of peers in the perception of housework fairness. We concentrate on men's domestic behavior because changes toward equality in the DHL, occurred during the last decades, were mostly due to changes in women's behaviors rather than men's (Gershuny, Bittman, & Rice, 2005). So it is interesting to understand why men continued to do relatively so little at home in contexts where women increased a lot their participation in the workforce and progresses toward gender equality occurred also in other domains.

Analyzing the peer effect on couples' domestic behavior is problematic and represents a stimulating challenge for two main reasons. First, the DHL is usually a private matter not much visible outside the family. Moreover, it is not even a frequent topic of discussion, particularly among men (Gager, 1998; Himsel & Goldberg, 2003). So, given the specific focus of this study, a first obstacle is the low level of visibility of the peers' behavior. Second, at a more general level, the research on peer effects has to tackle some tricky methodological problems, which are difficult to solve using observational data. The methodology proposed here, an experimental vignette design, is an effective strategy to deal with all these issues.

The analyses presented in this study are based on Italian primary data. The Italian context is particularly interesting for our research question since the average DHL is still strongly traditional. So, the innovative behavior represented by an egalitarian DHL

is in the very early steps of its diffusion, and it is particularly in this stage of the diffusion process that the example of peers counts more to ignite the dynamics of diffusion.

OLD AND NEW THEORETICAL APPROACHES TO THE STUDY OF THE DIVISION OF HOUSEHOLD LABOR

The study of household labour and its gender division inside the family has now a long history, since it dates back to the seventies of 20th century (see e.g. Oakley, 1974). At the beginning, theoretical perspectives were focused primarily at the individual or couple level, either with a rational choice (Becker, 1981; Brines, 1993) or with a culturalist and symbolic interactionist approach (Berk, 1985; West & Zimmerman, 1987). Both perspectives have their merits and drawbacks, as recognized by several scholars (Coltrane, 2000; Gupta, 2007; Lachance-Grzela & Bouchard, 2010). The rationalist approach to the DHL failed to take into account the symbolic meaning of domestic and care tasks, which cannot be invariably considered as activities that all people try to avoid. Moreover, rational choice never explained why even in couples where the woman earns more or much more than the man, she still does more household labour than him, especially as regards routine tasks. On the other hand, culturalist and symbolic interactionist approaches are not well equipped to explain *why* the DHL has changed across decades, albeit very slowly (Gershuny, 2000; Kan, Sullivan, & Gershuny, 2011; Sullivan, Billari, & Altintas, 2014). In fact, it is difficult to account for this change avoiding circular explanations (i.e.: “because the meaning of domestic and care activities has changed”). Some *exogenous* sources of change must be searched for outside culturalist perspectives, for example in institutional and economic changes involving labour markets, social policies, and education systems. That is why subsequent and latest studies (Fuwa, 2004; Geist, 2005; Hook, 2006, 2010; Tamilina & Tamilina, 2014) adopted a comparative and institutional focus, looking at constraints and opportunities provided to women and men by societal contexts. In this way, scholars dealt with explanatory factors located at the macro rather than micro level, using individual characteristics as variables interacting with characteristics of the national contexts. However, studies based on the welfare approach (e.g., Geist, 2005) revealed an effect of different welfare regimes on the DHL, but did not explain if this is due to the role of social and family policies, to that of the cultural context or for both these reasons together. On the other hand, those research

addressing the effects of specific social and family policies on the DHL often come to contrasting conclusions (e.g., Fuwa & Cohen, 2007; Hook, 2010; Treas & Tai, 2012 about the effect of parental leave). So, the DHL still remains a puzzle for social scientists. Domestic behaviours and roles within families are changing, but admittedly very slowly, especially men's, in spite of much faster changes in women's roles in the public sphere.

In our view, jumping directly from the micro to the macro-level led social scientists to pay scant or no attention to levels of analysis and explanatory factors located between individuals (or couples) and nations. Already in 1989, a prominent scholar like Coltrane wrote: "More data are also needed on the processes through which the kinship and gender composition of *social networks* influence divisions of household labor" (Coltrane, 1989, p. 489, our emphasis). Unfortunately, his invitation to look also at the level of networks and groups to which individual belongs remained unheard. Indeed, to our knowledge, there are no studies about peer-group effects on the DHL. At most, scholars considered interpersonal comparisons in the study of perceived fairness about the DHL (e.g., Carriero, 2011; Himsel & Goldberg, 2003; Mikula, Schoebi, Jagoditsch, & Macher, 2009). The only kind of behavioural social influence that received some attention is the intergenerational transmission of family roles. Parental modelling has been hypothesized to affect men's domestic behaviour (Carriero & Todesco, 2011; Cunningham, 2001; Dotti Sani, 2016).

And yet, the idea that social actors are influenced in their beliefs, preferences, and behaviors by the beliefs, preferences, and behaviors of others is almost a commonplace of sociology and social psychology, so it is surprising that scholars of the DHL did not try to make a little step over the family borders before getting to the macro level. At the theoretical level, one way to pick up Coltrane's suggestion about the importance of social networks in the DHL is to make a link to the literature on the diffusion of social innovations. In our opinion, an egalitarian DHL within the couple is an innovative behaviour that can be analyzed with the theoretical tools already used to explain social diffusion processes. This is in line with a strand of research (Guetto, Mancosu, Scherer, & Torricelli, 2016; Nazio & Blossfeld, 2003; Rosina & Fraboni, 2004) that has studied other innovative family behaviors such as divorce, cohabitation and out-of-wedlock childbearing using the same approach. This choice has revealed to be fruitful. More than fifty years ago, Everett Rogers (1962) put forward a theoretical framework that can be considered a cornerstone of the research on the diffusion of

innovations. This perspective is still the starting point of many empirical works on this topic, included those cited above on the diffusion of innovative family behaviors. Rogers pointed out that the role of peers is particularly relevant during the initial stage of the diffusion of an innovation. In the initial stage, an innovation spreads only among highly selected (usually highly educated) individuals through a mechanism of *direct social modelling* (Bandura, 1977), that is interpersonal communication and imitation within peer groups¹. When the innovation becomes more common and widespread, other less selected individuals adopt the innovation, through a mechanism of knowledge awareness of the available innovation presented by the media or inferred by observation of older generations' behaviors. In the case of the egalitarian DHL, the role of peers should be particularly important in countries where the average DHL is still quite traditional, because there this kind of innovation is in the early stage of its diffusion.

Rogers also pointed out that one of the characteristics of innovations that affects the rate of adoption is their *communicability*, i.e. the degree to which the findings of an innovation can be made visible to other people. There are innovative ideas or behaviors whose results can be easily observed and communicated to others, while some innovations are less visible and less easy to be shared. So, communicability influences the probability that others see the advantages of an innovation and eventually decide to adopt it. Focusing on family behaviors, innovations such as cohabitation, divorce, and the birth of a child out-of-wedlock are all characterised by a very strong degree of communicability. These relevant life-course events are highly visible by a person's social network. However, the same is not true for the DHL: this is essentially a private behaviour that people cannot observe and learn directly from their peers, unless they communicate and talk about it with their friends, colleagues and relatives. A few studies (Gager, 1998; Himsel & Goldberg, 2003), focused on the topic of perceived housework fairness, showed that men rarely discuss about household labour with their friends. Their ideas on how much other men (do not) share the housework with their wives are rather based on abstract and "average" models of man, often quite distant from reality. Sharing childcare instead can be, to a certain extent, more visible as it may imply to be absent from work (on parental leave) or to reduce work hours. Clearly, an egalitarian DHL cannot spread only under the influence of

¹ This is also called *informational influence*. Another mechanism is pressure to group conformity in order to avoid sanctions, that is called *normative influence* (Deutsch & Gerard, 1955).

peers, considering its limited communicability and men's practice of avoiding discussions about household labour. Low communicability, however, might be one reason of the extremely low pace in the diffusion of egalitarian DHL.

At the empirical level, studying the influence of peers on individual behaviour is particularly challenging. A first problem is that, in absence of specific data, individual's peers are inferred rather than investigated, since large-scale surveys do not generally include questions on peers' behaviors. To solve this problem, individuals with similar characteristics in the survey, or belonging to the same classroom or organization, are often considered as peers². However, even in presence of reliable information on the peer behavior, the problem of causal inference from peers' to individual's behavior would be far from being solved. Indeed, assessing a causal impact of peers' behaviour on individual behaviour is very difficult outside laboratory experimental studies (see, e.g., the classic study on group conformity by Asch, 1951). In observational studies, as the econometric literature on peer effects showed (Angrist, 2014; Manski, 1993), the simple correlation between an individual outcome and the mean outcome of the membership group does not prove a causal relationship from the latter to the former. Rather, this kind of correlation is quite mechanical (a statistical artifact) and unrelated to the existence of a true connection between individual and peer outcomes³. This is the so called "reflection problem" (Manski, 1993)⁴. A typical consequence of this problem is that, without some source of *exogenous* variation in the composition of peers, the analyst cannot support causal claims because peers' composition is most likely to be the object of individual *endogenous* choices. Individuals could make such choices, for instance, for convenience reasons, in order to have favorable benchmarks when evaluating own behaviors or attitudes. Therefore, the problem of self-selection can seriously bias the analysis. This might be one of the reasons, although perhaps not the most important, for the neglecting of peer effects in household labor research.

² Another possible solution is using small ad-hoc surveys, generally based on convenience samples, with specific questions on the peer's behavior. However, this choice (adopted for instance by most of the few studies on the effect of the peers on housework fairness) prevents any possibility of generalization of the research findings.

³ As Angrist (2014) demonstrated, any regression of individual outcome on mean group outcome produces a coefficient of unity or, if the group mean is defined as a leave-out mean, it is determined by a generic intraclass correlation coefficient.

⁴ Individual's and peers' behavior can be compared to a person and his/her image reflected by a mirror. If the person moves, so does the image, but how to say whether the mirror image cause the person's movement or reflect it? Without some understanding of optics and human behavior it is not possible to tell.

MOTIVATION OF THE STUDY AND HYPOTHESIS

This study starts from an issue that remains still alive in the literature: why women continue to do so much at home, and men so little? Previous time use studies showed that over the last decades there has been a large disinvestment on housework by women that has not been paralleled by a corresponding investment by men (Altintas & Sullivan, 2016; Kan et al., 2011). As regards childcare, both women and men increased their involvement, although in relative terms the former continue to bear most of the burden, especially physical care work. So the male domestic behavior revealed to be quite resistant to change. For this reason, we focus our analysis on men to understand the slow pace of change in the gender DHL.

Our work improves the existing knowledge in three main respects. First, we focus on a determinant of the DHL never considered by previous research: the role of the peers' behavior. Peers are a relevant factor in the diffusion of innovative ideas or behaviors, as an egalitarian DHL is. But the DHL has been never analyzed so far using the approach of the social diffusion process⁵. Second, we introduce a methodological innovation seldom used in family research (see, e.g., Gaunt, 2013; Kluwer, 1998): a vignette technique embedded in a survey-based experimental design. In our opinion, this technique contributes to address (see next section) the problem of the low level of visibility of the peers' behavior in the case of the DHL, as well as the endogeneity problems affecting all the analyses dealing with peer effects. By showing randomized versions of the same story where peers' behavior is manipulated, we assess, through respondents' judgments, the likelihood that men's household labor changes as a consequence of peers' domestic behavior. This kind of evidence is certainly free from the endogeneity problems that would afflict observational data. The third innovation of this study is that our empirical test is based on a probability sample coming from primary data on family behaviors that, unlike most other data, take into account the issue of the peer effects on domestic behavior. So, our findings can be generalized to a wider population.

This study focuses on the Italian society. Italy is an interesting context for the research question tackled here since it is characterized by a strong traditionalism in gender and

⁵ In their recent work, Esping-Andersen and Billari (2015) have applied a diffusionist approach to gender egalitarianism, but with the aim to explain current trends in family behaviors (notably fertility recovery and union stability).

family roles. According to our calculations based on the Italian Time Use Data 2008-09, only 14% of married/cohabiting men practice an egalitarian division of all domestic tasks (defined by a female share $\leq 55\%$), and just a tiny 7% divide equally the routine tasks such as cooking or doing the laundry (see Table 1). Women in an average couple do the great majority of domestic work (79% of all domestic tasks and 88% of routine tasks). By contrast, childcare is divided a bit more equally. On average women with children spend 107 minutes/day on childcare against 45 minutes of men, yielding an average division of 72%, but egalitarian couples with respect to childcare are more than a quarter (26%)⁶.

Table 1. Daily minutes spent in household labor, mean division of household labor (woman's share) and % of egalitarian couples in Italy

	Women	N	Men	N
All domestic tasks ^a (time)	322	10590	99	10546
Woman's share ^b	79%	10369		10369
% egalitarian couples (woman's share $\leq 55\%$)	14%	10369		10369
Routine tasks ^c (minutes)	276	10590	38	10546
Woman's share ^b (%)	88%	10325		10325
% egalitarian couples (woman's share $\leq 55\%$)	7%	10325		10325
Childcare tasks ^d (minutes)	107	3295	45	3267
Woman's share ^b	72%	2779		2779
% egalitarian couples (woman's share $\leq 55\%$)	26%	2779		2779

Source: Italian Time Use Survey 2008-09, authors' calculations.

Notes: ^a: it includes shopping; ^b: excluded couples where both partners spent zero time; ^c: cooking, cleaning, tidying, washing-up dishes, laundry, ironing; ^d: calculated on couples with at least one child aged less than 14 years.

⁶ It should be noted the peculiar data collection procedure of time use surveys where respondents fill in a diary on a given day. No time spent in household labor on a given day does not necessarily mean no time ever. However, since days are randomly assigned to respondents, we can confidently assume that figures reflect on average the division of household labor of Italian couples (although not of each single couple).

So, it can be certainly said that an egalitarian DHL in Italy is an innovative behavior at the very initial stage of its diffusion. Given this fact, as stated by Rogers (1962), the role of peers should be particularly relevant here.

The empirical part of the study will test a single hypothesis, even if separate analyses will be performed for the two main tasks of the household labor, i.e. domestic work and childcare:

Men's propensity to devote time to housework (childcare) increases (decreases) if their peers spend more (less) time in this task.

DATA AND METHOD

Our study combined a standard phone survey method with an online questionnaire containing vignettes or scenarios administered to the same respondents who were interviewed by phone. Vignettes are verbal descriptions of fictitious (but realistic) situations to be evaluated by subjects, often, but not necessarily, within an experimental research design (Finch, 1987; Ganong & Coleman, 2006; Mutz, 2011, ch. 4; Wallander, 2009). In this kind of design, vignettes contain one or more variable elements called factors (i.e., variables deemed to affect an individual's judgment about the vignette) that are randomly assigned to respondents. Random assignment makes it possible to assess the causal effect of the factors on people's judgments. A strength of this method is that, unlike laboratory experiments, vignettes can be implemented in a survey in order to generalize the findings to a wider population, whereas laboratory experiments are usually based on small convenience samples which prevent any generalization. In this research, the vignette method allowed to address the problem inherent in the measurement of any peer effect because peers' behavior is the object of manipulation and randomization. In other words, the peer group's behavior does not simply "reflect" the individual behavior and individuals cannot choose their peers. Moreover, vignettes allow to make "visible" to respondents a private behavior such as the DHL. However, a limitation of the vignette method is that it provides judgmental rather than truly behavioral data. We will discuss this issue in the final section of the study.

Our sample was randomly drawn from the landline telephone directories of four provinces of Piemonte, a region in northwestern Italy. We sampled dual-earner married or cohabitating couples with at least one child under 13 years old. The particular

circumstances of this target group, characterized by multiple sources of time pressure (from work and family responsibilities), made the choice of this sample highly relevant because it is among these households that the issue of DHL becomes particularly salient. Generally speaking, the most interesting research questions about DHL mainly regard dual-earner couples, in which the inconsistency between the labor market transformations of recent decades and domestic behavior is well represented. In male breadwinner couples, an unequal and unfavorable to women DHL can be expected. Female breadwinner couples are undoubtedly a very interesting case, but they are still too rare to be studied with quantitative analysis.

The female employment rate in Piemonte, though higher than the national average, is not very different from the north and central areas of the country (Eurostat, 2015; see Labor Force Survey regional statistics). Moreover, as we have calculated from time use data, the division of housework among dual-earner couples living in Piemonte, as measured by the women's share of time devoted to routine tasks, is the same (83%) of that of other north-central regions and only slightly lower than that of the more traditional southern regions (88%). Accordingly, although our sample is confined to four northern provinces, it can be considered fairly representative of Italian households in similar family conditions living in most parts of the country⁷.

Between October 2010 and February 2011 we interviewed by phone 1656 individuals from 828 married and unmarried couples (both members included, response rate 42%) using a structured questionnaire about the division of domestic and care tasks, perceived fairness, gender roles, and paid work. During Spring 2013, individuals were contacted again to collect their email address. We were able to reach 1365 individuals from the initial sample (82%), to whom the online questionnaire with the vignettes was sent. 676 individuals (50% of the email list or 41% of the initial sample) have valid responses to all our crucial variables. As can be expected, the considerable drop in the number of cases did not occur entirely at random. Indeed, actual respondents were positively selected by education, as is often the case with all survey modes. For other important characteristics, such as gender and housework division, the differences

⁷ The discrepancies in estimates of housework division between the Istat sample (see above) and our sample (see Table 2 below) are largely due to differences in data collection methods (time-use diary vs. questionnaire).

between the initial and final sample were negligible (descriptive statistics of both samples are given in Table 2).⁸

Table 2. Descriptives of final (N = 676) and initial (N = 1656) samples

Variable	Final sample			Initial sample	
	<i>M</i>	<i>SD</i>	Range	<i>M</i>	<i>SD</i>
Male	0.46	0.25	0 - 1	0.50	0.25
Female	0.54	0.25	0 - 1	0.50	0.25
Age	41.86	5.42	19 - 63	41.83	5.54
Less than secondary educ.	0.18	0.38	0 - 1	0.24	0.43
Upper secondary educ.	0.45	0.50	0 - 1	0.46	0.50
University educ.	0.37	0.48	0 - 1	0.30	0.46
Monthly net income	1748.72	905.12	500 - 5000	1697.41	879.37
Weekly work hours	38.42	11.66	6 - 98	39.24	11.97
Wife's % of routine tasks	71.18	18.33	0 - 100	72.97	17.73

Unlike the so-called factorial surveys (Wallander, 2009), where subjects are given multiple versions of the same vignette, respondents in our study evaluated only a particular version of each vignette (between-subject design). The main advantage of this design, given the large number of cases, is that the effects of various factors can be tested without the sensitization and carryover effects resulting from multiple evaluations of the same vignette (Greenwald, 1976).

Vignettes' texts and factors

The first vignette concerns the division of housework and present the following situation to respondents (varying factors in italics):

Beatrice and Riccardo, 34 and 35 years old, respectively, form a family and (*do not have children / have a child / have two children*). Both spouses (*finished compulsory education / have a high-school diploma / have a university degree*). Beatrice spends (*a couple of hours a day less than / the same number of hours a day of / a couple of hours a day more than*) Riccardo at her job and contributes to family income with approximately (*700 / 800 / 900 / ... 1800*) euros per month. Beatrice takes care of almost all the housework and this situation creates some tension with Riccardo. Riccardo talks about this matter with his male friends and

⁸ Within the final sample, 74% of respondents form household couples with other respondents and hence are not statistically independent units. For this reason, we made robustness checks of all our findings by randomly sampling one respondent per couple. We found no substantial differences (results not shown).

finds that (*most of them do almost nothing around the house / most of them take charge of about half of the housework*). Imagine 100 families like those described above. How many people in Riccardo's shoes would decide to get more involved in housework?

The main factor manipulated in this vignette is the behavior of Riccardo's friends at home. This can take on two states: most of friends do almost nothing or they share equally the housework. In this way respondents are made aware of what is the character's peers behavior. The other factors (spouses' education, wife's work hours, her contribution of family income, and the number of children) were chosen to introduce variation in key variables that can affect the DHL and influence respondents' judgements about the likelihood that Riccardo increases his housework involvement. However, in this study we did not make specific hypotheses about them.

The second vignette regards childcare and specifically the option, for a new father, to take a parental leave paid at 30% of his salary (the actual substitution rate for parental leave in Italy). Here is the text of the vignette:

Lucia, 30 years old, and Antonio, 38 years old, are a couple and full-time workers. Lucia holds a high school diploma [*as well as Antonio/ while Antonio has not/ while Antonio has a university degree*]. When they have their first baby, Lucia does not want to give up completely her work during the first year of the child, so she asks Antonio to give her substantial help by taking a parental leave of about one month (the parental leave is a period of optional absence from work that both parents can take to care for their child, during which period a parent receives 30% of his/her salary). Since the couple earns a good family income, this choice would not involve excessive financial loss. Antonio works for [*a private firm/ a public administration*] and he is [*very/ little*] attached to his job. At his workplace [*no father / one father out of ten/ two fathers out ten... all fathers took a parental leave so far to care their children*].

Imagine 100 families like those described above. How many people in Antonio's shoes would decide to take the parental leave?

The peers' behavior in this case is given by the rate of parental leave taking among the character's co-workers. As in the first vignette, other secondary factors were included in order to introduce variation that likely affects parental leave taking by fathers. We deliberately avoided to manipulate the substitution rate because we wanted to keep the story as much realistic as possible considering the Italian context. As above, we did not make specific hypotheses about secondary factors.

Respondents' judgments consist of subjective probability estimates about the vignette character's behavior. Given the numerical nature of these variables, we analyzed data by means of linear multiple regressions. The only explanatory variables included in the models are the vignette factors. Respondents' characteristics such as age or education do not need to be controlled for, given the randomized research design.

RESULTS

Results from the first vignette's analysis are presented in Table 3. The coefficient of the peers' behavior variable indicates that when friends share equally the housework (instead of doing almost nothing at home), the estimated probability of an increase in the character's domestic behavior raises by 7 percentage points. This effect is entirely in line with our hypothesis applied to domestic work, even if not so large in magnitude. Since the vignette focuses only on male behaviors, we controlled for the possibility that the peer effect is different between male and female respondents by including an interaction with sex (results not shown). The latter turned to be insignificant. However, the main effect of respondent's sex is positive and significant, meaning that men tend to be on average more "optimistic" about the likelihood of husbands' domestic collaboration, regardless their peers' behavior.

Table 3. Regression analysis of vignette 1: effect of peers' behavior on male housework involvement

	Coef.	Std. Err.	P>t
Friends' domestic behavior (ref: do almost nothing)			
Friends share housework equally	7.05	1.64	0.000
Paid work time (ref.: 2h less than husband)			
Same hours as husband	2.47	2.01	0.219
Two hours more than husband	-0.40	2.00	0.839
Children at home (ref.: none)			
One child	-1.62	1.99	0.415
Two children	-2.58	2.00	0.198
Spouses' education (ref.: both tertiary educ.)			
Both less than secondary educ.	1.32	1.99	0.505
Both secondary educ.	0.53	1.99	0.790
Wife's income (centred)/100	0.25	0.24	0.279
Constant	36.52	2.25	0.000
Adj. R2	0.024		
N	676		

Note: dependent variable is the perceived probability (0-100) that the vignette character will increase his housework participation.

From the analysis of the second vignette, reported in Table 4, we obtained another confirmation of our hypothesis. The coefficient of peers' behavior is positive and significant also in the case of parental leave taking. For each 10% increase in the proportion of colleagues who already took the parental leave, the estimated probability that the character will take the leave on his turn rises by 1.7 percentage points. Given the range of the peers' behavior variable, this imply that the estimated probability can rise up to 17 points if the proportion of leave takers changes from none to 100%. So, also in this case the effect is significant and in line with the hypothesis, even if not very large. Like in the first vignette, the interaction between respondent's sex and peers' behavior is not significant (results not shown), but the main effect of the former is positive. This means that men, compared to women, display more confidence in new fathers' likelihood to take the parental leave⁹.

Table 4. Regression analysis of vignette 2: effect of peers' behavior on parental leave taking

	Coef.	Std. Err.	P>t
% colleagues already took parental leave (*10)	1.71	0.30	0.000
Husband's attachment to work (ref.: high)			
Low	11.11	1.92	0.000
Work sector (ref: private firm)			
Public administration	7.35	1.92	0.000
Husband's education (ref.: less than secondary education)			
Secondary educ.	0.81	2.38	0.733
Tertiary educ	4.15	2.37	0.080
Constant	35.44	2.72	0.000
Adj. R2	0.10		
N	676		

Note: dependent variable is the perceived probability (0-100) that the vignette character will take a one-month parental leave.

To sum up, both vignettes' findings support our hypothesis that male household behavior is positively influenced by their peers' behavior: the more their peers are involved in either housework or childcare, the more likely is that they themselves will be engaged in these activities.

⁹ The main effects of respondents' sex in both vignettes are likely to be consequence of a social desirability bias acting more strongly among men than women. Notwithstanding this, the significant and expected coefficient of peers' behavior demonstrate the robustness of the vignette method with respect to common threats to validity like that.

DISCUSSION

This paper focuses on a never-studied determinant of the DHL: the peers' behavior. We consider an egalitarian DHL as a social innovation, and as such it can be studied. According to a well-established theoretical framework (Rogers, 1962), the role of peers is very important in the diffusion of innovative ideas or behaviors. Our analyses, focused on the Italian context, revealed that when the peer behavior about the DHL is made visible through a vignette, the findings are in line with expectations. According to the respondents' evaluation of the vignettes, men are more willing to increase their time devoted to domestic work when their peers are shown to contribute more to this task; moreover, men are more open to the possibility of taking a parental leave if the proportion of their colleagues who did this choice increases. However, the magnitude of these expected effects is not very large. This can be due to the fact that the visibility of peers' behavior is doubtless an important factor affecting the diffusion of innovations, but it is not the only one. According to Rogers (1962), other relevant factors in the diffusion process are a few innovation's characteristics such as relative advantage, compatibility, complexity and trialability¹⁰. In the specific case of the diffusion of an egalitarian DHL, most of these factors work *against* the adoption of the new behavior, particularly in the Italian context, and consequently contribute to lower a possible positive effect of the peer group.

The relative advantage is the degree to which an innovation is superior to previous ideas or behaviors it supersedes. Rogers stated that this is often the most important factor affecting the rate of adoption. The degree of relative advantage can be measured in economic profitability, but social prestige, convenience and satisfaction also matter. From men's point of view, it's hard to find an immediate relative advantage from increasing their housework time. This choice would produce a reduction of paid work time, with a consequent loss of income, and/or of time devoted to leisure, personal care and rest, all activities in which people are usually happy to be engaged in. The main plausible reason for men to do more at home could be the increase in their partner's satisfaction because of the lightening of her domestic tasks, which could have a positive effect on the couple relationship and, on the long run, union stability. However, many (or at least some) women do not seem really interested in receiving more help for the chores. According to a well-known paradox highlighted by much

¹⁰ Rogers (1962) refers to the latter as divisibility.

research (see, e.g., Carriero, 2011; Kawamura & Brown, 2010), most women are satisfied with their housework division even if they do most of the domestic tasks. So, an egalitarian male domestic contribution is not a necessary condition for their satisfaction. As regards care work, the picture is partly different: spending time with children can be a greater source of personal and emotional gratification than spending time in cooking and cleaning the house. So, the relative advantage of the former is larger than the latter. However, not all men are probably really interested in the gratification derived from care work and those who actually are (the so-called “new fathers”, young and well-educated people, see, e.g., Ruspini, 2011), mostly engage in interactive playful activities with their children rather than in routine physical care. So, the lack of relative advantage in the adoption of an egalitarian DHL probably weakens the expected effect of a peer behavior made visible.

Compatibility is the degree to which innovative ideas or behaviors are consistent with existing values, past experiences and needs of the potential adopters. An innovation that is scarcely compatible with the cultural norms of a society will have a slower diffusion than a compatible one: compatibility makes the innovation more meaningful, reducing the sense of insecurity of the potential adopters. Italy is characterized by a traditional culture as regard gender roles and by low levels of gender equality (European Institute for Gender Equality, 2015; Plantenga, Remery, Figueiredo, & Smith, 2009). This is also attested by the Italian female employment rate, among the lowest in Europe: in 2015 only Greek women had a lower rate, and Italian women are much more likely to be full-time homemakers than women from other European countries (Bettio, Plantenga, & Smith, 2013; Eurostat, 2015, see the Labor Force Survey Main Indicators). So, the current Italian cultural values do not support yet an egalitarian DHL, and this probably reduces the effect of the peer group on the male domestic contribution. It must also be considered the important role still played in the Italian society by the Catholic Church, whose doctrine supports a traditional gender division of role and responsibilities within the family (Voicu, Voicu, & Strapcova, 2009). Moreover, according to Rogers the diffusion of an innovation is quicker if it is not so far from previously adopted ideas or behaviors. However, as it is clear from the data presented in the section devoted to the motivation of this study, an innovation like an egalitarian DHL is very distant from the current domestic arrangements of the great majority of Italian couples.

Complexity is the degree to which an innovation is relatively complex to be understood and used by potential adopters. Some innovations can be easily understood by most potential adopters, while others are more complicated and will be adopted more slowly. Performing domestic and care tasks requires practical and emotional skills that most men has not developed during their life, and that need time, effort and will to be learned. Some research (see, e.g., the study carried out in Italy by Dotti Sani, 2016) shows that boys and girls receive different socialization about domestic chores: the former are less likely to engage in housework than the latter, and the gender gap increases with age. Moreover, according to the traditional model of gender socialization, daughters are expected to invest more in emotional skills than sons (Connell, 2002), and this is of help during the childcare activities in adult life. So, when boys grown up they are less trained in the management of the household labor, and this fact can contribute to reduce the effect of the peer group on the adoption of an egalitarian DHL.

Finally, trialability is the only factor considered by Rogers that do not reduce the effect of the peer group on the DHL. Trialability is the degree to which an innovation can be tried on a limited basis. Some ideas or behaviors cannot be divided for small-scale trial, but it is not the case of an egalitarian DHL: men could increase their domestic contribution step by step, in order to evaluate the consequences on their time availability and on the couple's wellbeing.

In sum, three out of four factors affecting the rate of adoption of an innovation are expected to work *against* the diffusion of an egalitarian DHL, thus reducing the expected positive effect of the peer behavior. This is probably the reason for which the effects found in our analysis are in line with the hypothesis, but not so large in magnitude. But this does not mean that the peer effect on the DHL does not count at all. On the contrary, in our opinion the peer effect is not negligible, since it pushes towards a greater male domestic contribution notwithstanding the negative effect of other important factors influencing the adoption of an egalitarian DHL. So, we believe that this topic deserves further attention in future research.

The small effect of the peers' behavior, even when it is made clearly visible, reveals that in the Italian context the road towards a real change in the male domestic and care contribution is probably still long. The peers' behavior should be one of the drivers of the change, especially in a country like Italy where the diffusion of this innovation is still in its first steps. In our expectations peers should count more in countries with less

gender inequalities than Italy¹¹. In these countries there is more compatibility between their cultural norms and an egalitarian DHL; so, this innovation is more meaningful and produces less insecurity in the potential adopters. Therefore, it should be important to focus more scholarly attention on the peer group effect on the DHL in different institutional and cultural contexts.

A limitation of our study should be acknowledged. It regards the correspondence between the respondent's actual domestic behavior and their evaluation about the domestic choices of the vignettes' characters in an abstract situation. In this case, the strength of the vignette method lies in the manipulation of theoretically relevant factors affecting the respondents' opinion about an hypothetical behavior, in order to assess their causal effects. However, since vignettes depict hypothetical situations, it cannot be taken for granted that the same factors will act in the same way in real life situations. In other words, the vignette method has a problem of external validity. Some research has shown that vignettes are related to real-life behavior (see, e.g., Horne 2003; Ganong & Coleman 2005, 2006). However, there can be no doubt that the nexus between respondents' vignette evaluations and their actual domestic behavior has still not been fully specified. Other scholars pointed out this problem (Bernstein & Crosby, 1980; Kluwer, 1998), but they nevertheless maintained that the advantages of the vignette method outweigh its disadvantages (see also Duncan 2008 for good reasons to prefer causally robust methods despite their external validity problems). In line with this reasoning, we think that vignettes are worth further application in the housework domain, in particular when investigating peers' behavior.

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¹¹ This is also in line with Esping-Andersen and Billari (2015) theorization according to which the diffusion of gender egalitarianism should be quicker in less stratified societies, where barriers among different social groups are lower.

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