

Household composition & women empowerment: Living with in-laws in India

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Abstract

Gender inequality is a widely prevalent issue especially in India. I study the role of social and cultural norms in explaining disempowerment of married women in India. In specific, I ask if living with parent-in-laws after marriage effects the empowerment of the daughter-in-law in the household? To isolate the causal effect of the presence of an in-law, I use the death of the father-in-law or mother-in-law as an exogenous event changing the household composition. The main findings are: First, that the presence of the father-in-law and the mother-in-law has differential impact. Second, contrary to anecdotal evidence, I find evidence that the presence of the father-in-law disempowers the daughter-in-law more strongly when considering both behaviour and self-reported decision-making of the daughter-in-law.

JEL Classification: D1, D13, J16, O12.

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1 Introduction

Gender inequality is a widely prevalent issue, especially in India. Many latest surveys including the latest census point towards stagnant, if not, worsening gender discrimination indicators like the sex ratio, social and labour participation of women. There is wide literature on gender discrimination in India (see [1], [2]) which has evolved greatly over the years. The new IHDS panel study (see [3]) shows that gender discrimination in India remains prevalent from 2005 to 2012. Apart from literacy, majority of gender social indicators have been stagnant (18% do not go to a corner shop, 50% do not travel alone by bus/train even for a short distance, only 25% have the final authority on what to do when they are sick, only 25% actually met their husbands before marriage). Even more alarming is the stagnation of the sex ratio, and the drop in work participation ratio.

This raises the question of why this is the case given the economic growth and development of India in the last decades. I study the role of social and cultural norms in explaining disempowerment of married women in India.

The wide spread norm across India remains that daughters live with parents till married, then they move to a new household with husband or his family. Married sons often continue living with parents. In our nationally representative dataset, 73% girls in rural areas moved into the household of her husband's parents, and 72% in urban areas. This type of household composition (living with in-laws) remains vibrant in India at around 30% of the total households with two or more married in the latest census of 2011-12 (for eg. see [4]).

I intersect these two elements of the current Indian society, household composition and gender discrimination, raising the research question: Does household composition matter for gender discrimination? In specific, I ask if living with parent-in-laws after marriage affects the empowerment of the daughter-in-law in the household?

I use an innovative identification strategy to try to address endogeneity issues arising in this question. Empowerment can take many forms and definitions. I focus on two types of outcomes indicating empowerment of women: (1) as seen in the behaviour/actions of the women, and (2) as reported participation in household decision-making. The results point towards household

composition mattering for the empowerment of the daughter-in-law. In particular, the presence of the father-in-law effects the empowerment outcomes considered in this paper.

The remainder of the paper is organized as follows. In Section 2, I present the identification strategy along with its current limitations and improvements to be made. In Section 3, the data and variables are discussed in detail. Section 4, presents the results for both sets of outcomes. Section 5, attempts to chalk out a path for understanding the possible channels causing the effect we see.

2 Identification & Empirical Strategy

To isolate the impact of the presence of the in-laws on the empowerment of the daughter-in-law we would like to have the counterfactual group of the daughter-in-law (and husband) living without in-laws. However, comparing such nuclear and extended households is problematic as the choice of this living arrangement might be endogenous to empowerment and household decision-making. To avoid these issues of reverse causality and unobservables, we restrict our study to household in which the young couple choose to live with the parent-in-laws after marriage. Then the identification is based on using the death of the father-in-law or mother-in-law as an exogenous event changing the household composition. This gives us one control group in which the young couple lives with both the parent-in-laws, and two treatment groups of the young couple residing either with the mother-in-law or father-in-law.

Even though we know that one of the in-laws is dead for sure (reported in the data), we do not know the exact timing and cause of the death. Part of the concerns are addressed by looking at the sample of young couples who moved into the household of the in-laws right after their marriage. However, concerns like if the in-law was already dead before marriage cannot be addressed. Another possible critic could be that some unobservables effect the likelihood of death of an in-law and our outcomes. Ideally, we would use a panel dataset following a household in which the young couple lives with in-laws, and then we observe the death of one in-law. This would address issues concerning the timing of death as well as allow us to control for household fixed-effects. In

a refined version of this working paper, we shall be able to implement this improved identification strategy and test for if our results hold¹.

Impact is measured by individual (daughter-in-law) level OLS regressions on outcome variables while controlling for various household and daughter-in-law specific controls. The coefficients of interest is that of the treatment variables indicating the death of an in-law.

$$Y_i = \alpha_i + \beta_{1i}T1_i + \beta_{2i}T2_i + X_i + Z_i + \epsilon_i$$

where all dependent variables, Y_i , are outcomes of the daughter-in-law. The treatment variable, $T1_i$, is an indicator variable taking value 1 in case the daughter-in-law is residing in a household with a dead father-in-law, while $T2_i$ is 1 if death of mother-in-law. The reference group is daughter-in-law in households with both the parent-in-laws alive and present. X_i are daughter-in-law controls, while Z_i are controls for the characteristics of the household the daughter-in-law resides in.

3 Data

We use the India Human Development Survey (IHDS) 2004-05 which is a nationally representative, multi-topic survey of 41,554 households across India. The survey contains two parts - the household survey and the woman survey. The former is administered to the household head while the latter to a married woman of age 15-49. As we are interested in outcomes of the daughter-in-law in particular, we keep in our sample only households for which the respondent to the woman survey is a daughter-in-law of the household. In almost all cases this respondent is the eldest daughter-in-law of the household which could possibly imply that our estimates are lower bounds of the effect observed.

Our sample size of interest of young married couples reportedly moving in with the in-laws right after their marriage, and also currently residing with either or both the in-laws is of around 9000 households. The control group in our analysis is that of young couples living with both the father-in-law and

¹The current analysis is based on the cross-section dataset of 2005 with the second-wave of the panel of 2012 due to be realised in March 2015. Details in Discussion section.

mother-in-law with a sample size of 4,528 households. The first treatment group of households which have experienced the death of the father-in-law has a sample size of 676 households. While the other treatment group having experienced the death of the mother-in-law is 573.

The survey contains a wide array of information on household as well as individual characteristics. To ensure that our three groups are balanced across different characteristics, we control for daughter-in-law specific variables like daughter-in-laws age, education, and number of children. Household specific controls include household size, location (region and if urban), household income, religion, caste, parent-in-laws age, household head education, husbands age, if the death was in the last one year.

The average age of daughter-in-law in the control group is 27 while in the treatment groups is 29. The average age of the parent-in-law is 60.7 and 63 in the control and treatment groups respectively. While the household size is 7.9 for the control group and 6.6 for the treatment groups. All these differences are expected as a result of the death of an in-law. The characteristics which we would want to address better some household variables like if urban, household head education, household income. In the control group 26% of the households are urban while this rises to 35% for the treatment groups. The control group is also slightly better educated and richer than the treatment groups. While we control for all these variables, the cleanest solution will be with the use of the forthcoming panel analysis.

The dependent variables which are indicators of empowerment of the daughter-in-law in the household can be seen as of two types: behaviour of the daughter-in-law, and self-reported household decision-making say of the daughter-in-law. The table below lists the dependent variables, Y_i , which are all binary with 1 implying higher empowerment of the daughter-in-law. Note that all these questions are self-reported by the daughter-in-law.

Dependent variable	= 1 if daughter-in-law
Behaviour:	
Covering head	does not practise covering head (ghunghat)
Permission for clinic	does not need permission to go to local health clinic
Membership	is member of mahila mandal (women group)
Decision-making:	
Fertility	has a major say in number of children she will have
Marriage of child	has a major say in her child's marriage decision
Purchase of item	has a major say in purchase of expensive items like TV, fridge
Check:	
Eating norm	men of household do not eat before women

4 Results

For each of the dependent variables detailed before we run the following regression as described in section 2:

$$Y_i = \alpha_i + \beta_{1i}T1_i + \beta_{2i}T2_i + X_i + Z_i + \epsilon_i$$

Using this specification, we can check the effect of the presence of the father-in-law and the mother-in-law. This is because the coefficient β_{1i} compares households experienced death of father-in-law to the control group of both in-laws alive and present, thereby giving us the effect of the presence of father-in-law. While the coefficient β_{2i} similarly gives us the effect of the presence of mother-in-law.

4.1 Behaviour of the daughter-in-law

In the table below we see that the presence of the father-in-law and the mother-in-law has significant differential impact on the self-reported behaviour of the daughter-in-law. This is confirmed when we do a joint equality

test of the coefficients β_{1i} and β_{2i} , with they being significantly different for all three outcomes. We see that the presence of the father-in-law disempowers the daughter-in-law more strongly and significantly. The presence of the mother-in-law does not significantly effect the outcomes.

The average probability of daughter-in-laws of the control group (ie. both parent-in-law present) being a member of a women's group is 0.26. This goes up by 0.028 points in the case of death of father-in-law which is around 10 percentage points. Similarly, covering head and asking for permission to go to local clinic are common practices with only 0.36 not covering their head, and 0.14 not needing permission in the control group. These increase by 0.094 and 0.037 respectively in the absence of the father-in-law. It is interesting to note that if we consider membership and covering head as more personal behaviour, and needing permission as a household norm, we see that both are effected strongly by presence of father-in-law.

	Membership	Covering head	Permission
T1-death of FIL	0.028* (2.36)	0.094*** (4.66)	0.037* (2.34)
T2-death of MIL	-0.009 (-0.71)	0.011 (0.48)	0.008 (0.48)
Age of DIL	0.001 (1.79)	0.008*** (6.52)	0.004*** (4.56)
Education of DIL	0.052*** (6.21)	0.128*** (8.88)	0.011 (1.00)
No. of children	-0.003 (-0.93)	-0.008 (-1.31)	0.009 (1.85)
Household size	0.001 (0.33)	-0.020*** (-5.05)	-0.012*** (-3.93)
Age of hosuehold head	0.000 (1.01)	0.001 (1.50)	0.000 (0.57)
Edu of hosuehold head	0.020* (2.44)	-0.014 (-1.00)	0.009 (0.87)
Urban	-0.057*** (-6.30)	0.046** (2.92)	0.039** (3.17)
State	0.000*** (6.18)	0.001*** (20.65)	0.000*** (5.23)
Religion and caste	0.003 (1.12)	0.000 (0.08)	-0.005 (-1.52)
Household income	0.000 (0.84)	0.000** (3.08)	0.000 (1.22)
Household type	-0.001 (-0.56)	0.002 (0.97)	0.004* (2.20)
If death in last one year	0.037 (1.10)	0.001 (0.02)	-0.083 (-1.82)
Constant	-0.076** (-2.60)	-0.143** (-2.88)	-0.008 (-0.20)
Observations	5734	5741	5741

t statistics in parentheses

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

4.2 Household decision-making say of daughter-in-law

Similar to the results before, we find that the presence of the father-in-law effects the participation of the daughter-in-law in household decision-making. Again, there is differential effect of the presence of father-in-law and mother-in-law, though the presence of the mother-in-law seems to matter more here than in the behaviour of the daughter-in-law.

A staggeringly low percentage of daughter-in-law's report having a major say in their own fertility choice in the control group at 0.13. This goes up significantly with the death of the father-in-law by 0.033 points which is around 25 percentage points. For purchase of item, only 0.03 have a say in the control group meaning that the effect of the death of the father-in-law has nearly a 60 percentage point increase.

	Fertility	Marriage of child	Purchase of item
T1-death of FIL	0.033*	0.016	0.021**
	(2.12)	(1.78)	(2.60)
T2-death of MIL	0.027	0.012	0.003
	(1.57)	(1.22)	(0.35)
Age of DIL	0.000	0.000	0.001
	(0.51)	(0.67)	(1.38)
Education of DIL	0.016	0.000	0.001
	(1.41)	(0.07)	(0.14)
No. of children	0.002	-0.003	-0.001
	(0.42)	(-0.96)	(-0.50)
Household size	-0.004	0.000	-0.001
	(-1.25)	(0.04)	(-0.47)
Age of household head	0.001	0.000	0.000
	(0.96)	(1.35)	(1.46)
Edu of household head	0.027*	0.001	0.004
	(2.49)	(0.13)	(0.81)
Urban	0.063***	0.022**	0.006
	(5.19)	(3.23)	(1.00)
State	-0.000***	0.000*	0.000*
	(-6.49)	(2.17)	(2.31)
Religion and caste	-0.000	-0.001	0.003
	(-0.14)	(-0.55)	(1.73)
Household income	-0.000	-0.000	-0.000
	(-1.36)	(-0.06)	(-1.04)
Household type	0.001	0.001	-0.000
	(0.68)	(1.24)	(-0.04)
If death in last one year	-0.024	-0.005	-0.010
	(-0.53)	(-0.21)	(-0.43)
Constant	0.139***	-0.017	-0.033
	(3.61)	(-0.79)	(-1.66)
Observations	5741	5741	5741

t statistics in parentheses

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

4.3 Robustness check

A prevalent norm in India is that the men of the household eat before the women. In the control group in 0.56 percent households men do not eat before the women (ie. either men and women eat together or women eat before). In the table below we see that the effect of the death of the father-in-law is positive implying that more households men do not eat before women. While in the case of death of mother-in-law men tend to eat before women. This serves as a redimentary check of our strategy as we would expect that based on the gender of the in-law present the eating norm would shift in favour of that gender.

	Eating norm	
T1-death of FIL	0.0694**	(3.23)
T2-death of MIL	-0.0812***	(-3.48)
Age of DIL	0.00948***	(7.29)
Education of DIL	0.0922***	(5.98)
No. of children	-0.00437	(-0.65)
Household size	-0.0186***	(-4.41)
Age of household head	0.000181	(0.21)
Edu of household head	-0.0173	(-1.18)
Urban	0.0594***	(3.56)
State	0.000146***	(4.41)
Religion and caste	0.0171***	(4.04)
Household income	0.000000178***	(3.39)
Household type	0.00567*	(2.32)
If death in last one year	-0.0557	(-0.90)
Constant	0.222***	(4.18)
Observations	5741	

t statistics in parentheses

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

5 Discussion

5.1 Possible channels

The result we get, that the presence of the father-in-law disempowers the daughter-in-law is interestingly against the common perception of the mother-in-law having more control of the daughter-in-law. To understand why this could be happening we need to test hypothesis for various channels using the data, and possibly model the trade-off between presence of parent-in-law and empowerment using a theoretical model.

Let us assume that the household functions as a collective household with four decision-makers (father-in-law, mother-in-law, daughter-in-law, and son) each having their own preference and bargaining power.

$$U_H = \lambda_{FIL}U_{FIL} + \lambda_{MIL}U_{MIL} + \lambda_{DIL}U_{DIL} + \lambda_S U_S$$

where U_H is the utility of the household which is maximised given the preferences (U) and bargaining power (λ) of each member ².

From this simple exposition, we can already note some possible channels:

(1) Preferences: For example, the father-in-law could be a strong patriarch of the household who has a preference for customs like covering head or seeking permission to go to local clinic. (2) Bargaining power: it is natural to think that the death of a household member could effect how the bargaining power is distributed between the members. For example, in the data we see that the death of the father-in-law leads to change in decision-making say, while the death of the mother-in-law does not. (3) Interaction between the DIL and her husband: this could be expected to be an important factor determining the outcomes of the daughter-in-law. We do not yet note any change in reported interaction (like decision-making, dicussions, going out) between the daughter-in-law and her husband with the death of an in-law.

²Note: FIL=father-in-law, MIL=mother-in-law, DIL=daughter-in-law, and S=son

5.2 Plan ahead

There are a number of improvements and avenues to pursue with this research. To start with improving the specification and analysis of the current dependent variables. Looking at heterogenous effects could throw up some interesting findings and help us better understand the issue. Then to understand the channels explaining the findings is an essential step. With the theoretical model of household decision-making the aim is to see if an efficient outcome can be reached after the death of an in-law which includes a change in the empowerment outcome of the daughter-in-law. Thereby also disentangling preferences and bargaining power.

The other big area is to extend the dependent variables to labour choice and time-use which could possibly help explain some of the work force participation puzzles facing India. All this and many other variables are available in the dataset to be explored.

Finally, I will cement my identification strategy using the panel dataset to be released very soon in March 2015. This will allow me to use the occurrences of deaths between panels and household fixed-effects to better isolate the causal impact.

6 Conclusion

It is not very surprising to find women behaviour like covering head or asking for permission to visit local clinic in India. However, why is that? Is it a norm like the presence of an elder male or does the bargaining power of the women play a bigger role? Our evidence till now seems to point towards a story of strong patriarchal preferences. Why do such few women have a major say for their own fertility decision? Explaining such and many other striking disempowerment indicators need a closer study of the cultural norms at large, and household decision-making in particular. With this work in progress I begin to touch the surface a phenomenon which demands much attention with both the persistence of living with in-laws norm and women discrimination in India.

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