Are the Young and the Educated More Likely to Have "Love" than Arranged Marriage? A Study of Autonomy in Partner Choice in India

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Abstract

Using a unique data set (India Human Development Survey, 2005), this paper examines if self-arranged marriages (or love marriages) have replaced parent-arranged marriages as the dominant form of marriage in India. In particular, we examine (1) if women of recent cohorts (born around 1980) are less likely to report arranged marriages than women of older cohorts (born around 1956) and (2) if educated women are less likely to report arranged marriages than their less educated counterparts. We distinguish between four marriage types- parent arranged marriage with no participation, parent arranged marriage with participation, jointly arranged marriage and self- arranged marriage. Descriptive statistics indicate that parent-arranged marriages in which the daughter has no participation have declined 5 percentage points from the oldest to the youngest cohort. There has been an almost equal 5 percentage point increase in parent-arranged marriages in which daughters have participated. Share of jointly arranged and self-arranged marriages have remained somewhat similar across birth cohorts. Contrary to our hypothesis, the largest difference between educated and their less educated counterparts is not with respect to parent-arranged and self-arranged marriages rather it is between parent arranged marriages with no participation (22 percentage points) and parent arranged marriages with participation (36 percentage points). Results from multinomial regression analysis confirm that the trend towards parent arranged marriages with the daughter's participation has been persistent over time. Education is associated with greater autonomy in partner choice decision but it is most strongly associated with parent arranged marriages with participation.

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Introduction

Much of the traditional interest among demographers in the institution of marriage is around the age at marriage (Bongaarts 1978). Since for much of recorded history marriage has been the socially sanctioned institution in which majority of child bearing has taken place, age at marriage is a critical intermediate variable that impacts fertility levels. However, with increasing dissociation between marriage and procreation during the second demographic transition (Lesthaeghe and van de Kaa 1986), demographers have paid keener attention to it. In the context of developed countries, the emphasis on greater individuation and freedom of choice, along with gender revolution and rejection of traditional authority structures has led multitude of living arrangements that has been termed as "de-institutionalization" or the undermining of the traditional basis of marriage (Cherlin 2005, 2004).

Recent demographic transformations in East Asia also show similar changes in nuptial patterns- viz., postponement of marriage, decline in proportion of women getting married and premarital sexual relationships (Jones 2007; Rindfuss et al. 2004; Rindfuss, Guzzo and Morgan 2003). India has much in common with East Asian societies – declining fertility levels, rising education for both boys and girls, and growing integration into global economy. And yet, South Asia in general and India in particular is considered an outlier in terms of nuptial transition because of the persistence of parent arranged marriage systems and low divorce rates (Jones 2010) and low age at marriage for women (Andrist, Banerji and Desai 2013). In this paper, using national level data for India, we examine whether it is indeed the case that parent arranged

marriages in which young women have no say in the choice of their spouse is the dominant form of marriage arrangement.

Our contribution to the demographic literature is two folds: First, while social scientists contend that women, particularly younger women, do exercise agency in choice of partner in India, much of this literature is based on case studies or small survey data and are specific to a geographical area. Part of the problem surrounding the inability of demographers to study the institution of marriage in traditional and non- Western settings is that several individuals play a role in marriage decisions, which are difficult to tease out in a quantitative study (Desai and Andrist 2010). In this paper, we use data from the India Human Development Survey (2005), a nationally representative survey which combines socio-economic and demographic data with detailed information on marriage decision to map nationwide trends across birth cohorts in women's participation in the selection of their spouses. Two, while the role of education in enabling women to exercise choice in spouse selection has been well articulated theoretically and there are empirical evidences in the context of developing countries, including India; yet again, because of data limitations; it is difficult to draw inferences about national level trends. Our second contribution is, therefore, in quantifying to what extent trends in marriage patterns are associated with rising levels of education for women.

Marriage types in India: "Love" versus arranged marriages

In popular discourse, India is associated with parent- arranged marriages (Khandelwal 2009), wherein women typically have little to no participation in selecting their spouses; the decision of whom to marry is the complete prerogative of parents or family elders (Mathur 2007,

Fox 1975). Self-arranged marriages or what is commonly termed as "love"[1] marriages are contrasted to parent arranged marriages and are at the other end of the spectrum in terms of agency in partner choice. These are based on romantic love or attraction, in which no one other than the couples involved play a role in the decision to be married (Pashupati 2002).

The narrative of "pure" arranged and love marriages that are diametrically opposite to each other has, however, been challenged (Khandelwal 2009); especially as it relates to younger generations (Raj 2003, Seymour 1999) and to new marriage ideals (Uberoi 1998). Parental consent is an important aspect of the narrative of ideal "love" marriage; as for instance illustrated in Bollywood movies where young romantic couples are "typically placed in the parental unit rather than in isolation or even in opposition from it" (Khandelwal 2009: 597, Uberoi 1998). The complex processes of arranging a marriage includes a situation wherein a young person may introduce a potential partner for parents' approval or the parents may take the initiative and thereafter seek the approval of their child (Raj 2003, Seymour 1999). Selecting a spouse with involvement of parents serves as a convenient middle ground in a situation where young adults do not wish their parents to select their spouses for them but the cultural environment and societal norms do not support Western style dating either (Medora 2003, Lessinger 2002, Seymour 1999). In this scenario, unlike dating in the Western world, pre-screened young men and women are permitted a brief period of courtship during which they can decide if they want to get married to each other. Thus, this system modifies the traditional system of arranged marriage so that children can exercise some autonomy in the spouse selection process while for parents it has the advantage that they continue to exercise some control over the choice of spouse of their

1 The term "arranged" and "love" marriage are used both in popular parlance and in the academic social science literature (Mathur 2007). Here in order to emphasize the autonomous nature of "love" marriages, we have used the term self- arranged marriages in lieu of "love" marriages.

children. This modification of the traditional system of arranged marriage has not diluted even with the advent of matrimonial websites- while the young may be better versed in navigating new technology associated with the marriage websites, the family continues to play an important role in marriage arrangements (Kaur and Dhanda 2014).

The broad discussion above highlighting the role of young couples in selecting their spouse with parental approval has empirical support. Seymour (1999: 212- 14) in her thirty year- long study in Bhubneshwar, Odisha notes that young women had more maturity and a greater sense of agency in the choice of their spouse as compared to their grandmothers, who were married at much younger ages. A survey of youths in the city of Mumbai conducted in 2006-7 finds (Mathur 2007) that 71 percent of the married respondents (men and women) in the ages 23 to 30 reported that their spouse was selected by their parents or family, another 19 percent reported self- selecting their spouse with parental approval and 11 percent self- selecting their spouse without parental involvement. Single respondents in the same age ranges reported similar percentages of anticipated parental involvement- 60 percent, 26 percent and 13 percent respectively. Interestingly, the youth sample also reported that while almost all of their parents have had arranged marriages, comparatively fewer parents wanted their children (as in the youth in the sample) to have arranged marriages (75 to 85 percent). Studies have also highlighted regional differences in terms of "say" or extent of participation in choice of their marriage partners (Jejeebhoy and Sathar 2001). A 2001 survey of women about 800 currently married women in the ages 15- 39 years each in rural Uttar Pradesh and Tamil Nadu revealed that while in Uttar Pradesh 13 percent of Muslim women and 10 percent of Hindu women had a say in partner choice, the corresponding percentages for Tamil Nadu women are 32 percent and 42 percent respectively.

The above discussion indicates that (1) not all marriages in India are *purely* parent arranged; (2) that there are three broad types of marriage arrangements in India- parent arranged marriage, an intermediate category of semi- arranged marriage and love marriage; and (3) that the young do not prefer to have parent arranged marriages in which they do not have much role. However, the research cited above are either small survey or qualitative studies. There is to our knowledge *no prior research* that uses nationally representative data to map trends in partner choice at the country level. In this paper, we address this gap in the literature by using marriage data from the India Human Development Survey.

Education and agency in partner choice

The second key argument in this papers relates to the impact education has with respect to agency in partner choice, particularly for women. There are various ways in which education has a bearing on agency in partner choice. First and foremost, education of an individual operates through three distinct and *direct* channels to increase the chances of self-determined marriages- (1) education is a means through which a person acquires new ideas leading to greater individuation and reduced familial control; (2) education has an indirect impact on spouse choice by increasing the likelihood of wage employment and thereby encouraging a person to live away from parents and an opportunity to meet potential partners and (3) educational institutions at the secondary level or higher stages provides a setting for meeting potential mates (Malhotra 1991). Second, parental mechanism is a mediating mechanism too towards modifying the behavior of children (Caldwell 1982, Caldwell 1986, Yabiku 2005). Parents who are themselves educated are already exposed to Western ideas of individual choice. It is, hence, likely that educated parents themselves let their children have a say in selection of spouse (Shreshta 2012). Third, the mere presence of schools in a community modifies and changes peoples' behavior and attitudes (Axinn and Yabiku 2001, Beutel and Axinn 2002). Women living in communities with schooling

facilities are more likely to be exposed to Western ideals of agency in partner choice (Shreshta 2012).

Evidence from Indonesia suggests 19 percent of the rural women with no education had love matches. The comparable proportion for women with secondary education is 47.8 percent. In urban areas, the proportions of love marriages are 25 percent with no education and 44 percent with secondary education (Malhotra 1991). In Vietnam, for an individual with eight years of schooling, an additional year of schooling reduces the probability of arranged marriage by about 14 percentage points. Furthermore, the impact of education is stronger for women than men (Emran, Maret-Rakotondrazaka and Smith 2013).

However, in the South Asian context, results do not support the hypothesis of a positive correlation between education and autonomy in partner choice. With distance to school as a measure of proximity to school; results using Chitwan Valley Family Survey indicate that further the distance from school, higher are the chances that a woman has a say in partner choice. Likewise, the more educated a father, the lesser say a daughter has in the choice of her spouse. On the other hand, there is no statistically significant relationship between a woman's education and the say she has in her marriage (Shreshta 2012). Evidence from India quantifying the relationship between education and say in partner choice is limited and mixed. In a study based in Mumbai (Mathur 2007), college education *per se* does not have an impact on marriage arrangement outcomes as compared to high school education for men. Instead, what appears important is the difference in educational attainment between fathers and sons. Parents prefer arranged marriage for a better educated son (than themselves) and the sons themselves prefer and are likely to have a "love" marriage. College educated women are less likely to have arranged

marriages and there does not appear any significant conflict with parental preferences in this respect.

Research question and hypotheses

The question that we ask in our paper is as follows: What are the long term trends in marriage arrangements in India? We hypothesize that women of recent cohorts (born around 1980) are exercising greater agency in choice of their partner than women of older cohorts (born around 1956). Our second hypothesis is that women who are more educated are likely to exercise greater agency than compared to less educated women.

Data and Methods

To explore marriage trends in partner selection by birth cohort and level of education, we use the India Human Development Survey (2005), which is the only nationally representative data to contain detailed information on marriage processes. India Human Development Survey (henceforth, IHDS) is a survey of 41,554 households across 33 states in India (the exception are the island states of Andaman and Nicobar & Lakshadweep). Of a total of 602 districts in India, 383 were included in the sample. The number of villages in the sample is 1,504 and the number of urban blocks is 970. The sampling procedure adopted in the survey aimed to ensure a nationally representative sample. The districts were selected using stratified random sampling to represent a range of socio-economic conditions. Villages and urban centers and households were selected using a cluster sampling technique.

The survey asks ever-married women in the age group of 15-49 years (N=33,481) a wide range of questions about education, health, income and consumption patterns, and gender relations and most importantly for the purposes of this paper, questions on partner selection.

The key variable of interest is marriage type. Ever-married women in the age group of 15-49 years were asked in the survey "Who chose your husband?" The responses are divided into 4 categories:

1. arranged by the respondent herself;
2. arranged by the respondent and parents together;
3. parents arranged marriages;
4. a miscellaneous category of "other," which refers to cases where extended family members or members outside the family played a role in the choice of spouse.

For the purpose of this analysis, the "others" category is combined with parent-arranged marriages.

Women who had parent-arranged marriages or their marriages were arranged by extended family members (i.e., whose marriages were categorized as "others") were further asked "Did you have any say in choosing him?" to which they responded either "yes" or "no". Based on answers to these two questions, we categorized marriages into four types:

1. Parent-arranged marriages with no participation of the (woman) respondent,
2. Parent-arranged marriages with participation of the (woman) respondent,
3. Jointly-determined marriages and
4. Self-arranged marriages.

The focus of this paper is on women in their *first* marriages occurring before age 25; women who have married more than once are excluded from the analysis. A very small number- only 371 out of the 33,481 ever married women- are excluded based on the criterion of being married more than once.

We also focus on first marriages occurring between the ages 15-24 and women who are between the ages 25- 49. Because we are using retrospective marriage data, it means we can observe only those who have married at younger ages in recent cohorts. Therefore, in order to discern the long term trends towards self-arranged marriages we *must* restrict the analysis to women who are between the ages 25 to 49 at the time of the study and also to women who marry between the ages 15-24. Since nearly 95 percent of the Indian women are married by the time they reach 25, we lose only small number of women from the study sample. The final sample size with *all* the additional restrictions is 21, 7452.

The distribution of marriage types for women between ages 25 to 49 entering first marriage at ages 15-24 is: parent-arranged with no participation from the respondents (35 percent), parent-arranged with participation in the choice of the partner (23 percent), jointly-determined marriages (36 percent) and self-arranged marriages (5 percent). The distribution confirms that marriage arrangements in India do not fall into neat binary categories of "arranged" and "love" and instead are best viewed as a process (Meekers 1992) that involves a range of participation from the prospective couples.

Since the dependent variable is an ordinal variable- marriage type is classified in terms of participation in marriage choice with the extent of participation increasing from parent-arranged marriage with no participation (lowest) to self- arranged marriage (highest) and parent arranged marriage with participation of the respondent and jointly arranged marriage as intermediate categories; it is amenable to ordinal regression analysis3. However, we present here the results

2 There are 33, 481 ever women in the age group of 15- 49 years. The first restriction of *only* first marriage excludes 371 women. The second restriction of current age restriction between 25- 49 excludes 5810 women. The third restriction of women whose marriage age is not between 15- 24 excludes another 5555 women. As a result, we arrive at the analytical sample size of 21, 745 women. A total of 5, 437 women are currently married but below the age of 25. Of these women, 4, 687 got married between the ages of 15- 24 years.
3 Ordinal regression results are presented in the appendix.

from multinomial regression analysis. The rationale behind using multinomial instead of ordinal regression analysis stems from the descriptive analysis below (Table 1). It seems that the biggest percentage point change in terms of marriage type is a decline in parent arranged marriage with no participation of the respondent across birth cohorts and years of education. In contrast, we find only a small increase in the proportion of self- arranged marriage; instead the decline in percentage point in parent arranged marriage with no participation of the respondent is matched by an almost concomitant increase in parent arranged marriage with participation of the (woman) respondent. Therefore, it seems relevant to assess change in the log odds of each category of marriage type- self- arranged marriage, jointly arranged marriage and parent arranged marriage with participation of the respondent relative to the base category- parent arranged marriage with no participation of the woman respondent. We have three sets of multinomial coefficients for each of the regression models (Model1 through Model 4) that give the log odds of reporting a parent arranged marriage with participation as opposed to parent arranged marriage with no participation of the respondent, the log odds of reporting a marriage jointly determined by the respondent and her parents as opposed to a parent arranged marriage with no participation of the respondent and finally, the log odds of reporting a self-determined marriage as opposed to parent arranged marriage with no participation of the respondent.

We begin with a reduced model- Model 1 with only the main coefficient of interest - birth cohorts and a dichotomous control for each state in India. Model 1 tests our first hypothesis of whether there has been a shift to increased autonomy in partner choice across the different birth cohorts. Women in the study sample are divided into the following *five* birth cohorts from the youngest to the oldest: 1976-80, 1971-75, 1966-70, 1961-65 and 1956-60 (reference category). So, as per hypothesis I, we predict that women born in oldest birth cohort-1956- 60 are least

likely to report "love" marriage, and that the proportion of "love" marriages increases with each successive cohort and is highest for the youngest birth cohort- 1976- 80.

Data from IHDS (2005) shows that there has been improvement in women's education level between the oldest and the youngest cohort. The proportion of illiterate in the oldest birth cohorts (1956-60 and 1961-65) was around 50 percent. In comparison, the proportion of illiterates in the youngest birth cohort (1976-80) is 35 percent. The proportion of college graduates have increased from 5 percent in the oldest to around 6 percent in the youngest cohort. It follows that if educational attainment of women has increased over time, women born in younger than older cohorts will have greater say in choosing their spouse. Hence, it is necessary to examine to what extent the increase in the proportion of love marriages across birth cohorts is on account of increasing levels of education.

Model 2 adds years of education to Model 1. This model would explain the extent to which the shift in increased autonomy in partner choice (as shown in Model 1) is explained by years of education. Model 2, thus, tests our second hypothesis.

The level of education of a woman in the survey is measured at the time of survey as the highest years of education completed. It is a continuous variable that ranges from 0 years (implying illiteracy) to 15 years (implying college or higher academic degree). Following our second hypothesis, we predict women with more years of education are more likely to report "love" marriages.

Model 3 adds control for background characteristics of the respondent. It adds to Model 2 control for religion/caste, current rural or urban residence and English speaking ability. It will demonstrate to what extent greater autonomy in choice of marriage partner across birth cohorts is explained by years of education, net of additional variables in Model 3.

Cultural norms pertaining to marriage are more favorable towards love marriages in tribal communities than mainstream Hindu and other religious communities. Tribal women are considered to enjoy higher social status than their non-tribal counterparts as reflected, for instance, in their participation in agricultural activities alongside men and decision making bodies and in better sex ratios implying lower levels of discrimination against daughters. Ethnographic accounts indicate that marriages in tribal societies are choice based and women have greater freedom in personal spheres as pre-marital sex, divorce and remarriage (Xaxa 2004). In contrast, the cultural context surrounding Hindu and other minority groups are apprehensive of their children having a marriage other than arranged (Medora 2003). Even among Hindus, women belonging to "lower" are known to enjoy greater freedom than "upper" caste Hindus (Desai 1994).

The IHDS uses an eight- fold classification of caste/ religious background: Brahmins (reference category), OBC (Other Backward Castes), SC (Scheduled Castes), ST (Scheduled Tribes), Other Upper Castes, Muslims, Christians and Other Minority Religions. This eight- fold classification allows for persons from religious groups other than Hinduism to identify with any caste groups, if they so wish; thus this approach is useful because it takes into account that caste as a mechanism of social organization exists in other religions as well. We hypothesize that the incidence of self- arranged marriage is highest among respondent belonging to scheduled tribe communities and lowest among the "higher"/ "upper" castes, including Brahmins, who are traditionally considered to be at the top of the caste hierarchy.

Urbanization is a facilitator of individual modernity, among other things, through the linkages it provides to job opportunities in the modern economic sector (Fox 1975). Jobs in the modern economy (such as wage labor) tend to be located in urban settings and are associated

with migration of young adults from native villages to urban areas and thereby, weakening parental control over them (Goode 1963). Parental control on children is a necessary condition if they have to exercise some say over the choice of spouse of their son/daughter. Second, exposure to Western cultural influences through the mass media is often greatest in urban environments. Medora (2003) argues that this exposure weakens the traditional norms of arranged marriages suggesting that women living in urban areas are less likely to report arranged marriages than women in rural areas.

Women in the analytic sample are divided into living in rural (reference category) or urban areas. Urban areas are further divided into metropolitan cities, comprising of Delhi, Mumbai, Kolkata, Chennai, Bangalore and Hyderabad and "other" urban areas. We predict higher likelihood of self- arranged marriages in metro areas, followed by other urban areas and rural villages.

Women in the sample are divided into three categories- those speaking English fluently, those who are somewhat fluent and those who are not fluent at all (reference category) to capture the differentiating role that English language skills play in exercising of autonomy in partner choice (Derné 2003). Indians, particularly affluent young Indians in urban areas, with college degrees and English language skills are well integrated with global consumer economy that includes the Western media and are most likely to experiment with individual choices, including the agency to choose own spouse. In contrast, those who reside in rural areas, are less affluent and do not have English language skills or similar levels of educational attainment. Even when they consume Western media, they absorb only those aspects that reinforce norms of male authority while rejecting messages that challenge arranged marriage and other restrictions on women and traditional Indian family arrangements. Though research is less conclusive, the

contrast applies to women as well. We hypothesize that women who speak English fluently are have the highest reported percentage of self- arranged marriages, followed by those who are somewhat fluent and those who are not fluent at all.

Since educational improvements are disproportionately located in southern India where there is also evidence of less restrictive gender norms (Drèze and Sen 2001; Dyson and Moore 1983, Jejeebhoy and Sathar 2001), the models also controls for current state residence. We group states into 6 distinct regional categories- states in Northern India, states in central plains, states in North East India, states in East India, states in West India and southern states4. The rationale behind classifying states in central plains as distinct from rest of India is that they are among the poorest states in India as well as perform poorly in terms of development indicators (Drèze and Sen 2001). We anticipate that a greater proportion of women in southern states vis-à-vis northern and central plain states report their marriages as self- arranged. The proportion of women reporting self- arranged marriages is expected to be even lower for central plain states as compared to other states in North India. We also expect North- eastern states to report a high percentage of autonomy in partner choice because a large proportion of the Scheduled tribe population is located in these states.

Age at marriage is correlated with marriage type- among women who marry at younger ages, the likelihood of parent-arranged marriages is higher and conversely, it is lower for women who marry at older ages. The final model- Model 4, therefore, adds a control for age at marriage. Descriptive data indicates that there has been a marginal increase in the age at marriage from the

4 North Indian states comprises of Jammu & Kashmir, Himachal Pradesh, Punjab, Chandigarh, Uttaranchal, Haryana and Delhi. States in central plains are Bihar, Madhya Pradesh, Rajasthan and Uttar Pradesh (also described using the acronym BIMARU). North East India consists of Sikkim, Arunachal Pradesh, Nagaland, Manipur, Mizoram, Tripura, Meghalaya and Assam. Eastern states are West Bengal, Jharkhand, Orissa and Chhattisgarh. States in West India are Gujarat, Daman and Diu, Dadar and Nagar Haveli and Maharashtra. Southern India states are Andhra Pradesh, Karnataka, Goa, Kerala, Tamil Nadu and Puducherry.

youngest to the oldest cohort. Around a third of women in all ages enter first marriage at ages 15-16 and majority across all birth cohorts are married by the time they are 20.

Results

Table 1 shows the weighted distribution of responses for the overall sample and by birth cohorts and selected characteristics of women. The most common responses were that the marriage was jointly arranged, or arranged by the parents with no participation of the woman, with 36 and 35 percent of all responses respectively. About 23 percent of wives reported that their parents chose the husband with their participation, and only 5 percent of women reported a fully self-arranged marriage.

[Table 1: Distribution of marriage type for women (25-49) entering first marriage at ages 15-24, by selected characteristics here]

We also observe trends in marriage types across birth cohorts from women born between 1956 and 1960 to women born between 1976 and 1980, a span of about two decades. As might be expected, the proportion of women who report that their parents arranged their marriage without their participation has declined from 38.39 percent to 33.23 percent, a drop of just over five percentage points. The greatest increase in marriage type has been for women who report that their parents arranged their marriage *with* their participation, an increase of over five percentage points from 19.39 percent to 25 percent. Hence, the greatest shift in marriage types has been within the category of parent arranged marriages, as more women report having participated in the choice of their husband. In contrast, there was little movement to self-arranged marriages across this time period; an increase from around 4.48 percent to 6.25 percent or less than 2 percentage points. Surprisingly, jointly arranged marriages *decreased* in prevalence across this time span from 37.74 percent to 35.53 percent.

Comparisons across education groups in Table 1 confirm that the greater a woman's education, the more likely she is to report autonomy or participation in her marriage choice. Compared to women of lower education levels, women of higher education levels are less likely to report parent arranged marriages without their participation and more likely to report all other marriage types. Again, we find the surprising pattern where the highest education levels are not associated so much with full autonomy in marriage choice as with having participated in the selection of a potential husband along with their parents. For example, college-educated women are 22 percentage points more likely to report a parent-arranged marriage with participation than are women with no education (37.41 percent versus 15.68 percent respectively). The corresponding education differences are only 3 percentage points for self-arranged marriages and 11 percentage points for jointly arranged marriages.

Table 1 also shows comparisons across other characteristics of women, such as age at marriage, residence rural, metro or other urban areas and fluency in English. The greatest group differences are always in parent-arranged marriages without participation. Around 41 percent of women in rural areas, for example, reported parent arranged marriages without their participation. This percent is only 20 percent for women in metropolitan cities. In terms of age at marriage, the greatest offsetting differences are in the category of jointly arranged marriages while in terms of current residence and English fluency, the category is parent arranged marriages with the woman's participation.

Among all caste and religious background, Muslims are least likely to report self-arranged marriages and most likely to report parent arranged marriages without participation of the woman. Scheduled tribes report the highest percentage of self- arranged marriage and the lowest percentage for parent arranged marriage without the woman's participation is among

Christians. As we had anticipated, Brahmins and other "high" castes have a lower percentage of self- arranged marriages and a higher percentage of marriages that are parent arranged without any participation of the daughter than Scheduled tribes.

Lastly, states in North-Eastern part of India report higher percentage of marriages as self-arranged (around 19 percent) while the percentages are lowest for BIMARU and states in North India, about 2 percent respectively5.

The descriptive analyses indicate educational differences and other group differences in marriage types, along with shifting trends in marriage types. They also show a pattern for education and other covariates in which the greatest differences are in the level of participation within parent arranged marriages. In contrast, there are fewer educational differences and much weaker trends in whether the parents or the daughter arranged the marriage. We examine these findings further using multivariate multinomial regression analysis for which the results are presented in Table 2. In all models, the first column of coefficients (A) compares the predicted log odds of a parent arranged marriage where the woman participated in the spouse choice versus a parent arranged marriage where the woman had no such participation. The second column of coefficients (B) compares the predicted log odds of a jointly arranged marriage versus a parent arranged marriage without participation, and the third column (C) compares the predicted log odds of a self- arranged marriage versus a parent arranged marriage without participation.

[Table 2: Results of Multinomial Regression Models here]

Model 1 is a simple model with estimates for successive birth cohorts. The coefficient of -0.54 for the 1956-60 cohort in Model 1A indicates that the log odds of a parent-arranged marriage with daughter's participation (as compared to a parent-arranged marriage without

5 Further disaggregation of marriage arrangements by birth cohorts for each caste and region shows some interesting trends; though they are hard to interpret because cell sizes become small in *many* instances.

daughter's participation) are 0.54 times lower for women born in 1956 – 60 compared to women born in 1976 – 80. We find similar trends with respect to women in recent cohorts likely to report self- arranged marriages. The log odds of reporting "love" marriages is 0.57 times lower for women born in 1956- 60 as compared to women in born in 1976- 80. Statistically significant and negative coefficients for all other birth cohorts in Model 1A (barring the birth cohort of 1971- 75) and Model 1C show that this trend toward parent-arranged marriages with the daughter's participation and self- arranged marriages has been persistent over time. Model 1B indicates a statistically significant trend across birth cohorts (except for those born between 1971- 75) with respect to jointly arranged marriages versus parent arranged marriage with no participation. Thus, the cohort coefficients from Model 1A and Model 1C confirm a statistically significant shift in marriage type across birth cohorts. In particular, it indicates increasing odds that a woman born in recent cohorts will have a parent arranged marriage with her participation in it or a self- arranged marriage as opposed to a parent arranged marriage without her participation. It is also likely that because parent-arranged marriages with daughter's participation currently outnumber self-arranged marriages by more than five to one, marriages that are primarily parent arranged but in which the woman participates in the selection of her spouse rather than self- selects the spouse will be the most important distinguishing criterion for marriage types in the near future.

The three columns for Model 2 add controls for years of education. Our critical interest is in the coefficients for education, which show a statistically significant association with each marriage type. With respect to Model 2C, the size of the cohort coefficients are smaller than in Model 1C. The cohort coefficient for the 1966 – 1970 in Model 2C is -0.43, which is smaller than the corresponding coefficients in Model 1C of -0.57. When we compare birth coefficients in

Models 1A and 1B with their counterparts in Models 2A and 2B, we again find that the size of the coefficients are smaller and/ or they are no longer significant. For example, the coefficient for women born between the years 1966- 70 in Model 1B is – 0.09 and this is significant at 0.1 level. When we add years of education in the model, the coefficient in Model 2B is 0.02 and is no longer statistically significant6.

When we add background characteristics in Model 3, we find that the associated coefficients are significant and have the expected signs. Residency in urban areas and ability to speak English fluently (particularly ability to speak English fluently) increases the likelihood of a woman's greater participation in marriage decisions. With respect to caste and religious background, the results indicate that Scheduled Caste and Scheduled Tribe women are more likely to report participation in marriage decisions than the reference caste group- Brahmins. The region dummies confirm that women in North- East India have a greater autonomy in marriage decisions as compared to the north Indian states. Model 4 is the full model in which we add woman's age at marriage. As predicted the log odds of participating in marriage decision process increases with age.

The estimates for Models 3A, 3B, and 3C and Models 4A, 4B, 4C include covariates that are interesting but are a potential problem for causal interpretation7. Residence and English

6 In separate analysis (not shown here), we interact years of education with birth cohorts. The results indicate that education increases the likelihood of parent arranged marriage with participation versus no participation for all birth cohorts as compared to the reference birth cohort of 1976- 80. This is in contrast to jointly determined marriages (vis-à-vis parent arranged marriages with no participation), where years of education reduces the chances of such marriages across birth cohorts when compared to the birth cohort of 1976- 80. As far as self- arranged marriages are concerned, years of education increase the likelihood of such marriages only for the cohort of 1971- 75; for all other birth cohorts the coefficient is negative.

7 Education is measured at the time of interview. The institution of gauna or the customary gap between age at marriage and age at cohabitation is used by young women, particularly those who have been married young to pursue their own education (Andrist, Banerji and Desai 2013). So, it is plausible though extremely unlikely- given the sample restriction of current age between 25- 49 years; that some women in our sample were pursuing their education. Second, even if some women in the sample are currently pursuing their education, the difference between mean age at marriage and mean age at cohabitation is at most 1 year (Table 5.3; Andrist, Banerji and Desai 2013) to

fluency are measured at the time of the interview rather than at the time of the marriage, so the dependent variable (marriage type) precedes the independent variables for these coefficients and makes causal interpretations problematic. Because Indian marriages are typically patrilocal, that is women leave their parents' home after marriage and join their husband's family in a different village or city, current residence does not accurately capture exposure to modern ideas prior to marriage. English fluency is too measured at the time of marriage; so it is possible that some fluency is gained or lost post marriage. Similarly, given that marriage choice generally involves both who and when a woman marries, it is not clear how to interpret the predictors of a marriage type *net* of the woman's age at marriage.

With the caveats given above, the results of Models 3 and Models 4 do not change the main story. In Model 4, the coefficients for older age at marriage, urban residence, and English fluency all have the expected (positive) signs; and birth cohorts and education coefficient retain their expected signs8.

suggest that our measurement of years of education at the time of interview in any way underestimates the educational attainment of women in our analytical sample.

8 We carried out tests on the full model to see if the assumption of independence of irrelevant alternatives (IIA) is violated. The results (not shown here) indicate that the condition of IIA is not met when we exclude jointly arranged and self- arranged marriages from the full model. However, statisticians also contend that no formal tests can accurately test for the violation of IIA (Long and Freese2006). Instead the emphasis is to ensure that the alternatives are plausibly distinct and weighed independently by the decision maker (McFadden 1973). Since the four categories of marriage types meet these twin criteria, we use the present classification of marriage types.

Discussion

Our descriptive results and multinomial analyses confirm our main hypotheses on the associations between birth cohort and agency in partner choice as well as between levels of education and the extent of women's participation in marriage partner selection, but also suggest some new interpretations. We had predicted a trend towards greater autonomy in partner choice in marriages, mediated by rising women's education. Our results support this contention; parent arranged marriages without daughter's participation have declined across a twenty-year span of marriages, which is explained by our statistical control for years of women's education.

Our results also show a pattern that has already been noted in ethnographic accounts and smaller surveys. We found that the greatest trend, and the greatest difference between college educated women and their less educated counterparts, was *not* in the extent to which daughters arranged their own marriages or even shared the marriage search jointly with their parents. Instead, we found that parents in India are still doing the major share of arranging marriages (including many families where the daughters have college degrees), but that daughters' autonomy is being expressed in their increased power of participation in a parent arranged marriage set up.

Self- arranged marriage *necessarily* entails greater contact between potential couples prior to the decision to be married. A key reason for parent arranged marriages with participation emerging as the most common form of marriage arrangement is, therefore, that it is best suited for a cultural context that does not have a dating culture of the kind existing in the West, which requires that it be socially acceptable for the young to "romantically link up with each other without any kind of adult supervision in a setting that is not defined directly as leading to marriage" and to "try out" different potential mates before deciding on a marriage partner

(Pashupati 2002; Xiaohe and Whyte 1990: 716). There is indirect evidence that a Western style dating culture is not widely prevalent in the country. The IHDS did not ask women respondents if they ever had considered marrying another person besides their current husbands but we have information on how long they had known their husbands prior to their eventual marriage. If women exercise some or complete discretion in the choice of her marriage partner, it is likely that they would have known their eventual husbands prior to their marriage. However, even though as expected those with self-arranged marriages were most likely to have known their husbands for more than a year (25 percent) and those who had parent arranged marriage with no participation were most likely to meet their husband on the wedding day (86 percent), a majority of women across all marriage types were likely to meet their husband on the day of wedding or knew their husbands for less than a month or year.

[Table 3: Distribution of period of time knew the husband before marriage for women (25-49 years) entering first marriage at ages 15-24, by type of marriage about here]

What is most surprising that even among women who claim to have a self-arranged marriage, a significant proportion had no real contact with their husbands prior to their marriage and substantial proportion met husbands only on or around the wedding day. This suggests that the "self-arranged" marriage for these individuals involves developing an interest in a particular mate but then leaving actual negotiations and arrangements to family members or that even though these women self- reported their marriage as "self- arranged", they did not have one in terms of how it is conceptualized in the West. Indeed, if the time women had known their husbands prior to marriage is used as a criterion for conceptualizing marriage types, many more marriages would be categorized as "parent arranged marriage with participation of the

respondent" or a "jointly arranged" marriage (and in contrast to what has been self- reported as "self- arranged" marriage); thereby only strengthening the argument that there is no strong trend towards self- arranged marriages.

To conclude then, a shift towards parent- arranged marriage with participation of the daughter away from the traditional parent arranged marriage indicates that the latter is being suitably modified to keep up with changing times and therefore, it can be said India is undergoing a process of nuptial transition on its own terms. That said, the picture presented here is incomplete since we have not presented the perspective of a prospective groom as well as of parents. Researchers have highlighted the complex picture that comes to fore when parental perspectives along with that of their children are taken into consideration (Dasgupta, Maitra and Mukherjee 2008, Mathur 2007, Malhotra 1991). Yet again these results cannot be generalized for the country as a whole since they are specific to a city or region. In order to discern the "true" trends in marriage arrangements, we need to be able to place all these often competing perspectives together using data that is representative at the national level. We should be able to address this with the next round of IHDS survey, which has incorporated questions that enable us to capture the complex family dynamics that play into marriage decisions. Second, we have not discussed here the implications of these marriage trends in terms of marriage customs and practices (dowry, village exogamy and *gauna*, for example), women's autonomy within and outside the household (see, for example, Banerji and Vanneman 2009), intergenerational relations and care of the elderly. These are areas of future research.

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Table 1: Distribution of marriage type for women (25-49) entering first marriage at ages 15-24, by selected characteristics

	Self- arranged marriages	Jointly arranged marriages	Parent arranged marriages with participation	Parent arranged marriages with no participation
Full cohort	4.94	36.52	23.18	35.36
Birth cohort				
1956-60	4.48	37.74	19.39	38.39
1961-65	4.64	36.57	22.24	36.55
1966-70	4.40	37.27	22.23	36.09
1971-75	4.67	36.08	25.01	34.24
1976-80	6.25	35.53	25.00	33.23
Difference: Latest to earliest cohort	1.77	-2.21	5.61	-5.16
Levels of education				
Illiterate	4.1	33.31	15.68	46.91
Primary	4.79	36.55	24.33	34.33
Upper primary	4.45	38.24	28.24	29.07
Secondary	6.57	39.68	34.05	19.69
Senior secondary	7.24	43.31	31.74	17.71
College	7.45	44.32	37.41	10.83
Difference: Highest to lowest education	3.35	11.01	21.73	-36.08
Age at (current first) marriage				
15-16 years	4.36	29.6	19.64	46.4
17-18 years	4.04	38.62	21.81	35.53
19-20 years	5.7	41.4	25.56	27.34
21-22 years	6.6	39.35	30.46	23.59
23-24 years	8.59	44.36	32.71	14.34
Difference: Oldest to youngest marriage age	4.23	14.76	13.07	-32.06
Current residence				
Rural	5.07	33.57	20.18	41.18
Other urban areas	5.07	39.59	27.62	27.72
Metro areas	4.05	45.75	30.12	20.08
Difference: Metro to rural areas	-1.02	12.18	9.94	-21.1
English speaking ability				
None	4.62	35.57	21.49	38.33
Little fluent	6.78	40.28	33.85	19.09
Fluent	10.04	50.22	30.18	9.56
Difference: Fluent to no English	5.42	14.65	8.69	-28.77
Religion/Caste				
Brahmins	3.24	34.29	25.05	37.42
Other "high" castes	4.81	36.32	31.04	27.84
Other backward castes	4.2	36.57	21.07	38.17
Scheduled castes	5.67	36.67	20.64	37.02
Scheduled tribes	11.33	37.75	17.22	33.7
Muslims	2.93	34.5	22.9	39.67
Sikh, Jain	3.67	36.6	28.83	30.89
Christian	6.58	52.36	34.89	6.17
Difference: Brahmins - Scheduled tribes	-8.09	-3.46	7.83	3.72
States				
BIMARU states	1.88	29.52	26.1	42.51
Northern India	2.00	23.24	7.17	67.6
North East India	18.85	43.49	28.62	9.04
Western India	6.36	27.85	24.71	41.08
Southern India	5.38	49.02	24.71	20.89
Difference: BIMARU states to North East India	-16.85	-20.25	-21.45	58.56

Table 2: Results of multinominal regression models

	Model 1			Model 2			Model 3			Model 4		
	A	**B**	**C**	**A**	**B**	**C**	A	**B**	**C**	**A**	**B**	**C**
Birth cohort (*Reference group 1976- 80*)												
1971-75	-0.05 (0.06)	-0.03 (0.05)	-0.32*** (0.10)	0.03 (0.06)	0.03 (0.05)	-0.26*** (0.1)	0.01 (0.06)	0.01 (0.05)	-0.27*** (0.1)	0.03 (0.06)	0.03 (0.05)	-0.25** (0.10)
1966-70	-0.30*** (0.06)	-0.09* (0.05)	-0.49*** (0.10)	-0.12** (0.06)	0.02 (0.05)	-0.35*** (0.1)	-0.17*** (0.06)	-0.02 (0.05)	-0.39*** (0.1)	-0.16*** (0.06)	-0.01 (0.05)	-0.38*** (0.10)
1961-65	-0.34*** (0.06)	-0.15*** (0.06)	-0.49*** (0.11)	-0.14** (0.07)	-0.04 (0.06)	-0.34*** (0.11)	-0.20*** (0.07)	-0.09 (0.06)	-0.33*** (0.11)	-0.20*** (0.07)	-0.09 (0.06)	-0.33*** (0.11)
1956-60	-0.54*** (0.07)	-0.20*** (0.06)	-0.57*** (0.12)	-0.34*** (0.07)	-0.09 (0.06)	-0.43*** (0.12)	-0.40*** (0.08)	-0.13** (0.06)	-0.44*** (0.12)	-0.39*** (0.08)	-0.13** (0.06)	-0.44*** (0.12)
Age at marriage										0.04*** (0.01)	0.07*** (0.01)	0.07*** (0.02)
Years of education				0.13*** (0.00)	0.08*** (0.00)	0.10*** (0.01)	0.10*** (0.01)	0.05*** (0.01)	0.07*** (0.01)	0.10*** (0.01)	0.05*** (0.01)	0.06*** (0.01)
English speaking ability (*Reference group: Can't speak English*)												
Little fluent							0.23*** (0.08)	0.31*** (0.08)	0.61*** (0.13)	0.20** (0.08)	0.26*** (0.08)	0.56*** (0.13)
Fluent							0.37* (0.2)	0.93*** (0.19)	1.47*** (0.25)	0.32 (0.2)	0.84*** (0.19)	1.37*** (0.25)
Current residence (*Reference category: Rural areas*)												
Other urban areas							0.29*** (0.05)	0.28*** (0.05)	0.17* (0.09)	0.28*** (0.05)	0.26*** (0.05)	0.16* (0.09)
Metro areas							0.47*** (0.07)	0.59*** (0.06)	0.03 (0.12)	0.46*** (0.07)	0.56*** (0.06)	0.00 (0.12)
Religion/Caste (*Reference caste: Brahmins***)**												
Other "high" castes							0.16* (0.1)	-0.06 (0.09)	0.34* (0.2)	0.16 (0.1)	-0.07 (0.09)	0.34* (0.2)
Other backward castes							-0.45*** (0.1)	-0.28*** (0.09)	-0.02 (0.19)	-0.45*** (0.1)	-0.28*** (0.09)	-0.02 (0.2)
Scheduled castes							-0.14 (0.1)	0.01 (0.09)	0.65*** (0.2)	-0.14 (0.1)	0.02 (0.09)	0.67*** (0.2)
Scheduled tribes							-0.14 (0.12)	0.20* (0.11)	1.03*** (0.21)	-0.15 (0.12)	0.18* (0.11)	1.01*** (0.21)
Muslims							0.04 (0.11)	-0.01 (0.1)	-0.2 (0.23)	0.03 (0.11)	-0.02 (0.1)	-0.2 (0.23)
Sikh, Jain							0.23 (0.19)	0.18 (0.18)	0.56 (0.39)	0.2 (0.19)	0.14 (0.18)	0.51 (0.39)
Christian							0.37 (0.26)	0.61** (0.25)	0.91** (0.36)	0.3 (0.26)	0.49** (0.25)	0.80** (0.36)
Regions (*Reference category: Northern India*)												
BIMARU states	-1.79*** (0.08)	-0.72*** (0.06)	-0.41** (0.19)	-1.59*** (0.08)	-0.60*** (0.06)	-0.26 (0.19)	-1.44*** (0.08)	-0.45*** (0.07)	-0.09 (0.19)	-1.40*** (0.08)	-0.38*** (0.07)	-0.01 (0.20)
North- East India	1.63*** (0.15)	1.94*** (0.14)	3.85*** (0.22)	1.71*** (0.15)	1.97*** (0.14)	3.90*** (0.22)	1.89*** (0.15)	2.12*** (0.14)	3.98*** (0.23)	1.87*** (0.15)	2.08*** (0.14)	3.94*** (0.23)
Eastern India	-0.02 (0.07)	-0.03 (0.06)	1.27*** (0.18)	0.13* (0.07)	0.06 (0.07)	1.38*** (0.18)	0.24*** (0.07)	0.13* (0.07)	1.47*** (0.18)	0.25*** (0.07)	0.16** (0.07)	1.50*** (0.18)
Western India	0.63*** (0.07)	1.20*** (0.07)	1.76*** (0.18)	0.61*** (0.07)	1.18*** (0.07)	1.74*** (0.18)	0.71*** (0.08)	1.30*** (0.07)	1.88*** (0.19)	0.73*** (0.08)	1.33*** (0.07)	1.91*** (0.19)
Southern India	1.56*** (0.07)	1.79*** (0.07)	2.43*** (0.18)	1.64*** (0.07)	1.83*** (0.07)	2.49*** (0.18)	1.83*** (0.08)	1.95*** (0.07)	2.65*** (0.18)	1.85*** (0.08)	1.98*** (0.07)	2.68*** (0.18)

A: With no participation v. participation, B: With no participation v. joint determination, C: With no participation v. self- arranged.

Table 3: Distribution of period of time knew the husband before marriage for women (25-49 years) entering first marriage at ages 15-24, by type of marriage

Period of time	Self- arranged marriages	Jointly arranged marriages	Parent arranged marriages with participation	Parent arranged marriages with no participation
On wedding day	38.89	59.47	56.7	85.89
Less than one month	7.79	15.93	11.21	3.83
More than one month but less than a year	13.46	14.13	16.46	4.92
More than one year	25.33	3.18	4.55	1.17
Since childhood	14.31	7.15	10.99	3.97

Appendix Table 1: Results of Ordinal Regression Models

	Model 1	Model 2	Model 3	Model 4
Birth cohort (*Reference group 1976- 80*)				
1971-75	-0.0830**	-0.0506	-0.0541	-0.0446
	(0.0382)	(0.0383)	(0.0384)	(0.0384)
1966-70	-0.115***	-0.0406	-0.0692*	-0.0644*
	(0.0382)	(0.0385)	(0.0387)	(0.0388)
1961-65	-0.158***	-0.0786*	-0.102**	-0.102**
	(0.0415)	(0.0418)	(0.0422)	(0.0422)
1956-60	-0.164***	-0.0832*	-0.102**	-0.106**
	(0.0466)	(0.0470)	(0.0473)	(0.0473)
Age at marriage				0.0506***
				(0.00631)
Years of education		0.0467***	0.0329***	0.0251***
		(0.00283)	(0.00374)	(0.00387)
English speaking ability (*Reference group: Can't speak English*)				
Little fluent			0.173***	0.143***
			(0.0489)	(0.0490)
Fluent			0.440***	0.377***
			(0.0955)	(0.0959)
Current residence (*Reference category: Rural areas*)				
Other urban areas			0.215***	0.202***
			(0.0337)	(0.0337)
Metro areas			0.323***	0.312***
			(0.0409)	(0.0409)
Religion/Caste **(***Reference caste: Brahmins***)**				
Other "high" castes			-0.0754	-0.0745
			(0.0648)	(0.0649)
Other backward castes			-0.191***	-0.187***
			(0.0629)	(0.0630)
Scheduled castes			0.0797	0.0901
			(0.0660)	(0.0661)
Scheduled tribes			0.353***	0.351***
			(0.0797)	(0.0798)
Muslims			-0.0636	-0.0583
			(0.0704)	(0.0705)
Sikh, Jain			0.153	0.136
			(0.125)	(0.125)
Christian			0.0485	-0.0272
			(0.115)	(0.116)
Regions (Reference category: North Indian states)				
BIMARU states	-0.865***	-0.759***	-0.660***	-0.608***
	(0.0495)	(0.0500)	(0.0516)	(0.0521)
North- East India	1.608***	1.648***	1.730***	1.704***
	(0.0798)	(0.0799)	(0.0825)	(0.0826)
Eastern India	0.139***	0.203***	0.230***	0.251***
	(0.0497)	(0.0499)	(0.0520)	(0.0522)
Western India	0.947***	0.941***	1.000***	1.021***
	(0.0499)	(0.0500)	(0.0522)	(0.0523)
Southern India	1.092***	1.116***	1.209***	1.229***
	(0.0468)	(0.0469)	(0.0497)	(0.0498)