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The Intergenerational Transmission of Risk and Trust Attitude in the Indian Demographics

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Abstract

The paper aims to figure out two crucial aspects of economic decision-making- willingness to take risks and willingness to trust others in Indian society and how these behaviours are transmitted from parents to children. It classifies the difference in the level of maternal and paternal effects on the children's risk-taking capacity and trust attitude. For risk, we segregate it into 5 categories- General, driving, finance, educational/Career, and health-related risks. It is seen that the mother's influence on children is significant in all types owing to the fact that the majority of married Indian women are homemakers and spend more time with children. The influence of fathers was found significant for driving, finance, and health-related risks. It was also found that in most cases, female children tend to be more risk-averse than their male counterparts. We also find that the transmission from parents to children is relatively specific for different risk types. The maternal effect is more prominent when it comes to the transmission of trust attitudes. There is independence between risk-taking behaviour and trust attitude. Both of these behaviours does not influence each other; rather the heterogeneity in these two aspects of economic decision-making lies greatly in the family structure.

Keywords: Risk, Risk transmission, intergenerational, trust attitude

INTRODUCTION

Individual attitude endowments are typically treated in economics as a 'black box.' There is growing evidence in the fields of sociology, psychology, and economics that children inherit their parents' preferences, attitudes, and personality traits. By assuming that people's attitudes are influenced by their parents' attitudes, recent theoretical contributions endogenize these endowments.

The intergenerational correlation in economic outcomes, such as income, education, or health, which has been well-documented in the literature, is anticipated to be influenced by the transmission of preferences and attitudes, beliefs, personality, and character traits. Many social behaviours can be passed down from parents to children.

Little is known about the origins of the personal traits and dispositions that drive one's decision-making. This paper investigates two important elements of the decision-maker's endowment: willingness to take risks, and willingness to trust. Hence, we attempt to demonstrate an intergenerational correlation in risk and trust attitudes between parents and their children in this paper.

Risk-taking has become a key concept for comprehending economic behaviour in the face of uncertainty over the past century. Previous studies examined the traits of individuals that influence risk-taking in developed and developing nations. Personal traits like gender, parental education, own education, and age play a significant role in determining risk attitudes. There are still a lot of gaps in the literature, especially when it comes to gender differences and the transmission of risk behaviour across generations.

Understanding the source of risk attitudes is important because almost every economic decision involves risk. For example, investment in stocks, educational attainment, and home ownership are dependent on attitudes towards risk-taking.
Trust is similarly important. The realm of social interactions in life involve vulnerability to defection by others, and trust determines whether an individual cooperates in these situations.

We provide evidence suggesting that attitudes towards risk and trust are determined to a substantial degree by an individual's parents. Because of their broad implications for economic decision-making, the transmission of risk and trust attitudes has important ramifications for the economic outcomes of children. A parent is motivated to impart their values to their children because they believe that their preferences would maximise lifetime utility of their children.

We primarily focus on a risk question that asks respondents to rate their willingness to take risks in different scenarios. Regarding trust, respondents rate how much they concur with various claims about other people's reliability. Survey questions can be distributed to a large sample at a low cost, making them an appropriate methodology for researching intergenerational transmission. Studying intergenerational transmission requires a large sample because each observation involves three people: a child, two parents, and the researcher.

Many studies have used survey questions to assess risk attitudes in large samples, and one of these studies found a parent-child relationship when asking participants about taking risks in the workplace. Survey questions have been used in other studies to gauge trust. However, a potential issue with survey studies is that survey questions do not work with incentives. Because of this, respondents may overstate their true willingness to take risks or trust due to a variety of factors, such as self-serving biases, tactical goals, or a simple lack of attention.

Our main risk question can accurately predict people's actual risk-taking behaviour, as measured by incentive-compatible lottery experiments with actual money on the line, in a field experiment using a representative sample of 150 Indian adults. Our specific trust questions.

Our empirical analysis focuses on risk and trust attitudes because it has been demonstrated that these attitudes are crucial for decision-making. Risk attitudes affect a person's decisions in other areas of their life as well, such as their choice of education or career or whether they smoke. Influence of trust and trustworthiness on personal income, as well as the growth of impersonal markets and the effectiveness of political systems.

Our a priori expectations are that parents who are more involved in their children's upbringing are more likely to transmit their behavioural pattern to their children, in terms of their willingness to take risks and their level of trust. There is also a possibility of positive assortative mating based on risk and trust attitudes and this can have significant implications for the transmission process.

The literature on intergenerational transmission seeks to explain the similarity of behavioural patterns between parents and children in terms of economic preferences, trust, risk-taking behaviour, etc. Parents are modelled as actively or passively instilling children with attitudes, preferences, and beliefs similar to their own.

We contribute to this literature by providing empirical evidence in India that parents do have an impact on the risk-taking and trust attitudes of their children.

LITERATURE REVIEW

Several experiments and empirical studies have been done on the transmission of risk and trust preference from parents to their offspring. In all such experiments, parents are modelled as actively or passively instilling children with their attitudes, preferences, and beliefs, thereby leading to similar behaviours across generations.

Our paper has been inspired by the works of **Thomas Dohmen** in the field of intergenerational transmission of risk and trust preferences. Variation in parents' willingness to take risks and trust preferences is a prerequisite for identifying the impact of their attitudes on their children.

Dohmen et al (2006) suggest that the family structure matters. Generally, firstborn children are more strongly influenced by their parents in terms of risk attitudes. However, their experiment suggests that family size does not play a significant role in trust. There is surmounting evidence that children who are similar to their parents in terms of risk attitudes tend to be similar in terms of trust as well. Moreover, positive assortative mating reinforces the transmission of their behaviour to the children.

The analysis done by Dohmen (2018) suggests that parents who are more involved in the upbringing of their children have children similar to them in terms of their preferences and attitudes. This implies that parents can shape the preferences of their children.

According to Bisin and Verdier (2000), this transmission from parents to children includes impatience, willingness to take risks, economic preferences, and trust. Various studies have documented a strong correlation between the economic outcomes of children and parents and educational attainment (Mulligan, 1999), income (Mulligan, 1997), wealth (Charles and Hurst, 2003), and occupation (Kerckhoff et al., 1985).

Gauly and Britta (2017) suggest three channels that possibly support this transmission:

1. Parents transmit their behaviour to children via direct socialisation.
2. The regions of residence additionally influence the attitudes of children.
3. The positive assortative mating transmits the parental behaviour more efficiently.

However, most of the literature on this work also indicates that this result might not be purely genetic, but the effect of socialisation by parents and individuals, which shapes the child's behaviour.

There also exists the hypothesis that the intergenerational transmission of attitudes, personality, or other personal traits explains the persistence of socioeconomic status across generations (Bowles and Gintis, 2002). The intergenerational transmission of behaviour explains how such initial differences may persist over time and may pass over the dynasty. A recent analysis by Zilibotti (2017) highlights that parents purposely shape their children's behaviour by choosing an optimal style of parenting, to maximise the child's lifetime utility.

Previous research also observed that the transmission of risk and trust preferences in the family is gendered. However, there are limited findings that confirm the same. Sepahvand (2020) by using quantitative data from Burkina Faso analysed that mothers' transmissions are stronger for their daughters than sons. And for fathers, this pattern is inverted. It suggested the existence of heterogeneity in the transmission, hence supporting the gender-specific role model hypothesis. Moreover, the empirical data also confirms that risk-taking in any domain is influenced by a combination of factors, such as age, sex, income, and several other personality characteristics. Moreover, risk-taking behaviour is domain-specific and follows a pattern.

In his book, Childhood and Society, Erikson (1993) put forth the view that the first stage of psychosocial development for infants is learning to trust. They learn to trust if their parents are responsive and sensitive to them otherwise, they grow up with a sense of mistrust in people. Moreover, parents serve as role models in interpersonal relationships and trust.

Caru Wu (2022) warranted caution about the role of genes in shaping trust since genetic information is not accessible to confirm the same. He finds that even if there are genetic influences, parental socialisation plays a relatively larger role. Indeed, recent reviews of current literature on the role of genetics and culture in the transmission of trust suggest that culture plays a bigger role (Van Lange 2015).

Our research work attempts to shed new light on the question of whether risk preferences and trust behaviour is transmitted from parents to their offsprings in Indian households. It has important implications for understanding the mechanisms that go behind such similarities in behaviour across generations.

DATA DESCRIPTION

Our analysis uses data from the survey conducted for around 150 individuals and their parents. The survey provides us information about their risk preferences and trust behaviour and helps us link grown up children to their parents. Thus, every data set consists of a triplet: child-mother-father.

Respondents are questioned on a wide range of personal and household details as well as their risk and trust preferences. Individuals' attitudes toward risk are questioned in the survey. On a scale from 1 to 5, respondents are asked to rate their willingness to take risks in certain situations, such as driving a car, caution with finances, education, health and risk, in general. A noteworthy feature of our data is that it

includes children from a wide variety of ages, which implies that our results are not based only on teenage children.

Risk

We are calculating transmission of risk in children as our dependent variable. We have considered risk-taking behaviour of mother and father as our main explanatory variable For our main analysis, we control for an array of potentially important background variables. We control for the socio-economic background of the family by including household income, age of the child, years of his/her education and gender.

Trust

The measure of trust is more complicated. The respondents' were asked their propensity to trust with the three given questions on a scale from one to five.

The information on all three questions was combined into an aggregated trust index using **Principal Component Analysis**. This combined measure of trust is used throughout this paper.

Robustness test

We take four factors as our control variables- namely age, income, education and gender to ensure the reliability of our research.

Control variable: Age

Controlling for age in a regression analysis is a common statistical practice used to mitigate the confounding effect of age-related factors. Age can lead to significant variations in behaviours, preferences, and experiences. By controlling for age, we can better understand the relationship between risk and trust preferences of children and their parents, while accounting for these age-related differences.

We control age to avoid the below mentioned effects:

- Cohort effects: Different generations or cohorts may have distinct characteristics, experiences, and societal influences. Controlling for age can help disentangle such effects from any cohort-specific influences.
- Confounding variable: Age can sometimes act as a confounding variable, such that it is associated with both the independent variable(s) and the dependent variable. If age is not controlled for, it could lead to biased estimates of the relationships under investigation.

Control variable: Gender

We have taken gender as a dummy variable (1 if female and 0 if male). We control for gender to examine the unique effect of the risk/trust preferences of the parents on the risk/trust preferences of their children, while holding constant any potential influence of gender. It allows us to disentangle the specific effects of the independent variables from any potential gender-related effects on the outcome variable, leading to more accurate and reliable findings.

Moreover, the existence of gender bias is a possibility, which may lead to different outcomes for males and females. Controlling for gender allows us to assess the relationship between the main variables independently for each gender group.

Control variable: Income

Including income as a control variable helps to account for the influence of income-related factors that could be affecting the risk and trust behaviour in children, allowing us to focus mainly on the impact of risk and trust behaviour in their parents, without the confounding effects of income.

- Omitted variable bias: Income can be associated with various aspects of life, including educational opportunities, access to resources, and risk-taking behaviour. If income is not included in the regression model, it can lead to omitted variable bias, where the estimated relationship might be distorted due to income's influence.
- Income as a proxy for unobserved factors: Income can sometimes act as a proxy for other unobserved factors that influence the dependent variable. By including income in the model, we capture some of the effects of these unobserved factors indirectly.
- Controlling for socioeconomic status: Income is often used as a measure of socioeconomic status. By controlling for income, we address potential differences in risk-taking behaviour that may be related to varying socioeconomic backgrounds.

Control variable: Education

Education can be seen as a measure of human capital. It is a fundamental component of an individual's human capital, representing their knowledge, skills, and abilities. Controlling education allows us to account for differences in human capital that might influence the income, which in turn can affect the trust and risk preferences in the children.

- Heterogeneity in education levels: Individuals may have varying levels of education. Hence, controlling for the same helps to account for this heterogeneity, allowing for a more nuanced analysis of the relationship between the main variables of interest.

LIMITATIONS OF OUR RESEARCH

In this subsection, we try to address the issue of reverse causality and endogeneity concerns in our research experiment. There are some avenues that we can pursue to address a few of the most pressing concerns.

Reverse Causality

There are three major ways in which reverse causality poses a threat to the results of our research.

1. Parents' attitudes might be changed due to their children and such influence might be stronger if the parent is more involved in the upbringing.
2. The responses might be biased. It might be conjectured that children who are more similar to their parents state retrospectively that their parents were more involved in their upbringing.
3. It is a possibility that parents are more involved with children who are more similar to them. That is, they enjoy interaction with kids who are similar to them.

Parental behaviour influences the preference formation of children. It broadly depends on the level of parental effort in the upbringing of children. It includes the involvement of parents in the child's school life, daily day-to-day activities, and how much the parent involves the child in family decisions. Considering parental involvement to be influencing the child's preference is apt because it can be seen as a type of general investment that parents choose. Moreover, the growing literature on parenting style

reflects the importance and potential scope of parental behaviour on the formation of children's non-cognitive skills.

However, there are other possible ways to measure parental involvement in the child's upbringing. Joint leisure activities are one of them. On average, neglecting the possibility of reverse causality, parents who invest more in the upbringing of their children are more educated, earn more, and are older than parents who invest less.

Endogeneity concern: Assortative mating

It works as a reinforcing mechanism. It focuses on the correlation in attitudes between parents. As has been pointed out in the literature on cultural transmission, people tend to seek out and marry individuals with similar attitudes to their own. Hence, this reinforces the transmission of attitudes and preferences to their children. That is, if a child has a parent who is relatively a risk-taker, he/she will likely have a second risk-seeking parent as well. This enhances and magnifies the transmission and the child ends up with a similar type of disposition.

Until now, there has been no concrete evidence on whether assortative mating should have a positive or negative impact on risk preferences and trust behaviour. According to our a priori expectations and theory, the direction of assortative mating must depend on whether the particular trait in question is a substitute or complement in the production of joint utility for the couple (Lam, 1988).

Chiappori and Reny (2006) developed a theoretical model in which negative assortative mating leads to a stable equilibrium in household income. Since couples face income risk, it is optimal to have one safe and the other risky income in the household portfolio.

The model of Bisin and Verdier (2000) states that the socialisation technique of homogenous parents is generally more efficient than those of heterogeneous parents. An important prerequisite for assortative mating is the fact that both mother and father influence the preferences of their offspring.

Other concerns

Family size

It can influence the formation of preferences and attitudes. Not only does it affect the available financial resources per child, but it also impacts the amount of time available to the parents for every child in the family. Generally, parents with more children, on average, invest less in every child. We also ignore the age difference between the child and both parents due to the paucity of such detailed data.

Minorities

Under certain assumptions, minorities have larger incentives to invest in their children. The migration background of a child (either direct migration or migration of parents) also affects the transmission. According to the literature, having a migration background is correlated with weaker transmission of risk attitudes.

Region of Residence

The rural or urban character of the region of residence also affects the rate of transmission. It is believed that urban parents tend to participate more in the upbringing of their offspring- school education, career decisions, and life decisions, in general. On the contrary, the fast-paced lifestyle in the urban regions suggests that they, in general, spend less time with their children. The two factors pull the intergenerational transmission in two opposite directions.

Paucity of data

The data sample consists of 150 individuals and their parents. We nowhere claim that this is representative of the Indian household. Due to the paucity of the data, it does not assess the risk preferences and trust attitude of the Indian household, but only of the 150 individuals surveyed in the data. Moreover, there are a lot of other variables that could have affected the intergenerational transmission of the behaviour from parents to their offsprings, but we do not assess their impact because of the quality of our data.

Results

Transmission of Risk

General Risk

We begin by assessing if there is an intergenerational influence on willingness to take risks. We first focus on the general risk question that we asked in the questionnaire: "Are you a person who is fully prepared to take risks or do you try to avoid taking risks in general?". The child, mother, and father answered the questions on a scale of 1 to 5, one being extremely risk-averse in daily life.

The willingness of the child to take risks i.e. GenRisk_Child is the dependent variable and the willingness to take risks by the mother i.e. GenRisk_Mother and the willingness to take risks by the father i.e. GenRisk_Father are independent variables.

Table 1: Regression Results for GenRisk_Child	**A**	**B**
Constant	2.22*** (0.22)	1.707*** (0.443)
GenRisk_Mother	0.23*** (0.07)	0.249*** (0.073)
GenRisk_Father	0.09 (0.71)	0.107 (0.070)
Age		0.003 (0.013)
Education		0.032 (0.020)

Gender (1 if female)		-0.054** (0.170)
Income		0.07 (0.061)
No. of observations	150	150

Standard errors are reported in parentheses. *, **, *** indicates significance at the 90%, 95%, and 99% level, respectively.

From Table 1, Column A, we can see that the influence of mothers on children's risk-taking capacity is highly significant. We suspect that this is because nearly 70% of married women are homemakers in India (Business Insider, 2022). Being homemakers, they spend more time with the children and the children look up to her as a role model for developing decision-making skills. It's more likely that a risk-loving woman would raise similar risk-loving children and vice versa.
In Column B, we control for age, education, gender, and income. Our results on mothers' influence remain significant, however, only gender as a control is significant. It shows that a female child is more likely to be risk-averse than a male counterpart.

Driving-related risk
We asked, "How willing are you to take risks while driving?". Respondents answered on a scale of 1 to 5, with one being the most cautious.

Following are the results.

Table 2: Regression Results for DrivingRisk_Child	**A**	**B**
Constant	1.05*** (0.196)	0.357 (0.480)
DrivingRisk_Mother	0.192** (0.087)	0.296* (0.085)
DrivingRisk_Father	0.243*** (0.076)	0.269*** (0.073)
Age		0.003 (0.013)
Education		-0.040* (0.021)
Gender (1 if female)		-0.559*** (0.185)

Income		0.118* (0.065)
No. of observations	150	150

Standard errors are reported in parentheses. *, **, *** indicates significance at the 90%, 95%, and 99% level, respectively.

From Table 2, Column A, we can see that the influence of both mothers and fathers on children's risk-taking capacity regarding driving is significant. For fathers, it's particularly more significant than for mothers in this case.
In Column B, we control for age, education, gender, and income. Our results on parental influence remain significant. Gender as a control is highly significant and has a negative sign. It shows that a female child is more likely to be risk-averse than a male counterpart regarding driving skills. We also have a significant education as control. It shows that an educated person is more likely to be more careful while driving.

Educational-related risk
We asked, "How often do you keep a backup plan while considering career and educational decisions?". The aim was to find how willing they were to take a risk regarding their educational or career-related decisions. Respondents answered on a scale of 1 to 5, with one being the most cautious, that is not willing to take risks.

Following are the results.

Table 3: Regression Results for EduRisk_Child	**A**	**B**
Constant	2.204*** (0.316)	2.715*** (0.532)
EduRisk_Mother	0.319*** (0.077)	0.365*** (0.080)
EduRisk_Father	0.064 (0.08-0)	0.059** (0.080)
Age		-0.018 (0.015)
Education		0.004 (0.023)
Gender (1 if female)		-0.365* (0.203)

Income		-0.014 (0.072)
No. of observations	150	150

Standard errors are reported in parentheses. *, **, *** indicates significance at the 90%, 95%, and 99% level, respectively.

From Table 3, Column A, we can see that only mothers' influence on children's risk-taking capacity regarding education and career-related decisions is significant.

The results hold the same for the mothers when we control for age, education, gender, and income but now, the father's influence is significant as well. A girl child is less likely to take risks with educational or career decisions than male counterparts.

Finance-related risk

We asked, "How cautious are you while dealing with daily finances? (It may include lending your money, handling your wallet, and transacting on online platforms, to name a few)." Respondents answered on a scale of 1 to 5, with one being the most cautious.

Following are the results.

Table 4: Regression Results for FinanceRisk_Child	**A**	**B**
Constant	1.709*** (0.327)	1.329*** (0.486)
FinanceRisk_Mother	0.322*** (0.070)	0.296*** (0.072)
FinanceRisk_Father	0.245*** (0.068)	0.269*** (0.070)
Age		0.022* (0.012)
Education		-0.017 (0.019)
Gender (1 if female)		0.060 (0.167)
Income		0.037 (0.058)

No. of observations	150	150

Standard errors are reported in parentheses. *, **, *** indicates significance at the 90%, 95%, and 99% level, respectively.

From Table 4, Column A, we can see that the influence of both mothers and fathers on children's risk-taking capacity regarding finance is significant. It shows that in most households children learn budgeting skills from their parents.
In Column B, we control for age, education, gender, and income. Our results on parental influence remain significant, however, only age as a control is significant. It shows that as people grow older they tend to learn the value of money and take more precautions.

Health-related risk
We asked, "How cautious are you about your health?". Respondents answered on a scale of 1 to 5, with one being the most cautious.

Following are the results.

Table 5: Regression Results for HealthRisk_Child	**A**	**B**
Constant	2.45*** (0.25)	2.950*** (0.420)
HealthRisk_Mother	0.118* (0.071)	0.176* (0.076)
HealthRisk_Father	0.171*** (0.061)	0.157** (0.061)
Age		-0.002 (0.012)
Education		-0.001 (0.018)
Gender (1 if female)		-0.364* (0.163)
Income		-0.077 (0.058)
No. of observations	150	150

Standard errors are reported in parentheses. *, **, *** indicates significance at the 90%, 95%, and 99% level, respectively.

From Table 5, Column A, we can see that the influence of both mothers and fathers on children's risk-taking capacity regarding health is significant. For fathers, it's particularly more significant than for mothers. It shows that in most households traits for caring for one's health are often inherited more from fathers.

In Column B, we control for age, education, gender, and income. Our results on parental influence remain significant, however, only gender as a control is significant. It shows that a female child is more likely to be risk-averse than a male counterpart regarding health.

Transmission of Investment Decision

We asked in the questionnaire, "Imagine you had won Rs. 1,00,000 in a lottery. You have the option to invest all the money, part of the money, or reject the offer of investing at all. How much would you invest?"

The option for investments were in multiples of 10,000-
Rs 0 i.e. to reject the offer,
Rs 10,000,
Rs 20,000
Rs 30,000
Rs 40,000
Rs 50,000
Rs 60,000
Rs 70,000
Rs 80,000
Rs 90,000
Rs 100,000 i.e. to invest the entire amount.

Next, we assess how much intergenerational influences such investment decisions.

Table 6: Regression Results for Investment_Child	**A**	**B**
Constant	18796.75*** (2782.069)	22988.92*** (8527.145)
Investment_Mother	0.340*** (0.067)	0.352*** (0.071)
Investment_Father	0.158** (0.062)	0.145** (0.065)
Age		-126.676 (254.139)
Education		-54.168 (391.779)

Gender (1 if female)		-3532.96* (3357.138)
Income		681.604 (1201.019)
No. of observations	150	150

Standard errors are reported in parentheses. *, **, *** indicates significance at the 90%, 95%, and 99% level, respectively.

From Table 6, Column A, we can see that the influence of both mothers and fathers on children's investment decisions is significant.
In Column B, we control for age, education, gender, and income. Our results on parental influence remain significant. However, only gender as a control variable is significant.

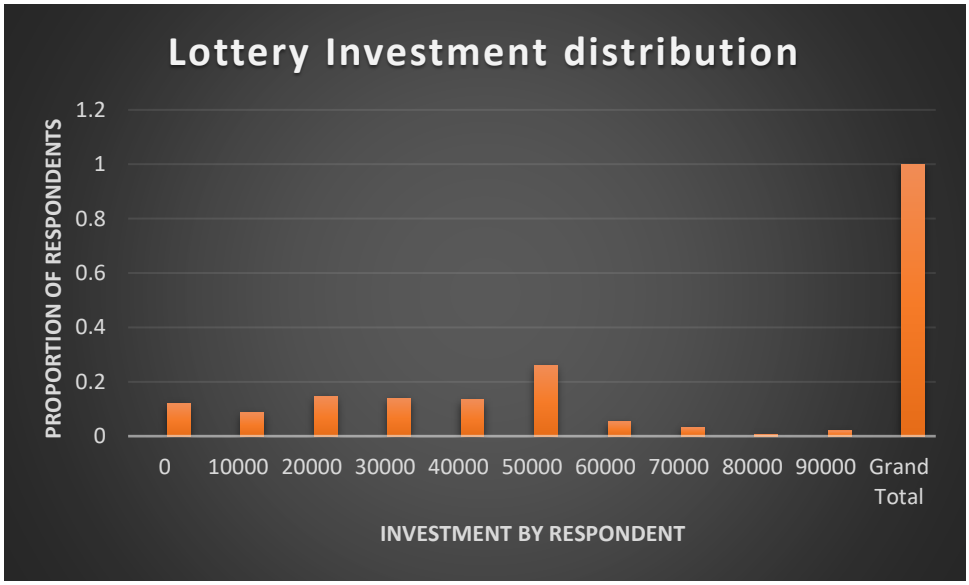
Apart from this, we also use a PROBIT model to find the probability of a child investing if the parents are investing. The results are in the following table.

Table 7: Regression Results for Participation_Child	**A**	**B**
Constant	0.568688*** (0.057)	0.523296*** (0.133)
Participation_Mother	0.177639*** (0.060)	0.173009* (0.061)
Participation_Father	0.231044*** (0.062)	0.235368***
Age		-0.00424 (0.004)
Education		0.006371 (0.06)
Gender (1 if female)		0.019233 (0.053)
Income		0.008994 (0.063)
No. of observations	150	150

Standard errors are reported in parentheses. *, **, *** indicates significance at the 90%, 95%, and 99% level, respectively.

From Table 7, Col A we can see that both parents have an influence on the child's investment decision. The mother's decision to invest raises the child's probability of investing by near about 18% and that of the father's raises it by 23%.

In column B we control for age, education, gender, and income. Parents' influence is still significant but the control variables are not.



From the graph, we can see that most of the respondents in our survey find it optimal to invest lottery amount ranging from Rs. 0 to Ra. 50000, which is very low. This can be attributed to the fact that India is a developing nation, where majority of people tend to be risk-averse.

The RBI's 2017 'Indian Household Finance Survey' report highlighted that India is a country of discretionary investors, where a majority believes in capital protection rather than return generation. This trend has only accelerated in the wake of the COVID pandemic.

Amidst market disruptions, Indian investors prefer to invest in safe physical assets over other volatile financial investment options, such as lottery in our case.

The risk aversion of the average Indian investor is easy to understand once we observe the objectives they wish to achieve through investments. They do not seek to generate profits from their capital surplus. In fact, the average Indian typically does not have a capital surplus to put to use. Instead, they seek financial security and stability that come with the right investments such as fixed deposits, in the Indian scenario.

Specificity of the Transmission Process

We ask ourselves if there is a possibility that parents pass on a relatively general disposition towards risk-taking to their children or do children follow their parents in relatively detailed ways. If the latter is true, we assert that the influence of parents on children is even stronger.

Following are the results:

Table 8: Regression Results for Risk_Child

Dependent Variable	Child's willingness to take risks in the context of				
Mother's and Father's willingness to take risks in the context of	GenRisk_Child (A)	DrivingRisk_Child (B)	EduRisk_Child (D)	FinanceRisk_Child (E)	HealthRisk_Child (F)
GenRisk_Mother	0.195** (0.079)	0.141* (0.084)	0.049 (0.565)	0.035 (0.075)	0.034 (0.072)
GenRisk_Father	0.150* (0.080)	-0.081 (0.086)	-0.045 (0.606)	0.014 (0.077)	-0.069 (0.073)
DrivingRisk_Mother	0.152* (.089)	0.117 (0.096)	0.257*** (0.008)	0.032 (0.085)	0.131** (0.081)
DrivingRisk_Father	-0.067 (0.079)	0.247*** (0.085)	0.048 (0.571)	-0.088 (0.076)	-0.063 (0.072)
EduRisk_Mother	0.006 (0.074)	-0.048 (0.080)	0.300*** (0.000)	0.138* (0.071)	0.018 (0.068)
EduRisk_Father	-0.021 (0.080)	0.054 (0.086)	-0.027 (0.752)	-0.069 (0.077)	0.112 (0.073)
FinanceRisk_Mother	0.093 (0.084)	-0.058 (0.090)	0.311*** (0.001)	0.248** (0.081)	-0.082 (0.077)
FinanceRisk_Father	0.178** (0.086)	0.010 (0.092)	-0.091 (0.330)	0.193** (0.082)	0.116 (0.078)
HealthRisk_Mother	-0.101 (0.082)	-0.027 (0.088)	-0.074 (0.407)	0.029 (0.078)	0.123* (0.068)
HealthRisk_Father	-0.063 (0.074)	-0.189** (0.079)	0.164** (0.042)	0.078 (0.071)	0.102* (0.057)

In Columns (A) to (F) of Table 8 we regress children's answers to a given risk question on parents' responses to all of the risk questions simultaneously. We need to find if specific risk-taking capacities of children are affected by parents' that very, specific risk-taking capacities. For example, HealthRisk of Child is only significantly affected by HealthRisk of mother and father and not influenced by other risk variables. We do find this behaviour at least for one parent in all cases however, in a few cases, we also find the dependence of specific risk-taking capacity on other risks as well, like dependence of educational-related risk of the child on that of finance-related risk of the mother.

Transmission of Trust Attitudes

We asked our respondents 3 questions-

1. Generally speaking, would you say that most people can be trusted, or it is better to take greater caution when getting along with people?
2. How easily do you believe what people tell you is the truth?
3. I trust people with the same ethnicity as mine a little more.

They were asked to answer them on a scale of 1 to 5, one being the most cautious while trusting others. We converted these scores into trust indexes using PCA.

Following are the results

Table 9: Regression Results for Trust_Child	**A**	**B**
Constant	0.000 (0.106)	-0.390 (0.559)
Trust_Mother	0.270*** (0.079)	0.267*** (0.080)
Trust_Father	0.116 (0.083)	0.127*** (0.084)
Age		0.002 (0.017)
Education		-0.030* (0.027)
Gender (1 if female)		-0.108*** (0.027)
Income		-0.030* (0.231)
No. of observations		150

Standard errors are reported in parentheses. *, **, *** indicates significance at the 90%, 95%, and 99% level, respectively.

From Table 9, Col A we can see that only the mother influences the trust attitudes of the child significantly. The more trusting the mother, the more trusting the child as well. The trust attitude of the father has no significant impact on the child's attitude. However, it becomes significant in Col B after controlling for age, income, education, and gender.

Gender as a control is significant and shows that a female child is less likely to trust others than a male child. We also have a significant education and income, showing that more educated or richer people trust others less compared to poor and less educated.

Independence of Risk and Trust Attitude

Risk-taking capacity and trust attitudes are both behaviours of humans that are individualistic. But is there a possibility that they have interdependence on each other? Could it be that a risk taker takes the risk by trusting people easily, or could it be that no matter how much of a risk taker, trusting others is unnatural to them? Since, trusting someone is a risky decision and thus trust attitudes of people can partly reflect the risk preference. Thus, it is important to know whether our trust measure captures something different from risk measure.

The first regression model checks if the risk of the child depends on both the trust and risk of the parent. We take the general risk of a child as a dependent variable here.

Table 10: Regression Results for GenRisk_Child	
Constant	0.000*** (0.445)
GenRisk_Mother	0.240*** (0.075)
GenRisk_Father	0.159** (0.073)
Trust_Mother	0.055 (0.060)
Trust_Father	-0.145 (0.093)
Age	0.003 (0.013)
Education	0.028

	(0.020)
Gender (1 if female)	-0.564*** (0.170)
Income	0.081 (0.061)
No. of observations	150

Standard errors are reported in parentheses. *, **, *** indicates significance at the 90%, 95%, and 99% level, respectively.

From Table 10, we can see that the General Risk of the Child depends significantly on the general risk of both parents as seen before. It however does not depend on the trust attitude of the mother or father.

The second model checks if the trust of the child depends on both the risk-taking capacity and the trust attitude of the parent.

Table 11: Regression Results for Trust_Child	
Constant	-0.811 (0.445)
GenRisk_Mother	0.126 (0.104)
GenRisk_Father	0.062 (0.101)
Trust_Mother	0.245*** (0.083)
Trust_Father	0.107 (0.089)
Age	-0.004 (0.018)
Education	0.038 (0.028)
Gender (1 if female)	-0.167 (0.235)

Income	-0.028 (0.085)
No. of observations	150

Standard errors are reported in parentheses. *, **, *** indicates significance at the 90%, 95%, and 99% level, respectively.

From Table 11, we can see that the Trust attitude of a child is not dependent on the general risk-taking capacity of the parents. It is only dependent on the mother's trust attitude as seen in the previous table of trust attitude.
The above two models highlight the fact that risk and trust attitudes of the parents have independent individual impact on the risk and trust attitudes of the child. Having risk averse parents does not imply that they show less trust upon people. At the same time, having parents who show less willingness to trust does not imply that they are risk averse. Intergenerational transmission of attitudes is an accurate process involving more specific and detailed aspects of these attitudes.
Conclusion

Our assessment for intergenerational transmission of risk and trust attitude yields similar results on the Indian demographics as that of Dohmen in Germany and others. We assess for 5 types of risk - General risk, Driving risk, Educational/Career Risk, Financial Risk, and Health Risk.
We found a strong significant influence of the mother on the child's General and Educational/Career related risk-taking capacity. This proves that in Indian homes, where most married women are homemakers, they have a greater influence on children's way of decision-making.

In the case of driving, while both have an impact, the influence of the father remains significant across robustness checks. This is probably because, in India, we have a higher percentage of male drivers than women. For finance and health-related risks, both parents have a significant influence on their children.

We find robust results however, the control variables themselves are not significant in many cases. Gender came up as a significant variable in the case of General, Driving, Educational, and Health-related risk-taking capacity with a negative sign showing that female children tend to be more risk averse.

From the lottery question, we found investment decisions too, are influenced by both parents. From the PROBIT model we concurred, the mother's decision to invest raises the child's probability of investing by near about 18% and that of the father raises it by 23%.
We find the specificity of the transmission process and find that it is relatively fine-tuned, in the sense that parents' differences in risk-taking across different types are reproduced similarly in the child.

Trust attitudes of children show a strong influence by mothers' trust attitudes and even fathers' if controlled for age, income, gender, and education. Females, richer and more educated people tend to trust others less easily as compared to males, poorer and less educated people respectively.

In the end, we found that trust and risk are not interdependent behaviour. While both of them may stem from one brain, we can conclude that an individual develops risk-taking capacity and trust attitudes separately and both of these behaviours are dependent on the environment that they are brought up in, that is parental influence.

Our research is only the tip of the iceberg on the topic of intergenerational transmission of risk and trust attitude in India with many gaps to fill. A more carefully designed survey with a wider reach would be the starting point for overcoming these gaps.

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