



Exploring the Positive Impact of Reducing Present Bias has on People's Poverty Level in India

Manhua Chen^(✉)

Department of Economic and Department of Political Science, University of Washington,
Seattle, USA

manhuac@uw.edu

Abstract. Saving has always been a problem in India, especially for poor households, and they face many obstacles when it comes to savings, such as a lack of ways to safe, expensive banking account fees, and self-control problems. This paper is going to explore the positive impact of reducing present bias on people's poverty levels in India. Present bias is a time-inconsistent problem in which even when the poor have extra money they choose immediate rewards instead of saving it. It is crucial to fully understand present bias in order to help poor Indians to save. Analyzing the impact present bias has on saving, lack of investment, and low level of education is crucial to help us to understand the mental activity of poor people and the reason behind not choosing to save, thus, we can better help them to reduce present bias. This paper analyzed ten articles about present bias found in Google Academic Scholar Research Library and explained the relationship between present bias and people's poverty level in India. The results show that reducing present bias and solving self-control problems were more cost-effective to help the poor save; thus, potentially reducing poverty.

Keywords: Present Bias · Poverty Level · India · Saving · Education

1 Introduction

Reducing poverty and improving living standards for poor people have always been the goals for India's government. It could be challenging due to both external and internal issues. The government in India might try to implement laws that are beneficial to the poor and they hope these laws will help the poor to escape poverty. While often these laws have no impact on people's lives in the long run due to the given environmental factors and unsustainability of the implementation. It is well-known that poor people in India tend to be unskilled and less educated compared to the rich population. Therefore, the jobs they can do are limited and the scarce job opportunities present in rural areas make it hard for poor Indians to improve their living standard by working to earn a better income. Also, internal causes can be crucial contributors to poor people's poverty level when trying to understand the poverty trap of the poor. Numerous poor Indians have self-control problems one of them being present bias. Poor people in India tend to save less not

only due to the lack of ways to save but also due to present bias which they cannot control themselves from spending the money right away. They overestimate the trend of present bias while ignoring the long-term return of the future value of the money. Obstacles that poor people face in the saving process are external which means they can't really help with the situation such as lack of safe places and ways to save, while present bias is an internal problem, and this is the factor that poor Indians could possibly control. Therefore, understanding internal issues such as present bias is important to develop ways to help poor people to save in India. This paper will analyze the positive impact of reducing present bias has on Indians' poverty level by examining the impact present bias has on saving and the results of lack of saving on spending, borrowing, investment and education level. This paper will also suggest potential solutions to contribute to the reduction of present bias. Articles found on Google Academic Scholar Research Library helped to deeply analyze the relations between present bias and people's poverty level in India. Studies showed that reducing present bias is an effective way to raise India's poverty level.

2 Defining Present Bias and Its Importance

Present bias is a common psychological issue which people tend to prefer smaller rewards now instead of a larger present later. It is a problem with self-control issue that people cannot control themselves to buy temptation goods even with no future value [1]. This is a common tendency not only among poor people, but rich people can also face the problem of present bias as well. The trend of overvaluing immediate rewards while suffering the consequences in the long run is a common problem people face when it comes to spending, borrowing, and saving. However, the issue appears to be more crucial among poor people. Since the wealth gap between poor and rich is huge, poor people is more sensitive to present bias compared to the rich. In other words, due to the limited income, the money poor people spend on temptation goods could play an important role contributing to their health and living standards. For instance, the money could be used for health insurance or better housing environment in the future if they choose to save instead of spending it to buy goods with less or no future value [2]. Even poor people face hardship to meet basic needs and usually they can't afford health care, but they still choose to spend on luxury goods that have no future value instead of saving up the money for future expense. Present bias could be detrimental to poor people because the limited income they earn, and they might not have enough opportunity to earn more money in the future which resulted in the unaffordable healthcare. While rich people have abundant opportunities to earn more money in the future and they usually have enough savings to support them for issues like health problems. Also, rich people tend to have many assets that they can sell in order to pay for the expensive healthcare bills in the future. But poor people normally only have one or no asset which means selling assets is not an option for the poor when they face financial crisis [3]. Present bias is important when it comes to poor people's overall wealth status. If poor people can be better at controlling themselves, they will have a better financial situation and could be more flexible in putting the money into necessary goods.

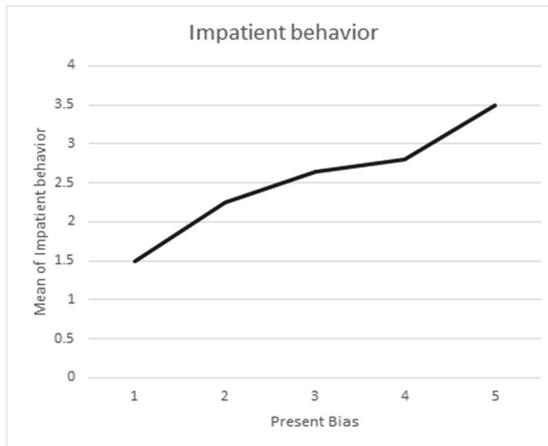


Fig. 1. Impatient behavior

3 Impact on Total Saving Through Spending and Borrowing

First of all, present bias has significant impact on India people's financial status such as spending, borrowing which can impact total saving. Indians with self-control issue tend to spend all the extra money they have on unnecessary goods even they know that this amount of money can be used for other significant purposes in the future. Even they knew that they could receive a greater return of money in the future if they choose to save up, but people with high present bias will still to choose to spend the money and receive immediate rewards. They tend to develop a mindset that they can find other ways to save up for the money in the future which caused them to spend the money right away. As Wiley described in her research, consumers with present-bias prefer spending to saving. They studied the relationship between impatient behavior and present bias which occurs to be positive. They divided the measuring system into 5-point scales when 5 being the highest and 1 being the lowest. They found that people with higher present bias are more impatient as the scale goes up with both impatient behavior and present bias. As demonstrated in Fig. 1, when the scale of present bias is 1, the scale of impatient behavior is 1.5 while the scale of present bias goes up to 5, the scale of impatient behavior is 3.5. The higher the scale of presents bias, the worse impatient behavior appears to be [4].

Impatient behavior caused the excessive out of plan spending's which resulted in difficulties for people to save up. Every time when people with high present bias have extra money that they can save, they will choose to spend it and thinking that they can earn more money in the future. Furthermore, present bias had impact on people's borrowing as well. Study conducted by Meier and Sprenger concluded that people's borrowing rates are higher as they are more present bias. They will be more likely to borrow from credit cards than those who are not present biased. As described in the study, "present-biased individuals are more likely to have credit card debt, and to have significantly higher amounts of credit card debt, controlling for disposable income, other socio-demographics, and credit constraints" [5]. This is a common phenomenon in India which the high borrowing rate resulted in the low saving rate as people in India need

to pay back for the debt with high interest rate in the future. This means that people in India will be paying back for their behavior today in the future which added on to their spending ratios and caused them to have less or no money to be saved up. Spending, borrowing and saving can impact Indian's financial status as they are correlated with each other whereas people in India borrowing more counts into their spending in the future as they will be paying back the loans which caused them to have less money to save. Present bias makes it difficult to save by impacting borrowing and spending rate in India. Providing solutions such as safe box, lock box and decreasing bank account fees will help which will be discussed more in detail later.

4 Impact on Investment Rate

Moreover, the negative impact present bias has on people's financial status such as lack of saving can become a poverty trap for the poor in India. Lack of saving caused poor people in India to reduce investment because they do not have any money for investment. Investments usually generate more money by having greater returns, but since they do not have any savings, they won't be able to invest due to money shortage. Also, the investment opportunities are scarce in India especially in rural areas. When poor people missed a valuable investment opportunity due to the lack of saving caused by present bias, they might never have another opportunity to earn more money and escape poverty trap. The underinvestment rate is due to the lack of saving and this could be solved through industrialization in which it provides more investment opportunities for the poor. When they see the present of the opportunities they are more likely to invest which could be a good way to solve the problem with underinvestment.

Critics might argue that poor people in India have lack of investment is not due to present bias, but due to the lack of knowledge in the return of investment. Poor Indian households do not understand the purpose of investment when they do not know the high return in investment. However, this is not true. Households are aware of the high return in investment, but they just choose not to invest and instead they prefer to spend the money right away. According to Duflo, farmers are fully aware of the effectiveness of using a fertilizer has on plot due to the long history of fertilizer used [2]. Statistically showing that only 2 percent farmers think the fertilizer is not profitable while the other 98 percent agree on the significant increase on production when using fertilizer. Even though when farmer expressed the desire to use fertilizer, they do not have any cash to purchase fertilizer. The study also found the high level of present bias among farmers that only 2 percent of them choose to purchase fertilizer early while the rest choose to wait before next year's harvest season [2]. Most farmers do not have cash to purchase fertilizer before harvest season. This is not due to the lack of income instead is due to present bias. These farmers have extra cash at harvest time last year, but they choose to spend these money on unnecessary goods. They refuse to save up because they believe that they can find other ways to gather the money to buy fertilizer before harvesting next year. This caused them to spend all the money they have which caused them to have no cash for investment when the opportunity is present. Lack of investment among people households is due to lack of saving which makes it hard for poor people in India to escape poverty by holding on to opportunities such as opportunities in investment, education, health, etc.

5 Impact on Education Level

Furthermore, present bias resulted in the underinvestment in education due to lack of saving. Education is a long-term investment which typically requires 18 years to put children into college. And education requires money along these long years. As mentioned above, present bias caused lack of saving which can influenced investment in education as well. The income poor households can generate is limited and if they do not save up for the extra, they will not be able to put their kids into school. A study conducted by Carrillo concluded that kids in poor households with high present bias tend to have “poorer contemporaneous school outcomes, including enrollment, dropout, and grade attained by the end of a specific year” [6]. The school dropout rate in developing countries is relatively high such as the 42 percent children leaving school at a young age in India [6]. Households in India have insufficient funds to support kids through high level of education due to the lack of saving caused by present bias. The lack of funds resulted children to have pressure from households to find a job as support the family which caused them to drop out of school early. With the existence of present bias among poor people, kids in India are less likely to receive higher education which they all became unskilled labor. Also, the lack of funds resulted children to have pressure from households to find a job as support the family which caused them to drop out of school early. It makes it extremely difficult to improve the living standard overtime as kids are not skilled enough to do high pay jobs in the future due to lack of education. Furthermore, because households do not save up, usually when they have money for education, but it is only enough to support one kids to go to school. Indian households typically choose boys over girls to stay in school due to gender bias. Girls are less likely to go to secondary schools compared to boys and the dropout rate is higher as the age grows. Also, the high dropout rate in Indian girls caused them to have an early marriage age and high fertility rate at a young age [7]. The underinvestment in education due to present bias has significant impact on the high dropout rate among children.

People might argue that Indian children dropout of school is not due to lack of cash and family pressure in which many rich kids’ dropout of school at a young age as well. This might be true, but study conducted by Braid showed that the school dropout rate has significantly decrease when cash were given to them either through unconditional or conditional cash transfers. The treatment groups in the study were given either type of cash transfers and the dropout rate declined in both treatment groups which the effect for UCT group is 43% [8]. Therefore, increasing the direct benefits of going to school such as giving out cash could be a solution to solve the underinvestment in education and the high dropout rate. Also, the study shows that cash transfers can reduce marriage rate and pregnancy rate as girls stay in school longer. As described by Braid, “the likelihood of being ever pregnant and ever married were 27% and 44% lower in the UCT arm” [8]. The low marriage and pregnancy rate have significant benefits such as improving the quality of the marriage, reducing the likelihood of divorce and empowering women’s bargaining power within the households [9]. Therefore, savings not only supported higher education, but also have large impact on women’s family life.

6 Potential Solution to Present Bias

Even the problem with present bias is so tremendous in India, but the problem can be solved easily. The high present bias among poor can be caused by lack of ways to save which could impact spending and borrowing rate. In India, poor people do not have a safe place to save, and the bank account fee is extremely high. The risk in saving in unsafe places decreases the likelihood of poor Indian households to save and lack of safe saving places caused the high present bias. When they can see and touch the money easily, they tend to spend the money right away. Therefore, building more safe places such as lock box and safe box could be solution to reduce present bias in India by controlling spending and borrowing rate. Also, as mentioned above, increasing the present benefits of schooling such as providing cash transfers will help with the situation and increase the likelihood of kids going to school. Both UCT and CCT showed significant impact in both in education and social level. Therefore, increasing present benefits of schooling could be a potential solution to improve the high dropout rate in schooling which could help the poor on both education and social level. Moreover, Indian government should focus on industrialization in rural areas as a most effective way to solve present bias and reduce poverty in the long run. This solves the problem of underinvestment in which it could generate more job and investment opportunities for poor people [10]. As more investments are present, poor people will have better chances to invest and more likely to save up for investment. They do not save up when they are uncertain about investment opportunities in the future. But people are more likely to invest when the opportunities and money are both available [10]. Furthermore, children in areas where more industries are present tend to receive more education due to the job requirement. Families want their kids to work in these industries in the future to have a stable income. Therefore, parents are more likely to save in order to provide better education for their kids. When families can see the direct return of investment, they tend to save the money to work towards a goal. In sum, industrialization tends to be the best way for India government to solve present bias. So that it can eventually reduce poverty as it can impact both the rate of investment and education level directly. It is the easier and most effective way to solve the problem while solving the problem of investment and education at once.

7 Conclusion

Present bias is a psychological issue people have on self-control. Reducing present bias can help people in India to reduce poverty by saving. Because Indian people are more less likely to spend the money instead, they will be more likely to wait for future awards. Lack of saving influence people's spending and borrowing status in India. Indians with present bias tend to spend more and borrowing more which also caused the lack of saving. Furthermore, present bias has significant impact on investment. When the investment opportunity is present, people do not have any savings to invest which caused a poverty trap. Lack of saving can also resulted in low level of education which children tend to dropout early to enter to the workforce. Overall reducing present bias have positive impact on reducing poverty levels among the poor due to saving in India.

References

1. D, Ubfal. Savings Constraints, Self-Control Problems and Poverty. UCLA Electronic Theses, 2012, 2–10 <https://escholarship.org/uc/item/86s3066g>
2. E., Duflo, M., Kreme, & J., Robinson, How high are rates of return to fertilizer? evidence from field experiments in Kenya. *American Economic Review*, 2008 98(2), 482–488. <https://doi.org/https://doi.org/10.1257/aer.98.2.482>
3. B. D., Bernheim, D., Ray, & S., Yeltekin, Poverty and self-control. 2013 <https://doi.org/10.3386/w18742>
4. J. J., Xiao, & N.,Porto, Present bias and financial behavior. *SSRN Electronic Journal*. 2018. <https://doi.org/10.2139/ssrn.3257093>
5. S., Meier, & C. , Sprenger, C. Present-biased preferences and credit card borrowing. *American Economic Journal: Applied Economics*, 2(1), 2010 193–210.
6. B., Carrillo, Present bias and underinvestment in education? long-run effects of childhood exposure to booms in Colombia. *SSRN Electronic Journal*. 2019, <https://doi.org/10.2139/ssrn.3386056>
7. P., Dupas, K., Welc, & S., Quddus, Why don't the poor save more? evidence from health savings experiments. *AEA Randomized Controlled Trials*. 2016, <https://doi.org/10.1257/rct.1169-1.0>
8. S., Baird, C., McIntosh, & B., Ozler, Cash or condition? evidence from a cash transfer experiment. *The Quarterly Journal of Economics*, 2011, 126(4), 1709–1753. <https://doi.org/10.1093/qje/qjr032>
9. C., Blattman, J. C., Jamison, & Sheridan, M. Reducing crime and violence: Experimental evidence on adult noncognitive investments in Liberia. 2016 <https://doi.org/10.1596/1813-9450-7648>
10. C. J., Bryan, N., Mazar, J., Jamison, J., Braithwaite, N., Dechausay, A., Fishbane, E., Fox, V., Gauri, R., Glennerster, J., Haushofer, D., Karlan, & R., Vakis, Overcoming behavioral obstacles to escaping poverty. *Behavioral Science & Policy*, 3(1), 2017, 80–91. <https://doi.org/10.1353/bsp.2017.0007>

Open Access This chapter is licensed under the terms of the Creative Commons Attribution-NonCommercial 4.0 International License (<http://creativecommons.org/licenses/by-nc/4.0/>), which permits any noncommercial use, sharing, adaptation, distribution and reproduction in any medium or format, as long as you give appropriate credit to the original author(s) and the source, provide a link to the Creative Commons license and indicate if changes were made.

The images or other third party material in this chapter are included in the chapter's Creative Commons license, unless indicated otherwise in a credit line to the material. If material is not included in the chapter's Creative Commons license and your intended use is not permitted by statutory regulation or exceeds the permitted use, you will need to obtain permission directly from the copyright holder.

