

# Research on the Impact of Sunk Cost on Chinese Households

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**Abstract.** In real life, the impact of sunk cost fallacy on people is hard to be ignored. It is of practical significance for people to find out these impacts and find ways to improve them. This paper first describes the research background and motivation. By citing examples, it is proved that the existence of sunk costs has seriously affected our life decisions and also had a direct impact on Chinese households. Therefore, it is of practical significance to study how to minimize the sunk cost fallacy and the actual impact of the sunk cost fallacy on the family. Secondly, the definition, causes and avoidance methods of sunk cost fallacy are described in detail. Thirdly, it discusses the impact of sunk cost fallacy on Chinese families. Three main influences are listed through reading literature and induction. First, the phenomenon of high bride price in remote and backward areas. Second, mothers tend to take more responsibility for taking care of their children. Third, the mother will endure an unhappy marriage for a long time because her child does not grow up in a single-parent family. And give corresponding suggestions for the three bad effects listed. Basically, it is to improve laws and regulations, strengthen men's sense of responsibility, and stop losses in time. Finally, it is concluded that the misunderstanding of sunk costs has mainly caused three bad effects on Chinese families.

**Keywords:** Sunk cost fallacy; Chinese households; High bride price; Single-parent family.

## 1. Introduction

### 1.1 Research Background and Motivation

From the perspective of rational investment decision-making, neoclassical economists believe that if these previous investments encourage people to continue to strengthen the implementation of current or future decisions, this is an irrational behavior, which is often called the fallacy of settling costs [1]. In real life, it is difficult to ignore the impact of the fallacy of sunk costs on people. Let's list four irrational choices that caused by sunk cost fallacy. First of all, some of food people bought has gone bad. But they still find a way to eat instead of wasting. Then halfway through the movie, people found it unappealing. But they had to stick with it because it cost us money. The third one is that When people have a chance to move into a field they enjoy, they also consider the effort they paid in old field and vacillate in their opinion. At the end, it is auctioning dollars. Because people have invested a lot of money and they have to follow through. Even at the risk of bankruptcy. The existence of sunk costs has seriously affected our decision-making in life, and also has a direct impact on Chinese families. So how to minimize the sunk cost and the actual impact of the sunk cost on the family is what people need to study.

### 1.2 Literature Review

#### 1.2.1 Sunk cost fallacy

The original definition of sunk cost fallacy is "if people have paid for a certain commodity or service, it will increase the frequency of use of that commodity or service", which is embodied in the huge tendency to continue to invest once money, effort or time are invested in a certain aspect. Arkes and Blumer defined the phenomenon that "the time, money or other resources previously invested will affect the individual's later decisions." as the sunk cost fallacy [2].

#### 1.2.2 High bride price

Sun Diliang believed that the high price of the bride price meant that the variety and high price of the bride price greatly exceeded the economic carrying capacity of the man, so that the economic

value of the bride price far exceeded its marriage commemorative significance; Lian Jixiao pointed out that the definition of high-value betrothal gifts should be based on the per capita income of residents in various provinces and cities. It is high value that exceeds the affordability of the betrothal gift payer to a certain extent. Therefore, the high-value betrothal gifts are defined as the property transfer payment of the families of both men and women, which is mainly reflected in the fact that the man meets the requirements of the woman with the goal of smooth marriage, and the total value of various resources such as money and physical objects paid to the woman, which is seriously beyond the scope of the man's family, It is also affected by different income structures [3, 4].

### 1.2.3 Single-parent families

Some scholars defined single-parent families as "families with male or female parents living together with their dependent children. Such families are mostly formed by death, divorce, separation, abandonment or unmarried". At present, the academic community has agreed that if the children have married or grown up, such families will no longer be classified as single-parent families, so this concept is less accepted by the academic community. Liu Hongyan believes that it is necessary to define the age of children in single-parent families, and the concept of single-parent families should be defined as: only the father (mother) and his unmarried children under the age of 18, who do not have the ability to live independently [5].

## 1.3 Research Framework

This paper chooses the understanding of sunk cost fallacy as the main research object, and elaborates the impact of sunk cost on Chinese families and suggestions. The article is mainly divided into several parts. The first part describes the research background and motivation as well as literature review. The second part mainly explains the definition of sunk cost misunderstanding, the causes of sunk cost misunderstanding and how to avoid it. The third part introduces the impact of sunk cost misunderstanding on Chinese families from three aspects. The fourth part gives suggestions from the three impacts listed in the third part. And the final part is the conclusion.

## 2. Sunk cost fallacy

### 2.1 The meaning of sunk cost fallacy

Sunk cost fallacy which also called sunk cost effect, bias, error and paradox is a pervasive, interesting and famous decision bias. It refers to the phenomenon like that you make a girlfriend or boyfriend, you pay much time effort or money. One day you find that you argue a lot together. You will choose continue or break up. Obviously, the time effort and money spent on dating over the years is a "sunk cost". And you may think that breaking up is sorry for the time and effort that both people have wasted.

And for the meaning of sunk cost fallacy, it has three explanations. First, Kahneman and Tversky's prospect theory was used to explain the sunk cost fallacy in the following way: People have diminishing sensitivity to losses; the more they have invested (sunk cost), the less painful it feels to incur additional losses (incremental cost), and the more likely it is that they will continue to invest [6,7]. It's crucial to keep in mind that this explanation treats the concepts of sunk costs and incremental costs as one (loss). Second, self-justification was used to demonstrate the sunk cost fallacy [8,9]. If one abandons continuing the investment, it appears that he is admitting the prior investment in his responsibility was incorrect. In order to avoid this negative appearance, he must continue the investment. Additionally, it was believed that the psychological cause of self-justification was cognitive dissonance [10]. If this account is correct, then the need for self-justification grows as responsibility and cognitive dissonance increase with the level of sunk cost. The final explanation of the sunk cost fallacy is based on the certainty effect, another mechanism from prospect theory [2,6]. The certainty effect states that even when expected values are comparable and probabilities are not excessively tiny, certain gains (losses) are more appealing to people than probable gains (losses). In

the instance of the sunk cost effect, the subject confronts a specific loss if he decides not to continue the investment; if he decides to continue the venture, he may recover the loss but may potentially lose more. He continues to invest as a result of the certainty effect. If so, the certainty effect (i.e., the tendency to avoid the certain loss and choose the riskier choice) is larger, the more sunk cost there is, and the more risk-taking the subject is [11]. Economists have argued that we should not consider sunk costs when making any decisions.

## **2.2 Causes of sunk cost fallacy**

There are three explanations called cognition, motivation and divinity. The cognitive mechanism focuses on the recognition of sunk cost fallacy. Additionally, the motivational mechanism emphasizes the need for self-justification or the desire to cut down on waste in order to prevent making poor decisions. In addition to showing how the sunk cost effect is implemented in the brain, research on neural mechanisms also provides additional support for cognitive and motivational mechanisms. It is important to note that the existing theoretical explanations are primarily based on research findings regarding the cost of money, and it is still unknown whether or not they apply to the cost of time or effort [12].

## **2.3 The way to avoid sunk cost fallacy**

Fennema and Perkins were interested in analyzing whether formal education could decline the occurrence of the sunk cost fallacy. In their study, they had a group of participants that was trained to ignore sunk costs (e.g., MBA students), and another group that was not (introductory psychology students) [13]. They found that those participants that had knowledge in economics were less prone to commit the sunk cost effect. In other words, knowledge about sunk costs can prevent making this error [14]. In addition, setting a range of losses is also a good method. For example, when investors buy a stock to invest, they soon find that the stock price begins to fall. At this time, we should delimit an acceptable loss range. Once the range is exceeded, we should immediately sell the stock to avoid more losses due to the psychological factors of expected stock price recovery.

# **3. The Impact of Sunk Cost on Chinese Households**

## **3.1 The phenomenon of high bride price in backward areas**

Some regions are backward in economy and people's thinking. Most of them agree with the saying: "A married daughter, a spilled water". They think that they spent a lot of money on their daughter from childhood to adulthood in order to cultivate her. Now the daughter is no longer a member of their family when she is married, so she hopes to exchange the cost of raising her daughter in these years with a high bride price. In the Dictionary of Marriage and Family, the bride price refers to the sum of money and gifts given by the man to the woman and her family during the marriage process. As for the definition of betrothal gifts, the academia has not yet given a unified definition. Most scholars believe that betrothal gifts refer to the goods and money paid by the man and his family to the woman and her family during the marriage process [15]. As for the disposal method of high-value betrothal gifts, some parents may take all the betrothal gifts as their own, adding a little guarantee to the life of the elderly. Or if the wife has a younger brother, the bride price may be used to buy a house and car for her younger brother.

## **3.2 Mothers tend to take more responsibility for children**

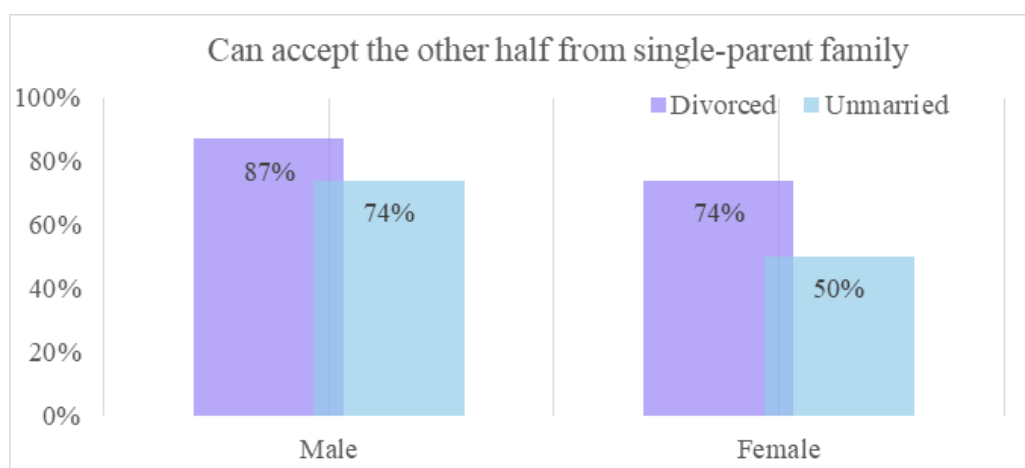
There are mothers who have abandoned their children, and there are fathers who have abandoned their children. The society blames the former even more. Compared with the latter, the former plays a more critical and direct role in children's growth, and needs to spend more time and energy on children [16]. The mother conceived in October and paid a lot to have a baby, including occasional pregnancy and vomiting, inability to work as usual and fertility risks. In real life, we can always hear

the word "housewife", but seldom hear the word "family cook". This also just proves that women, as mothers, have invested a lot in their children in the early stage and will quit their jobs in order to take better care of their children in the later stage. When children want to go out to school, they often choose to accompany them and rent a house near their children's school to take care of their food, clothing, housing and transportation. Even if children study abroad, some mothers will choose to accompany them.

### 3.3 Many women are willing to maintain an unhappy marriage for their children

As mentioned above, mothers have invested a lot in the healthy growth of their children, which is what people call sunk cost. When she found that her family life was not happy, her mother was willing to bear it for her children. Because they don't want their children to be bullied by their classmates at school because of their single-parent families. They also don't want children to be affected by single parents in the marriage market.

Jiayuan, the largest Internet dating website in China, released the second survey report on the concept of marriage and love of Chinese men and women in 2015, which made a detailed comparison and analysis of the concept of marriage and love of Chinese single men and women and divorced people. According to the Fig. 1, it is more difficult to choose a spouse in single-parent families than in complete families, and women care more about single-parent families than men.



**Figure 1.** The structure chart of the other half of the single-parent family is acceptable

The so-called "single parent family" refers to the family with incomplete members due to widowhood, divorce, separation or the main body of the family. The children raised by the mother or father alone are the children of the single parent family. Most people will think that children from single-parent families will have incomplete personality due to some lack of growth, which may be more reflected in their future family management.

## 4. Suggestions

### 4.1 The country strengthens publicity and improves the security system

Part of the reason for the high bride price is that the security system in rural society is not perfect. Deepening the old-age reform of the rural social system can improve this phenomenon. The country should maximize the coverage area and population of rural endowment insurance to the extent possible. Actively guide farmers to participate in social old-age insurance, change the traditional concept of old-age care, and do not attach their own old-age care to the marriage of their children. In September 2019, the Guiding Opinions on Further Promoting the Transformation of Customs and Cults to Build a Civilized Rural Style emphasized the need to curb rural stereotypes. In 2021, the No. 1 central document of the Central Committee proposed to strengthen the governance of bad practices

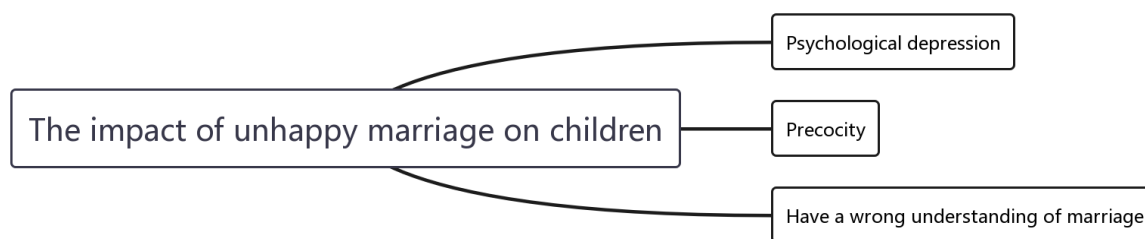
such as high price betrothal gifts, human comparisons, generous burial and poor maintenance, continue to promote the transformation of customs in rural areas, promote the practice of moral appraisal council, red and white council, etc., and promote the formation of a civilized countryside and good family style. The phenomenon of high betrothal gifts and its governance have aroused widespread concern [16].

#### 4.2 Strengthen men's sense of responsibility for raising children

The country should strengthen men's sense of responsibility for raising children through social media, laws and regulations. Men should establish an exclusive paternity leave system to better play the role of men in the family, so that men can take the responsibility of pacifying their wives and taking care of their babies [17]. More and more people in the society, including deputies to the National People's Congress, also began to call for the extension of male paternity leave.

#### 4.3 Stop loss in time

A good family atmosphere is the key factor that affects children. An unhappy marriage will only bring harm to children, and these injuries may accompany them for a lifetime. Fig. 2 shows three common bad effects.



**Figure 2.** The impact of unhappy marriage on children

Therefore, in the face of an unhappy marriage, we should divorce immediately to avoid more bad effects on our children. Of course, parents should also give their children the same care after divorce as before.

## 5. Conclusion

This paper chooses the sunk cost fallacy as the main research object, and expounds in detail how the sunk cost fallacy affects Chinese families. Through reading literature, induction and other methods, three main influences are listed. Including the phenomenon of high bride price in some remote and backward areas, mothers tend to take more responsibility for children, many women are willing to maintain an unhappy marriage for their children. And through these three phenomena, there are three ways to solve them. The phenomenon of high bride price in some remote and backward areas can be improved by strengthening publicity and improving the security system. By extending the male paternity leave system, men can enhance their sense of responsibility for feeding their children, thus reducing the stereotype that women should take care of their children more. Moreover, stop less in time in an unhappy marriage is the best way to reduce the harm to children. And the poor family atmosphere has a huge impact on children.

Now point out the limitations and deficiencies in this study, and puts forward some improvement methods. First of all, in terms of research content, due to the limitations of the author's knowledge, the study cannot summarize all the effects of the sunk cost fallacy on Chinese families, only simply summarizes three aspects. So further study and research are needed. Secondly, in terms of research methods, this study mainly adopts the methods of reading literature and induction. Due to the limited conditions, there is no real data on the local investigation of high bride price. In terms of the survey on whether people care if the other half comes from single-parent families, the data of 2015 is used for analysis. If the data is quoted for nearly two years, it should be more convincing.

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