

The Formation Mechanism of Involution in Chinese Family Education from the Perspective of Psychology

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Abstract

In recent years, the phenomenon of “educational involution” has become increasingly prominent in the context of Chinese family education, imposing significant pressure on families and students. This study employs a small-sample questionnaire survey as empirical evidence to validate the theoretical framework. By integrating multidisciplinary research on the causes of educational involution and synthesizing various psychological concepts, the study identifies six primary psychological mechanisms underlying the involution in family education: the single-plank bridge effect, fear of falling behind, face culture, defensive pessimism, the prisoner's dilemma, and the intergenerational projection of love. Based on these findings, the study constructs a theoretical framework to explain the causes of involution in Chinese family education and proposes corresponding recommendations for improvement.

Keywords

family education, involution, psychology, cause of formation

1. Introduction

The term “involution” has evolved from an academic concept to a popular social expression, reflecting the intense over-competition in contemporary Chinese society. In education, this phenomenon is particularly severe: widespread extracurricular tutoring, craze for school-district housing, excessive exam-oriented training, and highly scheduled learning routines have become common. Even after the “Double Reduction” policy, family investment in education continues to rise. Individual efforts have evolved into blind collective conformity.

This study explores the micro-level psychological causes of family education involution by integrating psychological theories. It aims to build a systematic explanatory framework, help parents and educators recognize the roots of anxiety, and provide a theoretical basis for alleviating over-competition.

2. Literature Review

In recent years, educational involution has become a heated topic in society. Regarding the causes of educational involution, scholars have conducted extensive and in-depth research from the perspectives of pedagogy, sociology, economics and other disciplines. Within the field of psychology, researchers have also

summarized and studied various psychological phenomena, some of which are closely related to educational involution. This section sorts out six factors of educational involution closely associated with psychology from interdisciplinary studies and elaborates on relevant psychological phenomena.

2.1 Causes of Educational Involution

At the macro-social level, the essence of modern society is a performance society, in which the real value of individuals is alienated into replaceable performance units. Low personal performance means the possibility of being replaced by others or machines at any time. This fear of being replaced has gradually evolved into widespread social anxiety. People constantly worry about whether their efforts are sufficient and whether their talents are exceptional, and such worries even turn into anxiety about social class. To avoid social decline, people begin to compete fiercely for limited social resources [1]. The scarcity of high-quality social resources is a key cause of involution, and this “single-plank bridge effect” profoundly affects people’s psychological state. [2]. The online propaganda further intensifies people’s psychological pressure [3].

At the family level, the essence of educational involution is the continuous increase in marginal cost and the continuous decrease in marginal benefit. Simply put, families invest heavily in education but receive low returns [4]. This phenomenon has led to the disadvantage of differentiated educational expenditure, forcing many families into endless competition [5]. Educational development has entered a period of stagnation with an increasingly rigid educational structure, and the single evaluation criterion has further deepened families’ fear of failure in competition [6].

2.2 Related Psychological Mechanisms

2.2.1 The Single-Plank Bridge Effect

Scarcity Mindset Theory (Mullainathan & Shafir) states that when resources are scarce, people tend to develop tunnel vision, focusing only on immediate scarce resources while ignoring other factors. The scarcer the resources, the more short-sighted people become. Zero-sum thinking fosters a “winner-takes-all” competitive mindset: the total amount of resources is fixed, so if you gain them, I lose. This mindset intensifies conflicts in social education and makes competition between families more brutal.

The scarcity of high-quality educational resources pushes parents and students into narrow tunnel vision. To seize resources in advance, they try every means to keep their children ahead—such as preparatory courses, after-school tutoring, and intensive practice. Scores and rankings become their only focus. They generally believe that their children can obtain limited educational resources only by pushing others aside. Competition is continuously amplified under this mindset, making cooperation and relaxation impossible.

2.2.2 Fear of Social Sliding

Loss Aversion (Kahneman & Tversky) suggests that the pain of loss is far more intense than the pleasure of gain. For this reason, people fear losses and seize every opportunity to avoid them. According to Festinger’s Social Comparison Theory, people evaluate their opinions and abilities by comparing themselves with others, and upward social comparison intensifies inner anxiety and insecurity. Status Anxiety Theory holds that one’s social identity is closely tied to others’ perceptions, and a decline in social status carries the risk of being looked down upon.

Middle-class families have a clear awareness of the vulnerability of their social position. Unemployment or illness may easily deplete their existing family resources, giving rise to an intense fear of status decline. Investment in children’s education becomes the best way to ease such insecurity. Parents place their hopes on their children, turning education into a safeguard against downward mobility. This is not merely about striving for the best future for children, but also about preventing the worst-case scenario.

2.2.3 Face Culture

Goffman’s Impression Management Theory holds that interpersonal interaction is similar to a stage performance. People strive to shape a socially acceptable image in front of others so as to gain social recognition and self-identity. The interdependent self-construal theory points out that an individual’s sense of value derives from one’s position and role in important relationships, and face becomes the core pillar of self-existence.

In Chinese society, face is essential for individuals and families to gain social standing. Educational achievements of children undoubtedly serve as a key factor in maintaining and enhancing family face. Children's success is closely tied to the overall success of the whole family. Such close linkage makes most parents unable to accept their children's ordinariness, as mediocrity is regarded as dereliction of duty on the part of both parents and the entire family.

2.2.4 Defensive Pessimism

The availability heuristic (Kahneman & Tversky) suggests that people tend to overestimate the probability of vivid, easily recalled events. Regret theory proposes that people experience stronger and more enduring regret over inaction than over action. To alleviate such psychological anxiety, people tend to take excessive preventive measures, a mindset known as defensive pessimism.

In the process of children's education, parents are constantly haunted by various "what if" worries: What if my child falls behind? What if extra learning proves beneficial in the future? Although the actual probability of such scenarios is low, these concerns precisely tap into parents' defensive pessimism, driving them to continuously increase educational investment and further intensify educational competition. The fear of future regret has become the most powerful driving force behind educational involution.

2.2.5 Prisoner's Dilemma and Negative Externality

The Prisoner's Dilemma explains that individual local rationality can lead to collective global irrationality. When everyone makes "rational" choices based on self-interest, the final outcome turns out to be the worst possible one. The theory of negative externalities refers to the fact that individuals' self-interested behaviors impose adverse costs on others, ultimately damaging the interests of all parties. As such negative externalities continue to accumulate, a vicious cycle of interest loss takes shape, triggering broader welfare impairment.

Parents originally encourage their children to study hard merely to achieve better academic performance. However, when every family thinks and acts in the same way, everyone is essentially pushed back to the same starting line. To stand out, students have to pay an increasingly higher price. As this competition keeps escalating, the cost of obtaining good grades rises continuously, and the baseline of effort keeps being lifted. The learning intensity of the past can no longer keep up with today's highly competitive environment, leaving all families suffering hidden losses in their quality of life.

2.2.6 Intergenerational Projection of Love

Freud's projection theory holds that individuals attribute their unacceptable, unacknowledged impulses, desires, and emotions to external people or objects. The recipient of such projection is referred to as a transitional object or self-object.

Parents' unresolved life aspirations and inferiority complexes are consciously or unconsciously projected onto their children. In this process, children are no longer treated as independent individuals, but become transitional objects that ease parental anxiety. The seemingly commonplace remark "I only do this for your own good" actually conceals the anxieties and aspirations of several generations within a family.

3. Research Design

3.1 Participants

This study adopted convenience sampling and collected a total of 36 valid questionnaires. The distribution of survey questionnaire samples is shown in Table 1.

3.2 Research Instrument

This study adopts a self-designed questionnaire as the research instrument. Based on the six psychological theoretical dimensions proposed in Chapter 2, the questionnaire is designed to preliminarily explore the practical manifestations of these theories in real life.

The design intention of the questionnaire items is presented in Table 2.

Table 1: The distribution of survey questionnaire samples

Category	Number of people	Percentage
Primary school	5	13.9%
Junior high school	6	16.7%
Senior high school	10	27.8%
University	15	41.6%
Male	16	44.4%
Female	20	55.6%

Table 2: The corresponding theory and the design intention of the questionnaire survey

Question number	Correspondence theory	Design idea
1-3	Single-plank bridge effect	To measure students' perception of the scarcity of high-quality educational resources and their cognition of competition
4-7	Family pressure and face anxiety	To measure the anxiety level of families
8-10	Peer competition	To measure the competitive pressure and atmosphere among students
11-13	Defensive pessimism	To measure the involution motivation of students and their families
14-16	Prisoner's dilemma	To measure the initiative and passivity of involution behaviors
17-19	Intergenerational projection	To measure the relationship between love and academic performance in families
20	Overall perception	Overall perception

In the questionnaire, various professional theories were translated into daily expressions close to learning and life. For example, the prisoner's dilemma was applied to the practical problem of students' after-school tutoring, and social comparison was applied to comparisons among relatives. This transformation not only ensures the professionalism and theoretical nature of the questionnaire, but also guarantees the respondents' accurate understanding of the items.

3.3 Analysis Methods

This study is positioned as an exploratory research, aiming to preliminarily explore the manifestations of six psychological theoretical dimensions in reality based on small-sample data. Due to the limited sample size, this study does not pursue complex statistical inferences. Instead, it adopts a multi-integrated analytical strategy, which is carried out from the following aspects:

3.3.1 Descriptive Statistics

The percentage of each option in the 20 items is calculated to show the basic proportion and trend of each dimension in the sample. By calculating the selection ratio of each option, the performance intensity of each theoretical mechanism in the respondent group is preliminarily determined.

3.3.2 Theory-Data Comparative Analysis

The six theoretical dimensions proposed in Chapter 2 are interpreted in comparison with the survey data. The analysis of each dimension follows the logic of theoretical review, data presentation, and analytical discussion, so as to realize the close integration of theory and data. The theory is used to explain the data, and the data is used to verify the theory.

4. Results and Analysis

4.1 Single-Plank Bridge Effect

According to the scarcity mindset theory, people tend to develop a “tunnel vision” when resources are scarce, focusing only on immediate resources while ignoring other factors. Coupled with the “zero-sum” competitive thinking of “your gain is my loss”, educational competition in society has gradually intensified. This is the main manifestation of the “single-plank bridge effect”.

The survey data show that 78.38% of the respondents believe that social educational competition is extremely fierce, and 24.33% of them regard such competition as a zero-sum relationship. This is highly consistent with the “single-plank bridge effect” described by Lu Xiaowen (2021).

The harsh reality of competition in society has been clearly presented to most people. To seize the opportunity of the “single-plank bridge”, people have to engage in cutthroat competition. Many families even spend a lot of money on education, which accounts for a large part of household expenditure. The subjective perception of “scarcity” has profoundly influenced family education and social competition in Chinese society.

4.2 Fear of Falling Behind

Loss aversion points out that the pain of losing is far greater than the pleasure of gaining. In upward social comparison, people will feel deep anxiety and fear about their own ability and situation. Driven by such status anxiety, parents will focus on their children’s education to prevent potential crises.

According to the survey data, 86.49% of parents have expressed concern about their children failing to be admitted to good universities. They worry that their children’s future will be limited by low academic qualifications, which will affect the level and stability of their future jobs and income, thus endangering the living standards of their children and even the whole family. The root of this concern lies in parents’ inner anxiety about social status and fear of losing existing resources.

4.3 Face Pressure

In an interdependent self-culture, children are regarded as an extension of family value. Children’s achievements represent the family’s “face,” which is directly linked to the family’s social image.

According to the statistics, 32.44% of students reported that their academic performance was tied to their family’s “face.” 86.49% of parents expressed admiration for the good academic performance of other children, and as high as 91.89% of parents showed more or less disappointment or anxiety when their children did not perform well in exams.

Although only a small number of families directly linked their children’s academic performance to family “face,” at a deeper level, parents’ admiration for others’ good grades and disappointment at their own children’s poor performance precisely reflect their hidden subconsciousness. The desire for children to rise above mediocrity comes from their inner pursuit of “face.”

4.4 Defensive Pessimism

The availability heuristic leads people to overestimate the probability of “what if” events. Regret theory suggests that people’s regret over inaction is far greater than that over action.

Up to 91.89% of respondents had forced themselves to study out of fear of future regret, and 8.11% regarded it as their only motivation for effort. In addition, 18.92% of parents frequently told their children, “If you don’t work hard now, you will regret it later.”

The fear of regret strongly dominates the behavior of students and parents. The external pressure of involuntary involution has been transformed into internal psychological pressure. Whether to avoid regret or to live up to family expectations, involution has, to some extent, been internalized into students’ self-requirements.

4.5 Prisoner's Dilemma

The prisoner's dilemma reveals that individual rationality can lead to collective irrationality. In the evolution of detrimental negative externalities, society falls into a vicious cycle of profit loss, resulting in more severe consequences.

Almost all respondents believed that “a class-wide agreement to stop extra tutoring and practice” is impossible to achieve. This indicates that individual pursuit of excellence will trigger collective imitation and irrational competition. In addition, 89.19% of respondents experienced a sense of powerlessness from being “pushed into involution,” which is the harmful effect of irrational competition. Seeing others enroll in tutoring or learn new content causes anxiety, leading to larger-scale follow-up behavior [7].

4.6 Intergenerational Projection

Projection theory states that individuals project their unbearable emotions and desires onto external people or things, and parents intentionally or unintentionally project their unfulfilled wishes or inferiority complexes onto their children. Under the influence of this psychological mechanism, children gradually develop the mindset of “studying to please their parents” and “fearing to disappoint their parents.”

According to the survey data, 64.86% of respondents believed there is a connection between parental love and academic performance, and 64.86% felt that they study partly to “fulfill their parents’ unfulfilled wishes.” These data indicate that the projection of parental love is common and significantly contributes to social involution.

Notably, 35.14% of respondents studied entirely for themselves without the burden of parental expectations, suggesting that student involution is driven not only by external expectations but also by strong positive internal motivation. For most people, the worry about “poor performance” stems from self-doubt about ability or effort, rather than the fear of losing parental care or failing expectations.

5. Conclusion and Suggestions

5.1 Main Conclusions

From the psychological perspective, this study integrates six psychological theories to construct a framework for explaining the “involution” phenomenon in Chinese families, which is preliminarily verified through a small-sample survey. The main conclusions are as follows:

Involution in family education is the result of the superposition of multiple psychological mechanisms. The six mechanisms—scarcity of resources, fear of social decline, face culture, defensive pessimism, prisoner's dilemma, and projection of love—interact to form a highly competitive social environment.

Internalization of involution pressure. The survey finds that some students’ learning pressure mainly comes from themselves rather than their families. This indicates that under long-term pressure, external pressure from society and family has been internalized into students’ self-requirements. For example, students take the initiative to sign up for tutoring and blame their own ability for poor academic performance. Although this internalization helps improve competitiveness, it also intensifies the cruelty of involution.

Fear is the core emotional factor driving involution. Defensive pessimism, resource scarcity, face culture, and the prisoner's dilemma all originate from the fear of falling behind, failure, and losing face. The social environment intensifies people's fear, leading to excessive involution, which in turn fuels fiercer social competition.

5.2 Recommendations

The simplification of the educational evaluation system is the deep-seated institutional cause of family education anxiety. The state and society should comprehensively promote the reform of the educational evaluation system, break the sole emphasis on scores, and establish a multi-dimensional comprehensive quality evaluation system. Meanwhile, mainstream media should fulfill their social responsibilities by reducing

excessive publicity of elite school worship and academic labeling, and foster a social consensus that everyone can achieve success, so as to fundamentally alleviate competitive anxiety caused by unitary evaluation.

The root cause of intensifying educational involution lies in the scarcity and uneven distribution of high-quality educational resources. To solve this dilemma, efforts should be made from the supply side to promote the balanced allocation of educational resources and narrow the gaps in educational facilities and faculty among schools, urban and rural areas, and regions. This will reduce parents' risk-averse investment driven by marginal safety psychology and alleviate educational involution caused by resource competition at the source.

The involution of family education is largely an intergenerational projection of parental anxiety. Therefore, parents need to conduct rational self-reflection, respect their children's subjectivity, shift the sole criterion of academic performance to the cultivation of interests and abilities, and encourage children to find their most suitable growth paths through exploration instead of blindly following mainstream social development models.

Students are the main participants in involution competition. To resolve the dilemma of involution, students need to become self-selectors with subjective consciousness. Through career planning education and social practice, they can clarify their ability boundaries and interests, establish a clear self-cognition, devote energy to fields that truly fit their development, and achieve differentiated development driven by internal motivation.

5.3 Limitations

Although this study has achieved certain results, there are still some limitations in the research process. The sample size of the survey is limited, so the conclusions can only be used as exploratory references rather than generalizable findings. The representativeness of the sample is low, failing to cover families from different regions and backgrounds. The survey was only conducted from the perspective of students without investigating parents, so a comparative study between parent and child perspectives cannot be carried out. In addition, the self-designed questionnaire needs to be further improved.

In future research, the scope of sample collection should be expanded to include samples from different regions, backgrounds, and ages. Meanwhile, the comprehensiveness and professionalism of the questionnaire should be further enhanced.

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Conflicts of Interest

The authors declare no conflict of interest.

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