

Time Perspective Predicts Parents' Education Involution Perception via Education Anxiety, Expectations for Children Might not as Incomprehensible as it Seems

Shuyang Zhang, Norlizah Binti Che Hassan, Rose Manisah
Binti Sulong

The Faculty of Educational Studies, Universiti Putra Malaysia, 43400, Malaysia

Corresponding Author Email: rosemanisah@upm.edu.my

To Link this Article: <http://dx.doi.org/10.6007/IJARPED/v12-i1/16321>

DOI:10.6007/IJARPED/v12-i1/16321

Published Online: 19 February 2023

Abstract

Time is a bird forever on the wing, and parents are always involved in the whole process of their children's growth, like childhood play, school readiness, university choice, and job decisions. In other words, these are part of the child's upbringing process and cannot be separated from parental participation, support, and a forward-thinking plan. Parents with rich social experience and survival wisdom will help children avoid life, study, and work detours in the future. The concept of time is people's understanding and perception of time. It covers people's perception, evaluation, memory, prediction, representation, and planning of time. Philip Zimbardo also mentions five types of time perspectives, including a positive and negative view of time that focuses on the past; a fatalistic and hedonistic view of the time of the moment; and a future view of time. Parents' different time perspectives contain different educational planning and choices when facing children's growth. In the last three years, the public has been interested in China's education revolution phenomenon and the "double reduction" policy, and they want to know whether the "double reduction" policy plays a role in reducing parent education anxiety and whether it has an impact on educational anxiety and choices with different time-period parents. In this research gap, the researchers selected 200 Chinese parents to explore parents' educational wisdom and choices from the perspective of Philip Zimbardo's time psychology in the face of the "double reduction" policy. Findings highlight the importance of parents' forward-lookingness and flexibility in educating their children.

Keywords: Time Psychology, Educational Anxiety, Double Reduction Policy, Involution, Emotion Changes

Introduction

It was the best of times and the worst of times. This is a time of wisdom; this is a time of foolishness; this is a period of trust; this is a period of doubt. It's a season of light and darkness; it's the spring of hope and the winter of disappointment. There is everything and nothing in front of people; people are on the way to heaven, and people are going to the gates of hell

(Heying & Weinstein, 2022). In other words, each era has its own development trend, and individuals should grasp the general trend of it and take actions that benefit self. Time perspective, as a psychological term, is highlighted as a standard to measure whether a person has an understanding of time (Baird et al., 2021), and individuals must have a correct time perspective to achieve a balance between study, work, life, and so on. Taking China's parent group as an example, Eryong et al (2022) argued that the Chinese government introduced the "double reduction" policy in 2021, aiming to reduce the homework burden of compulsory education for students, curb the unhealthy trend of out-of-school tutoring, prevent a large amount of hot money from flowing into the education sector, reduce parents' anxiety about education, and alleviate the current situation of social involvement, to achieve equity and justice in social education. Under the general trend of "double reduction" education policy, the educational philosophy and education plan of most parents have been impacted, and parents with different time perspectives are constantly adjusting their educational rhythm to achieve adaptation and even a forward-looking education that is conducive to children's future learning, life, work, and other aspects to avoid detours.

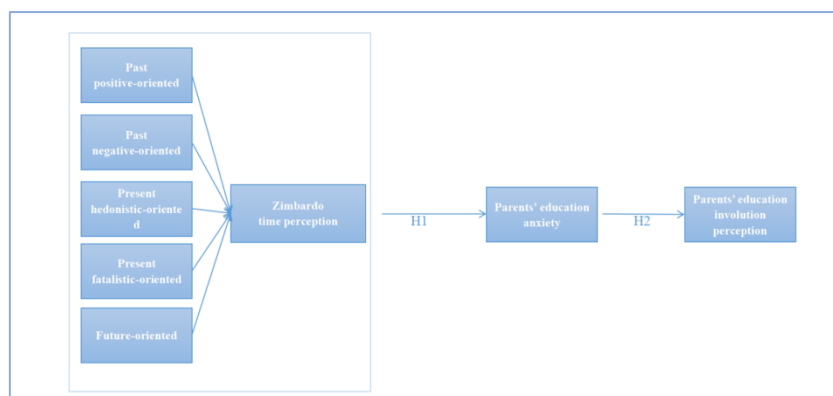
As Wittmann & Sircova (2018) mentioned that the time perspective is a psychological concept that refers to an individual's orientation towards time and their views of past, present, and future events. It encompasses beliefs, attitudes, and values about the nature of time and how it affects one's thoughts, feelings, and actions. This opinion is similar to Zimbardo & Boyd's 2014 publication, which is that a person's time perspective reflects to some extent their view of events, as well as their reflection on agency affairs and assumptions and reflections on future affairs under this time perspective. Besides, Zimbardo (2009) also made a TED public talk on the time perspective, which mainly revealed five different time perspective types, namely positive and negative view of time that focuses on the past; a fatalistic and hedonistic view of the time of the moment; and a future view of time, their characteristics and connotations, and the different styles of doing and thinking things under the influence of time perspective. A quantitative research mentioned by Epel et al (1999) from the Journal of Applied Social Psychology highlighted that people with a strong view of future time tend to be more optimistic, plan for the future and set long-term goals. Iyer & Jetten (2011), on the other hand, highlighted that people who have a strong view of the past may be more nostalgic and more focused on past experiences. In addition, Nuttin (2014) also showed that culture and life events also affect the time perspective, some cultures value the present more and personal views change over time in book. In addition to the above, a quantitative research from Matthews & Stolarski (2014) linked a balanced time perspective to higher levels of well-being, and those with a strong future or past time perspective may be more prone to stress and anxiety. In decision making, a strong future time perspective is associated with proactive and future-oriented decisions, whereas a strong past time view is associated with reactive and preoccupied with past experiences. All in all, time perspective plays an important role in shaping an individual's life, and the study time perspective provides important insights into the way people perceive and think about time.

The anxiety that is present during the process can be temporarily accepted if time eventually heals everything. Taking parents' educational anxiety as an example, Wang & Sheikh-Khalil (2013) once emphasized that the parental education anxiety refers to the emotional and psychological stress experienced by parents who are concerned about the education and future prospects of their children. This phenomenon has been extensively researched and documented in recent decades, with a growing body of literature highlighting the negative impact of education anxiety on both parents and children. Parents' educational

anxiety can negatively affect a child's academic performance and well-being. For example, children who are academically stressed by their parents may feel stressed and anxious, which can lead to decreased motivation and poor academic performance. In addition, children exposed to parental anxiety about education may develop negative attitudes toward learning and reduce engagement in study (Pomerantz et al., 2007). Chen et al (2022) has specifically studied the education anxiety of Chinese parents, that is, with the passage of time raising children, the education anxiety of Chinese parents in different periods, such as student admission and study attitudes, also changes with the children's academic performance.

Changes in academic performance are related to a multitude of internal and external factors. As Kools & George mentioned in 2020, Some internal factors include motivation, study habits, time management skills, and study style; external factors may include financial pressures, family attitudes, overall difficulty of the test, test status, surrounding environment and so on. However, no matter how academic performance is affected by the outside, people's emphasis on academic performance will not change. In other words, society, family, teachers, and so on still attach great importance to students' academic performance, which is always one of the best ways to reflect a person's ability. XUE (2022) once highlighted education involution, that is, many people seem to have worked hard to achieve great educational achievements, but in fact those are just false bubbles; those so-called achievements will not benefit students, teachers and schools. Besides, Uskoković (2008) accurately pointed out that the involution is a self-indulgent false education prosperity. In fact, the pressure of education involution also affects the objective evaluation of students' academic performance by all sectors of society. In the social environment where education involution, students' already good academic performance is overshadowed by higher marks, The general public strives for better, more outstanding, and higher grades, which leads students and their parents to continue to fall into education involution instead of enjoying the satisfaction brought by progress.

If the above studies focus more on a single variable, then some multivariate related studies are worth mentioning. A quantitative study from Greece introduces the relationship between different perceptions of time, anxiety and perceived stress. Findings showed that past positive and present fatalistic time perceptions were associated with presumed high perceived stress; anxiety levels decreased when samples were presented with future time perceptions (Papastamatelou et al., 2015). Boniwell & Zimbardo (2015) argued that dealing with time is a fundamental feature of human experience, whether objective, or so-called clock time, or subjective, personal temporal structures. Both past negative and present fatalistic views are associated with intense feelings of depression, anxiety, anger, and aggression. In other words, different concepts of time will also have an impact on individual emotions and states. Besides, San et al (1970) explored the influence of anxiety on students' time perception, that is, how students with different time perception deal with anxiety. The researchers selected 168 samples using measurement tools including the Zimbardo Time Perception Scale. The findings suggested that anxiety blocks students' positive time perceptions of the past. It is also inspiring the public to establish a relatively stable and good time perception of future. However, there are not many studies that explore the relationship between parental education anxiety and education involution perception based on the "double reduction" policy under the premise of introducing the Zimbardo time perception scale. Aiming at this research gap, this research puts forward feasible suggestions for teaching and learning practice on the basis of comprehensive exploration.



The overall framework of the present research was composed of five kinds of Zimbardo time perception, parents' education anxiety, and the perception of education involution. The time perspective classification was inspired by Zimbardo (2016). This research's aims were fourfold:

- (1) to assess the time perspective of parents of different social classes;
- (2) to explore the level of parental education anxiety with different time perspectives;
- (3) to test whether parents with different time perspectives have different strategies for their children's current education and future education prospective planning.

Methods

Participation

Table 1

Sample gender information (N=200)

Your gender		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Female	72	36.0	36.0	36.0
	Male	128	64.0	64.0	100.0
	Total	200	100.0	100.0	

Table2

Sample age information (N=200)

Your age		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	30-35	92	46.0	46.0	46.0
	Over 40 years old	74	37.0	37.0	83.0
	Under 30 years old	34	17.0	17.0	100.0
	Total	200	100.0	100.0	

Table 3

Sample residence information (N=200)

Your residence		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Rural	79	39.5	39.5	39.5
	Urban	121	60.5	60.5	100.0
	Total	200	100.0	100.0	

Table 4

Sample educational level information (N=200)

Your educational level		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Bachelor degree	36	18.0	18.0	18.0
	Bachelor degree or above	18	9.0	9.0	27.0
	Below junior high school	33	16.5	16.5	43.5
	High school	74	37.0	37.0	80.5
	Junior high school	25	12.5	12.5	93.0
	Other	14	7.0	7.0	100.0
	Total	200	100.0	100.0	

Table 5

Sample work information (N=200)

Your work		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Businessman	15	7.5	7.5	7.5
	Doctor	7	3.5	3.5	11.0
	Farmer	6	3.0	3.0	14.0
	Policeman	1	.5	.5	14.5
	Government	11	5.5	5.5	20.0
	Nurse	3	1.5	1.5	21.5
	Other	89	44.5	44.5	66.0
	Self-employed	38	19.0	19.0	85.0
	Teacher	14	7.0	7.0	92.0
	Worker	16	8.0	8.0	100.0
	Total	200	100.0	100.0	

A total of 200 parents (72 women; 36%; 128 men, 64%) between the ages of most 30 and 35 years were recruited through volunteer sampling from the People's Republic of China's mainland, getting bachelor degree (N=36; 18%); high school education (N=74; 37%); or junior high school and below (N=33; 16.5%) when they were young. The majority (N = 121; 60.5%) lived in the urban, Besides, these parents got a wide variety of positions, such as doctor (N=7, 3.5%), teacher (N=14, 7%), businessman (N=15, 7.5%), nurse (N=3, 1.5%), self-employed (N=38, 19%), other (N=89, 44.5%) and so on.

Measures

This quantitative online questionnaire included one section with demographic questions about samples' gender, age, residence, educational level, income (10,000), and whether to participate in off-campus training, followed by the Zimbardo Time Perspective Inventory (ZTPI) by Zimbardo & Boyd (1999), and the Scale of Parents' Anxiety (SPA) by Li (2021) exploring the research objectives.

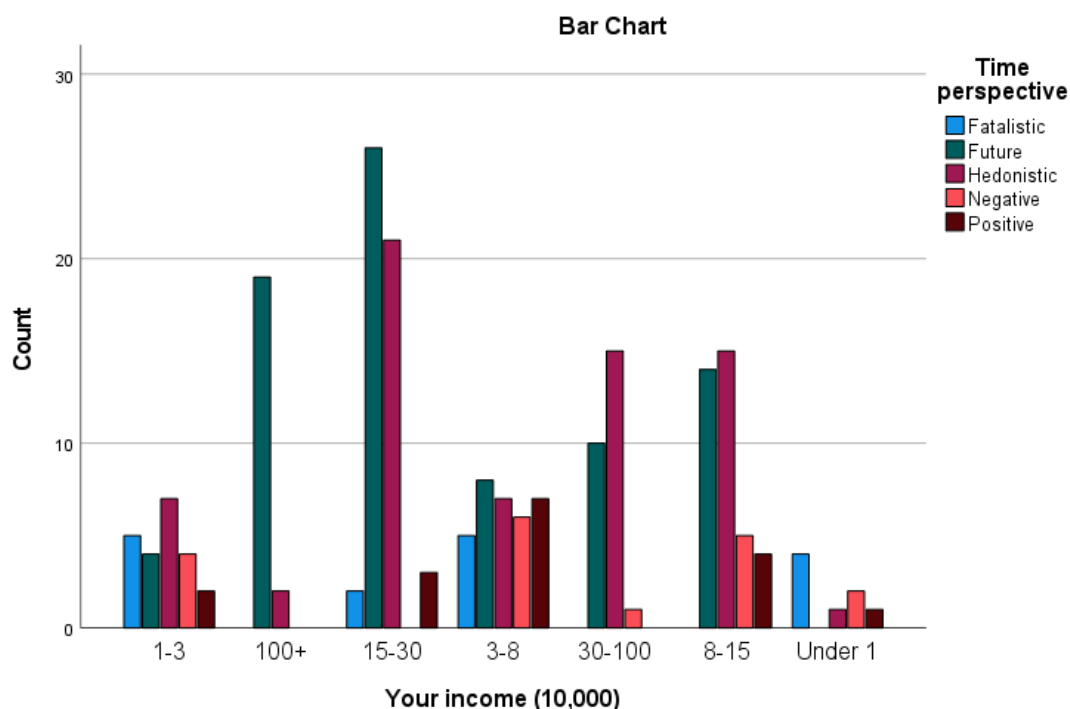
Worrell & Mello (2007) contended further that the Zimbardo time perspective inventory (ZTPI) has five types: past positive (like, "Since whatever will be will be, it doesn't really matter what I do"), past negative (like, "I often think of what I should have done differently in my life," "It is more important for me to enjoy life's journey than to focus only on the destination. & fatalistic (as in, fate determines much of my life) and future (as in, I make to-do lists) (Fernández Da Lama & Brenlla, 2022). All samples were asked to answer the Zimbardo time perspective inventory's (ZTPI) 56 items on a five-point Likert scale (1 = very uncharacteristic; 5 = very characteristic).

Another similar measure way to the Scale of Parents' Anxiety (SPA) about their children's learning attitudes (5-item, like I am worried about my child's lack of self-motivation and lack of initiative in learning) and school admission (7-item, like I am torn about choosing a school for my children) to measure parents' education anxiety. Finish all items, samples usually at least 15-20 minutes.

Findings

Varying socioeconomic levels of parents have different time perspectives

Chart1. Sample socioeconomic levels & time perspectives information (N=200)

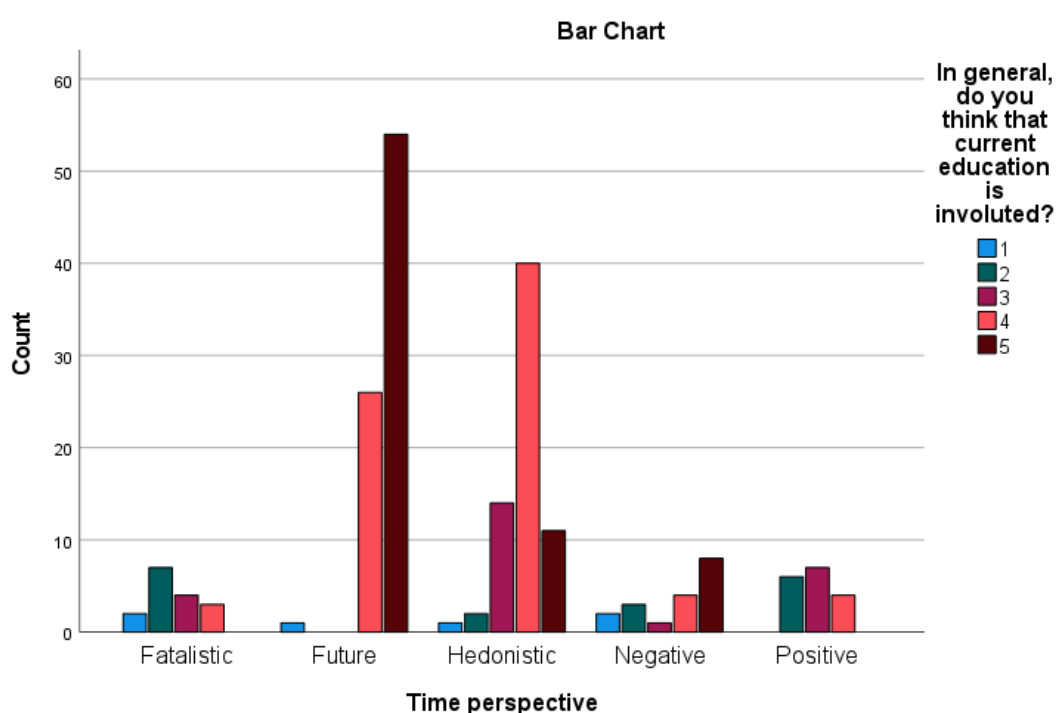


People value new things but also cherish old memories (Brislin & Kim, 2003). To explore parents' time perspectives at different income levels, the results are shown in Chart 1. The hedonistic view of the present is more prevalent at all income levels; more than 10% of parents with incomes between RMB 80,000 and RMB 150,000 and between RMB 300,000 and RMB 1 million are willing to enjoy the present. Parents with a fatalistic view of time, on the

other hand, are more concentrated in lower income levels, such as between \$10,000 and \$30,000, and below \$10,000. Whether it is a group of positive time perspectives addicted to the past, a group of negative time perspectives addicted to the present, or a group of other time perspectives, enjoying the present or hedonistic, enjoying the present is still one of the most popular time perspectives. This finding is similar to some of the research results of Sullivan et al. (2008), namely, the higher the income group, the more they pay attention to time control, planning, and arrangement. They are also more confident about future development.

Parents with different time perspectives have varying levels of education anxiety

Chart2. The relationship between parents with different time perspectives have varying levels of education anxiety (N=200)



To evaluate the relationship between parents with different time perspectives who have varying levels of education anxiety, details are highlighted in Chart 2. Taking parents with a future time perspective as an example, more than 50 (25% of the parents) gave a higher level (5 points) to the perception of educational involution, followed by 4 points. In addition, parents who hold "hedonistic" views also pay more attention to educational evolution, but they do not have a strong perception (N = 40, 20%). For the other three perspectives, namely fatalistic, positive, and negative time, most parents hold conservative opinions, and they think that the current phenomenon of educational involution in China will not affect their children. Overall, these are similar to the findings of the studies mentioned by (Sobol-Kwapiska et al., 2018). A past positive perspective: is a tendency to focus on a positively evaluated past; a past negative perspective: is a tendency to focus on a negatively evaluated past; a future perspective: is a tendency to think about the future in terms of goals to be achieved and tasks to be completed; in other words, people who have this time perspective will be dominated by future anxiety and will be unable to enjoy present happiness. the present hedonistic point of view—the tendency to use the pleasure of "here and now" at all costs; the present-fatalist

view—a tendency to exist passively in the present moment, stemming from the belief that life is governed by fate and is inactive in response to external events.

The perception of education involution is correlated with parents' education anxiety

Chart 3. The relationship between the perception of educational involution and parents' educational anxiety (N =200)

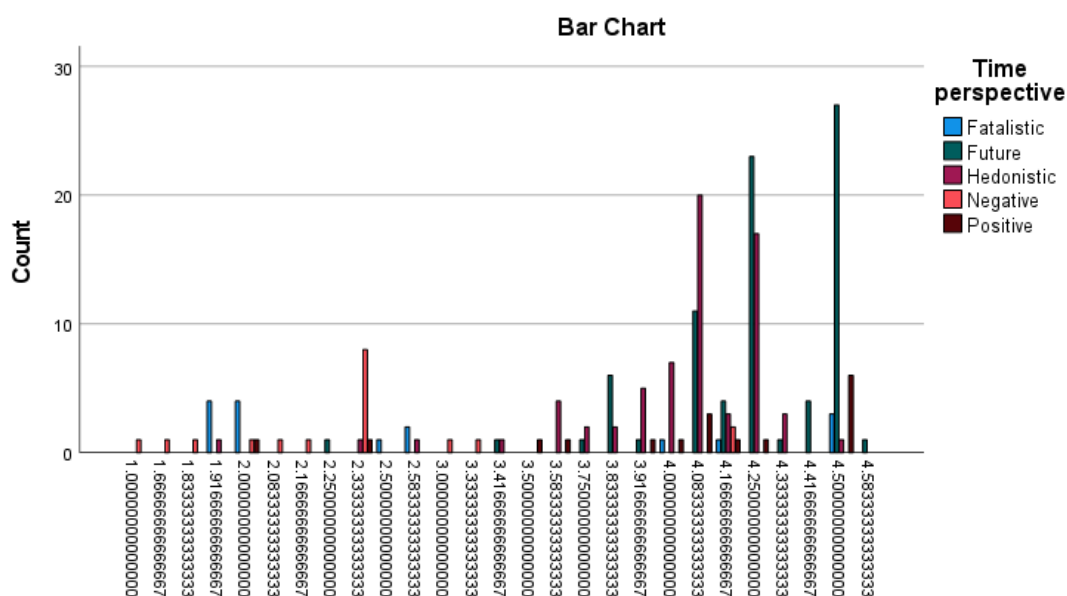


Table 6

Sample Time perspective Crosstabulation

* Time perspective Crosstabulation

		Time perspective									
		Fatalistic		Future		Hedonistic		Negative		Positive	
		N	%	N	%	N	%	N	%	N	%
Time perspective	1.0000000000000000	0	0.0%	0	0.0%	0	0.0%	1	5.6%	0	0.0%
	1.6666666666666667	0	0.0%	0	0.0%	0	0.0%	1	5.6%	0	0.0%
	1.8333333333333333	0	0.0%	0	0.0%	0	0.0%	1	5.6%	0	0.0%
	1.9166666666666667	4	25.0%	0	0.0%	1	1.5%	0	0.0%	0	0.0%
	2.0000000000000000	4	25.0%	0	0.0%	0	0.0%	1	5.6%	1	5.9%
	2.0833333333333333	0	0.0%	0	0.0%	0	0.0%	1	5.6%	0	0.0%
	2.1666666666666667	0	0.0%	0	0.0%	0	0.0%	1	5.6%	0	0.0%
	2.2500000000000000	0	0.0%	1	1.2%	0	0.0%	0	0.0%	0	0.0%
	0										

2.3333333333333333	0	0.0%	0	0.0%	1	1.5%	8	44.4%	1	5.9%	10	5.0%
3												
2.5000000000000000	1	6.3%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	1	0.5%
0												
2.5833333333333333	2	12.5%	0	0.0%	1	1.5%	0	0.0%	0	0.0%	3	1.5%
3												
3.0000000000000000	0	0.0%	0	0.0%	0	0.0%	1	5.6%	0	0.0%	1	0.5%
0												
3.3333333333333333	0	0.0%	0	0.0%	0	0.0%	1	5.6%	0	0.0%	1	0.5%
3												
3.4166666666666666	0	0.0%	1	1.2%	1	1.5%	0	0.0%	0	0.0%	2	1.0%
7												
3.5000000000000000	0	0.0%	0	0.0%	0	0.0%	0	0.0%	1	5.9%	1	0.5%
0												
3.5833333333333333	0	0.0%	0	0.0%	4	5.9%	0	0.0%	1	5.9%	5	2.5%
3												
3.7500000000000000	0	0.0%	1	1.2%	2	2.9%	0	0.0%	0	0.0%	3	1.5%
0												
3.8333333333333333	0	0.0%	6	7.4%	2	2.9%	0	0.0%	0	0.0%	8	4.0%
3												
3.9166666666666666	0	0.0%	1	1.2%	5	7.4%	0	0.0%	1	5.9%	7	3.5%
7												
4.0000000000000000	1	6.3%	0	0.0%	7	10.3%	0	0.0%	1	5.9%	9	4.5%
0												
4.0833333333333333	0	0.0%	1	13.6%	20	29.4%	0	0.0%	3	17.6%	34	17.0%
3			1									
4.1666666666666666	1	6.3%	4	4.9%	3	4.4%	2	11.1%	1	5.9%	11	5.5%
7												
4.2500000000000000	0	0.0%	2	28.4%	17	25.0%	0	0.0%	1	5.9%	41	20.5%
0			3									
4.3333333333333333	0	0.0%	1	1.2%	3	4.4%	0	0.0%	0	0.0%	4	2.0%
3												
4.4166666666666666	0	0.0%	4	4.9%	0	0.0%	0	0.0%	0	0.0%	4	2.0%
7												
4.5000000000000000	3	18.8%	2	33.3%	1	1.5%	0	0.0%	6	35.3%	37	18.5%
0			7									
4.5833333333333333	0	0.0%	1	1.2%	0	0.0%	0	0.0%	0	0.0%	1	0.5%
3												
Total	1	100.0	8	100.0	68	100.0%	1	100.0	1	100.0	20	100.0
	6	%	1	%			8	%	7	%	0	%

To explore the relationship between the perception of educational evolution and parents' education anxiety, details can be found in Chart 3. With 3.00 as the boundary, there are big differences and distinctions here. Parents with a future time view have higher educational anxiety, with scores of 4.083 and above as a whole, closely followed by the time perspective of "enjoying the present." In addition, not all parents maintain a "laissez-faire" attitude

toward their children's learning. Chart 6 highlights the details of some parents' time perspectives. Only less than 2% of the parents are slack (fatalistic).

In general, parents of different income levels maintain a certain degree of concern when facing their children's education. But there are also differences in the degree of specific attention. In addition, parents with different income levels have different time perspectives. Parents with higher incomes tend to have a more "future" perspective. In the face of education anxiety and the perception of educational involution, parents with "future" & "hedonistic" time perspectives are more anxious. Perhaps they are already planning the future for their children. These are in contrast to parents who hold "fatalism" and "negative" time perspectives.

Discussion & Conclusion

Chen (2022) once stated that one of the responsibilities of parents is to help children establish a correct world outlook and attitude, as well as to provide various correct and timely help and support during their growth. This also confirms the research results of Shin et al (2020), and the foresight of parents is beneficial to the future development of children. Boonen et al (2013) highlighted that the growth and development of children require the participation of schools, parents, teachers, etc. In addition, the state should implement relevant education policies and track their effectiveness in all aspects of their implementation. The school can hold regular parent communication meetings to provide feedback to parents on the student's school status, academic performance, interpersonal relationships, etc., which is convenient for tutoring cooperation, and also conducive to parents tracking the current situation of students in real-time and reducing educational anxiety. Students should communicate promptly with their parents and teachers about their learning progress and preparation. In addition, when encountering learning bottlenecks, actively seek outside help. Teachers should actively improve their teaching skills, increase the frequency of classroom interaction, and encourage students to express themselves. Teachers should also keep in touch with parents, regularly understand their demands, and reduce parents' anxiety about education. The state should guide educational institutions and schools to actively adapt to education policies and create a healthy and correct learning atmosphere in the whole society, to alleviate the current situation of involution in education and reduce the level of parents' anxiety about education.

Chronopsychology is the investigation of how individuals perceive, experience, and process time. It is concerned with the cognitive, sensory, behavioral, and cultural aspects of time. This study addresses a gap in the literature by looking at parental anxiety and educational involution in China's "double reduction policy" via the lens of temporal psychology. In other words, this study adds to the theoretical research in time psychology and educational psychology, educational sociology, particularly parental educational anxiety, educational involution, and so on; it also incorporates relevant literature for reference and improvement by relevant researchers. Similar mixed studies with larger samples and between China and Malaysia may also be conducted.

Acknowledgments

We would like to express our deepest gratitude to parents, for their precious time and for making this study possible. Additionally, we also highlight all contributing anonymous reviewers, editors, executive editors, etc. Finally, we would like to thank the faculty of

educational studies, at Universiti Putra Malaysia (UPM), for its free and open academic environment.

Disclosure Statement

There is no competing interests to declare

References

- Baird, H. M., Webb, T. L., Sirois, F. M., & Gibson-Miller, J. (2021). Understanding the effects of Time Perspective: A meta-analysis testing a self-regulatory framework. *Psychological Bulletin*, 147(3), 233–267. <https://doi.org/10.1037/bul0000313>
- Benjamin, L. A. (1993). *Parents' literacy and their children's success in school: Recent research, promising practices, and research implications. education research report*. ERIC. Retrieved February 5, 2023, from <https://eric.ed.gov/?id=ED363441>
- Boniwell, I., & Zimbardo, P. G. (2015). Balancing time perspective in pursuit of optimal functioning. *Positive Psychology in Practice*, 223–236. <https://doi.org/10.1002/9781118996874.ch13>
- Brislin, R. W., & Kim, E. S. (2003). Cultural diversity in people's understanding and uses of Time. *Applied Psychology*, 52(3), 363–382. <https://doi.org/10.1111/1464-0597.00140>
- Chen, G., Oubibi, M., Liang, A., & Zhou, Y. (2022). Parents' educational anxiety under the “double reduction” policy based on the family and students' personal factors. *Psychology Research and Behavior Management*, Volume 15, 2067–2082. <https://doi.org/10.2147/prbm.s370339>
- Chen, Y. (2022). Research on the governance of campus bullying and prevention mechanism of students' mental health problem. *Journal of Community Psychology*, 50(8), 3542–3559. <https://doi.org/10.1002/jcop.22854>
- Epel, E. S., Bandura, A., & Zimbardo, P. G. (1999). Escaping homelessness: The influences of self-efficacy and time perspective on coping with homelessness1. *Journal of Applied Social Psychology*, 29(3), 575–596. <https://doi.org/10.1111/j.1559-1816.1999.tb01402.x>
- Eryong, Xue, & Li, J. (2022). What is the value essence of “double reduction” (*shuang jian*) policy in China? A policy narrative perspective. *Educational Philosophy and Theory*, 1–10. <https://doi.org/10.1080/00131857.2022.2040481>
- Fernandez Da Lama, R. G., & Brenlla, M. E. (2022). Past-positive time perspective predicts academic achievement via motivation, and procrastination might not be as bad as it seems. *Journal of Applied Research in Higher Education*. <https://doi.org/10.1108/jarhe-11-2021-0413>
- Heying, H., & Weinstein, B. (2022). *A hunter-gatherer's guide to the 21st century: Evolution and the challenges of Modern Life*. Swift Press.
- Iyer, A., & Jetten, J. (2011). What's left behind: Identity continuity moderates the effect of nostalgia on well-being and life choices. *Journal of Personality and Social Psychology*, 101(1), 94–108. <https://doi.org/10.1037/a0022496>
- Kools, M., & George, B. (2020). Debate: The learning organization—a key construct linking strategic planning and Strategic Management. *Public Money & Management*, 40(4), 262–264. <https://doi.org/10.1080/09540962.2020.1727112>
- Li, J. Z. (2021). Research on the formation mechanism of parents' educational anxiety of primary and middle school students. (Master). Chongqing Technology and Business University. Available at: <https://kns.cnki.net/KCMS/detail/detail.aspx?dbname=CMFD202102&filename=1021062359.nh> (Accessed August 23, 2021).

- Matthews, G., & Stolarski, M. (2014). Emotional processes in development and dynamics of Individual Time Perspective. *Time Perspective Theory; Review, Research and Application*, 269–286. https://doi.org/10.1007/978-3-319-07368-2_18
- Nuttin, J. (2014). Future time perspective and motivation. <https://doi.org/10.4324/9781315802244>
- Papastamatelou, J., Unger, A., Giotakos, O., & Athanasiadou, F. (2015). Is time perspective a predictor of anxiety and perceived stress? some preliminary results from Greece. *Psychological Studies*, 60(4), 468–477. <https://doi.org/10.1007/s12646-015-0342-6>
- Philip Zimbardo: *The psychology of time*. (2009). YouTube. Retrieved January 31, 2023, from <https://youtu.be/bo4HiVetBd0>
- Pomerantz, E. M., Moorman, E. A., & Litwack, S. D. (2007). The how, whom, and why of parents' involvement in children's academic lives: More is not always better. *Review of Educational Research*, 77(3), 373–410. <https://doi.org/10.3102/003465430305567>
- San, H., Tarlacı, S., Ulucan, K., Polat, T., Yilmaz, O., & Aslan, B. (1970). *Investigation of the effect of anxiety disorder on time perception with Zimbardo Time Perspective Inventory: Semantic scholar*. The Journal of Neurobehavioral Sciences. Retrieved February 1, 2023, from <https://www.semanticscholar.org/paper/Investigation-of-the-effect-of-anxiety-disorder-on-San-Tarlac%C4%B1/bfac495efc6722e66c1c4ee71d8c0472c0c496bc>
- Shin, S. Y., Leech, K. A., & Rowe, M. L. (2020). Examining relations between parent-child narrative talk and children's Episodic foresight and theory of mind. *Cognitive Development*, 55, 100910. <https://doi.org/10.1016/j.cogdev.2020.100910>
- Sobol-Kwapinska, M., Jankowski, T., Przepiorka, A., Oinyshi, I., Sorokowski, P., & Zimbardo, P. (2018). What is the structure of time? A study on time perspective in the United States, Poland, and Nigeria. *Frontiers in Psychology*, 9. <https://doi.org/10.3389/fpsyg.2018.02078>
- Sullivan, O. (2008). Busyness, status distinction and consumption strategies of the income rich, Time Poor. *Time & Society*, 17(1), 5–26. <https://doi.org/10.1177/0961463x07086307>
- Uskokovic, V. (2008). On the light doves and learning on mistakes. *Axiomathes*, 19(1), 17–50. <https://doi.org/10.1007/s10516-008-9052-1>
- Wang, M.-T., & Sheikh-Khalil, S. (2013). Does parental involvement matter for student achievement and Mental Health in high school? *Child Development*, 85(2), 610–625. <https://doi.org/10.1111/cdev.12153>
- Wittmann, M., & Sircova, A. (2018). Dispositional orientation to the present and future and its role in pro-environmental behavior and Sustainability. *Heliyon*, 4(10). <https://doi.org/10.1016/j.heliyon.2018.e00882>
- Worrell, F. C., & Mello, Z. R. (2007). The reliability and validity of Zimbardo Time Perspective Inventory scores in academically talented adolescents. *Educational and Psychological Measurement*, 67(3), 487–504. <https://doi.org/10.1177/0013164406296985>
- XUE, L. (2022). Educational involution during the Social Transition Period. *Advances in Social Science, Education and Humanities Research*. <https://doi.org/10.2991/assehr.k.211220.115>
- Zimbardo, P. (2016). *The importance of our time perspective*. Psychology Today. Retrieved February 1, 2023, from <https://www.psychologytoday.com/us/blog/the-time-cure/201607/the-importance-our-time-perspective>
- Zimbardo, P. G., & Boyd, J. N. (1999). Zimbardo Time Perspective Inventory. *PsycTESTS Dataset*. <https://doi.org/10.1037/t01397-000>

Zimbardo, P. G., & Boyd, J. N. (2014). Putting time in perspective: A valid, reliable individual-differences metric. *Time Perspective Theory; Review, Research and Application*, 17–55.
https://doi.org/10.1007/978-3-319-07368-2_2