

A Study on the Relationship Between Rumination Thinking and Undergraduate Academic Self-Efficacy

Yaning Geng*, Zimu Yang

Lingnan University

*yaninggeng@ln.hk

Abstract. In mainland China, it is evident that the academic pressure and future job-hunting pressure faced by contemporary college students are inevitable. Although work pressure can also be alleviated through four years of university planning, academic pressure is one of the challenges they face every day. Some people will lose confidence in themselves in academic difficulties, directly affecting their learning ability and efficiency. According to this reality, this report studies and analyzes the reasons for this situation and puts forward valuable conclusions and recommendations. In this report, our team's main goal was to study the relationship between rumination thinking and academic self-efficacy and how the two influence each other. In the report, based on the research results of previous scholars, we took a university in Beijing as the research object, collected data through a questionnaire survey, and analyzed the sample (T-TEST); we have a better understanding of the relationship between rumination and self-efficacy specific understanding. We found that negative and weak correlations are the most important relationships. The specific sample data can be reflected in the fourth chapter. Our research results have a particular reference value in the actual study of college students.

Keywords: Rumination thinking; Academic self-efficacy; Psychology of college students

1. Introduction

As society grows constantly, young people facing many problems slowly begin to think about themselves. Repeated thinking seems to have become a common phenomenon. "Why am I so tired every day? Do I have a terminal disease? Why didn't he (she) reply to my message in a few seconds? Does he (she) like others? Why is there any pressure? If I continue to do this, I will not do my job as a"

In life, we are always thinking about adverse life events; we are usually affected by the negativity of things. Also, we often lament, "why am I so miserable" and similar thoughts and emotions are like the meditation and chewing of an animal that sustains the emotional impact of adverse life events, known in psychology as rumination.

Rumination thinking has its definition. Psychological researchers represented by NorenHorserma believe that rumination thinking refers to passive thinking about events, negative emotional states, and possible repetition after experiencing adverse events [1]. As a kind of cognition, contemplative thinking also has an important impact on emotions.

An ancient Chinese thinker, Zeng Zi, once said, "I must examine myself three times a day: How can I faithfully plan for others? How about making friends with friends without trusting them? Don't you practice what you preach? I mean: I look at myself many times a day. Am I loyal and loyal when dealing with others? Am I honest and reliable in dealing with my friends? Have I ever learned what my teacher taught me? This way of thinking is called introspection, namely self-reflection, and self-reflection, and is a positive attitude towards life. Of course, introspection is different from reflective thinking. Excessive introspection will also add much burden to life. When a person is always immersed in deep introspective thinking, it may bring a negative impact on their life, and reflection will form when a person continually repeatedly too much reflects on their adverse events.

In today's information age, in the era of rapid development, young people's lives have attracted the attention of all walks of life. As a large part of the current youth population, contemporary college students are increasing by academic pressure and self-control research; self-control

management plays a vital role in their academic life. This sense of self-control can be assessed by academic self-efficacy, defined in psychology as believing in their learning ability and performing the assigned learning tasks. College students are faced with many unresolved academic problems and dilemmas, and reflective thinking will also have an impact on their academic performance. Therefore, we evaluate the influence of rumination thinking on college students' academic self-efficacy.

2. Method

2.1 Statistical Research Methods

Beijing is the capital of China. It has many universities, a wide range of enrolments, and a sizeable foreign population with students from all over the country and of all nationalities; the findings are representative. Therefore, The study will be conducted at a comprehensive, full-time undergraduate university in Beijing, with majors including engineering, science, and arts, and a grade range covering freshman to senior year. The school counselor will be contacted to find a portion of familiar students in each year and class to distribute the questionnaire. These students will then distribute the questionnaire to familiar students, and they will then provide a third batch of respondents, and so on until the sample size is large enough to stop collecting. Finally, the data results will be collected uniformly, and useless questionnaires will be eliminated. Finally, the collected results were statistically analyzed through SPSS to verify whether there was some correlation between ruminative thinking and university students' learning self-efficacy based on the results.

2.2 Rumination thinking response scale

The Rumination Thinking Response Scale developed by Nolen-Hoeksema (1991) was used and scored using a self-assessment method tested[2]. Yang, Juan, Ling, Xiao, Jing and Yao, Shuqiao (2009) and Han, Xiu and Yang, Hongfei (2009) examined the reliability of the post-developmental scale in a population of Chinese high school and university students with good construct validity, internal consistency reliability and correlational validity of the validity scales[3]. There are 22 questions on the scale, and the scoring is self-rated using a five-point Likert scale: a score of 1-5 represents a range from 'seldom' to 'almost constantly'[4]. All 22 questions are positive scoring questions, and the sum of all scores is the total score of the scale, with higher scores indicating higher levels of rumination thinking in individuals.

The Rumination Thinking Scale consists of 22 questions divided into three dimensions: symptom rumination forced thinking, and profoundly reflective thinking. The symptom rumination questions were numbered 5, 6, 7, 8, 10, 12, 13, 18, 21, 22, 23, and 26; the forced thinking questions were numbered 9, 14, 17, 19, and 20; and the reflective deep-thinking questions were numbered 11, 15, 16, 24 and 25.

3. Result analysis

3.1 Characteristics of the Sample

We collected 217 valid data from students at an undergraduate institution in Beijing, with majors in both arts and sciences and a range of grades from first to fourth-year university students and postgraduate students, with all participants being taught full-time.

3.2 Characteristics of Respondents

Of the 217 valid questionnaires we collected, 105 were from boys and 112 were from girls. There were 168 students from urban areas and 49 students from rural areas. In addition, 41 were

first-year university students, 44 were second-year university students, 49 were third-year university students, 47 were fourth-year university students, and 36 were postgraduate students.

3.3 Questionnaire survey on the degree of rumination thinking of respondents

In investigating the extent of rumination thinking among respondents, we analyzed the extent of rumination thinking by using questions from the Nolen-Hoeksema Rumination Thinking Scale[5]. The frequency of rumination thinking was analyzed on a four-point Likert scale. One stands for never, 2 for sometimes, 3 for often, and 4 for always. The higher the total score, the higher the degree of negative rumination thinking of the respondent.

As can be seen from the survey results, the overall level of rumination thinking among respondents was relatively high, with an overall score of 2.5 points above the mean for all questions, as can be seen in Table 2, where the mean scores for the three dimensions were 34.189, 14.051 and 14.240 respectively. Of course, due to the snowball sampling method we used, there may be some convergence in the results, which is inevitable.

Rumination thinking and gender independent sample identification										
		Levene's Variance Equivalence Test		t-test for equality of means						
		F	Significance	T	df	Significance (bottail)	Average Difference	Standard error	95% Confidence interval of the variance	
									Lower limit	Upper limit
FW1	Using equal variables	2.467	.118	.399	215	.690	.4642 9	1.163 59	-1.829 22	2.75779
	No equal variables			.400	214.7 42	.689	.4642 9	1.159 85	-1.821 87	2.75044
FW2	Using equal variables	2.348	.127	-.229	215	.819	-.1166 7	.5092 5	-1.120 43	.88710
	No equal variables			-.230	214.9 07	.819	-.1166 7	.5078 4	-1.117 66	.88432
FW3	Using equal variables	1.511	.220	.030	215	.976	.0154 8	.5199 1	-1.009 30	1.04025
	No equal variables			.030	214.9 48	.976	.0154 8	.5185 6	-1.006 64	1.03759
FT	Using equal variables	2.922	.089	.172	215	.863	.3631 0	2.104 97	-3.785 92	4.51211
	No equal variables			.173	214.6 55	.863	.3631 0	2.097 84	-3.771 91	4.49810

Table1 Correlation test between rumination thinking and demographic variables

Rumination thinking and independent sample validation of household accounts										
		Levene's Variance Equivalence Test		t-test for equality of means						
		F	Signi fican ce	T	df	Signifi cance (bobotai l)	Average Differen ce	Standar d error	95% Confidence interval of the variance	
									Lower limit	Upper limit
FW1	Using equal variables	.152	.697	2.484	215	.014	3.40731	1.37173	.70356	6.11107
	No equal variables			2.427	75.642	.018	3.40731	1.40370	.61138	6.20325
FW2	Using equal variables	.680	.410	1.766	215	.079	1.06718	.60438	-.12409	2.25845
	No equal variables			1.699	74.046	.094	1.06718	.62821	-.18454	2.31890
FW3	Using equal variables	2.859	.092	2.132	215	.034	1.31122	.61495	.09913	2.52332
	No equal variables			1.972	70.405	.053	1.31122	.66484	-.01463	2.63708
FT	Using equal variables	1.175	.280	2.328	215	.021	5.78571	2.48496	.88771	10.68372
	No equal variables			2.229	73.545	.029	5.78571	2.59611	.61232	10.95911

Rumination thinking and professional independent sample validation										
		Levene's Variance Equivalence Test		t-test for equality of means						
		F	Significance	T	df	Significance (bilateral)	Average Difference	Standard error	95% Confidence interval of the variance	
									Lower limit	Upper limit
FW1	Using equal variables	4.441	.036	.266	215	.791	.31031	1.16771	-1.99131	2.61193
	No equal variables			.262	194.311	.793	.31031	1.18345	-2.02376	2.64437
FW2	Using equal variables	2.190	.140	-.072	215	.943	-.03681	.51101	-1.04403	.97041
	No equal variables			-.071	199.872	.943	-.03681	.51551	-1.05334	.97973
FW3	Using equal variables	3.690	.056	.810	215	.419	.42210	.52085	-.60453	1.44873
	No equal variables			.801	196.543	.424	.42210	.52693	-.61705	1.46126
FT	Using equal variables	5.182	.024	.329	215	.742	.69560	2.11160	-3.46648	4.85768
	No equal variables			.325	193.469	.746	.69560	2.14149	-3.52806	4.91926

Using SPSS, independent sample tests between rumination thinking and the four demographic variables of gender, grade, household registration, and significance revealed that the significance between rumination thinking and gender, grade, and signs were all greater than 0.05, and there was no correlation. However, the significance between rumination thinking and household registration was less than 0.05, which is a significant difference, proving that urban students have a higher level of rumination thinking than rural students.

4. Conclusion

As university students transition from adolescence to adulthood, they are often faced with various challenges, such as adjusting to new environments, irregular routines, and significant academic and employment pressures, which can lead to self-doubt on the way to self-reflection. There is also evidence that excessive self-blame increases the risk of developing anxiety disorders, substance use disorders, and suicide [6]. Therefore, university students should be alerted to the negative consequences of engaging in misdirected rumination.

Negative coping styles can further reduce students' academic self-efficacy through rumination, suggesting that rumination can exacerbate negative coping and negative emotions[7]. They impaired individuals' ability to cope, judge, and solve problems and created more negative and obsessive thoughts about the past, present, and future. Individuals who use more negative coping styles tend to get caught up in memories and fantasies of adverse events that they cannot escape from in time. When they encounter difficulties or setbacks, they tend to blame themselves for their

inability or even resent themselves and often have a tendency to ruminate. Individuals with high rumination thinking also repeatedly blame themselves for what they did wrong to cause the bad outcome and even wonder[8]. They are the only ones with such problems but not others, which further increases the individual's tendency to focus on negative emotions and reduces self-efficacy..

Using a Beijing university as the subject of our research study, we found that it is a common condition that university students face many unsolvable academic problems and dilemmas. However, when university students are in the process of learning, they will have doubts about their predictions and learning abilities. However, high ruminant thinking will lead university students to distrust their learning abilities or inability to complete assigned learning tasks, reducing self-efficacy[9].

References

- [1] Nolen-Hoeksema, S. (1991). Responses to Depression and Their Effects on the Duration of Depressive Episodes. *Journal of Abnormal Psychology*, 100, 569. <https://doi.org/10.1037/0021-843X.100.4.569>
- [2] Bagby, M., Rector, N., Bacchiochi, A. J. R., & McBride, C. (2004). The response styles questionnaire rumination scale stability in a sample of patients with major depression. *Cognitive Therapy and Research*, 28(4), 527-538.
- [3] Han Xiu, and Yang Hongfei. "A trial of the Nolen-Hoeksema Ruminative Thinking Scale in China." *Chinese Journal of Science and Technology Database, Chinese Journal of Clinical Psychology*, 2009.
- [4] Guy Winch, *Emotional First Aid: Practical strategies for psychological treatment of failure, rejection, guilt, and other everyday psychological harm*.
- [5] Nolen-Hoeksema, S., Wolfson, A., Mumme, D., & Guskin, K. (1995). Helplessness in children of depressed and nondepressed mothers. *Developmental Psychology*, 31(3), 377-387.
- [6] Pigeon, Wilfred R., et al. "Meta-Analysis of Sleep Disturbance and Suicidal Thoughts and Behaviors." *The Journal of Clinical Psychiatry*, vol. 73, no. 09, 15 Sept. 2012, pp. e1160-e1167, 10.4088/jcp.11r07586.
- [7] Joormann, Jutta. "Cognitive Inhibition and Emotion Regulation in Depression." *Current Directions in Psychological Science*, vol. 19, no. 3, June 2010, pp. 161-166, 10.1177/0963721410370293.
- [8] Urdan, T. (2004). Predictors of Academic Self-Handicapping and Achievement: Examining Achievement Goals, Classroom Goal Structures, and Culture. *Journal of Educational Psychology*, 96(2), 251-264.
- [9] Schwinger, M., Wirthwein, L., Lemmer, G., & Steinmayr, R. (2014). Academic self-handicapping and achievement: A meta-analysis. *Journal of Educational Psychology*, 106(3), 744-761.