Psychology of the Educated Mind

a multidisciplinary approach to the experience of academic stress in the People's Republic of China and the role of psychology

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This thesis raises the point that incorporating bottom-up understandings of psychology in Chinese society can give us a more complete outlook on the level of development of psychology in the nation. This is done by using academic stress as the focus of research. By looking at Chinese internet sources of everyday situations of academic stress and analyzing these with the help of Foucauldian thought and the theory of "Interpretive Perspective", these results are compared to the current state of psychology as an academic discourse in China. It is concluded that psychology is indeed much more developed in China than top-down academic discourse may give it credit for. Furthermore, a more complete account on how academic stress is experienced by students in China is given by integrating primary internet sources with secondary literature and finds that academic stress is not expressed the same by all students.

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Chinese civilization has a long history of psychological thought. Ancient Chinese philosophical writings contain an abundance of it, not in the least the Confucian Analects in which issues such as mental self-control, the balance of human relationships and the roles of nature and nurture are discussed (Miao & Wang, 2003).[1] However, modern psychology as a science (henceforth simply referred to as "psychology") is a field which is thought to be Western dominated and has only started taking root in China as late as the twentieth century (Ching, 1980; Miao & Wang, 2003). The view that modern psychology is less developed in China than it is in the West is still held by both Chinese and Western academic discourse (Kolstad & Gjesvik, 2014; Miao & Wang, 2003; W. Yang & Ye, 2014; Zhang, 2007). This view holds power when one looks at the current state of psychology in China as a sum of the amount of psychological research done by Chinese scholars and the amount of psychologists and psychology students in China, although this is changing as each year more psychology students enroll in Chinese universities and more research is conducted (W. Yang & Ye, 2014). Nonetheless, a verdict about the penetration of psychology in Chinese society cannot be solely based on a top-down approach as this fails to include a very important aspect of any academic field, namely how psychology plays a part in everyday life in society. Psychology does in fact play a part in everyday Chinese understanding and penetrates life to the lowest level of management; the daily actions of people. This research therefore aims to discuss the existing link between the top-down processes of psychology in China (the university enrollment rate, amount of research done, students etcetera) and the bottom-up, grassroots examples of the penetration of psychology in everyday Chinese life. This will be done by discussing relevant existing literature concerning psychology in Chinese society and conducting qualitative research via collection and discussion of primary internet sources of everyday Chinese life. The argument this paper makes is that awareness of psychology is indeed more advanced in Chinese society than academic discourse may give it credit for.

Simply focusing on the role of psychology in Chinese society would be too broad, which is why this research specifically focusses on another long-lived tradition in Chinese society: education. Esteemed in Confucian tradition, education has been an integral part of Chinese society and culture for a vast amount of time. Academic exams

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1 For a translation of the Confucian Analects, see Legge
http://aeviapress.org/MediaAssets/GoldenRule/ConfucianAnalects.pdf.

have been around for just as long and take their modern form in college entrance exams (Marginson, 2011). Moreover, the main use of scientific psychology when established in China was education, as it was believed that psychology could be a sound theoretical basis for Chinese education (Miao & Wang, 2003). In this paper, the field of psychology as a whole will be discussed, yet it is important to note that psychology is a very diverse academic field with multiple subdivisions that do not necessarily develop at the same pace in a certain country.

Another reason why the Chinese education system is such an interesting point of research to start from, is because Chinese education is particularly high-demanding and leaves for high study pressure on millions of students across China (Davey, De Lian, & Higgins, 2007; Kirkpatrick & Zang, 2011; Wang & Shah, 2014). The way students express their academic stress and deal with it can tell us much of their understanding of the psychological phenomena behind it. Given the generality of study stress, as all 223 million students in China face it,[2] and the different secondary parties it involves (family, teachers and fellow students) make for an interesting and broad dimension to start research in.

The primary research question of this paper is as follows: "In what way is knowledge of general psychology understood and used in relation to academic stress by the Chinese researched in this paper?" The secondary research question is: "How is academic stress expressed by those researched in this paper?". By realizing psychology is indeed more advanced in China when incorporating more than just top-down information, a more complete and less problematic view of psychology in China is presented in this paper. This improved representation of Chinese psychology allows psychology as an academic discourse to better understand all Chinese psychology has to offer, ranging from incorporating Daoist thought in psychology to unique research on how the brain memorizes pictographic Chinese characters.

The structure of this paper is as follows. Firstly, the theoretical framework for this thesis will be briefly explained, based on multiple works of Foucault and "*Interpretive Perspective*" by Denzen and Lincoln. These are not only employed to analyze primary but also secondary sources used for this paper. Also, the type of primary sources used will be explained in this chapter. Next, an introduction of the history of psychology in China and the current status it has according to academic discourse will be given. This chapter will

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2 Excluding pre-school students (Chinaeducenter, 2015).

also illustrate the problematic general view of China as a country that is behind in psychology when compared to the West. The second half of the third chapter describes the education system in China and all factors influencing academic stress among students, the hazardous side effects academic stress has and in what way general psychological concepts such as coping and support-seeking are beneficial in combatting academic stress. Chapter three is entirely literature based and serves as a basis for the research as described in chapter four. The way academic stress is expressed by the Chinese and in what role knowledge of general psychology plays in making sense of it is the main focus of the fourth chapter and are presented as the results. Other actions related to psychology, such seeking the help of a psychologist and quoting psychological research, will also be discussed. The results are based on three primary internet sources. In the fifth and final chapter the findings of both the primary and secondary research will be discussed, with a focus on the way that a general understanding of psychology by ordinary Chinese should be integrated in existing notions of Chinese psychology in academic discourse. Suggestions for later research will also be given.

2. Methodology and sources

2.1 Theoretical Framework for secondary sources

To understand the existence of psychology in Chinese society one cannot miss the parallel as written down by Foucault about madness through the ages in *Madness and Civilization (1965)*. It is almost as simple as substituting "madness" with psychology and France with China. In this book Foucault states that sociological processes and cultural background play a profound role in defining "madness". Through the entire thesis I have kept this theory in mind to get a better understanding of how Chinese society and culture impact the way academic stress is experienced by Chinese students. Foucauldian thought in *Madness and Civilization* also helps greatly in acknowledging that despite Chinese civilization having a long, continuous history, the concept of China as a country is fluid by nature. With China's identity being fluid and psychology constantly developing as an academic field, I was quick to understand that the experience of academic stress in China is therefore also fluid. Things that are understood as true today may not have been at all times and this is important to realize when discussing, for instance, the history of psychology in China. It is also important to remind oneself that contemporary China is a very big and diverse nation. It is never the intention of this paper to oversimplify all

Chinese into one entity, yet for the sake of keeping things simple and organized this paper simply refers to "China" sometimes.

2.2 Primary sources used

The three main primary sources used for this research are all internet based sources in Mandarin Chinese translated by myself. Online sources are an excellent basis for the research of this paper not only because of the relative ease with which blogs and fora can be obtained via online search engines such as Baidu on the internet,[3] but also because of the high accessibility the medium offers to students in China, which makes for millions of blogs and fora to be maintained by the 632 million Chinese internet users (CNNIC, 2014). Students are on average better connected to the internet and make more frequent use of it than does the average Chinese internet user (CNNIC, 2014). This wide array of online sources allowed for this research to completely circumvent the limitation of not being able to go to China to do field research.

After skimming through a near hundred online sources and translating a couple dozen, a selection of three primary sources was made to base this research on. The online sources were mostly fora and blogs online that had to do with academic stress and approaching *Gaokao.*[4] Also, news articles concerning student suicides because of stress have been scanned through. Sometimes it was necessary to first translate a full blog or article before being able to decide if this source was suitable for this research, which in turn resulted in many hours translating texts that weren't necessarily useful for the thesis. Nevertheless, some sources did help with understanding the experience of Chinese students better and when relevant will be referred to.

The three sources selected for in-depth primary research were selected on the amount and quality of content they each possess and the degree to which they are complimentary to each other. All three sources concern students with either *Gaokao* or *Zhongkao* approaching,[5] as these periods are marked with a significant increase in

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3 http://www.baidu.com/

4□□, higher education entrance exam, the Chinese school system will be explained in further detail in chapter three.

5□□, high school entrance exam.

academic stress (Duan et al., 2013) and are therefore found to be useful in trying to lay bare how high academic stress was perceived and coped with. No primary sources prior to the year 2000 were used to make sure information is still relatively relevant. Previous research did not find a significant relationship between academic stress and gender (L. Chen et al., 2013; Hu et al., 2015; Xu et al., 2014), therefore gender was not incorporated as a selection criterion. Furthermore, some sources focused more on non-academic sources of stress, such as family situation, poverty or a traumatic experience and were therefore deemed unsuitable for this research.

The first source discussed is about a high school student unable to cope with the academic pressure of the approaching college entrance exam, *Gaokao,* and her teacher who provided her with support. The information was recorded by a third party and posted online on news.ifeng.com.[6] The second source discussed is an internet forum moderated by a mother who is worried about the amount of time her son spends on the internet, which affects his grades. Her son is in middle school and approaching *Zhongkao*. On this forum she asks for help and gets a number of replies. The forum can be found on tianya.cn.[7] The third and final primary source is a dialogue between a high school student and a psychologist and was posted online on people.com.cn.[8] In it, the student explained he couldn't concentrate on his studying anymore as the pressure was too high for him to perform. The three relationships of the primary sources are therefore teacher-student, parent-child and psychologist-client. Even though the focus of this paper is to give insight in the role of psychology in everyday Chinese life and not attempting to generalize this information over the entire Chinese population, the three different relationships described can only be useful to give a better holistic picture of the experience of academic stress and the way psychology is used to cope with it.

2.3 Theoretical framework for primary sources

For analyzing primary sources a second Foucauldian principle has lent itself to be quite useful; in the book Discipline and Punish (1977), Foucault lays bare the ways in which

6 Full link: http://news.ifeng.com/gundong/detail_2013_07/12/27414965_0.shtml.

7 Full link: http://bbs.tianya.cn/post-767-39144-1.shtml.

8 Full link: http://www.people.com.cn/GB/paper68/677/79446.html.

people can be controlled in their actions without too much exert of power. This phenomenon is called panopticonism and is based on a story of an imaginary tower (the panopticon) where people are solitarily being contained in rooms with glass that enables outsiders to look in, but disables those inside the rooms to see through. Only a single person observes all the prisoners in the tower, so those detained cannot be observed at all times. At first this tower would seem understaffed, yet the sheer absence of knowledge for the detained if or when they are being observed makes for the prisoners to always be in a heightened state of awareness, they "feel" watched even if they might not be.

The concept of the panopticon has inspired me to employ a similar method in why Chinese students experience high academic stress. Multiple facets and actors as described in the literary review of chapter three hold power over a student to make sure said student invests in their education, yet the students aren't under full scrutiny at all times. This pressure from the outside directly pushes the students to strive for academic success, but also burdens the student as this creates academic stress for them. Even though they are not always literally observed like in the panopticon, (they might be observed in class but not at all times) the concept of the panopticon is used as a basis to create an analytical report that synthesizes and integrates the existing research into the findings of the primary sources in chapter four. The secondary literature used for describing these factors influencing academic stress will in that sense be put to the test when researching the primary sources and will be discussed in the results section of this thesis.

In order to understand in what way the subjects of the primary research understand psychology, it has been researched how often and to what extend beneficial coping and support-seeking are employed, as described in chapter 3.3. For this purpose it is important to understand the subject's own reality within its own paradigm and realize that pure objective knowledge from a source as subjective as a blog is unattainable. Denzen's and Lincoln's *Interpretive Perspective* (as cited in Willis, 2007) explains the unattainability of pure, objective knowledge and encourages the researcher to focus on the personal aspects of the subject, its own reality, by mainly focusing on emotions and personal circumstances the subject faces. It has always been attempted to put words into context and not pretend that pure objective knowledge is found in the primary sources, as this is not the goal of this research. The goal is to research to what

extend an understanding of psychology is apparent in these people and in order to do so one needs to focus as much on their personal circumstances as possible. Also, the secondary research question, the way in which academic stress is experienced and discussed by the Chinese studied in this paper, is researched in the same way as the primary research question. Namely, a combination of a Foucauldian basis of thought to lay bare principles influencing academic stress and *Interpretative Perspective* to attempt to understand the subject in proper context.

2.4 Ethical considerations

The internet sources used for this study are posted publically and use aliases for the people involved. It is neither the intention nor goal of this study to research or reveal the real identities of said people.

3. Background

3.1 History of psychology in China

As mentioned before, psychological thoughts were widely exported throughout Ancient China, yet psychology as a science didn't exist until the 20th century (Miao & Wang, 2003; W. Yang & Ye, 2014). Psychology was slow to catch on in China, but the overthrow of the Qing government in 1911 saw for a more favorable environment for the sciences. The first psychology course ever to be given in China was given at Peking University in 1917 and by 1920 the first psychological department was established in Nanking Higher Normal School (Ching, 1980; Miao & Wang, 2003; Zhang, 2007). In 1921, the Chinese Psychological Society was founded and the first psychological journal of China, *Psychology,* was published in 1922. The *Chinese Psychological Journal* came out in 1937 (Ching, 1980; W. Yang & Ye, 2014; Zhang, 2007). Early Chinese psychology was introduced mainly from the West. In the 1920s and 1930s Chinese students were sent to the United States and Europe to study psychology and come back to help develop Chinese psychology in the 1930s (Ching, 1980; W. Yang & Ye, 2014). The development of psychology as a science in China has been influenced greatly by from Japanese psychological advancement. Most early academic psychology textbooks are translated Japanese works and their translators had received their education there as well.

Moreover, the Chinese word for psychology is a loanword that comes from Japanese.[9] (Miao & Wang, 2003; Zhang, 2007). However, psychology and other "Western" sciences were not esteemed in pre-communist China, which resulted in little original Chinese psychological research. Most empirical studies carried out in this period had the purpose of replicating and validating Western findings (Miao & Wang, 2003).

The founding of the People's Republic of China in 1949 quickly saw a surge in the development of psychology as the new communist Chinese government supported the sciences strongly. Chinese psychological development drew heavily from Soviet psychological thought in the 1950's, while Western psychology was regarded as bourgeois and reactionary, with the main criticism being that Western psychology violates Marxist principles by stating that the mind is influenced by the brain and not social class (Miao & Wang, 2003; W. Yang & Ye, 2014). Therefore psychological testing on humans was regarded as discriminating against the working class, which slowed down the development of experimental psychology at this time. Not all fields of psychology suffered during this period. Behaviorist theories such as Pavlov's theory of conditioning was popular in China, and was used to explain children's behavior (Miao & Wang, 2003). Developmental psychology didn't suffer much either and was for instance employed to research recognition of Chinese characters and idioms. Besides a lack of original experimental psychology in this period, in general psychology flourished as an established science in China from the mid-50's up until the Cultural Revolution of 1966 (Miao & Wang, 2003).

During the Cultural Revolution from 1966 to 1975 psychology was labeled as "pseudo-science and un-revolutionary" by Yao Wen-yuan, one of the members of the notorious Gang of four. He launched a campaign against psychology and persecuted Chinese psychologists disagreeing with this view, while psychology students (like many other students) had to do manual labor work in the countryside (W. Yang & Ye, 2014; Zhang, 2007). Class struggle was once again put above the development of science; with psychology interfering with the legitimacy of class struggle as defining who people are mentally. In general psychology was put to a halt (Miao & Wang, 2003). The Chinese regard these ten years as a "lost generation" in regards to science and technological development and believe this period contributed to an ever large gap between psychology in China and Western psychological development (Miao & Wang, 2003; W.

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Yang & Ye, 2014; Zhang, 2007). Chinese psychology did not only catch on late, but also drew much from foreign psychology and didn't develop much because of political turmoil in the country.

3.1.2 Current state of psychology

Since the end of the Cultural Revolution, a continued greater emphasis on science has been present in China, allowing for psychology to flourish as an academic field. In 1977, the Chinese Psychologist society resumed its activities and in 1978 the Department of Psychology was re-established in Peking University (W. Yang & Ye, 2014; Zhang, 2007). Psychology has expanded rapidly; in 2007 around 150 psychology departments, 130 master's programs and 30 doctoral programs existed in universities. About 10,000 undergraduate, 2,000 master's level graduate and 3,000 doctoral level graduate students were enrolled (Zhang, 2007). The approximate number of psychologists has reached 20,000 to date, yet according to Zhang, one of the leading psychologists in China and president of the Chinese Psychology Society for two consecutive terms (2001 to 2009), this number doesn't meet society's demands at all (Zhang, 2007). There are 16,383 psychiatrists in China, which is far too little according to Dr. Xu Yong and Dr. Jianping Wang, two leading professors in the Medical School of Jiaotong University and the Department of Clinical Psychology respectively. In an interview about the state of mental healthcare in China they voiced the opinion that there is still much room for improvement for psychiatry and mental psychology in the country (Szymanski, 2012). Also, China greatly lacks in school psychologists, as this profession has yet to be identified as an independent vocation (Ding, Kuo, & Van Dyke, 2008). China's highest ranking university for psychology is Peking University, at number 48 in the world. Most top-ranking universities are still located in the West (Tucker, 2014). Current psychological focus in China is on Western psychology and in general Chinese psychologists agree with foreign psychological viewpoints (W. Yang & Ye, 2014). Actually, Chinese psychology is criticized for agreeing too much with foreign psychology, not conducting enough original research and only elaborating on established research without having original ideas. The criticism comes from both Chinese as well as non-Chinese psychologists (Kolstad & Gjesvik, 2014; Miao & Wang, 2003; W. Yang & Ye, 2014; Zhang, 2007). In short, Chinese psychology as an academic field has been growing since 1976, but is still deemed far behind in comparison to the West, which is in part due

to unfavorable conditions for psychology pre-1976 and a big focus on foreign psychology. From a top-down approach, this chapter argues that Chinese psychology is both behind and non-original in comparison to Western psychology.

3.2 Academic stress in China

3.2.1 Definition

The distinction between stress and chronic stress is an important one to make. Stress is a reaction of the body to a stressor and puts the body in an alert phase, producing cortisol to do so. This response can be helpful in dangerous situations that ask for a quick reaction of the body, a logical evolutionary reaction would be the fight-or-flight response (either run from the stressor or fight the stressor). In modern life, however, people find themselves being part of a lifestyle where they are in a constant level of higher alertness, with higher cortisol levels. This is called chronic stress and unlike the short stress response this can have severe negative results for the body and mind (Sapotsky, 2004). In this paper, when speaking about (academic) stress and its consequences, chronic stress is always referred to. Multiple facets influence the amount of academic stress Chinese students are facing and will therefore be briefly explained, followed by why stress is harmful and lastly in what way an understanding of psychology can be helpful in coping with stress and its consequences.

3.2.2.i Chinese education and entrance exams

Official statistics from 2014 show that about 88.5 students were enrolled in secondary education (China Statistical Yearbook, 2014). Before being able to enjoy secondary education, students have to finish primary education. In addition, 15 million students were enrolled in pre-school, which is for children of the age of 1 to 3 and not mandatory (Chinaeducenter, 2015). Primary and secondary education take 12 years to complete, with 9 years being compulsory since the 1986 implemented law of "*Compulsory Education Law of the People's Republic of China*". Primary education lasts either 5 or 6 years and secondary education, which is divided in junior secondary (middle school) and senior secondary (high school) education, lasts for 6 or 7 years (Chinaeducenter,

2015).[10] An estimated 99.7% of Chinese children enjoys the compulsory 9-year education.

Junior secondary education (middle school) comprises 39 school weeks, one reserve week and 12 weeks of holidays. Class usually starts around 7AM and lasts until 5 PM, with a two-hour break from noon until 2 PM for lunch and a vocational siesta. After 5PM a one hour dinner break takes place after which an hour of leisure, typically in the form of physical education starts. Exercising reduces stress so helps (Kalat, 2009). At 7 PM, an evening class commences that lasts for two hours in middle school. Students typically sit in class doing homework and studying under the supervision of teachers who can assist them with questions. The focus of middle school is a test, *Zhongkao* (□□), passing this test allows students to continue to high school. Wu (2012) reports that the Ministry of Education of China stated that about 90% of students pass *Zhongkao* and the score obtained dictates if they can attend vocational schools, regular senior high schools or honor senior high schools. Vocational schools focus more on practical skills and practical knowledge and requires lower test scores to get into. Vocational schools range from primary to tertiary education. About 45% of students in secondary education go to vocational schools (Ministry of Education of China, 2006).

Senior secondary education (high school) comprises 40 weeks of education, up to two reserve weeks and 10 to 11 weeks of holidays. School days are from Monday to Friday and a typical school day is largely similar in structure as one in middle school, except for evening classes being extended two hours, lasting until 11PM. The focal point of high school is the notorious college entrance exam, *Gaokao* (□□). The classes students follow in secondary education are Chinese, Math, Geography, English, Chemistry, Physics, Biology and Political Science, which are all tested on the *Gaokao*, plus extra classes of each student's choice, such as another foreign language. In general students spend most of their time studying and are under constant pressure to perform well on *Gaokao,* as their goal is to pass it and get into higher education (Davey et al., 2007). Higher amounts of study work have been linked to higher levels of constant stress (Kalat, 2009). If the *Gaokao* success rate were to be higher, student stress would be lower (Duan et al., 2013).

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10 65% of primary school students are enrolled in the 6 year program, while 98% of secondary school students are enrolled in the 3 year junior secondary education. Senior secondary education is always 3 years.

The sheer difficulty of *Gaokao* adds to the stress of the student, because only about 45% of students pass the exams and are able to continue to higher education. In 2015, 9.42 million students attended *Gaokao* (Yuan, 2015). The number of students able to pass *Gaokao* is directly linked with the amount of spots in higher education for these students, with higher scores permitting students to attend more prestigious universities in the country. Due to either not passing the *Gaokao* or not obtaining a high enough score to enter a prestigious university, some students decide to try again a year later, adding to the pool of students wanting to pass the test, making competition fiercer for the next year. Since the grades obtained on *Gaokao* are the sole basis for universities' admissions on, Chinese students are under immense pressure to study as well as they can (Wang & Shah, 2014). This is why some students go to the extent of taking extra cram classes at night and/or on weekends, or go online to ask for help on how to best prepare for the exam. An example website is a forum on tieba.baidu.com.[11]

The enrollment rate for students in higher education has been rising in recent years. Nearly 20% of the general population enjoys higher education, compared to 1.4% in 1978 (Chinaeducenter, 2015). Despite the fact that the number of students able to enjoy higher education grows each year as the number of available seats in higher education grows, the amount of students studying to pass *Gaokao* grows even faster (Chinaeducenter, 2015), making competition fiercer every year. Additionally, students have to study as hard as they can to be able to compete on a tough labor market where the competition for jobs is fierce. This constant reminder of competition leads to academic stress (Peng et al., 2010).

Besides the pressure to pass *Gaokao* to move on to higher education, schools and teachers also pressure students to perform well, as their reputation is based upon the number of students that pass *Gaokao*, which has led to a system of education in schools where the main goal is to prepare students for *Gaokao* instead of develop their abilities (Davey et al., 2007). Additionally, a system of name ranking[12] is used within classes to always remind students who has the best scores in class, and who the worst. This type of competition further increases stress (Peng et al. 2010).

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11 Full link: http://tieba.baidu.com/f?kw=%E9%AB%98%E8%80%83&fr=ps0bt&ie=utf-8.

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Academic pressure posed by *Gaokao* is even higher for students in rural areas as they have a less competitive education system than those in urban areas, e.g. facilities in rural schools aren't as advanced as they are in urban schools, yet all students have to pass the exact same entrance exams (Guo, Guo, Beckett, Li, & Guo, 2012). Additionally, China's most prestigious universities are located in major cities such as Beijing, and exam candidates are eligible to enter universities in their city of residence with lower exam scores than students resident in other areas, which makes pressure even higher for those outside that city (Davey et al., 2007). Finally, students in lower income families suffer from more stress than students in the highest socioeconomic groups and are 1.81 times more likely to suffer from depression (Lorant et al., 2003). As the gap between rich and poor keeps widening in China, the poor will only be further disadvantaged (Meng, 2004; Zhou, 2015).

3.2.2.ii Traditional Chinese values and Confucianism

To understand where Chinese educational values come from, one must look at the root of their educational culture, Confucianism. Ever since the birth of Confucianism around 500 BC, it has always influenced Chinese (and other East-Asian) cultures to a lesser or greater extend. Confucianism emphasizes education beyond other values and perceive moral and educational perfection possible (Wu, 2014). This may have influenced the cultural belief that a student should study hard to obtain a perfect score. Early Chinese civilization already established a feudal imperial exam system to select government officials (Davey et al., 2007; Marginson, 2011). Education was thought to be able to "cultivate" people, which then would enable them to participate more effectively in society. Only those who passed the imperial exams could hold official jobs in the old imperial system (Wu, 2014). Another example of the long-lived importance of education in traditional Chinese culture is the traditional Chinese character for studying (􀀀), which shows two hands holding the symbol of divination (􀀀), while the lower part is a child (􀀀) under a house (􀀀). It depicts how the education of young people is a way for them to culture the entire family, with divine and perfect education being attainable (Wu, 2014).

3.2.2.iii Filial Piety and One-child policy

Another important Confucian value that highly influences Chinese culture is filial piety (􀀀). A major aspect of filial piety is respecting, obliging to and taking care of ones parents. Since the majority of current Chinese students is an only child, the

responsibility for caring about the well-being of the parents cannot be shared with siblings, making only children more filial (Deutsch, 2006). Since the implementation of the One-child policy in 1980 Chinese families are in most cases only allowed to have one child, which then becomes the focal point of all the families' hopes, aspirations and investment. The entire family's hope that one of their own can attend higher education falls to this one child. The only children in the research of Deutsch (2006) have frequently expressed helping their parents as one of their life goals and are thought to be emotionally extremely close to their parents due to the amount of investment the parents have put into them.

3.2.2.iv Chinese parental styles

As stated before, Chinese children are highly influenced by their parents. High school students are mostly not able to decide by themselves what particular courses they wish to follow or what university they would like to go to. Not having the power to decide for themselves adds to the stress of the students, as an interest in the content studied can significantly counter academic stress (Hawker, 2012; Tyson, Wilson, Crone, Brailsford, & Laws, 2010; Xu et al., 2014).

Parental styles are directly linked with the self-esteem of a child and its chances of developing harmful psychological diseases such as depression. Parental warmth shown to their child plays an important role in the development of the child's self-esteem (McLeod, Weisz, & Wood, 2007). Parental hostility and excessive control over a child can lead to damaged self-esteem and learnt helplessness, which make the child less resilient to coping with academic stress. In addition, dictatorial and punitive parenting can undermine a child in the way they can regulate their emotions, for example when facing frustration or anger (Timpano, Keough, Mahaffey, Schmidt, & Abramowitz, 2010). Chinese mothers tend to adopt an authoritarian parenting style that does include punishing their child when expressing unwanted behaviors such as negative emotions, however they are, in general, warm and responsive and explain the reasons for punishment. The mother has a bigger influence on the child than does the father, as she interacts with the child more, while he is supposed to be strict and absent within Chinese culture (Chan, Bowes, & Wyver, 2009; Chan & Poon, 2015). Authoritative parental styles in China are linked with children's adoption of constructive coping strategies, as the child knows the rules and boundaries from within it can live. Coping

styles are extremely important when dealing with stress and will be explained further in chapter 3.2.4 (Chan et al., 2009).

A general good relationship with the parents, especially the mother, has a positive influence on children coping with

stress (Xu et al., 2014). Also, parents with higher educational levels are able to communicate better with their children, allowing them to alleviate the academic stress their child faces since they understand the situation the child is in better (Chen et al., 2013; Yang, Rockett, Lv, & Cottrell, 2012).

Besides parents caring for children, grandparents also play a significant role in raising children. In about 40% of Chinese households, grandparents co-reside with the parents and spend about an equal amount of time raising children as do parents (Chen, Liu, & Mair, 2011). Additionally, 5% of children live in "skipped-generation" households where parents are absent and the child is fully raised by the grandparents. For families where grandparents do not co-reside, about 40% gets regular help from the grandparents by leaving their child at either of the grandparents' home (F. Chen et al., 2011). An alternative for the care of grandparents are daycare centers where about 25% of Chinese children go until the age of six (F. Chen et al., 2011). Grandparents care for grandchildren because this frees up time for both parents to work, saves money and solidifies the bond between the generations (F. Chen et al., 2011). The effect Chinese grandparents' parental styles have on the academic stress of their grandchildren are largely unknown, but one can assume that the more prominent their role in raising the children, the bigger the influence.

3.2.2.v Collectivism

Traditional Chinese culture is both a hierarchal culture as well as a collectivistic one, with the rules of hierarchy also applying for society.[13] It is therefore accepted that some have a higher standing in society than others and people are defined and seen by the relationship with others. When ones accepts their position and acts accordingly one can attain good mental health, according to Confucian principles (Triandis & Singelis, 1998). A collective sense of self in which family needs and honor comes before personal desires is encouraged (Deutsch, 2006). This does not mean that people in individualistic

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13 Filial Piety is one of the five ethical relationships (□□) of Confucianism, along with ruler-minister, elder brother-younger brother, husband-wife and friend-friend (Mackerras, 2006).

cultures do not value intergroup relations, but rather that they in general value individual goals higher than do people from collectivistic cultures (Triandis, Bontempo, Villareal, & Analysis, 1988). Therefore, within collectivistic cultures, how others in society view an academic major in importance has a larger effect academic stress (Xu et al., 2014). However, people in collectivistic cultures experience fewer stress symptoms and lower rates of psychological disorders related to stress since individuals in general have more stable interpersonal relationships and enjoy higher levels of collectivistic coping than people in individualistic cultures do (Triandis et al., 1988). It is important to realize that labeling a culture as purely collectivistic (or individualistic) fails to understand the diversity and complexity of a society. Chinese urbanites are (in general) less traditional and collectivistic than those in rural areas, and the entire society is becoming more individualistic (Kolstad & Gjesvik, 2014). Also, individuals can differ immensely from each other, even within the same culture.

3.2.3 Results of chronic stress
After describing the six major factors influencing academic stress for students, it is important to explain the harmful effects chronic stress can bring to a student.
Prior research has proven that chronic stress significantly increases the likelihood for a person to suffer from a plethora of psychological diseases such as chronic fatigue and depression, but also burdens the immune system in a way where one is more susceptible to any kind of harmful virus or disease attempting to penetrate the body (Kalat, 2009; Sapotsky, 2004). Insomnia, loss of appetite, poor digestion, higher cholesterol, higher blood pressure and ulcers are also linked with chronic stress (Sapotsky, 2004).

More specific for Chinese students, research from Duan et al. (2013) has pointed out that Chinese students in their exam period face more stress and anxiety than students outside of this period, which can even lead to the decrease of their body's ability to wake up quickly, as their body isn't as capable of raising cortisol levels when awakening. A possible explanation could be that the constant high levels of cortisol during sleep would lead the HPA axis to hypo-activity,[14] basically crippling it in its function to produce high cortisol levels needed to wake up (Duan et al., 2013; Thorn, Hucklebridge, Evans, & Clow, 2006). However, on days where one is supposed to

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14 The HPA axis (Hypothalamic-pituitary-adrenal) plays a major part in reacting to stress and regulating an array of bodily functions.

perform, the cortisol-awakening response is higher than on resting days, meaning that the HPA axis can function better when it is absolutely necessary to do so (Schlotz, Hellhammer, Schulz, & Stone, 2004; Thorn et al., 2006).

The academic stress and poor career prospects that Chinese students face greatly increase their chance to suffer from depression (Xu et al., 2014). In general, students in East-Asian countries have higher percentages of depression than students in other areas of the world. The lifetime prevalence of depressive symptoms of students from East Asian countries is as high as 38% (Steptoe, Tsuda, Tanaka, & Wardle, 2007). A possible explanation is the role of entrance exams and the loss of purpose a student faces after coming out of "entrance hell". It is a phenomenon shared with other East-Asian countries such Korea and Japan (Steptoe et al., 2007). Depression and depressive symptoms are more common among students than the general population, where depression has a lifetime prevalence of 16.2% and a 12-month prevalence of 6.6% (L. Chen et al., 2013; T. Yang et al., 2012). Besides chronic stress being harmful for the students' mental and psychical health, it can also negatively affect their concentration and academic performance (Pozos-Radillo, Preciado-Serrano, Acosta-Fernández, Aguilera-Velasco, & Delgado-García, 2014) and in extreme cases lead to despair and possibly suicide. Examples are a girl in 2010 that attempted to cut her wrists because she couldn't bear *Gaokao* pressure[15] and a student in 2014 who threw himself out of a window in a school in Wenzhou since he couldn't bear the pressure *Gaokao* brought him.[16]

3.2.4 Countering academic stress; the role of psychology

This chapter explains how personal coping and social support greatly help counter academic stress. Adequate coping and support-seeking are greatly influenced by psychological research (Arsenio & Loria, 2014; B. Compas & Williams, 1990; Furlonger & Gencic, 2014; Wolf, 1994), therefore mainly coping and support seeking will be searched for in the primary sources in assessing to what extend people understand psychology.

3.2.4.i Coping

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15 Full link: http://www.chinanews.com/edu/edu-xyztc/news/2010/06-13/2343125.shtml.

16 Full link: http://js.people.com.cn/html/2014/03/20/296634.html.

Being able to make sense of stress and dealing with it in a healthy manner (coping) greatly reduces chronic stress and the negative results it has. Beneficial coping styles are active coping styles that include problem solving and emotion-regulation. Also, secondary positive coping styles that include acceptance, cognitive restructuring and positive thinking are regarded as beneficial coping styles (Arsenio & Loria, 2014). Finally, disengaging coping, which includes avoiding, denying and wishful thinking increase academic stress levels and have negative effects on grades in school (Arsenio & Loria, 2014).

Studies conducted in the United States have shown that cognitive variables (such as intelligence) explain 42% of the variance in grade point average (GPA), whereas coping explains as much as 15% (Arsenio & Loria, 2014). Beneficial coping styles enable a student to deal with and reduce stress and negative emotions related to school (e.g. when facing a disappointing grade), which results in getting higher overall grades (Compas, Connor-Smith, Saltzman, Thomsen, & Wadsworth, 2001).

Moreover, disengaging coping styles increase stress and are linked more strongly with stress-related disorders such as depression (Compas et al., 2001). Experiencing negative emotions and not dealing with them also increases stress. Children that believe they are to be blamed for negative outcomes yet do not take credit for positive outcomes are an example of children with a maladaptive coping style and have lower self-esteem than those describing positive results to themselves (Grabell et al., 2014). Additionally, higher self-esteem enables students to not be overwhelmed by problems and increases the likelihood they will use beneficial coping mechanisms (Chan & Poon, 2015).

An important aspect of coping styles is that they can be taught. For example, a well-known style of beneficial coping, effortful control, includes voluntary controlling emotions and negative feelings and are skills built in childhood and directly influence the extent to which a child can deal with stressors (Compas et al., 2001; Grabell et al., 2014). Effortful control could be taught by parents or at school when a psychological understanding of coping is existent. Chinese students are thought to be generally good at effortful control, as it is thought that culture can moderate coping and Chinese culture amplifies not dwelling on negative or aggressive emotions but showing restraint and dealing with hardship (Grabell et al., 2014).

3.2.4.ii Support and support-seeking

As explained earlier, support from parents, teachers and fellow students can greatly reduce the stress of the student (Chan & Poon, 2015; Wheaton, 1985). Support-seeking, however, is also considered an active coping style of the student. Higher social support is linked with less stress and lower levels of depressive symptoms, and confident children that use beneficial coping styles are more likely to seek support from significant others when facing stress (Chan & Poon, 2015; Cheng, 1998). Beneficial coping and active support-seeking are related to less mental health problems (Wheaton, 1985; Wolf, 1994).

Because of the importance of families, family-based approaches in giving support would be most helpful (Xu et al., 2014). As mentioned before, a strong, warm emotional bond with the parents is important, as is family harmony. Stable, close families are more likely to extend extensive support to their child (Han, Oliffe, & Ogrodniczuk, 2013). Strictness of Chinese parents wasn't found to be detrimental to social support, as this can be seen as parental love within Chinese culture (Chinese authoritarian parental style), while parents who don't wish best for their child usually have children with lower self-esteem that seek less social support from them.

Finally, peers and classmates play an important role in stress reduction for the student, while peer pressure and bullying can undermine a student's way to cope with pressure and should be avoided (Triandis et al., 1988). Consulting a professional (psychologist) is also beneficial in countering academic stress or psychological ailments and can also be seen as support-seeking.

4. Results

4.1 Teacher-student

The first primary source used is an autobiographic story of a high school student, Li Wei, and her teacher. Li Wei was in her third year of high school and shared with her teacher that she was unable to cope with the academic pressure of the then approaching college entrance exams, *Gaokao.* All information was recorded by a third party and posted online on news.ifeng.com, the story is told from both the students perspective and that of the teacher, giving insights in both sides of the story. Li Wei attended school in the city of Changsha, the provincial capital of Hunan.

4.1.1. Li Wei's situation

Li Wei had extremely high expectations of herself, wanting to go to Tsinghua University, one of the most highly esteemed universities in China and one of the hardest to get into; according to official ranking it has an university score of 9.4 out of 10, with Peking University in second place with an overall score of 8.1 (Zuihaodaxue, 2015). Li Wei explained that her teachers expected good *Gaokao* results of her, this high expectation used to make her more confident in her academic skills, but as *Gaokao* was approaching she felt more and more insecure and stressed, leading to dizziness, headaches and nightmares. Besides her teachers seeing her as one of the most promising students and having been "number one" in class a few times,[17] her parents told her that she would be the first in her family to be able to go to Peking University or Tsinghua University. They put her study room full of stickers from these university and shared their high hopes with the entire extended family. Even the local cadre once came to her house to tell her that if she got into one of those universities he would hold a party in her honor and make her an example of the entire community. In this way not only her family and teachers have high expectations of her which add to her stress, so does her local community. In response to these expectations she said: "everyone has fixed their gaze upon me"[18] because of that she would feel even worse. This is an example of a panopticon style of control over the student. Her stress is clearly influenced by the expectations she and others have of her. Lastly, she felt scared she would fall behind as her grades were suffering under the stress, further increasing her worrying and stress. In addition, she explained that her stress slowly led to anxiety, fear, feelings of inferiority and repeated sleep-disturbing nightmares. As discussed earlier, high stress can lead to severe psychological problems such as the ones Li Wei was experiencing (Kalat, 2009; Pozos-Radillo et al., 2014; Sapotsky, 2004).

Li Wei also explained that her parents got nervous after understanding the stress their daughter was under, fearing it might interfere with her grades and academic future. Stress is known to reduce concentration and having a negative influence on academic results (Pozos-Radillo et al., 2014). Her parents went to see multiple doctors with her, prayed to Buddha, changed the layout of their house to be more in harmony with the principles of *Feng-Shui* and even moved houses to avoid any evil spirits lingering in the

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17 According to the ranking system (□□) as explained in chapter three.

18 Litt. □□□□□□□□□□□□

old house. It is very clear that Li Wei's parents would sacrifice anything for their child to go through all this trouble and view education as highly important, as their prime concern is to not let Li Wei's disease get in the way of her grades. Li Wei explained that she saw herself as the cause of her parents' worrying, feeling even more obliged not to let them down. As reported by Deutsch (2006), children can see it as their duty to study hard for their parents as a part of Filial Piety. Li Wei also believed she was going slightly "crazy", thinking her fellow students would know about her failing grades and were now talking behind her back and avoiding her. Feelings of bullying and rejection by peers can undermine confidence and coping (Triandis & Singelis, 1998).

4.1.2 Li Wei's teacher

An attentive teacher saw the change in Li Wei's mood and inquired about her. After Li Wei explained her situation, the teacher did not dismiss her fears, but instead told her to take a better balance between studying and resting. He would help her strike this balance by explaining her situation to other teachers and coming on a house-call to talk with her parents. By doing this her teacher taught others to support Li Wei in these tougher times, which can greatly reduce stress (Chan & Poon, 2015; Wheaton, 1985). According to Xu (2014), taking a family-based approach to support is even more efficient. Li Wei explained that this already improve her condition.

Her teacher further made Li Wei's fellow students become aware of Li Wei's fears and advised them to be extra attentive to her, walking her home and starting a talk group in class with the name "We are one family".[19] By teaching Li Wei's fellow students how to support her, the fear Li Wei was experiencing concerning her classmates completely subsided and made her less stressed.

Li Wei's teacher voiced his opinion that too many students care excessively about their comparative name-rank in class. According to him this will cause their academic stress to rise and can result in psychological problems such as insomnia, nightmares and social reclusion. The teachers' clearly understands the main causes and results of academic stress and stated that when students do not address their state of mind, they might develop clinical depression or even schizophrenia. This is completely in line with earlier research of Kalat (2009) and Sapotsky (2004). He saw his actions as part of his duty as a teacher towards his students, hinting at the important role teachers have for

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19 Litt. 我们是一家人

students within Chinese culture (Mackerras, 2006). He also reduced Li Wei's academic pressure by giving up less homework and relaxing the norm on a few tests for her, so she could regain her confidence. Confidence plays an important part in coping (Chan & Poon, 2015; Cheng, 1998). He then further advised the parents to let Li Wei do an undergraduate course in a university close by, allowing him to keep supporting her. He also urged her to find some professional help on her own.

It was the teachers' idea to start a support group, a bottom-up process that underscores the teachers own understanding of the necessity for social support. He explained that the fellow students enthusiastically joined. In fact, the teacher explained that most of the time the school would suspend a student with psychological problems to deal with their problems in a different environment and wouldn't be allowed to continue their schooling at the same school. The reason being so that the school would not have to carry the burden of a student that would be less likely to pass exams, as this would look bad on the reputation of the school. As mentioned earlier, the more students pass *Gaokao*, the better this reflects on the school (Davey et al., 2007). To avoid this, Li Wei's teacher took matters in his own hands.

Li Wei's teacher explained he understands the need for social support for a child. They cannot "fight their battles on their own" but need to be shown love and support. To him, it is detrimental to view a child with some psychological problems as a "sick child", instead parents, teachers and fellow students should work together with the troubled student solve the crux of the problem. Because, he says, sound psychical and mental health is key to overcoming *Gaokao* stress, together with the notion that there is more to life than tests.

Because of the support she got from her teacher and the support group, Li Wei's attitude changed. She still saw Tsinghua and Peking University as her goal, but didn't want to put as much pressure on herself. Her head-aches, anxiety and nightmares subsided and she was able to focus better on her studies. This shows that when academic stress is reduced by a change in outlook, so do the negative symptoms related to high stress (Kalat, 2009; Sapotsky, 2004).

4.2 Parent-child

On the forum, a worried mother explained the predicament her son is in. He is in the third year of middle school and about to do his *Zhongkao*, but according to her not doing

homework and staying out late playing games, particularly the famous sand-box game *Minecraft,* in a local internet café and would sometimes spend the night in a hotel. The forum was started by the mother on the 26th of May, 2015 and received its most recent reply on the 9th of July, 2015. The forum contains a total of 43 posts, 26 by the mother and 20 by others. The situation and array of methods the parents employed before logging onto the forum to ask for help will be explained first, then the types of replies the mother got from other internet users and the way she responded to them. Finally, the results of the *Zhongkao* are given.

4.2.1 The situation

The child is an only child and is described as introvert and someone who used to be well-above average academically, conscientious and not needing to be motivated much to study. As of late, he has been making frequent after-midnight trips to a local internet café, resulting in not finishing his homework and not getting enough sleep. According to the parents, this is the reason for his grades to go down. The mother tried an array of resolutions: talking to her son, scolding him at times, making him see a psychologist, telling him how important his study was for his future and even letting the dad sleep in the same bed as the son to make sure her son would not sneak out of the house. Eventually she asked other parents and people with similar experiences for help on the internet. She stressed that she would appreciate any help and insight they could get, stressing that they were not too proud to ask for help but humble to listen to other's advice.

The amount of control the parents tried to exert over the child hints at a typical warm yet authoritative parental style, investing much time and energy in the child by talking to him and monitoring him. The mother was mostly concerned for the falling grades of her son, believing he could do better. She stated that she would allow her kid to play video games as long as this wouldn't interfere with his grades. All the different tactics she employed show the necessity for the mother to try and fix the problems at hand. Being strict yet warm at times is a typical example of the authoritative parenting style Chinese parents sometimes use (Chan et al., 2009; Chan & Poon, 2015).

The fact that the parents made the decision to seek the help of a psychologist confirms that they believe in the use of psychology and the beneficial role it can play in solving problems such as the one they are facing. The mother explained that she put her

faith in a psychologist as she trusts in someone who is a professor and has experience with youth problems. It was the mother's idea to go see the psychologist and pointed out that she would have made this decision sooner if it wasn't for the father who needed some convincing by her.

The psychologist explained to the parents that the constant need for the son to play games might be to escape reality because his real life is too stressful. Gaming can indeed fulfill an important psychological need and reduce stress, yet excessive gaming can be detrimental for psychological health (Ryan, Rigby, & Przybylski, 2006; Zhu, Zhang, Yu, & Bao, 2015). The psychologist further explained to the parents that they could play an active part in relieving the stress of their child if they would sometimes talk with their kid about other subjects than studying, empowering the parents into telling them that they can have a profound influence in changing their sons' situation for the better. It wasn't clear if the mother took the advice of the psychologist to heart, but she did explain that their child focused more on studying after seeking professional help, however reverted back into old habits shortly after. This is to be expected as a single visit to a psychologist cannot solve deep rooted problems such as potential gaming addiction or trying to escape reality. Further counseling is usually needed for psychologists to understand their patients better and find suited solutions for their problems.

Additionally, the mother would sometimes observe her son's behavior and whereabouts when he was not home by following him on the social media outlet QQ.[20] This can be seen as a modern way of putting her kid under surveillance via the internet, a panopticon style approach to monitor her child. The mother further explained that she knew of multiple other parents that would also use social media to monitor their children and share this information with other parents when relevant. For example, when the moderator's son didn't come home one night and she was not able to locate him, a befriended mother shared that that both their sons were at an internet café, this mother obtained this information via social media.

4.2.2 Interaction with others
Twenty replies were given by fifteen different internet users. The replies can be roughly categorized into two categories. Advice for the parents and short opinions in the form of criticism and encouragement. The eight posts of support and criticism were in general

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20 http://www.qq.com/

shorter than the thirteen posts of advice and added little more than wishing the parents good luck, thanking them for sharing their story or telling them they were doing it all wrong, yet not giving constructive advice.

The advice given by the nine commenters has been analyzed and categorized in four different general themes by the researcher: acknowledging the problem, providing love and support, realizing that gaming might be a response of the child to academic stress, and trying to bond more with the child. Throughout the forum the mother continued to thank people for their advice and expertise and said she would take it to heart and put it into practice.

4.2.2.i Recognizing the problem

All nine people that gave advice understood that there was a problem and advised the parents to try and solve it. Admitting to a problem is the first key first step in trying to solve whatever the reason for the problem. The role the parents can play in solving the problem their child is facing is teaching him how to cope with it and give him proper support. The commenters on the forum can aid the parents in finding what the problem is and advise them on how to guide their child. Recognizing a problem is part of active coping and can help relieve stress. Ignoring a problem is part of detrimental coping (Arsenio & Loria, 2014; Compas & Williams, 1990).

Not all proposed methods in dealing with the problem were similar, while most advised the parents to be open with their child and find out what the root problem for his gaming behavior was, others simply told them to not restrict their child too much and be there for him if he needed help, some advised the parents to do some fun activities with their child and two commenters advised the parents to provide assistance with school work in order to alleviate academic pressure. The mother also acknowledged there was a problem by asking the forum for help, by listening to the advice others gave and not dismissing it she further proved that she was willing to solve the problem.

4.2.2.ii Love and support

Eight people advised the mother on the importance of showing love and support to your child, to listen to him when he has trouble and to stand by him if he needs help. One person pointed out how detrimental it can be for the sense of safety of a child if they get forced to do something or if their pain is dismissed. He specifically mentioned the

mother getting angry with her child and giving him the choice to either study or pack his bags and leave the house, which eventually he did not do. These eight people all showed that they understand the importance of social support and tried to share this with the mother, encouraging her to care for her child. Forcing a child to do something never works out, one person noted. Research has shown that poor communication between parent and child and a bad relationship in general is correlated with gaming addiction (Ryan et al., 2006; Zhu et al., 2015).

The mother replied to the commenters by admitting to her mistake in getting angry and promised to always try to make her child feel safe and guide him when needed. She admitted that she didn't always communicate well with her child but that does have trust that her child will solve whatever is bothering him. Her reaction showed that the mother took this advice to heart; she shared that because of her change in attitude, her son started to communicate better with both her and her husband.

4.2.2.iii High academic pressure

Five people pointed out that the child's obsession with gaming might be due to his academic pressure being very high. Someone pointed out that his frustration with school could be the root cause of him trying to escape reality via gaming. Instead of focusing on gaming as the problem, these five people told the mother to focus on solving whatever causes her child to game so extensively. This advice is in line with the advice the psychologist initially gave the mother and earlier research from Ryan et al. (2006), showing that these five internet users understand that games can be used to escape real life problems. These five people further criticized the mother for focusing on school too much and not communicating with her child properly; instead of talking about school, she should focus on other topics more. This is also in line what the advice the psychologist gave. One person even stated that the child's education is not that important as it only teaches students "how to take an exam" and doesn't provide them with all-round knowledge.[21] This criticism stems from a feeling that Chinese education focuses on learning things by heart, often resulting in long school days and hours upon hours of repetition, which results in low creativity and high academic stress (Davey et al., 2007; Kirkpatrick & Zang, 2011). One person pointed out that success shouldn't be measured by how high of a grade the child attains and another commented that one

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should show love and interest for the child, not just in his grades. According to him, integrity is more important than performance. These comments are in line with earlier research; being there and supporting a child when studying can actually reduce stress and make the child perform better in school (Pozos-Radillo et al., 2014).

In the initial postings the mother clearly stated that she cared very deeply for her son's academic achievements and she felt as if the gaming stood in the way of his academic success. She wasn't immediately convinced that the pressure her child faced could be too high. However, when reading the comments she realized that the more she told her child to focus on studying the more he would revolt against her. From now on she would try and not solely focus on her child's academic performance and explained that this new approach seemed to work as her child became more motivated to study and shared more with his parents when the topic of conversation was not school. The comments made her realize that her child might be frustrated and used gaming to escape from these frustrations. The mother did state that she found education and good grades to be important for her son, but was no longer solely blaming playing computer games for his plummeting grade. She hoped he would find a solution by himself but would guide him if needed.

4.2.2.iv Bonding over gaming

Two people told the parents to bond over gaming with their child. According to them, this would serve the purpose of better understanding their son and create a stronger bond with him. Playing a bigger part of his gaming life could be a way to his heart. One person dismissed the gaming problem as a "boys will be boys" problem where boys would be obsessed with something for a while and "get it out of their system" before they would focus on something else. He said that gaming isn't necessarily a bad thing as her child could gain some skills he could later on use in information class, which would become a "side dish".[22] Research has shown that gaming is indeed linked with higher cognitive skills and is thought to enhance adolescents cognitive abilities (Subrahmanyam, Kraut, Greenfield, & Gross, 2000).

The mother later explained that she educated herself on *Minecraft* and would try to show more interest in her son's life outside of school. Furthermore, she explained her child wanted to learn a programming language; as one of the commenters rightly

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pointed out, her child is fairly interested in computers and it might be something he could excel at. She wasn't supportive of this at first as he would sometimes start new things and not finish them, but her husband convinced her by explaining their son had always been interesting in programming and had once won a provincial level award within the computer department. Later, the mother posted that they did support their child in studying programming language over the summer.

4.2.2.v Other mentions of psychology

One commenter mentioned psychological research on gaming and another mentioned the seven characteristics of strength within pedagogy that should be stimulated in a kid in order for him to succeed academically. He refers to the research of Peterson and Seligman (2004). This shows that these two commenters are familiar with psychological research, yet did not advice the mother to go see a psychologist more often.

4.2.3 Zhongkao Results

On the 8th of July the mother posted that her son obtained 680 out of 820 points on his *Zhongkao*, which was better than anticipated and a significant improvement of the 582 points he got on his last test. She explained her son was a bit frustrated as he was hoping for a higher score to secure a spot in an honor senior high school. The mother explained that she was content with the results, yet it was the son who wished he had obtained a higher score, showing that he does care about his grades.

4.3 Psychologist-student

This source is based on a dialogue between a student, Xiao Ming, and a psychologist. Xiao Ming is in his third year of high school. The approaching *Gaokao* increased the academic stress of Xiao Ming to the point where he had to seek the help from a psychologist.

What was troubling Xiao Ming most was the lack of concentration he was experiencing. As Pozos-Radillo et al. (2014) have made clear in their research, high stress can have a negative influence on concentration. The feeling that others concentrate better on their work further distracts him. His rank in class dropped from number 10 to number 15-16 and he worried he will not get into university because of this lack of concentration. What he wished to achieve was being able to focus his energy better, he therefore saw out the help of the psychologist. It is not clear whose idea it was

to seek out a psychologist, but it is clear that Xiao Ming cared much about how he holds up to other students and puts his trust in the psychologist to help him solve his problems. As Triandis et al. (1988) explained, peer opinions can influence coping greatly and Peng et al. (2010) pointed out that perceived competition can add to stress.

Xiao Ming told the psychologist he could only concentrate 40 out of 50 minutes in class. When travelling to see his parents in the weekend he would use his thirty minute travel time to recite, yet sometimes he could not concentrate fully and would get frustrafed. This shows the high amount of pressure this student puts on himself to study at all times.

The psychologist explained that Xiao Ming has two elder sisters and comes from a strict working family. To the psychologist it is clear that the strict parenting style used by Xiao Ming's parents has made him strict with himself too. He had always studied hard and was among the best of his class and wouldn't want his parents to worry about his grades. He finished in the top 10 out of 40 in middle school and could therefore go to an honors senior high school; to keep up with his high demanding class he increased his study time, usually until well after midnight, resulting in lack of sleep. During the day he would not allow himself to take breaks, which further underlines the enormous pressure he put on himself to perform. According to the psychologist, Xiao Ming had a natural tendency to wanting become number one in class. He blames his lower position in class fully on himself, and stated that if he were able to focus all his attention on studying he would definitely be in the top three in class. This hints to a maladaptive coping style, where negative outcomes are solely to blame on oneself (Chan & Poon, 2015). When the psychologist asked Xiao Ming how much he studies in comparison to other students he explained he spends most. When asked how further increasing study time and thereby reducing time to relax and sleep would help him focus his attention more he replied that his concentration would probably become worse.[23] Xiao Ming quickly realized his faulty logic.

It is interesting to see that even though the student made some illogical thought steps, he only needed the psychologist to talk with the psychologist briefly to realize what he might be doing wrong and could solve the problem himself. This verifies the inherent trust the student has in the psychologist and how he can understand her logic easily. She further explained the importance of being able to relax at some times as this

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can enhance performance and the student seemed to understand. It wasn't clear from the blog post if the student followed up her advice, but it was clear he was convinced that blindly adding more study time when already overexerting oneself doesn't always help.

5. Discussion

5.1 Conclusion

This paper argues that psychology shouldn't just be understood as a top-down process, but can also be apparent in people as a bottom-up process. From the results section one may conclude that all parties involved had a reasonable understanding of psychology. In the case of Li Wei it was her teacher that addressed her problem and took a number of psychologically informed measures to counter her academic pressure and help solve her problems. He approached the problem on his own, as bottom-up, meaning that if we were to just look at the school from a top-down perspective, we would have gotten entirely different view of this school as it is their policy to send psychologically troubled students away. The way the teacher handled the situation shows a great understanding of psychology, yet how the school would handle the situation does not. This validates how important it is to incorporate both top-down and bottom-up approaches to get a more complete view of a situation. In the second primary source, the mother sought out the internet for help and got a number of psychologically informed reactions from other internet users, which she implemented and later reported to have improved the situation. Xiao Ming had enough faith in his psychologist to take her advice to heart. If we were to have only focused on the secondary literature, it would have been very likely to come to the conclusion that China does lag behind in psychology. Per contra, bottom-up combined with top-down approaches to study the extent to which psychology has penetrated Chinese society show that psychology is more advanced in China than top-down research gives it credit for.

This study also attempted to take a look at how academic stress is experienced and expressed by the Chinese. In the case of the son, he was thought to escape his academic stress via gaming. Li Wei would get stressed to the point that she would get symptoms of paranoia in thinking all her classmates were out to get her and she would worry so much about her grades that she wasn't able to concentrate. Xiao Ming pushed himself so hard to attain high grades that he used as much time as possible studying,

resulting in him being fatigued and not being able to focus. A visit with a psychologist seemingly convinced him that sometimes one must relax and take a step back to recharge and keep on going. These three students all had very different ways in expressing their high academic stress, but all had high expectations put on them by either school, parents or themselves. Xiao Ming and Li Wei wanted to be number one in class and the son from the second source wishes he had obtained a higher score on *Zhongkao.* Furthermore, his mother constantly used her son's relative position in class as a way to express how well he was doing in school. This can bring about an enormous amount of stress as the students not necessarily study for themselves, but to be better than others. This name ranking competition between students can lead to extra stress (Davey et al., 2007; Kirkpatrick & Zang, 2011).

5.2 Evaluation of method

Most of the secondary research as described in the factors playing a part in causing academic stress of chapter three were found in the primary sources, validating this secondary research. Despite the concept of the panopticon serving as the inspiration for how these factors influence the academic stress of the students, the literal panopticon-style of control surprisingly came back twice in the primary sources. Finally, constantly reminding myself that objective knowledge is not obtainable and should not be the concern of this research greatly helped me in not looking feverishly for the wrong things, which saved both time and mistakes. For this I am quite pleased with the use of the theory "*Interpretive Perspective"* that led me to this insight.

5.3 Limitations

This research is a first step and cannot be used to generalizable to all 223 million students in China, which is also not the intention of the research. Nevertheless, it would have been better to incorporate a source from students in rural areas of China, as their academic stress is thought to be even higher and their families are more traditional in general (Guo et al., 2012; Kolstad & Gjesvik, 2014), which might have given different results on how they experienced academic stress or how psychology was used. The reason I didn't incorporate a source from rural China is simply because the sources most suitable for this research all happened to be from urban areas, or the location was not specified.

5.4 Suggestions

The main problem of this thesis was to address the misrepresentation of psychology when just looking at top-down processes. However, the problems do not end there. Even when doing research on the knowledge of psychology grave mistakes can be made. The Han-Chinese people are thought to be among the cultural groups highest to "somatize" their complaints compared to other groups (Xiaolu Zhou et al., 2011). In general somatization links to a poor understanding of psychological diseases as one only focusses on the physical complaints and is thought to not be aware of the psychological aspects (Kalat, 2009). However, misinterpreting Chinese language may be among one of the causes for this high apparent somatization in Han-Chinese people. An example is the common mistake made by non-Chinese psychologists in the use of the word for heart, *xin.*[24] This character not only represents the meaning of "mentality" such as used within psychology but also retains the meaning of heart, which is the traditionally Chinese organ responsible for thought and emotions. When facing deep emotions, *xin* is oftentimes used to express these emotions. "Heart problems" have metaphoric connotations and do not refer to the heart specifically as they would in other languages (Kolstad & Gjesvik, 2014), in the same way that the English "heartache" does not always retain its literal meaning. In this sense the Chinese traditional reference to the heart can be mistaken as somatization (Kolstad & Gjesvik, 2014). Besides, Chinese is a language of context. The same word can mean something vastly different in another context (Blum, 2007), so it is extremely important to understand Chinese language and culture before drawing conclusions on Chinese understandings of psychology. These are just a few problems of ethnocentrism and it isn't entirely improbable that more mistakes are systematically made. It can therefore not be stressed enough how important it is to sufficiently understand a culture when drawing conclusions about psychological thought outside of one's own culture.

From a top-down approach, psychology as a science in China might not seem as developed as it is in most Western countries, but it is growing every year (W. Yang & Ye, 2014). Chinese psychology has researched interesting new things such as how Chinese children learn to write pictographic characters, relying heavily on orthographic

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knowledge and morphology,[25] while for instance speakers of languages using the alphabet would only use morphological information to write (Packard et al., 2006). New original Chinese research might bring results that are useful for academia in general and makes it all the more vital to integrate each other's research.

Understanding that psychology isn't exactly the same in every country can be useful to gain new insights. For example, Xiao Ming's psychologist drew heavily from Daoism for inspiration in her advice. Most notably, Laozi's thought of "Inaction",[26] which she used as an example to explain to Xiao Ming that some things are out of our own control. In this way she combined traditional Chinese philosophy with scientific psychology. This shows that psychology can function different within different cultural frameworks. As psychology is getting more established in China, China's take on psychology might bring about a better understanding of Chinese culture as a whole. A country as big and diverse as China can only be expected to do great things in the field of psychology as it's steadily reaching its full potential.

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25 Orthography is knowledge of the structure in Chinese characters (Packard et al., 2006).

26 . For a translated version of Laozi's *Doctrine of Inaction*, see Giles (1905)
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