THE STIGMA OF "THE THIRD GENDER":

UNDERSTANDING CHINESE FEMALE PHDS IN CHINA AND THE

UK

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Abstract

Over the past few decades, there has been a rise in the number of Chinese women studying for PhDs, both in Mainland China and overseas. These highly educated women are stigmatised as "the third gender" in a Chinese context and are regarded as unmarriageable, rigid, odd, unsophisticated, bad looking, and "abnormal", very different from ordinary Chinese young women. However, the voices of Chinese female PhDs are still, to a large degree, unheard by the public and also in academic research. Using semi-structured interviews and drawing upon data from 40 participants in Mainland China and the UK, this study aims to explore and interpret the experiences of and attitudes towards being Chinese PhD students. This thesis depicts their detailed and varied everyday lifestyles and values to challenge the social stigma. I reveal that female PhDs are also constrained by traditional gender norms and the patriarchal system. In addition, they embody many positive attributes, including their high academic achievements and professional skills, independence, gender equality, and many other modern values. Nevertheless, these women are living with contradictions. They have internalised some prevailing traditional gender ideals, although they are practising them in an alternative and adjustable way. What they are insisting on, and pursuing, meets and corresponds with the social expectations of a good and successful woman in contemporary China.

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Acknowledgements

I have imagined several times the moment I wrote my acknowledgements in the last four years especially when I had difficulties in writing the thesis. I ever read a book *Chinese PhD Thesis Acknowledgements: A Communities of Practice Perspective* by Hua Peng (2010), especially looking at the social roles of Chinese PhD thesis texts. At that time, I wanted my acknowledgements to get off the beaten track and to deliver my real emotions. However, when I am writing this part now, I can only think of the most traditional and typical acknowledgements texts: Thank you, my supervisors, my participants, my family and friends. It is not because everyone writes like this to show their gratitude and politeness, but because they are really who I want to thank wholeheartedly.

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Author's declaration

I declare that this thesis is a presentation of original work and I am the sole author. This work has not previously been presented for an award at this, or any other, University. All sources are acknowledged as References.

Chapter 1

Introduction

My father obtained a doctorate during the late 1990s when PhDs were very rare in Harbin, a provincial city in northern China. When I was very young, I was always jokingly known as "postdoctor (*boshi hou/博士后*)" because I was the following generation (*hou dai/后代*) of a doctor (*boshi/博士*). Later, during the early 2000s, my father completed a postdoctoral programme. People then gave me a new label, "post-postdoctor (*boshi hou hou/博士后后*)", and predicted that my future would be promising for the reason that "postdoctor" was not enough for me and I, a so-called two "posts", would achieve more than a "postdoctor". I was shy, but simultaneously, proud of these "awesome" titles at that time. This was when and how my initial impressions of a "doctor" originated: full of knowledge and intelligence, with high social status, being proud and respected; briefly, a totally positive title in my perception.

Everything seemed to go very well for me. As people had predicted years before, I entered a top university in China. The intention of doing a PhD first emerged while I was an undergraduate because I thought it would be great to create something of my own and inspire others, even just to a very tiny degree. It was no surprise that my intelligent and open-minded parents encouraged my ideas of pursuing advanced education overseas. However, when I commenced my master's programme in a new subject, Women's Studies, and used my second language to communicate, read and write, it was very challenging and made me lose self-confidence. Consequently, I began to doubt myself and hesitated over whether I was academically capable of doing a PhD. As my familiarity with academic research grew through my practical experiences and those of my colleagues, as well as via information from my parents and lecturers, I gradually became aware of the tough work, difficulties and even the uncertain future career involved in doing a PhD, which threw me into confusion and anxiety. Lovitts (2008: 309)

concludes that the following characteristics are associated with creative performance and the completion of a PhD project:

> *High degree of self-discipline in matters concerning work, ability to delay gratification, perseverance in the face of frustration, independence of judgment, tolerance of ambiguity, a willingness to take risks, and a high level of self-initiated task-oriented striving for excellence... In addition, the traits of persistence, curiosity, energy, and intellectual honesty are characteristics that have been found in people who are good problem solvers.*
>
> *Lovitts (2008: 309)*

When I read these sentences, I became deeply convinced and I re-examined myself to consider whether I was qualified. I was disappointed when I recognized myself as low in self-discipline, addicted to gratification, and emotional in the face of frustration. What comforted me was that I was not lonely. My colleagues and friends were also considering their future careers and lifestyles during their master's courses. Master's graduates stand at the crossroads of their life. To find a job or to do a PhD, that is a question for all of us. My friends and I always shared our opinions and experiences. In our conversations, many of my female peers mentioned that they had decided to do, or were thinking about pursuing, a doctorate after their master's graduation. Some were driven by the highly competitive job market; some chose teaching in higher education as their lifelong career; some adopted doing a PhD as a means of staying in the UK for a few more years. A variety of reasons pushed them to consider doing a PhD, but not many of them were motived by the elements directly relating to a PhD, such as knowledge, the research topic, or the daily work they would devote themselves to over the next three to five years.

Later on in the master's course, I gradually made the decision to continue my education and pursue a PhD in Women's Studies as I was extremely interested in the topics about

women in China and was curious about the rationale and secrets behind gender issues. As Lovitts (2008: 310) notes, intrinsic interest, having an active and engaged mind, and being open to new ideas, fundamentally "intellectual curiosity", was identified as the single most important feature in the transition to independent researcher. Despite knowing my shortcomings for doing a PhD, I determined to try to overcome them and enrolled myself in a doctoral programme at the Centre for Women's Studies at the University of York. Conversations with my peers about future plans still continued. However, I found that they gradually dropped their intention of doing a PhD. Some said they never wanted to write essays; some planned to return to China or their hometown; and some of my female friends, persuaded by their families or in their own opinions, considered that it was the right time (age) to find a job and a boyfriend and to settle down. A good friend of mine, a very hard-working learner, worked out a promising research proposal and received an offer of a PhD position from a UK university. But her parents did not support her and argued that staying for several more years in the UK for a doctorate would hamper her in finding a boyfriend, and she agreed. Therefore, from their perspective, doing a PhD was not worthwhile for a young woman, and was "wasting" several years.

In fact, Chinese people who hold such opinions are not rare. Women with a PhD have been portrayed as lacking femininity, unmarriageable, odd, old, ugly, unsophisticated, and so on. All this time, the stigmas surrounding female PhDs have appeared on social media and in news coverage, as well as being widespread among the general public. The most well-known saying concerning female PhDs is: "There are three genders/sexes in the world, male, female and female with a PhD (世界上有三种人：男人，女人，女博士)". Consequently, female PhDs are labelled as "the third gender/sex". I personally critiqued these ridiculous ideas but I never seriously explored who held this viewpoint, the reasons behind it or its potential impact. In my opinion, women with a doctoral degree ought to be respectfully treated for their high educational achievements and

professional skills. Why does it largely become a negative title when it concerns women? Why are Chinese women regarded as undateable and unmarriageable if they do a PhD? Who are the women who are successfully engaged in doctoral programmes, what motivates them and how do they negotiate everyday life, work, and love? In retrospect, I suspect that I was influenced by the friendly environment around me, my supportive and intelligent family, my highly educated circle of friends, and academic-oriented universities. It might be foreign to me, but it has an unassessed influence on young women who are facing the choice of receiving doctoral education. These negative stereotypes of Chinese female PhDs were ignored and no one ever really challenged them.

There was a big discrepancy between my understanding of respect for PhDs and the social perception of "the third gender" PhD women. Also, my concerns about doing a PhD, involving whether my academic potential was sufficient, varied to some extent from those of some of my peers who planned to stay in the UK for more years, or enhance their competitiveness in the job market. As a result, I decided to investigate more deeply into this area. My research aims to explore the experiences of and attitudes towards being a Chinese female PhD student in China and the UK. More precisely, I intend to look at the all-round aspects of Chinese female PhD candidates, including their studies, love/marriage, work, everyday life, aspirations, values, self-identity and so on. With the rapid development of China's economy, society and values, I explore the category of Chinese female PhD students by locating them within this transforming Chinese context.

The thesis is divided into seven chapters (see Appendix 1: thesis mind map). The next chapter (Chapter 2) sets up the social, economic, cultural and educational context for making sense of Chinese female PhDs within the transforming Chinese society. I begin by paying attention to research on the political, economic and cultural changes affecting

contemporary womanhood in China, including their social status, participation in employment and education, gender ideology, marriage practices, femininity and masculinity, modernity and tradition. Then, the development of women's higher education since late 19th century is introduced, as well as some key topics about gender and education in China and in the UK will be discussed. Thirdly, the main focus is narrowed down to my research subject, Chinese female PhDs, outlining the prevailing social stereotype and stigma on social media and accepted by some general public. Finally, some existing literature concerning female PhDs in China is discussed; the main gaps are clarified to situate my research within the wider academic field.

In Chapter 3, I explain how the research data was generated during the summer of 2015 in four cities: Nanjing, Harbin, York and Leeds. It follows the time order of my research: pre-field, in the field and post-fieldwork. In the hope that this research will enable female PhD students' voices to be heard, and based on a feminist approach, semi-structured in-depth interviews were adopted. I detail the research design, finding participants, contact and preparation, the conducting of interviews, and on to transcription, coding, data analysis and writing up.

Chapters 4, 5 and 6 constitute the main body of data analysis and each of them centres on aspects of the participants' lives and research experiences. Chapter 4 depicts their lives and everyday schedules. As Chinese female PhDs are foreign to a large majority of Chinese people, revealing and depicting their daily lives is the first core task of the study. I examine their daily activities and schedules in general, and then categorise them and investigate their traits and the rationale behind them according to three influential factors: research disciplines, love and marriage status, and the countries they are studying in.

In Chapter 5, I explore their motivations for PhD study and research. After establishing

the importance of motivation in pursuing a doctorate, the discussion is developed through a typology, and female PhD students are classified into knowledge seekers, instrumental reward seekers, and acquiescent followers. Among the factors considered are: the competitive Chinese society, the gendered workplace, expectations of women in family and society, filial piety, patriarchal and hierarchical norms, self-determination theory, and so on. I study the reasons driving them to do a PhD, as well as the ways in which they are affected by socioeconomic status, institutional mechanisms, personal desires and suggestions from others.

Chapter 6 considers Chinese PhD women's love and marriage and their negotiation of social stigma. I explore Chinese female PhDs' experiences and values concerning love, relationships and marriage. I set up the homogamy/hypergamy theoretical framework to explain why the general public believes that Chinese female PhDs are facing "marriage difficulties". Following this, I discuss women's negotiation of different aspects of love/marriage by analysing their self-recognition and their choices and expectations of partners regarding education, economic capability, spiritual communication, age and beauty. I discuss these themes of love/marriage in relation to both traditional and modern ideas about gender, love, marriage and family.

In the final chapter, I restate several key findings about the category of Chinese female PhDs, and reflect on their lives and values, and the ways in which they challenge and adjust to the social stigmas and gender system in China. I illustrate how the identities of Chinese women interact with PhD motivation and experiences, and how the theme of continuity and change applies to them. I will discuss the limitations of my thesis and contributions I make to the academic field and then indicate what the further research can do.

Chapter 2

Making sense of Chinese female PhDs in a transforming Chinese society

Since the end of Mao's era and the implementation of the market reform and opening up policy, the following 40 years have witnessed dramatic transformations in every aspect of Chinese life, from politics, economics, and ideology to everyday life on a nationwide scale. In order to locate Chinese female PhD students within a wider social context and academic field, I will start by mapping the social settings within which my participants grew up and were stigmatised. Later, the historical background and current situation of gender and higher education will be introduced in order to foreground an understanding of the gendered environment experienced by Chinese women. This chapter will conclude by drawing on existing literature on Chinese female PhDs and related studies, and finally it will map out my own research subject.

Womanhood in contemporary China

I will depict the gendered Chinese environment from the late 1970s to the present in order to gain insight into Chinese young women's experiences and gender values. Women in China have experienced tremendous upheavals and transformations during the last three decades. How do these market reforms, the "Open Door" policy, the one-child policy, and introduced western values impact upon the lives and ideas of the young female generation in China? Chinese gender ideology and its cultural context will be illustrated in terms of its contribution to womanhood in Chinese society.

Women and employment in changing Chinese society

During the almost 40 years of the Mao era, there were significant shifts in official propaganda and public perceptions of women and gender. The official propaganda

noted that the country and society must come prior to families, and families prior to individuals. Mao intended to use the women's liberation movement to help with socialist reconstruction and to build the new China (Verschuur-Basse, 1996: 13). The government redefined the roles of women in both the domestic and public spheres by implementing "a comprehensive four-pronged strategy to: 1) legislate for equality, 2) introduce women into social production, 3) introduce a new ideology of equality and 4) organize women to both redefine and forward their economic, social and political interests" (Croll, 1983). Therefore, gender-neutrality was strongly advocated, which entails women crossing gender boundaries and encouraging them to develop (Wang, Z., 2001). The image of "iron girls" was created to promote the physical equality of men and women (Hong, 2000). The Iron Girls – strong, robust and muscular women who boldly performed physically demanding jobs traditionally done by men – were celebrated in newspapers, pamphlets, and posters (Mao, L., 2012). Notably, the slogan "Men and women are equal" (男女平等) changed the traditional gender ideology of male superiority and improved women's social status.

Since 1978, China has seen a new approach to socialist construction, with the focus on a market economy and the "open door" policy proposed and launched by Deng Xiaoping, which re-introduced China into the world and led its society towards modernisation. As Farrer (2002) informs us, this period saw an opening up of sexuality, the economy, and every aspect of Chinese society and culture. Over the inexorable tide of history, the national economic situation has grown up, and the living standards of Chinese people, generally both in urban and rural areas, have improved at a remarkable rate, population mobility and social class mobility have been made possible, western and modern values have been introduced and, inevitably, women's lives have been changed. During the reform period, it is widely agreed that women have experienced a shift from protection by the state to helpless exposure to a gender discriminatory society (Cheng et al., 1998; Honig and Hershatter, 1988). With the new principle of efficiency as the priority,

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women "have to compete with men in the market for employment, education and political participation" (Cheng et al., 1998: 590). Combined with the strong continuity of traditional gender views, women are still mainly responsible for household affairs, for instance, looking after children and the elderly. The withdrawal of state protection at the public and economic levels has resulted in lower incomes, loss of work opportunities and weaker protections in employment. The most evident example is the laid-off (下岗) female workers in urban areas that occurred during the 1990s. Liu Jieyu (2007) pointed out that the danwei (单位) system provided female workers with not only lifelong employment and a stable income, but also all the services and benefits, including housing, education, healthcare, everyday essentials, and a social network. When the state-owned enterprises were faced with downsizing and reconstruction, female workers were the first to be put out of work. Unfortunately, some of them were unable to re-enter the job market and, as a result, returned home as housewives. Once they had left the secure *Danwei* system, they were forced to become independent within society. From another perspective, the departure of state interference from the private sphere improved the individualism of women in general (Liu, J., 2007).

In terms of work, two concepts need to be clarified: paid work and unpaid domestic work. In consideration of paid work in the public sphere, the workload of men outweighs that of women. However, if domestic work is counted in, the total workload of women surpasses that of men (Li, Y., 2003). Chinese women are not exception. With respect to the employment of women in urban China, in early 1990, the data showed that around 90% of adult women were or had been (referring to retired women) in employment (Tao, C., 1993). According to the national censuses, the labour participation rate for women had declined sharply to 61.7% by 2010 (National Bureau of Statistics, 2010). To summarise, the economic reform and the subsequent dismantling of the Danwei system increased women's hardship in finding a position in the employment market.

One-Child Policy and Educational Investment from Parents

In the 1970s, China experienced overwhelming pressure from its booming population, so strict fertility control under the "one-child policy" was brought into practice. This led to a sharp decrease in the population of newborn babies. In 1990, over 90% of urban children in China were only children (Poston and Falbo, 1990). This policy was generally criticised in western societies, which focused on its draconian nature and some of the negative consequences, including the ignoring of women's rights, sex-selective abortion, the abandonment of baby girls, the unbalanced sex ratio, old-age insecurity and so on (see Fong, 2002; Aird, 1990; Mosher, 1993; Arnold and Liu, 1986; Coale and Banister, 1994; Johnson, 1996; Ebenstein, 2010).

Women's education has been tremendously improved since the late 1970s and early 1980s, when a series of reform policies were implemented. Among all these policies, the "most momentous and far-reaching" is the one-child policy (Croll, 1983: 88). With the arrival of the only-child generation, many studies argue that single daughters from privileged urban families have benefited, and city parents have invested in their only child regardless of sex (Croll, 1995; Tsui and Rich, 2002; Fong, 2002). Croll (1995: 168) notes that this policy has led to differing familial values attached to sons and daughters in China. It is widely argued that the traditional Chinese family was parent-centred (Levy, 1949). However, after the enforcement of the one-child policy, the family pattern transformed into child-centred families (Logan, et al., 1998; Liu, 2007; Tsui and Rich, 2002). In one-child families, the only daughters have been as important as sons and gained a new status seen as "substitute sons" (Croll, 1995: 169), but it does not mean boys and girls are treated same. Tsui and Rich (2002) conducted a survey with over 1000 participants in Wuhan and put it like this: "there are no gender differences related to education between single-girl and single-boy families in modern urban China". This is

true in educational level of university, but the gender gap still remains in the doctoral education. I will discuss later in this chapter.

Following the Confucian tradition, which stresses the importance of education, and as Fong (2002) observed, parents' belief that success in education and work will be the key determinant of their children's future happiness, the only child's academic and career success has become the family's major concern. Coleman (1988) concludes that the academic success of children depends on "social capital". In Chinese parents' view, such capital means the investment of more time and money in their daughters' education, which will contribute to their future success. Liu Jieyu (2007) provided several pieces of evidence that only-child parents have made every attempt to provide the best possible education for their daughters. For instance, they buy expensive houses to enable their daughters to attend a nearby high-quality school. Some have sold their homes and moved into rented houses in order to pay for the tuition fees and everyday living expenses of their daughters, who are studying on postgraduate courses overseas. Fong (2004) finds that, while boys will have the responsibility for purchasing their marital house, parents with one daughter do not have such a worry and can instead invest that money in their daughter's education.

Girls of the one-child generation have become more important than girls have previously been at any time in the history of China. The one-child policy, albeit not explicitly designed for the benefit of women, "could bring Chinese women to a level of social equality heretofore unattainable even under the most favourable ideological conditions" (Hong, 1987: 324). As their family's "only hope", without competition from male siblings, the only daughters of urban families always receive unreserved support from their parents, especially in education, which has greatly improved gender equality in education. The average number of years of schooling for girls and women over 6 years old increased more than doubled from 1982 to 2015 (National Bureau of

Statistics, 2016). The participation rate of women in higher education is notably growing and, in recent years, women have exceeded men in the number of postgraduates (National Ministry of Education, 2010-2016). These data are in keeping with, and provide evidence for, the achievements of women in education.

In this context, a growing number of women from urban families have the opportunity to pursue an advanced degree. Parents' encouragement often strengthens their daughters' desire to do a PhD. Good family economic capacity provides them with financial support, and parents with a good education hope that their daughters will pursue a doctorate and work in academia (Shen, 2010). Parents' spiritual and financial support for their only daughters is a vital and fundamental factor among Chinese female PhD students in the choice to undertake a PhD (Yan and Shang, 2018). However, the decision to do a PhD needs the approval of their parents. The emergence and prosperity of the current cohort of Chinese female PhDs benefits from the one-child policy.

Chinese Gender Ideology

Ancient Chinese gender ideology may date back to Taoism. *The Book of Changes (易经)*, also referred to as *Zhou Yi (Book of Changes of the Zhou Dynasty 周易)*, introduces the basic concepts of *Yin* (阴) and *Yang* (阳), which create everything in the universe, whether it be natural phenomena (e.g. night and day, hot and cold) or human lives (e.g. the rise and fall of dynasties) (Mann, 2011). In terms of the sexes, the male is referred to as Yang (阳), which is the stronger side, and the female constitutes Yin (阴), standing for weakness. The patrilineal gender view is "male superiority and female inferiority (*男尊女卑*)" and women have been subordinate to men, whether their fathers, husbands, or

sons, according to the deeply-rooted Confusion principle "three obediences (三从) [1]".

Therefore, the understanding of masculinity and femininity has been shaped by these beliefs. Chinese characteristics belonging to masculinity are strength, power, independence, rationality, responsibility, ambition, boldness, activity and wisdom. Another kind of masculine image is scholars and intellectuals ((Louie, 2012)). In contrast, Chinese women who are accepted and honoured by society and the public are soft, caring, weak, obedient, emotional, modest, feminine, passive and sensitive (Li, Y., 2003: 252–266; Tong, X., 2011: 6). In addition to the hierarchical polarity of yin-yang, leading to these oppressive ideas and practices surrounding Chinese women (see Hinsch, 2010; Mann and Cheng, 2001), Chinese philosophers and people also argue for the complementary relations of men and women, as shown by the Chinese sayings "yin-yang harmony (*阴阳和谐*)" and "complementary yin-yang (*阴阳互补*)" (Li, Y., 2003: 266). In the gendered and family sphere, according to traditional family values, the best practice of complementary gender relations between couples is "a woman follows who she married (夫唱妇随)" to create a harmonious family. This embodies a decision-making husband and an obedient wife, which reveals unequal gender relations. This complementary model indicates a very classical Chinese value, "harmony (和谐)", which is looked upon as the central goal of all personal, social and political relationships. In present-day China, this term "harmony" has been re-employed by the Chinese government to strongly promote the building of a "harmonious society (和谐社会)" (Liu, 2017:36; Zheng and Tok, 2007). For instance, Chinese high-speed trains are called "China Rail Harmony (和谐号)"; and exemplary families are given the title of honour: "Harmonious family".

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[1] "Three obediences" (*Sancong*/三从) means a Chinese woman is supposed to obey her father before marriage, her husband during married life and her sons in widowhood (未嫁从父，既嫁从夫，夫死从子).

During Mao's socialist era, Mao intended to use the women's liberation movement to help with socialist reconstruction and to build the new China (Verschuur-Basse, 1996: 13). His strategy was to "arouse the broad masses of women to join in productive activity" (Mao, 1955). Consequently, the concept of gender-neutrality was established, with the slogans "Men and women are the same" and "Women can hold up half the heavens" (Croll, 1995: 99). Female individuals were largely defined by the standards of males (Croll, 1995; Jin, 2006). This supposed elimination of gender difference began to extend towards the elimination of psychological and physical differences between the two genders (Croll, 1995: 99; Hong, 2000; Wang, 2001; Li, 2003: 264). During the Cultural Revolution, the image of "iron girls" – strong, robust and muscular women who boldly performed physically demanding jobs traditionally done by men – were celebrated in newspapers, pamphlets, and posters, and were taken as a symbol to promote the physical equality of men and women (Hong, 2000; Mao, 2012). "Unisex" became the new social trend. A notable symbol of the recasting of gendered differences was the male-styled unidress in dark colours (such as dark blue, grey and black), and women paid little attention to their female bodies, female dress, beauty or adornment (Croll, 1995; Hong, 2000). Furthermore, women were shamed for their female characteristics, such as a full chest or a sexy figure, and attempted to keep them under cover (Li, Y., 2003: 265). The socialist gender ideology emphasised that men and women shared equal obligations in the public sphere as "state persons" to serve the state construction but, in the private sphere, people still followed the gendered patriarchal familial norms and a woman was expected to be "a good wife and good mother" (Ji et al., 2017). Working women thus suffered from a double burden of paid and unpaid domestic work during the socialist period (Zuo, 2005; 2013; Zuo and Jiang, 2009).

During the 1980s, the phenomenon of women promoting their female selves by emphasising sex differences and alienating themselves from the male other became

common (Croll, 1995: 153). Some qualities were re-emphasised to women, such as "softness", "caring", "female gentleness", "female beauty" and being a "virtuous wife and good mother" (Croll, 1995), which were thought to be a way of reconciling themselves with traditional culture and gender views. This revision femininity was promoting through many television dramas, films and media. For example, the overwhelmingly popular television drama *Eager* in 1990 created an image of an attractive, kind-hearted and self-sacrificing woman, Liu Huifang, who became the ideal wife in the eyes of that generation.

Under market reform, due to the collapse of the *danwei* system and the gender egalitarian ideology of Mao's era, together with the rejuvenated patriarchal tradition which became connected to the market economy, gender equality worsened (Ji et al., 2017). Since 1990, and continuing until today, there has been a consistent and steady decline in the employment rate among urban women (Attané, 2012). The gender earning gap has been increasing (Cohen and Wang, 2009; Chi and Li, 2014). Women's disadvantaged status in the labour market has also reduced their bargaining power within the family (Ji et al., 2017). Many young women are either forced to "go back home" or struggle to balance work and family duties. Ochiai's (2008) study found that a majority (81%) of women chose "combining work and marriage/motherhood". In present-day China, the educated young-adult only daughters are expected by their parents to have both masculine and feminine characteristics, combining both inner and outer beauty and the ability to achieve personal success. They are educated to be autonomous and individualistic neoliberal women (Liu, 2006, 2008, 2014). As Ji (2017: 26) puts it, "in the reshaping of Chinese society, tradition and modernity, the resurgence of patriarchal Confucian tradition, the socialist version of modernity, the capitalist version of modernity and the socialist heritage intermingle. Having received heavy investment and support from their parents, today's young women are under a great obligation to perform "filial piety". Patriarchal Confucianism has been rejuvenated to a

certain degree, and traditional gender roles are once more emphasised, with young women expected to become good wives and mothers. At the same time, the neoliberal discourse articulates personal choice and responsibility. Many women of this generation are educated to be ambitious in their career achievements and to be independent. Modernity and tradition coexist, and many young women are under a dual burden of working in public as an employee and serving in the family as a daughter/wife/mother.

Since the beginning of the twenty-first century – due to economic reforms and the open-door policy, sex reform, modernisation and individualisation – femininity, masculinity and gender ideology have been variable and shifting within the transforming Chinese society. For example, a generation of female Chinese celebrities emerged and attracted huge numbers of followers during the early twenty-first century, such as Li Yuchun, who was the cover girl of *Time* and entitled an "Asian Hero". The reasons differentiating them from their peers were their non-normative appearance and ambiguous sexual representations: short hair, a boyish style of dressing, and handsome stage art, which was coined "zhongxing (中性)" on social media (Li, 2015). Ways of masculinity has also multiplied compared with the traditional image of strong and intelligent men, such as kung fu stars, intellectuals and officials. "Metrosexual young men" were an emerging group, who cared about their appearance and quality of lifestyle, like going to the gym, using skincare products and being concerned about fashion and dressing up. Their "soft" behaviour overturned the image of traditional Chinese men (Louie, 2012). However, the highly gendered stereotypes remain influential. Some stigmas and biases are experienced by people who do not remain within the specific gendered behaviours, or who possess features that traditionally belong to the other gender. For instance, women who are highly ambitious and achieve great things in their careers are known as "*strong/powerful women (女强人)*"; men who speak softly, act softly or have a feminine style of dressing are stigmatised as *"sissy/womanish (娘)"*, which is a seriously offensive

epithet in the Chinese context. My research project, Chinese female PhDs, provides typical evidence of stereotyped femininity. The title of doctor, a sign of high intelligence and the top academic degree, is regarded as normally belonging to men, while women with such high education and academic achievements are very rare. Hence, "female" is always added to "Doctor/PhD" to indicate her sex, but a man who is a doctor is free from the prefix "male". In addition to the widespread ridiculous saying "There are three genders/sexes in the world: male, female and female doctors", female PhDs are seen as an "abnormal" category of women who lack femininity. The conventional understanding of femininity and gender stereotypes in China entraps Chinese female PhDs into gender discrimination and social stigma.

Marriage in contemporary China

In recent years, there has been a major change in marriage practices and customs in China. Becker (1991) argues that women's education leads to later and fewer marriages. The rising age of first marriage has become a trend in Chinese society (Raymo et al., 2015; Cai and Feng, 2014). Higher education plays an important role in delaying women's first entry into marriage and highly educated women are often older than the average age for women in general when they marry (Yu and Xie, 2013; Yeung and Ji, 2013; Wang, 2010). A heated debate has arisen among the public, social media and scholars over "leftover" women, who are highly educated professional single women in their late 20s or older (To, 2013; Ji, 2015; Fincher, 2014; Cai and Tian, 2013; Zhang and Sun, 2014). Studies also suggest that marriage opportunities may decline significantly for college-educated women of a "higher" age (Cai and Tian, 2013; Yu and Xie, 2013). Despite late marriage being common in Chinese society nowadays, as Whyte predicted, almost all young people do eventually marry, and marriage remains a near universal in China with education only contributing to delaying it, rather than forgoing it altogether, during the early 21st century (Ji and Yeung, 2014). In addition, Chinese women still

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marry early (Ji and Yeung, 2014). By the age of 29, women in China are more than twice of the chances than those in HongKong, Japan and South Korea (Jackson, forthcoming article). However, some scholars (Cai and Feng, 2014) also predict that, like our neighbouring societies Japan and Korea, China may face a marriage revolution characterised by an increasing population choosing to refuse marriage, which may result in moving away from the traditional model of universal marriage.

Many educated young women feel tremendous social and family pressure to marry early and then have a child. Their anxious parents have high aspirations and put much emphasis on the *mendang hudui* (similar background/门当户对), as well as often pushing them to attend blind dates and gather in matchmaking corners to seek potential partners (To, 2013; Sun, 2012; Zhang and Sun, 2014). However, from the viewpoint of the young generation, romantic relationships and self-cultivating and fulfilment have become the primary rationale for marriage, replacing family obligations and patrilineal reproduction (Farrer, 2014; Friedman, 2010). However, the marriage norms of hypergamy and homogamy still remain influential in finding a husband (Li and Xu, 2004; Sun, 2012). Since the market reform, couples have increasingly resembled each other in class background and fewer mate choices occur across class boundaries (Zhang, 2003; Li, 2008). In relation to education, people with a college degree tend to find partners who are also university graduates (Yi and Zhao, 2007). Educational homogamy has become increasingly important and evident over the past few decades (Li, 2008). At the same time, a highly competitive environment in the context of rapid economic development, marketisation and consumerism puts a "price tag" on marriage. Some individuals regard material security as a key factor, which turns partner choice and marriage into a more rational decision (Zarafonetis, 2017; Cai and Feng, 2014).

Marriage customs display more varieties and possibilities. Besides late marriage among educated young people, increasing rates of premarital sex, cohabitation, divorce and

extramarital sex are also signs of the multifaceted changes in China's marriage practices (Cai and Feng, 2014). The growing prominence of transnational couple relationships and marriage is another example of changing patterns of intimacy in contemporary China (Nehring and Wang, 2006; Jeffreys and Pan, 2013; Friedman, 2010).

Gender and higher education

I have depicted how macro-politics and socioeconomic changes have influenced women in China since the late 1970s. There has been a close connection between improving educational opportunities, changing gender values, especially the growing investment in daughters' education in the one-child generation, and women's hardship in finding positions in competitive employment. Feminists have focused on gender equality in education, with girls excluded and marginalised in schooling, through the content and practices of education (Weiner, 1997). Liberal feminists in particular placed importance on female students' equal access and achievement by subject (Ringrose, 2007). Equal opportunities have made progress. There have been some new debates on gender and education revealing that girls have out-performed boys in school achievement: "successful girls" vs. "failing boys" in the UK, or Chinese research entitled "boys in crisis" (Arnot et al., 1999; Francis, 2005; Sun, 2010; Xu, 2010). It is the western ideas in 1970s that people worried women achieving over men, but it happened in China in recent decades. The shift "away from a crisis of masculinity and a problematization of the turbulent conditions of late modernity and globalization, towards a celebratory, neoliberal discourse of girls' new found equality as a formula for the hard work needed to attain educational and career success" happened at the turn of the twentieth century and early twenty-first century (Ringrose, 2007: 474). The educational achievements of girls and women are related to issues of class, identity, location (urban–rural areas), race, citizenship, educational policies and so forth. These concerns about gender and education, and higher education in particular, are key topics that I will discuss. I will introduce a broader contextualisation of women in higher

education in order to locate my research subject and my participants, Chinese female PhDs. I will discuss some key issues relating to the history of women's education in China, higher education expansion, class, urban–rural disparities, gender inequality and gender segregation in higher education, doctoral training systems in Mainland China and the UK and the reasons why women are pursuing an advanced education.

The history of women's education in China

The development of women's education, especially higher education, has clarified the background environment in which Chinese PhD students currently work. China has a rich educational history stretching back more than 3000 years, but women did not become engaged in the official education system until the last century (Liu and Carpenter, 2005). In the pre-modern period, female education was limited to taking place within the families of the upper class. Female education aimed at "perfect submission, not cultivation and development of the mind" (Burton, 1911: 18). Formal women's education in China started with western missionaries during the late 1800s (Lu and Zheng, 1995). However, some individuals in the gentry class were unwilling to leave the educational issues of their daughters entirely in foreign hands, so they started to sponsor the founding of private women's schools themselves. The first women's schools were established with the support of wealthy merchants and officials at the turn of the twentieth century (Croll, 1995: 40). The first private schools for girls only were set up in Shanghai, such as "Zhengjing" in 1898 (Lei et al., 1993: 242), Wuben women's school (1902) and Shanghai Patriotic women's school (1902), with more schools covering most of the main cities appearing over the following few years, such as Beijing, Tianjin, Nanjing and Shanghai (Croll, 1995: 40; Lei et al., 1993; Liu and Carpenter, 2013).

Women's higher education formed gradually during the early twentieth century. The early women's missionary universities always developed from missionary high schools (Wu, 1997). In 1905, missionary groups in China gathered to build the North China

Women's University in Beijing, initially enrolling five new students (Ma, 2004; Wu, 1997; Liu and Carpenter, 2005). It offered courses equivalent to those in colleges for men (Liu and Carpenter, 2005). Subsequently, women's universities founded by missionary groups were established in areas with relatively high levels of economic development. For example, the South China Women's University was founded in Fuzhou in 1907 and the Jinling Women's University was founded in Nanjing in 1917 (Wu, 1997; Ma, 2004). Lacking funding or qualified teachers, these universities were identified as small in size with low admission and graduation rates (Wu, 1997). In 1919, the Beijing National Women's Normal School became the Beijing Women's Senior Normal School, which is the first institution of higher education for women founded by the government (Ma, W., 2004). In 1920, Peking University enrolled its first three female students, and Nanjing Senior Normal University admitted eight female freshers, leading to coeducation in China's institutions of higher education (Du, X., 1995; Liang et al., 2013; Ma and Chen, 1998; Zhang, S., 2015). Eventually, other higher education institutions started to admit female students (Liu and Carpenter, 2005).

During the Republic of China period (1912–1949), "the lack of economic development coupled with the effects of political turmoil and traditional culture made the progress of China's higher education and women's higher education extremely slow" (Ma, 2004). During the 1920s, survey findings showed that female undergraduates made up only about 4.5% of the total population of college students, with 972 women out of 21,483 students (Du, 1995: 471). In 1932, the number of students enrolled in China's universities and colleges totalled 42,710, of whom 5,161 were women (12.09%). The following table (Figure 1) shows the trends relating to female students in higher education during the 1930s and 1940s. The percentage of female students in the total student body grew from 13.7% to 19.5% during the 1930s and then remained reasonably stable at between 18% and 20% during the 1940s. By 1947, the number of female students enrolled in all categories of institutions of higher education had reached

27,602, about five times that in 1931 (An, 2002: 78).

Figure 1: The percentage of female students in universities and colleges, 1932-1947.
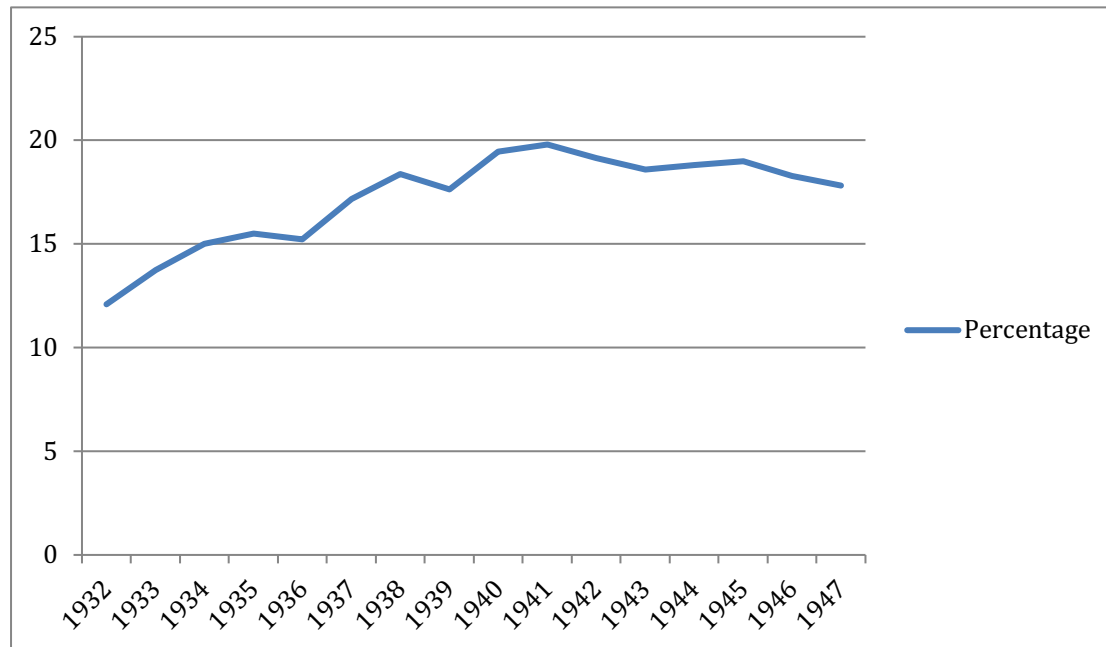
Data source: *The Third China Education Yearbook*

However, there still remained many limitations. Firstly, only a very small proportion of the huge female population of China gained access to education, and even fewer engaged in the higher education system; 90% of women in China still remained illiterate by 1949 (Li, Y., 2003: 56). Secondly, the development of private and public schools at different levels enabled them to access education, but their educational experiences were clearly defined by their class and family backgrounds. For the most part, education and, subsequently, political and social participation were limited to women from the middle and upper classes in urban areas (Andors, 1903: 16). Thirdly, women's education remained gendered, with feudal aims and strategies. Liu and Carpenter (2005: 279) suggested that schools were a training ground for the preservation of a gender-biased society. "Moral education on stereotyped social functions of women – first as obedient wives and then as nurturing mothers – prevailed in most of the female schools and in the regular curriculum of all coeducational schools" (Liu and Carpenter,

2005: 279). Normal universities were the favourite choice of women, who have the aim of educating children, and the most desirable occupation for women is as teachers in basic education.

From its beginning in 1949, the Chinese Communist Party government implemented a gender-equality policy and equal primary educational opportunities were provided to all school-age children, both boys and girls, in all urban and rural areas (An, 2002). This basic educational reform commenced with the central goal of popularising primary and secondary schools nationwide. Over the following three years (1950–1952), enrolment doubled in both primary and secondary schools. In addition, 49% of school-age children participated in basic education, up from only 20% in 1949 (Li and Tan, 1990: 541–544). Table 1 reveals the percentage of school-age girls who attended elementary and secondary schools out of the total student body (1951 –1993). It can be seen that there was gradual growth from the beginning of the PRC to the end of the twentieth century (Liu and Carpenter, 2005: 279). In addition, we can see a decline in the number of women attending school during the 1980s, which might have been caused by the oversupply of labourers resulting from the drastic transformation of the economic system. Among the laid-off employees, female workers made up over half (Liu, 2007). This gender-biased practice in the labour market pushed some female students to reduce their expectation for work and accept low-paying and less-skilled jobs, instead of continuing their education (Liu and Carpenter, 2005). In 1984, 43.8% of elementary-school students were female, and the percentage in secondary education was 40%. Yet, female students were still in the minority, and gender equality in basic education was in the process of developing.

Table 1: The percentage of school-age girls attending elementary and secondary schools out of total student

Year	Level	
	Elementary	Secondary
1951	28.0	25.6
1954	34.5	25.0
1956	35.2	29.3
1958	38.5	31.3
1961	27.5	32.2
1965	35.0	32.2
1977	45.4	41.7
1980	44.6	39.6
1984	43.8	40.0
1990	46.2	41.9
1993	46.8	43.7

Data source: Liu and Carpenter, 2005: 279.

In 1985, the CCP launched the *Decision to Education System Reform* to implement a "Nine-year compulsory education system", in which the government exempted all the tuition and incidental fees of primary and junior middle schools in all parts of China. The benefits of reforming the basic educational system were notable. It became compulsory for girls to attend school, regulated by the official government. After this, the sex ratio (male:female) of elementary students constantly decreased (see data in Table 1). By the end of the 2000s, nine-year compulsory education had been universally

popularised in both urban and rural China and the illiteracy level had declined to 3% among young adults (Ministry of Education, 2008). Meanwhile, 40% of school-age teenagers received upper secondary education in senior middle school and had the opportunity of taking the college entrance examination.

The power of centralised government had a great impact on the implementation of gender equality in education, which enable urban women's upward social mobility, like their male counterparts (Liu and Carpenter, 2005). However, the effect of education in rural areas was not as desirable as that in urban China. In 1990, 2.14 million girls aged 7 to 11 did not attend school, constituting 86.4% of all uneducated children. Many of them were living in remote rural areas (Du, 1996). The education policies promoted gender equality, but they could not entirely overcome traditional culture and practices. Like their mothers, following the socially discriminatory gender norms, girls in rural villages were usually the first to abandon their educational opportunities, in order to reduce the financial burden on their family and to help with housework and fieldwork, no matter whether they were willing or not (Liu, 1998; Attane, 2012: 7). Rural girls suffer from reduced educational opportunities more than those in urban areas, and the explanation for this is that deeply rooted Confucian beliefs about gender roles retain a strong hold in rural areas (Liu and Carpenter, 2005). At the institutional level, in the socialist period, the urban *Danwei* system provided full social services and welfare in China. These state enterprises were required to establish primary schools for employees' children free of tuition and other miscellaneous charges, which guaranteed urban students' access to education (Bian, 2005).

Higher education

According to the Ministry of Education of the People's Republic of China, higher education includes undergraduate and postgraduate education. Undergraduate

education comprises normal undergraduate courses (*Benke*/本科), whose completers gain a bachelor's degree, and short-cycle courses（*Zhuanke*/专科）. Postgraduate education includes the master's degree (*Shuoshi*/硕士) and doctoral degree (*Boshi*/博士). This concept equates to tertiary education in the UK educational system. The PRC focused on socialist construction after its establishment in 1949, and higher education played an important role in the improvement of the educational system. The government took back ownership of all higher educational institutions, and followed the Soviet model of establishing new universities and implementing the reform of disciplines and faculties within universities (Li and Tan, 1990; An, 2002: 131). In 1949, there were 205 higher educational institutions, with 116,500 students and 16,100 teaching staff. By 1957, the number of enrolled students had increased to 324,700, an increase of 279%, and the number of teaching staff was more than four times that in 1949 (Wu et al., 1996: 24). These data indicate the rapid development of higher education during the early years of the PRC. According to national statistics, the sex ratio (male:female) of university students quickly declined from 4:1 to 3:1 within five years (Zhang, 1985: 106). After several years' adjustment by central government, the higher education system had 434 institutions, 674,400 enrolled students and 138,100 lecturers in 1965 (Wu et al., 1996: 28). Since then, the Chinese higher education system has basically taken shape. Unfortunately, during the Cultural Revolution (1966–1976), the education system suffered a heavy blow and the schooling of many Chinese citizens was delayed or cut short (Giles et al., 2008). Colleges and universities recruited students on the basis of a recommendation system, instead of academic achievement (Deng and Treiman, 1997). Students' social origins and parental characteristics were the first priority. Children from worker, peasant and soldier families were favoured by the recommendation system, while those from bourgeois or intelligentsia origins were disfavoured (Parkin, 1971). In addition, children's higher educational attainment became more closely correlated with whether their parents held administrative positions (Giles et al., 2008). In 1977, the government claimed the resumption of the

college entrance examination and, afterwards, higher education began to recover and gradually developed once more (Bi, 2003).

In 1999, central government implemented a policy to expand Chinese higher education. It enlarged the size of the system and promoted educational opportunities for all students, both girls and boys (Li, 2010). The figure below illustrates the increasing higher educational opportunities from 1999 to 2007 (Figure 2). There was a steady growth in enrolment in higher education from 1990 to 1998. The increase then began to speed up sharply in 1999. In the first year of expansion（1999）, 16 million students were admitted to colleges and universities, five million more than in the previous year (1998). Over the next few years, recruitment increased by an average of 20% every year. In 1998, only 46.1% of high-school graduates were able to receive higher education through the college entrance examination. This percentage leaped to 83.5% in 2003 (Li, 2010). In 2006, the normal undergraduate course enrolment reached 5.4 million, which is five times that in 1998 (Ministry of Education of PRC，2007). However, since 2006, government policy has placed new emphasis on the quality of higher education, instead of the number of enrolled students (Ministry of Education of PRC，2007). The number of students enrolled in higher education has still been increasing, but the speed of expansion had slowed to 5% in 2008 (Ministry of Education of PRC). By the end of the 2000s, the size of Chinese higher education had exceeded that of the USA to become the biggest higher education body in the world (Minister of Education, 2009). Since 2012, the enrolment on undergraduate normal courses has remained steady.

Figure 2: The trends in higher education opportunities, 1990–2007
■ The percentage of high-school graduates entering higher education (%)
Δ Enrolment in higher education (person)
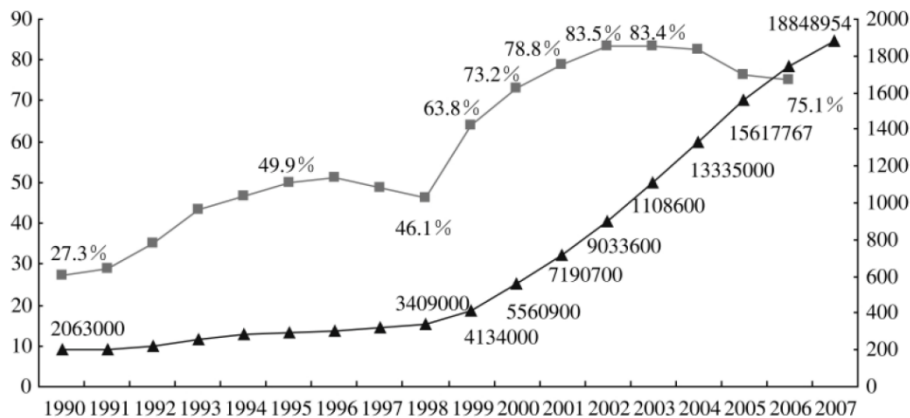
Data source: *China Statistical Yearbook, 1991–2008*; Ministry of Education of PRC, Educational statistics, 1997–2007.

The expansion of higher education in China since 1999 has greatly affected the labour market (Mok and Wu, 2015). On the one hand, the massification of higher education has generated a large number of graduates, including those with undergraduate and postgraduate degrees, who are prospective employees in the labour market with university-trained higher professional skills and knowledge. They are qualified for job positions with increasingly high-level skills and capabilities. The income returns to education continued to rise, which is beneficial to both individual graduates and to society (Zhou, 2014; Jansen and Wu, 2012). On the other hand, some graduates face the problem of unemployment. A sharply growing number of higher education graduates entered the labour market. Despite an increasing demand for labour, the growth in the number of people in need of a job is much faster than the job positions available (Bishop, 1995). Therefore, employers and enterprises have increasing expectations of employees. Then, credentialism took shape, characterised by an academic degree serving as a notable criterion in the hiring and promotion of the labour force (Nasir, 2017). It is reasonable to infer that some college graduates have to choose jobs that used to be open to those who had lower levels of education, such as senior or even junior high school graduates. This pervasive and persistent phenomenon has been generally defined as over-education (Groot and Brink, 2000; Hartog, 2000). This is a

problem that every employee, every company and even the government has to face (Tsang, 1987). The growing number of university graduates may lead to a more competitive labour market and over-education. Although not every single person was over-educated, some students might be under high pressure to find a satisfying job, and may be forced to accept a lower-paid job and even the risk of unemployment (Wen, 2005).

In addition, inequality in higher educational opportunities still exists after the rapid expansion (Lu et al., 2016). Class exclusion and the urban–rural disparity are still significant (see Liu and Wang, 2009; Liang et al., 2013; Li, 2010; An, 2002). Upper-class and middle-class families take advantage of their personal resources, connections and superior economic standing to provide their children with better educational opportunities. Recent studies show the rising importance of a family's socioeconomic and educational resources in China (Mok and Jiang, 2017; Yeung, 2012). Family expenditure is much higher for children with high socioeconomic status than for those with low socioeconomic status (Zhang and Xie, 2016). From when they are newborn babies to pre-tertiary education, they are more likely to undertake early education, various speciality classes, supplementary education, and private tutoring to enhance their academic performance (Hannum et al., 2019; Zhang and Xie, 2016); they have more opportunities to access high-end private or top public kindergartens; their families can afford to live in overly high-priced "school district houses" to secure positions at quality public primary schools and middle schools. Additionally, some individuals from wealthier families can have an international opt-out (Hannum et al., 2019). They are financially supported to study at high schools with an international curriculum or prepare to apply for undergraduate programmes overseas to avoid the pressure of the Chinese college entrance examination and enhance their opportunities for higher education and international mobility (Liu, 2018; Young, 2018).

Students of rural origin lack educational resources and advantages (Wu, 2010; Yeung, 2013). Despite the increasing number of rural students attending higher education, the urban–rural disparity widened further after the sharp expansion (Li, 2010; Lu et al., 2016). The policies that aim to establish a select tier of world-class universities have created considerable stratification within China's higher education system (Hannum et al., 2019). This may increasingly shape not only whether the students get a higher education at all, but also what type of educational institutions they attend (Gerber and Cheung, 2008; Hannum et al., 2019). The data reveals that students from rural areas make up a declining percentage of the total students at elite universities or research-oriented universities (Liang et al., 2013). Tam and Jiang (2015) further argue that the expansion of vocational and higher education has led to the unintentional and paradoxical consequences of discouraging rural high-school graduates from continuing their schooling, while facilitating low-performing urban students to pursue university education. This has caused a sharply widening gap between urban and rural students in college attendance. In addition, the urban–rural disparity is distinct in terms of gender issues. Urban women have increasing opportunities to attend university, while rural women's educational opportunities show signs of decreasing (Li, 2010). Urban women from privileged families benefit from the higher education expansion. Without doubt, the expansion of higher education has been an equalising force that allows more young high-school graduates with different characteristics to receive higher education than under the pre-expansion regime (Yeung, 2013), but, to some degree, this may cause the problems of unemployment among college graduates and consolidate social and educational stratification.

Gender gap and gender inequality in higher education

After this expansion, the gender gap in higher education, which had remained

unchanged for so long, narrowed. Young women's participation in higher education has now grown to an unprecedented level (Liu, 2017:14). The line chart (Figure 3) reveals the rapid increase in the percentage of female students in higher educational institutions during the first five years of expansion of higher education (1999–2003). The number of female students admitted by universities has been constantly increasing, and in 2010 female enrolment of undergraduates and master's level students overtook their male counterparts for the first time. This trend continues positively and the updated data show that the percentage of female students shows no sign of stopping increasing (see Table 2 and 3). From the perspective of student enrolment, the gender inequality in higher education has changed dramatically in China as more young women than men receive a university education at the levels of bachelor programmes, master's programmes and postgraduate studies in general. This transformative decline in the gender disparity can be seen as a ground-breaking improvement in women's higher education.

Figure 3: Percentage of female students out of total student body in regular higher education institutions, 1998–2003
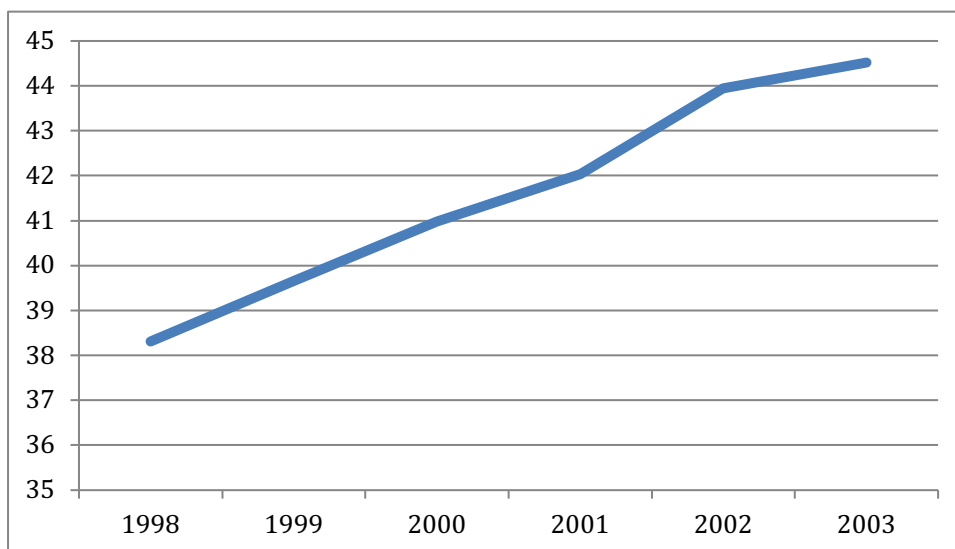
Data source: Ministry of Education of the PRC, Educational Statistics, 1998–2003

Table 2: Number of female students in higher education in 2010

Year: 2010		Total	Male students	Female students	
				Number	Percentage
Undergraduates	Total	22,317,929	10,966,948	1,135,0981	50.86
	Normal course (Bachelor's Degree)	12,656,132	6,369,152	6,286,980	49.68
	Short-cycle course	9,661,797	4,597,796	5,064,001	52.41
Postgraduates	Total	1,538,416	802,186	736,230	47.86
	Master's Degree	1,279,466	635,123	644,343	50.36
	Doctoral Degree	258,950	167,063	91,887	35.48

Data source: Ministry of Education of PRC, Educational Statistics

Table 3: Number of female students in higher education in 2016

Year: 2016		Total	Male students	Female students	
				Number	Percentage
Undergraduates	Total	26,958,433	12,797,429	14,161,004	52.53
	Normal course (Bachelor's Degree)	16,129,535	7,509,969	8,619,566	53.44
	Short-cycle course	10,828,898	5,287,460	5,541,438	51.17
Postgraduates	Total	1,981,051	977,941	1,003,110	50.64
	Master's Degree	1639024	768,046	870,978	53.14
	Doctoral Degree	342027	209,895	132,132	38.63

Data source: Ministry of Education of PRC, Educational statistics

One thing worth mentioning is that, besides educational reform policies, the one-child

policy had a great impact on the balancing of the sex ratio of university enrolment. When the proportion of women rapidly grew at the turn of the twentieth and twenty-first centuries, it was also due to the fact that the one-child policy had been in practice for nearly 20 years, which meant that the first only-child generation (born in the early 1980s) was entering university (Liang, C. et al., 2013: 156). Parents' generous investments in their daughters' education, along with changing gender values, are influential in women's access to higher quality education and academic achievement. The one-child policy and the expansion of higher education have interacted to contribute to narrowing the gender gap in higher education.

When both sexes have approximately equal opportunities for higher education, gender equality does not only mean that the sex ratio of university admission is 1:1. However, some degree of gender imbalance and inequality still exists. There have been obvious gender differences in the field of study choice and professional training (Liu and Wang, 2009). Gender segregation in higher education is a universal feature of higher education institutions, which are patterned along a humanist–scientific divide (Barone, 2011). Despite the gender ratio varying at different universities at different periods, many empirical studies suggest that, generally, female students centre on humanities and social sciences, while more male students choose science and engineering-related subjects than their female peers (Barone, 2011; Gan, 2006; Liu, 2009; Yu, 2010; Liang et al., 2013). For instance, Liang et al. (2013: 177) examined all the student information from Peking University and Suzhou University (1949–2002) and argue that, at both of these elite universities, science and related disciplines are male-dominated, while female students prefer humanities and social sciences. However, there are some subjects tending towards balance, such as Economics, Management and Medical Science (Lu and Liu, 2007).

The phenomenon of gender segregation implies that the gender inequality in Chinese

higher education has not yet changed. Some Chinese students in higher education have a controversial belief that science and engineering subjects fit for men, while humanities and social science fit for women (Cai et al., 2001; Li and Jia, 2009) or male students do better in Maths (Ma and Liang, 2008). As future careers and lifestyles are closely related to the choice of subject studied, the gendered roles in society and prospective occupation and industry are taken into consideration. The gender segregation in higher education is a reflection of occupational and professional gender segregation (Li, 2009). These types of gender segregation are socially and historically constructed by gender stereotype within the long-term masculinity–femininity system and patriarchal tradition (Wang, 2005). Cultural and social practices and beliefs shape students' preferences and, in turn, higher education functions to strengthen the scientific–humanities divide (Barone, 2011; Li, 2009). The culturally sex-stereotyped expectations about curriculum choice and the gender segregation of profession and occupation offer the most compelling explanation for gender segregation in higher education (Barone, 2011).

A significant consequence of gender segregation in higher education and future career is that it may widen the income gap between the two sexes. It has been estimated that the selection of university subject explains about 15–25% of the gender income gap among college graduates (Bobbitt-Zeher, 2007; Brown and Corcoran, 1997). As *The Global Gender Gap Report 2018* published by the World Economic Forum (2018) suggests, 70% of countries have narrowed the gender income gap over the past 10 years, but China's gap actually widened over the same period. Narrowing the gender income gap is especially important in some high-growth industries, such as AI and computing, because these will become ever more prevalent in different industries in the future (Teng, 2018). These high-growth advanced areas and industries are precisely the science and engineering subjects that female students are not generally encouraged to choose. This leads to far fewer women working in these areas and these high-paying and promising

industries are male-dominated. Basically, this accelerates the gender income gap in the Chinese labour market.

Another gender equality yet to be achieved is doctoral education in China. In terms of different levels of higher education, the sex ratio in undergraduate and master's education has reached 1:1, and in recent years the number of female students has even exceeded that of male students (Tables 2 and 3). However, as shown in Figures 5 and 6, the only level of degree where female students are outnumbered by male students is doctoral education. In 1981, China established an academic degree system and began to award doctoral degrees. On 27 May 1983, the first 18 doctors attended their graduation ceremony in the Great Hall of the People and received their doctoral certificates. It was a very honourable moment and the 18 PhD holders were entitled the "18 Warriors" of China (Figure 4). Among them, the first Chinese female doctor, Xu Gongqiao, whose subject was Biology, stood in the middle of the front row.

Figure 4: Photo of the first eighteen PhD holders in the P.R. China

From 1982 to 1993, 1,149 doctoral degrees were awarded to female students, making up 9.4% of the total (Li, Y., 2003: 61). During these first ten years, female doctoral enrolment accounted for only a very small proportion. Today, the number of enrolled female PhD students has reached 132,000 and female PhD students make up 38.63% of the total enrolment (Figures 5 and 6). The statistics reveal that female student enrolment grew from nil to a considerable size within 35 years. With around 250,000 people graduating with doctorates in 2009, the number of PhDs in China now "is going through the roof", and China has surpassed all other countries to be the biggest PhD factory in the world (Cyranoski et al., 2011). Currently, the main problem is the low quality of Chinese PhD holders, especially compared to these in some well-developed countries (Cyranoski et al., 2011; Chinese PhD quality research team, 2010).

Figure 5: The percentage of female doctoral students in P.R. China (%)
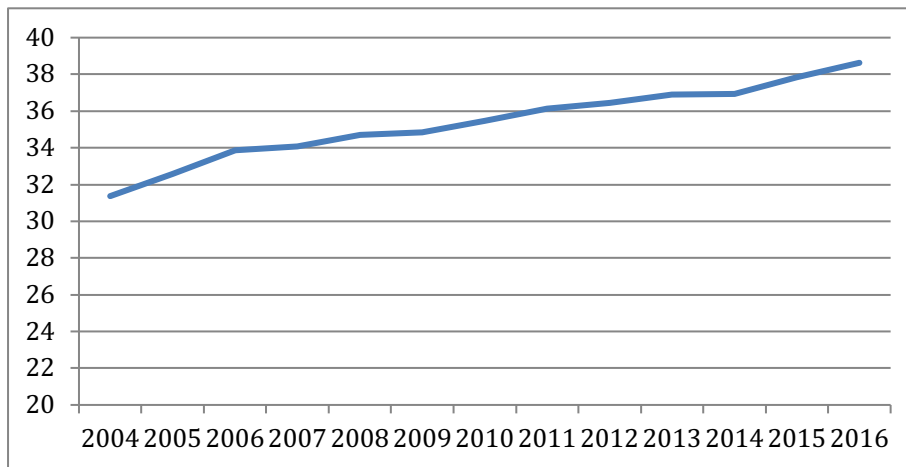
Data source: Minister of Education of PRC, Educational statistics

Figure 6 The number of doctoral students and female doctoral students in P.R. China (Unit: person)
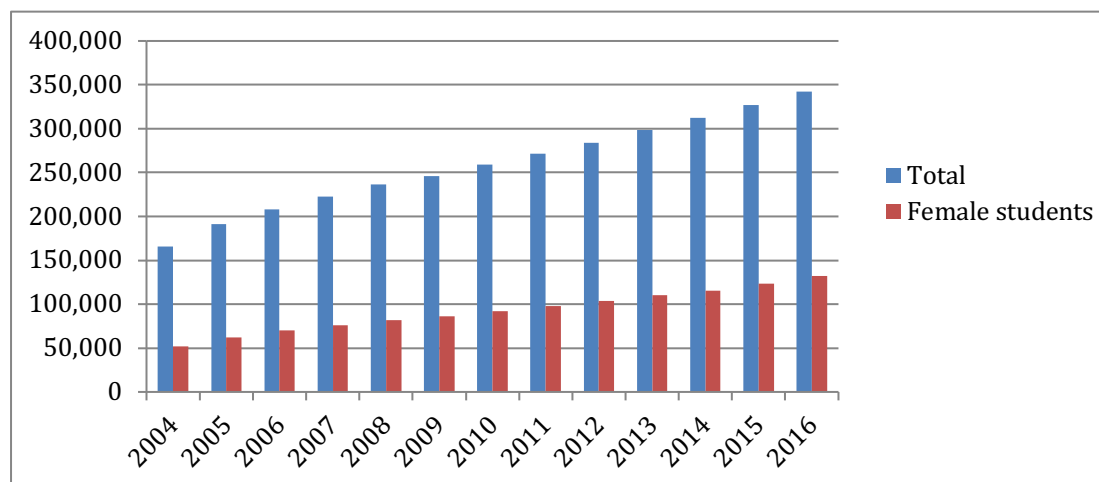
Data source: Minister of Education of PRC, Educational statistics

It is an optimistic sign that the percentage of female students is constantly increasing every year. Therefore, it is reasonable to predict that the gender gap between male and female PhDs will narrow further in the coming years because the trend shows no sign of stopping. Hopefully, one day in the future, the sex ratio will be balanced. The achievements in female doctorate education have been evident. However, compared with other levels of higher education, gender equality in Chinese doctoral education is still undergoing many difficulties. It deserves more attention.

Doctoral education in the UK

The doctorate has a longer history in the UK than in Mainland China. It was first introduced as the highest degree in 1917 by the University of Oxford. The doctorate takes a number of different forms in different countries (Noble, 1994). Following the American system, Mainland China's doctoral programmes usually include both taking advanced-level courses and doing academic research. High-quality publications are compulsory for PhD students to complete their degree. However, in the UK, similarly to other European countries and Australia, the doctorate is typically based largely or

exclusively on research (Park, 2007). The different educational systems impact upon the study experiences and values of PhD students in Chinese and UK universities, which will be detailed in the analysis (Chapter 4). In addition, funding policies vary in the two countries. A key determinant of sustainability of the supply chain of researchers is funding to support both research and researchers (Park, 2007: 14). Some doctoral candidates at UK universities can be regarded as members of staff or research assistants who are paid salaries. But most are "students" who can access competitive base funding from different sources, such as councils, universities and departments, research projects, the NHS or other organisations and, for non-UK students, government funding from their home countries. There are still a large number of self-funded doctoral students who need to pay their own tuition fees, housing and living expenses. In China, the government provides every full-time PhD student with a grant to cover basic living costs. Universities offer accommodation and catering services at a very low price. Chinese students are also paid salaries if they work on research projects. Usually, doctoral students at Chinese universities do not need financial support from their families, but the families of overseas students at UK universities have to pay for the high cost of studying in the UK. Although some students compete for funding from the CSC (China Scholarship Council) to cover their tuition fees and partial living expenses, their families are required to contribute as well. It is reasonable to infer that the Chinese overseas students in the UK are more likely to come from a good socioeconomic background. Among my participants studying at British universities, they are always the single daughters of privileged urban families.

I have established that gender inequality in higher education mainly exists in two aspects: gender segregation in the field of study and the lack of women in doctoral education. However, women's status in the UK higher education context has improved more than it has in China. The gender segregation within SET (science, engineering and

technology) used to be a very serious problem (Zalevski and Swiszczowski, 2009). In 2007/08, only 33.2% of undergraduates and 34% of postgraduates in STEM (Science, Technology, Engineering and Mathematics) disciplines were female and women were under-represented in these subject groups (Kirkup, 2010). Women are also less likely to work in these sectors after they graduate (Zalevski and Swiszczowski, 2009). The narrowing gender gap can be observed through the updated statistics in 2017/18 from the HESA (Higher Education Statistics Agency), showing that the number of female students in all science subject areas exceeded that of their male peers. But some subjects, like Engineering and Technology, and Computer Science, are still strongly preferred by male students (See Table 4). The sex ratio of students in science-related subjects is approaching balanced. In addition, gender segregation raises the awareness of some scholars and institutions. The UK Resource Centre for Women in Science, Engineering and Technology aims to improve the participation and position of women in SET across industry, academia and public services in the UK (UKRC). In addition to gender segregation, the gender gap in doctoral education has been largely eliminated. Within the dimension of enrolment, the percentage of female postgraduates (research) among the total postgraduates (research) has been steadily growing, and has reached 49% (Table 5). Compared with Chinese female PhDs, these British women are free from some of the gender bias, such as the prejudiced "third gender" saying.

Table 4: Higher education student enrolments by subject and sex in 2017/18

	Female ↕	Male ↕	Other ↕	Total ↕
(1) Medicine & dentistry	38,340	27,475	65	65,875
(2) Subjects allied to medicine	227,725	60,160	180	288,065
(3) Biological sciences	149,890	83,900	180	233,970
(4) Veterinary science	6,110	1,745	0	7,860
(5) Agriculture & related subjects	11,955	6,715	10	18,680
(6) Physical sciences	40,645	55,010	65	95,720
(7) Mathematical sciences	16,460	28,080	35	44,575
(8) Computer science	18,880	88,305	65	107,250
(9) Engineering & technology	30,050	134,870	55	164,975
(A) Architecture, building & planning	20,475	33,130	15	53,620
Total science subject areas	**560,530**	**519,395**	**670**	**1,080,590**
(B) Social studies	145,030	84,155	175	229,360
(C) Law	58,455	33,665	50	92,165
(D) Business & administrative studies	170,240	172,650	80	342,970
(E) Mass communications & documentation	30,360	20,935	65	51,360
(F) Languages	73,375	30,005	165	103,545
(G) Historical & philosophical studies	46,055	37,910	155	84,115
(H) Creative arts & design	115,455	62,685	275	178,415
(I) Education	112,490	32,895	60	145,445
(J) Combined	21,665	13,440	15	35,120
Total non-science subject areas	**773,125**	**488,335**	**1,040**	**1,262,500**
Total	**1,333,650**	**1,007,730**	**1,710**	**2,343,095**

Source: HESA, higher education student data.

Table 5: Higher education student enrolments by subject and sex in 2017/18

	2013/14	2014/15	2015/16	2016/17	2017/18
Sex					
Female	47%	47%	48%	48%	49%
Male	53%	53%	52%	52%	51%
Other	0%	0%	0%	0%	0%

Source: HESA, higher education student data.

The motivation for undertaking PhD studies is particularly important because it not only determines the doctorate completers and non-completers, but also relates to the quality of a student's PhD research (Lovitts, 2008: 313; Litalien et al., 2015). There are many studies of the motives of doctoral students worldwide (see Mueller et al., 2015; Litalien et al., 2015; Tarvid, 2014; Brailsford, 2010), but very limited research focusing on PhD students at UK universities in recent decades (Leonard, Becker and Coate, 2005). Leonard, Becker and Coate (2005) pointed out that doctoral students mostly gave more than one reason. The most frequently mentioned responses are a vocational

element, interest in a particular area, personal development and general intellectual interest. Taken together, the personal intrinsic motivation (such as original interest in a research field or general intellectual enquiry, personal development, the joy of study, curiosity and personal satisfaction) outnumbers vocational concerns related to the labour market (such as vocational requirements or the acquisition of research skills). However, most doctoral students in China emphasise the close relationship between a doctoral degree and their future career (Huang and Jin, 2016). Yin (2014) also states that, in his study, half of all PhD students are motivated by the doctorate and about 70% of them are aiming to meet the needs of a job. Chinese students prioritised future vocational motivation in their decision-making about PhD studies. This is another key issue that deserves exploring, and more analysis will be undertaken in Chapter 5.

The social stereotype and stigma of Chinese female PhDs

Chinese women with PhDs not only make a small portion of total Chinese PhD holders, but also featured a very negative social image in the media and in some Chinese people's perception. As Goffman (1990: 11–16) proposed, the term stigma refers to an attribute that is discrediting, and its effect can be very extensive. If someone possesses a discreditable trait, their other attributes seem to be invisible and ignored. This is stigma. Mainly focusing on news coverage in and around 2010, many studies have looked at media images of Chinese female PhDs and revealed the social stigma that female PhDs were facing (see Yang Ying, 2011; Zhao Ning, 2013; Zhao Wei, 2011; Liu Zhiting, 2016; Li Luyao, 2011; Li Lu, 2014). They collected news reports about Chinese female PhDs from the People's Daily online (Zhao, N., 2013), Sina.com (Han, N., 2010; Wang, N., 2012), Baidu (Li, L., 2014), Google (Li, L.Y., 2011) and so on, covering the most popular search engines, state-run media and portal websites, and conducted content analyses to understand the data. In spite of the different data resources and time periods, they all drew a similar conclusion that, among all the news reports about Chinese female PhDs, negative reports are very common and even dominant, and contribute to the

construction of the stereotyped image on social media.

With respect to news content in the media, the following three themes constitute an overwhelming majority of news on female PhDs: crimes, unfortunate experiences and suicides; love, relationships and marriage; education, career and achievements. In addition, their personalities, behaviour, employment and lives are also reported (Zhao, N., 2013; Wang, N., 2012; Li, L., 2014). The media attitudes are obvious in these news reports. The news on crimes and misfortune are almost always negative: they seem to always be cheated or injured, commit suicide or even engage in illegal and criminal activities. The striking contrast between the high educational degree and miserable life experiences are very attractive to audiences and furthermore leave a negative impression. When reporting female PhDs' love lives and marriages, the media particularly prefer sad stories. The stereotype of "marriage difficulties" was gradually shaped. Positive news about PhD women basically centres on their educational and career achievements. The efforts they made to complete their academic research, their contributions to the research field and notable achievements in society are emphasised. Despite this, such positive news only makes up a small proportion of the total, and the negative pieces of news are always of great length and repeatedly reported (Wang, N., 2012; Li, L., 2014; Han, N., 2010). Overall, the mass media in China is tendentious and selective in reporting news about Chinese female PhDs and they serve as "intangible" pushing hands in shaping a negative image.

According to news coverage and interpersonal communications, I conclude that there is social stigma of female PhDs. The first and most common aspect of this is that they are labelled as "the third gender". It is hard to discover who was the first to say: "there are three genders in the world: male, female and female PhDs", but the saying is now widespread in the media and accepted by the general public. This mocking title has been the most well-known and notable symbol of female PhDs in a Chinese context. The

comic below, a toilet indicator, best describes this sentence. The toilets are provided for men, women and female doctors. "The third gender" refers to the idea that they are neither male nor female, and the dinosaur symbolises female PhDs (see Figure 7).

Figure 7: There are three genders in the world: male, female and female PhDs

It needs to be clarified that dinosaurs particularly mean ugly women in Chinese cyber culture. Obviously, female PhDs are excluded from the ranks of women according to this stigmatising title. In the portrayal of social media and the public, they lack some features that typically belong to Chinese women, such as femininity, softness, good looks and so on. This can also be perceived in some other insulting sayings, such as "female PhDs are UFO (Ugly, Foolish/Fat, Old)".

Secondly, female PhDs are considered undatable and unmarriageable. The media highly "favour" unhappy love stories and shape an image of female PhDs having difficulties in marriage. In addition, they seem to be very anxious about marriage and in a hurry to "marry off". This comic (Figure 8) describes the scene of a PhD woman's wedding ceremony without any husband present. She is in a smart bridal gown and is "fishing" for a two-piece suit as the substitution of her partner. This delivers the information that she is longing for a husband but has failed to find one.

Figure 8：Female PhDs' anxiety about marriage

Numerous items of news coverage and television shows make it clear that female PhDs are not popular in the marriage, with stories such as: "A doctoral woman was rejected 50 times in matchmaking dates for her poor looks" (Tencent, 2016) and "A female PhD had 19 matchmaking dates with her mother present, all failed" (JXNews, 2013). Some news reports highlight the idea that their high academic degrees reduce the possibility of meeting their Mr Right, so some of them conceal their PhD degrees, such as TSnews, which reported a PhD woman in Urumchi, a provincial capital city in Northwest China, who lied by saying she only has a college degree when looking for a partner in order to escape from singlehood (TSnews, 2016). Such reports suggest that PhD is discrediting and they are devalued because of the advanced degree. The PhD woman concealed her high academic degree in order to find a suitor, which indicated the title of "female PhD" discredited her and she intended to avoid it. In July 2017, a chain of contempt in matchmaking and marriage was widely circulated on the Internet. The Phoenixweekly investigated a matchmaking corner in Beijing and concluded that there is "a chain of contempt in matchmaking"; simply speaking, "who disdains who in matchmaking". In

this "price list", female PhDs were largely devalued by their high academic achievements and women's education levels ordered by popularity were: undergraduate, master, junior college, and junior high school, with PhD coming last (Phoenixweekly, 2017). The message conveyed by the media is that a doctorate will hamper a woman's love and marriage.

Thirdly, a PhD is considered useless for a young woman. A comment frequently seen on the Internet about women is: "A good marriage is better than a good education/job" (干/学得好不如嫁得好), which is always believed by the older generation and "experienced" persons. Chinese people basically pursue a quality education and it is seen as promising to receive higher education for both young men and women. However, when it comes to doctoral education, things may be different for some people. Especially for women, a doctoral education means over-education, an older age, high financial investment, and fewer possibilities in the future. In addition, a PhD does not necessarily lead to good employment or a high salary. The greater age and their sex (female) put them in a weaker position in the highly competitive job market. They have difficulties in transforming their knowledge and academic achievements into power and capital in society. Therefore, an "employment crisis" follows PhD women (Yang, Y., 2011). Overall, some individuals may regard women doing a PhD as a waste of time, money, and opportunities.

Fourthly, female PhDs are considered unsophisticated, and they are always victims, being defrauded financially or cheated emotionally. Some individual or untypical cases have drawn great attention in the media and they are magnified, exaggerated and even generalised to the whole category of people. As a result, PhD students are portrayed as devoting themselves to reading and ignoring what is going on beyond their immediate surroundings (*lianger buwen chuangwai shi, yixin zhidu shengxian shu*/两耳不闻窗外事，一心只读圣贤书), as an ancient Chinese proverb says. They only focus on studying

and living in their "ivory towers", a secure and simple environment. With very little social experience, they are easily cheated, and many unfortunate or even stupid things happen to them. The case of Dr Rao was repeatedly reported and hotly discussed (Guangzhou Daily, 2018). Dr Rao received a telephone call in which the caller said he was a policeman and that Rao was suspected of being involved in money laundering. Rao was required to pay the money back (12,800,000 yuan) and then she would be cleared of suspicion. It was a very low-grade and ridiculous shell game, but Dr Rao believed it and transferred 8,500,000 yuan over the next five days. In the news coverage, her self-criticism was stressed.

> *I devote myself to work. I am satisfied with my time with my husband and spend very long hours in the lab. Wechat Moments [a popular social network, similar to Facebook] is a waste of time, so I don't use it. I am not interested in news or gossip. My elder brother scolded me, "you are a PhD, why are you so stupid?" I know I am a nerd, too naïve. I do well in work, but have too little social experience, and I made such a stupid mistake.*

The journalist attributed the success of the scam to the naïve and unsophisticated PhD woman. With repeated emphasis on her PhD degree and stupid mistake, the news left an impression that she was a nerd. Similar news reports are published with high frequency in the mass media. Gradually, they become generalised to the classification of PhD women and they are labelled as "high IQ (intelligence quotient), but low EQ (emotional quotient)".

Finally, female PhDs are seen to have character flaws. They are seen as odd, rigid, boring, abnormal, and mentally ill and often seem to commit suicide. It is reported that PhD students are more likely to be depressed or have other mental illnesses than other people (Woolston, 2017), but there is no sign to indicate any gender difference. Some

individual female PhDs have some mental health problems, but it is not reasonable to see them as typical representatives of the whole category. However, in narrating these individual stories, the media always frames eye-catching headlines and writes in an exaggerated and ironic manner, in order to build up the negative image of female PhDs. Take the report of repatriating a Chinese woman, Xiaolan, for an expired visa as an example (Hu, Z., 2015). This story is given an attractive title: "Female postdoc was repatriated from America with only one box of psychiatric drugs in her returning belongings." It aims to highlight that this woman postdoc has mental problems, and she has no belongings but the psychiatric drugs. Some phrases and descriptions are intriguing as well. Her appearance astonished the Chinese policemen: "a long black down jacket almost covered her ankles with all the buttons fastened; only sparse hair left and there is a lot of white hair; her face looked very sallow and covered with wrinkles; she is exactly an old woman." Her behaviour was also abnormal: "Xiaolan was sitting there motionless, neither angry nor sad, with her eyes looking straight at the policemen or the floor." The media stressed her miserable experiences and her huge transformation from a promising student to a psychiatric patient. Similar stories occur in the media and are spread through mass media and interpersonal communications, so that the impression that female PhDs always have character flaws and even mental problems was solidified to a degree.

These news reports suggest that the stigmatisation of female PhDs is still commonly circulating and relates to every aspect of their lives and studies. This phenomenon could be understood in the context of a commercialised media ecology in China. The Chinese Communist Party (CCP) and government used to completely own and operate the whole Chinese media system, including newspapers, magazines, television stations, radio stations and websites (Zhang and Su, 2012). However, from the mid-1990s, the mass media began to commercialise, and many market-oriented media agencies owned by private companies and individuals emerged. The increasing popularity of market-

oriented media has added commercial considerations to the traditional concerns, which were mainly about propagating political messages (Zhang and Su, 2012). The different media companies and many online platforms are engaged in fierce competition with each other to attract larger audiences and win advertising revenue (Poell et al., 2014). Within this media ecology, the media aims to catch viewers' attention and increase "clicks" by any available means. On the one hand, Chinese media shares some characteristics with that of western countries, in that the "If it bleeds, it leads" style of news coverage also occurs in Chinese mass media. It is negative news items, especially unfortunate and violent stories, that draw the eyeballs of the audience. This may provide an explanation for why the crimes, unfortunate experiences and suicides of Chinese female PhDs are mostly preferred by the media, and why negative news stories are in the majority. With these negative reports repeatedly spread by the media, "female PhDs" became stigmatised. On the other hand, in today's commercialised media, some controversial debates can increase web traffic. Media audiences are no longer just consumers. As Yang (2009: 211) suggests, "Major web sites therefore welcome and embrace controversial media events and encourage their users to participate". Contentious topics can attract more people, not only to pay attention to them, but also to comment and engage with them, which can bring multiple "clicks". Topics concerning gender and women are very controversial in the media. The news coverage often adopts "female/women" as a trigger point, especially in conjunction with any uncommon characteristics, such as having a "doctorate/ PhD", in order to attract viewers. Frankly speaking, much of the news coverage stresses their gender as "female", or their identity as "female PhDs", but the actual stories may not be relevant to their gender or identity. If the media concealed their gender and educational level, the news would have no impact. Consequently, "female PhDs" became a title to gain the attention of audiences and readers.

The stereotyping and stigmatising of Chinese female PhDs in the media can also be

regarded as a trivialising of young women. As Cara Wallis (2015) argues, "from a gender lens, the media deploy a masculine and visual style that position the female body and the feminine as the site of subordination, penetration and insult". The binary gender ideology that men are strong, active and rational, while women are the opposite is deeply engrained in China's patriarchal cultural and contemporary beliefs (Evans, 2008b). This binary idea is easily absorbed into global and domestic media that sexualise and objectify women (Wallis, 2015). Even though the CCP (Chinese Communist Party) and government have loosened their total control over the media, they still remain "structured in dominance" and have built up a strict censorship system (Zhao, 2012). Online censorship mostly revolves around self-censorship, which Yang called "a soft approach" (Yang, 2009). Media platforms have to follow the principles of self-discipline, indirect guidance, efficient management, positive cues, and rule by law (Cunningham and Wasserstrom, 2012; Yang, 2009). Furthermore, media companies have to be responsible for the content and behaviour of users on their sites and they become entangled with the activity on other platforms that they are competing with, as well as government interventions (Peoll et al., 2014). Wallis (2015) took three examples of online *e'gao* (content that parodies or makes fun of an original work) female figures to suggest that the user-generated Internet content designed to resist structural political inequalities reinscribes systemic gender inequality. It reveals that, under such censorship, gender issues seem less transgressive within the media ecology. The Chinese online environment is more like a playground for leisure, socialising and commerce than the soil of political activism (Damm, 2007). "For the sake of resistance and the advancement of what are considered as large goals, gender equality is often something either saved for later or completely absent from public discourse. It is as though the ubiquity of essentialised gender and the trivialization of the feminine renders them invisible" (Wallis, 2015: 236). The case of female PhDs in Chinese media is part of a wider trivialising of young women.

Media platforms also give Chinese female PhDs a chance to fight back and contest these stereotypes. I am aware of a recent new trend of more positive voices emerging. With the rapid spread of new media and We-media, every Internet user can become a content creator (Yang, 2009). Some PhD students post about their everyday lifestyles and share their values on various social media platforms, such as Wechat official accounts, Weibo, Douban, Bilibili and Douyin (TikTok). Some of them grow into KOLs (Key Opinion Leaders) and have hundreds of thousands of followers; for example, Claire (@毛毛虫 Claire), Leila Zhu (@亲戚三三子) and Cheng Fei (@做一只有温度的女博士). They share not only study and educational experiences, but also aspects of their everyday lifestyle, makeup, child-care and cultivation, love and family and so on. The voices of female PhDs have begun to emerge, which provides a method for direct and multidimensional self-presentation to the public and contributes to a deconstruction of the negative stereotypes and a reconstruction of the images of female PhDs. Some female scientists' remarkable academic achievements are highly praised among society and in the media, such as those of Tu Youyou, who won the Nobel Prize in Physiology or Medicine in 2015, and Yan Ning, who is a globally famous structural biologist. Thus, female PhDs' research and academic achievements have been attracting growing attention from the media.

We cannot assume that everyone accepts the reports in the media. Basically, people are affected by some of the media reports and stereotyped images of female PhDs constructed by the media, but public attitudes towards Chinese female PhDs vary. Some believe that female PhDs do exhibit these negative characteristics, while other individuals may question these reports. Some individuals constantly receive "information" from the media but do not personally know a woman with a PhD, so they seldom think critically about the news and easily believe what is reported. In addition, in private conversations, there are many stories spreading, beginning with similar sentences: "I have a friend whose daughter did a PhD, but she can't find a boyfriend in

her thirties," or: "I heard about a woman doing a PhD, and she's kind of odd, abnormal." The combination of such stories with negative news items seems to be highly convincing to the general public and they will accept these stereotypes and stigmas as truth. However, some people may question or critique the news coverage. Take the case of Xiaolan I just introduced in the news item , who was repatriated from America, for example. A journalist wrote: "Xiaolan got the academic degree of post-doctorate", and it was pointed out by some users that "post-doctor" is not a degree. This report contained many exaggerated descriptions and expressions and it seemed that the journalist was watching everything as it happened. This news was presented in an unprofessional way, similar to the writing of a novel. Some people commented: "How much of this story is true? It sounds made-up. Many details are incredible." The audience questioned many details of this story and its authenticity. Some individuals are able to think critically about media content and have their own opinions. In addition, some people are not only trying to make their voices heard in the media, but are also actively challenging media institutions and contesting media discourses (Zhao, 2010). A good example is the longest-established Chinese media-monitoring NGO, Women Media-Monitoring Network in China, which incorporates fair and non-stereotypical representations of women. A group of female journalists and feminist media scholars established it and ran a regular media column in China Women's Journal. They conducted studies and publicised papers on media reporting of violence against women and the promotion of gender-sensitive professional norms and practices in the media (Zhao, 2010).

Existing literature and situating research

Compared with social media discussions, there has been less discussion in academia. As my title indicates, female PhDs have been stigmatised in the media and there are many social debates about female PhDs in Chinese society (Yang, 2011; Han, 2010). In particular, love and marriage of female PhD students are heated discussions and have become core topics on the Internet in recent years (Kuo, 2014). In the past, some

negative false news stories related to women with PhDs were repeatedly reported and subsequently followed and commented on by Internet users (Han, 2010). A large number of reports and articles have been published on the Internet, in newspapers and in magazines (JXNews, 2013; TSNews, 2016; Phoenixweekly, 2017). Thus, the image of female PhDs might be overgeneralised and one-sided, which might contribute to negative stereotyping (Zhao, 2013; Li, 2011).

In the academic literature, a large number of studies include Chinese female PhDs, but they are looking at wider themes. For example, many scholars have studied "*shengnü* (leftover women)" (To, 2015; Fincher, 2016; Zou and Xia, 2008; Zhang, 2012; Lu, 2016), which covers the marriage issues of single, older female PhDs; some researchers focus on highly educated women (Zhang, 2012; Lu, 2006), who are composed of female college students, master's students and doctoral students; some studies explore doctoral students in general (Gao and Shen, 2016; Deng, 2011; Chinese PhD quality research team, 2010; Mueller et al., 2015), including both men and women; and some study Chinese female academics (Xie and Shauman, 2003; Tao et al., 2017; Yan, 2019), mainly focusing on female faculty and staff in academia. They do not specifically study Chinese female PhDs. In contrast, my research is looking at Chinese female PhDs in particular.

There are some studies on Chinese female PhDs, but they focus on specific aspects, such as their social media image or their love and marriage issues. Communication and Social Media Studies researchers argue that in most cases the stereotypes and negative images of female PhD students are constructed by social media (Yang, 2011; Zhao, 2013; Zhao, 2011; Liu, 2016). For example, in the media, news about female PhD students often centres on negative reports, such as unmarried female PhD students, difficulties in job-hunting, illegal and criminal activities (Han, N. 2010; Zhao, N., 2013). Such topics seem quite attractive to the public, so the media tend to report or even re-report the news

related to them(Zhang, G. and Liu, Y., 2008; Han, N. 2010; Yang, Y., 2011; Sun, L., 2017).
Through reality shows and television dramas, such as *IF You Are the One (《非诚勿扰》)*, the image of female PhDs is usually constructed as "abnormal" in order to attract an audience (Wu, 2014). However, over the last couple of years, attitudes towards female PhDs have shown signs of changing. As some PhD students post about their everyday lifestyles and share their values on various social media platforms, such as Weibo.com, Douban.com and Douyin, the voices of female PhDs have begun to emerge, which contributes to deconstructing the negative stereotypes and reconstructing the images of female PhDs (Liu, Z., 2016). Based on the latest data (2014–2016) from Sina.com, news reporting of female PhDs is more balanced and neutral: the topics of their research achievements and careers make up a larger percentage, while negative news reporting "marriage difficulty", criminal events and so on has been decreasing (Wang, 2016). Compared with the previous situation, when most news was likely to report negative information about female PhDs, this change is rather positive. The increased exposure of Chinese female PhDs facilitates the challenging of social stigma. This trend may indicate that women have an increasing self-awareness about speaking out, and the social discourse has been transforming into a more objective and less gender-stereotyped one.

Another popular research topic related to female PhD students is love and marriage (Yang, 2011). Many studies assume that female PhDs are facing a marriage crisis and explore the reasons for their "marriage difficulty" through investigating their marriage values and requirements for potential partners (Mo, 2005; Sun, 2007; Jin, 2019; Zhu, 2017). Mo (2005) investigated the love and marriage values of nine female PhD students in the same class. Among the nine participants, six women were married, two were in a relationship and only one was single at the time of being interviewed. This is not a reasonable piece of evidence to argue that female PhDs have difficulties in love and marriage, but the study focuses on analysing the reasons for their "marriage crisis".

Using social exchange theory, unmet requirements for marriage partners are considered a key factor leading to female PhD students' marriage difficulties, which are embodied in the tensions between men's priority of marrying women of good appearance, "young" age and virtuousness, and highly educated women's "high" age, independence and good personal abilities (Sun, 2007; Zhang, 2010). Their research results and analysis are conducted on the basis of traditional Chinese gender roles. However, I remain sceptical of some widely perceived devalued factors of women, including that female PhDs are not good-looking, and they are older than the ideal marriageable age. In addition, the recent trends towards later marriage, and increasing social recognition of educated women's cultural capital and financial independence, might be taken into account.

Another reason given for female PhDs' marriage "crisis" is that they are too "picky". Based on data gathered from 10 single female PhD students who majored in Science and Engineering in Jilin Province, Jin Jia (2017) concludes that they have high expectations of love and partners, and will not easily compromise or lower their standards in order to find a spouse. Similarly, drawing upon interviews with 20 female PhD students in Nanjing, Zhu Xiaoxia (2017) argues that the perfect "male god" image constructed in dramas and novels has led female PhDs to have overly high expectations of their male partners. Individual thinking patterns, personalities and persistent opinions impact upon their mate selection. However, the criteria do depend, to some degree, on female PhDs' privileged personal "situation", so the judgement of "high" expectations of partners may need more discussion. Additionally, due to their busy academic schedule, doctoral students do not have much spare time to enlarge their social networks and participate in social activities (Jin, 2017; Zhu, 2017). This is a practical reason that may reduce their opportunities to meet prospective boyfriends. Furthermore, Chinese female PhDs place great emphasis on love and feelings, but they are burdened with the stress of marriage expectations from their families and society, and are reconciled to

traditional hypergamous and homogamous marriage values (Zhu, 2017; Zhang, 2010). Consequently, they are struggling against unmet expectations and conflicting values.

However, a lack of consideration of the increasing singlehood and later marriage of Chinese women in general may result in the taken-for-granted assumption that female PhDs have marriage "difficulties". A large number of single women living in metropolitan areas and aged over 30 are choosing not to marry. They remain single to "reject inappropriate matches" and engage in the opportunities available to accomplish their goals in education, work and in happy personal lives (Nokano, 2015). Chinese female PhDs' willingness to enter into a relationship or marriage ought to be considered. Many of them prioritise their education and research during their PhD studies, rather than marriage issues. In addition, they are enjoying their single life at the moment. From this perspective, more discussion about female PhDs' attitudes towards marriage and singlehood are needed. In addition to the Chinese literature on female PhDs' love and marriage, I could hardly find any western academic literature on Chinese female PhDs' "marriage crisis". This reminded me to explore the different cultural, social and gendered context in which Chinese female PhDs live and to locate them in the contemporary, transforming China.

In terms of a love and marriage "crisis", single women at a "high" age exist across Chinese society, and female PhDs are not the only group who are considered "problematic". The phenomenon of "*shengnü*" ("leftover women") has been a hot topic in academia. As issued on the website of the Chinese Ministry of Education in 2007, "*shengnü*" are "urban professional women who are over 27 years old who have high educational level, high salary, high intelligence, and attractive appearance, but also overly high expectations for marriage partners, and hence are 'left behind' in the marriage market" (To, 2015: 1). "*Shengnü*" and female PhDs enjoy several similar characteristics: being highly educated women, having "marriage difficulties", and being

socially stigmatised groups, the two categories of women are always mentioned and analysed together. Overlapping these two categories are single female PhDs who are in their late twenties and can be labelled "*shengnü*". Therefore, the research on the "*shengnü*" phenomenon is closely related and contributes to an understanding of female Chinese PhD students' attitudes towards love and marriage.

To explain the reasons of the "*shengnü*" phenomenon, many researchers point out that "marriage hypergamy" (see Wang L., 2012; Han J., 2009; Zhang Y., 2012; Lu Z., 2016), and that the problems arise from the contradiction between traditional marriage patterns and the new social trends (Gao X., 2011) play important roles in it. Sandy To (2013; 2015) analysed "*shengnü*" phenomenon by interviewing 50 single Chinese professional women in Shanghai and draws the conclusion that "the persisting formidability of the Chinese patriarchal structure led to 'discriminatory' and 'controlling' gendered constraints that barred most of the professional women from marriage." In addition, Sandy To also state that parents' traditional views of women marrying up seem to conflict with their high aspirations for their daughters' educational and occupational achievements, which may exert great pressure on their daughters and lead to some of them being "left over". Some scholars (Lin, Y., 2008; Jing, G. et al., 2012) state that the "*shengnü*" phenomenon reflects the advancement of gender values and signals the emerging self-awareness of women such that they are empowered to choose and enjoy their singlehood. Some researchers (e.g. Wu, Y. and Liu Q., 2014; Chen, H. and Ling, J., 2012) have explored the "*shengnü*" phenomenon from an economic stance. Chen He and Ling Jing (2012) use marriage market theory to argue that the "*shengnü*" phenomenon is brought about by oversupply, dropping prices, increasing costs and high replaceable income from marriage. The sex structure has been changed in the marriage market as a result of women's improving educational degrees, which reduces the benefits of marriage for women (Wu, Y. and Liu, Q., 2014). Some research gives multiple reasons for women being "left over". Tang Liping (2010) concludes the possible reasons

for being "*shengnü*", and they are: an increasing female population, outstanding young women and their high mate-selection requirements, changes in society, and "marriage hypergamy". Qin Jingwen (2012) explores the media image of "*shengnü*" and argues that the main factors leading to "leftover women" are: the development of urbanisation, changes in marriage law, marriage hypergamy and a diversification of views on marriage.

In addition to the studies focusing on social media image and love/marriage difficulties, there are some new emerging themes in this academic field. For example, some papers discuss the employment status of female PhD graduates, and especially difficulties and unequal treatment during job-hunting (Ma M. et al., 2014; Li et al., 2012; Jin, L. and Liu, Y., 2011; Ren, X., Wu, J. and Li, Q., 2013), the extended duration of doctoral students' studies (Wang, X., 2013; Song, C. et al., 2012),t and the concept of "The third Gender" (Xu, X. and Zhu, W., 2011; Li, T., 2008). Moreover, Lin and Baker (2017) focus on the challenges and changing attitudes of Chinese women seeking PhDs. He's research team (He et al., 2018) explored Chinese female PhDs' social anxiety and their solutions for solving it. Shen Yang (2010) looks at their work–lifestyle preferences. Themes around Chinese female PhDs' studies have become increasingly diverse.

With respect to research content and topics, a gap in the literature is that previous studies have usually centred on a single aspect of female PhD students, such as love/marriage (Mo, 2005; Sun, 2007), employment (Li et al., 2012; Ma et al., 2014), or the social construction of social media images (Han, 2010; Yang, 2010). Many related aspects need further research. Additionally, there is no study addressing various issues relating to female PhDs within one single study. Shen Yang's (2010) study of Chinese female PhDs' preference between study/work and lifestyle/family situates PhD women in the work-family conflict and it is an enlightening piece of work. Nevertheless, the connections and interactions between various aspects need more exploration. I have

not found a published study aiming at exploring the various aspects of Chinese female PhDs and building up a vivid and multiple-dimensional image of this category. As a result, I aim to do a multiple-dimensional study of female PhDs instead of focusing on a single aspect. It is worth discussing how different aspects impact and interact each other

The topics in the existing literature provided my interviews with important themes to discuss. I inherited two well-debated themes: love/relationship/marriage; and (future) career and lifestyle expectation. In addition, many other aspects of female PhDs are still under academic exploration, for instance, some themes draw little attention but are closely related to female PhDs, including their everyday lives, study and research experiences, their attitudes towards social stigma, different experiences and feelings towards   doing a PhD in China and the UK, gender values and so forth. As a variety of themes could be relevant to Chinese female PhDs, it is impossible to cover all aspects. I also designed another three less discussed themes in the interviews: PhD research and study, everyday life, as well as female PhD students' self-identity and their negotiation of social opinions. They constitute the five main themes of my interviews.

Sub-themes and concrete questions in the interviews are inspired by academic work in different aspects. Some researchers (Sun, 2007; Zhang, 2010; Zhu, 2017) suggest the unmet requirements for potential partners are a crucial reason for highly educated women being "leftover". For example, to explore female PhD students' values relating to love and marriage, I designed some questions to capture their expectations of future partners, including their personal characters, educational level, family background, economic ability and other values that they appreciate. Many studies indicate that PhD students are facing the possibility of failing to complete their PhD or requiring an extended duration, and are suffering from great pressure, anxiety and depression (Wang, 2013; Ma et al., 2014; He et al., 2018; Woolston, 2017). They inspire me to

discuss the difficulties and challenges that female PhD students are experiencing during the PhD period. A series of questions were designed, including, what difficulties do they meet during PhD programmes? What make them feel worried? How do they deal with the pressure? In this study, literature featured in choosing the themes and sub-themes to construct my interview framework.

With respect to the research approach, the second gap in the literature is a lack of women's own perspectives. Sociologists often choose some problematic groups and issues as the starting point of their research (Young, 1971). "Leftover" women and female PhD students are considered to be members of problematic groups. Chinese female PhDs are stigmatised as "the third gender" in a Chinese context and have some unattractive features: they seem to be unmarriageable, unromantic and might be bad looking; they tend to be unsophisticated with a sense of superiority; and they tend to be scientific, boring, and sometimes odd (Wu, 2019). These negative and biased images of female PhD students are constructed and overstated by social media (Zhao, 2013; Li, 2011). This is how the social media audience, Internet users and general public see female PhDs in China. Furthermore, some researchers are in line with the social belief that women PhDs have "difficulties" in finding a partner and the researchers seek reasons behind it (Lu, 2006; Zhu, 2017; Nan, 2013; Sun, 2017). However, it is optimistic to see that Luo and Ren (2011) are trying to examine the saying of female PhDs' marriage difficulties and Chen and Lü (2011) claim that "*shengnü*" is a fake saying and a misleading concept, because they did a data analysis of the demographic sex ration, which indicate women are in shortage compared to men at every age stage and educational level. In terms of a macro Chinese society, female PhD students are influenced by patriarchal culture and traditional norms (Zhang, G. and Liu, Y., 2008; Zhao, W., 2011; Zhao, N., 2013). For instance, "marriage hypergamy" plays an important role in explaining the reasons of the singlehood of highly educated women (Zhu, 2017; Wang, 2012; Han, 2009; Zhang, 2012; Lu, 2016). From the perspective of economic

stance, some studies (Wu and Liu, 2014; Chen and Ling, 2012) have explored the marriage "crisis". To my knowledge, few studies have analysed the issues faced by female PhDs from their own perspective (Wang, 2018; Shen, 2010). Therefore, it is worthwhile to further explore the phenomenon from the perspective of female PhDs' feelings and self-recognition.

To help fill this gap, my research aims to investigate female PhDs' lives and values from their own perspective. I chose to let the women speak for themselves and I conduct this study with a feminist research approach. Based on the lives, experiences and values of the interviewees, data analysis will be done to explore the rationale behind the group of women and what they are facing in the current Chinese changing society. To explore female PhD students' understandings and self-identity, the theme of female PhDs' self-perception of social stigma is discussed in the interviews. As many studies focus on how social media report female PhDs and how their images are constructed among the public (Yang, 2011; Wang, 2009; Li, 2014), I concluded some widely-recognised social stigma of female PhDs: "The third gender"; marriage difficulties; PhD degree is useless for a woman; unsophisticated nerds. Therefore, I designed several questions in the interviews to allow the participants to respond to each stigma: do you think it is true or not? What do you think of it? How do you respond to it? Through this theme, women can express their understandings towardes different aspects of the group of Chinese female PhDs, deliver their attitudes to agree with or against the social stigma, and construct the self-identity as a female PhD student.

Furthermore, in terms of methodology, the mainstream research methods used to explore female PhD students are quantitative methods; for example, content analysis and questionnaires. Content analysis is often used to discuss female PhDs' social image (see Yang Ying, 2011; Zhao Ning, 2013; Zhao Wei, 2011; Liu Zhiting, 2016; Li Luyao,

2011; Li Lu, 2014). Some popular search engines, such as Baidu (Li, L., 2014) and Google (Li, L.Y., 2011), state-run media, like the People's Daily online (Zhao, N., 2013), and portal websites, like Sina.com (Han, N., 2010; Wang, N., 2012), provide researchers with news coverage about Chinese female PhDs to study. In some studies concerning love/marriage values, employment status, and PhD motivation, questionnaire surveys are often adopted to collect data (Sun, 2007). Sun Jinhua (2007) distributed 150 questionnaires to collect the data about female PhD students' values of love and marriage. A research team that explored the occupations of PhD graduates collected nearly 2000 questionnaires from 14 universities and research institutions, and among the collected questionnaires, female PhDs make up 37% of the total participants (Li et al., 2012). Huang and Jin (2016) investigated Chinese doctoral students' motivation for doing a PhD and their prospective career plans with a sample size of 1399 PhD candidates from 44 universities in Mainland China.

However, qualitative methods often serve to explore Chinese female PhDs' attitudes to love and marriage (Zhu, 2017; Wang, 2018; Mo, 2005; Ding, 2012). Zhou Siyi (2010) chose the methods of in-depth interviews and focus groups to explore a group of female PhD students from the perspective of young people and female PhD students' self-recognition. Mo Wenbin's (2005) research is based on nine interviews and a discourse analysis to explore female PhD students' attitudes towards love and marriage. Ding Lan (2012) studied the situation of love and marriage of female PhD students through six interviews and argues that marriage problems are partly factual as well as a stigma. Shen Yang (2010) interviewed nine female PhD students about their growing up, educational backgrounds, employment, and attitudes towards love and marriage in order to explore their work-lifestyle preferences. She analysed the differences between career-preferring and family-preferring doctoral students. Wang Yunjia(2018) collected the views of female PhDs from 25 participants (15 female PhDs, 7 men and 3 parents of female PhDs) through two-round interviews.

To best achieve the aim of enabling female PhD students' voices heard by others, with respect to methodological issues, I will use qualitative method to explore female PhD students. Semi-structured in-depth interviews are designed and rich interview accounts are generated as my first-hand data. The qualitative method is less adopted in researching Chinese society and women. My research is expected, to some degree, to provide a new perspective and also to offer new insights into how to conduct a qualitative study of Chinese society and Chinese women

Chapter 3

Researching Chinese female PhD students' lives and values

In the introduction and literature review chapters, I discussed the social, historical and academic background of my study on Chinese female PhD students. In this chapter, I intend to explain the methodological issues of my research: the research method I used, the research design, the process of doing the research and my reflections upon it. I have divided the chapter into three sections: pre-field, in the field and post-field.

I locate my methodology within a feminist research approach. Feminist research, by its definition, examines women from their own perspective (Harding, 1987: 9). Since women's lives and experiences are still largely invisible, the core of feminist research has been widely recognised as enabling women's voices to be heard. As Cottle (1978) notes: "One of the principles of my work is to allow people to speak for themselves", and Maynard also argues that the most useful allegiance required in feminist research is to an approach that maximises the ability to explore the experiences of women, rather than imposing external definitions on women's lives (Maynard, 1994: 12). It is easy to discover some groups of women who are obviously oppressed and dominated by men, but other kinds of discrimination are less visible, and this applies to my topic. My research aims to look at Chinese female PhD students' lives and values in a Chinese context. As the category of Chinese female PhD students refers to vulnerable groups and their lives are invisible to most of the general public, the first and most important step is to map all their aspects and research them from their own perspective. I hope my research can achieve the goal that women's voices are heard, recorded and included in wider intellectual histories (Ryan-Flood, 2010). This is the reason why I believe that my research fits within the field of feminist thought. Feminist researchers have published a great deal of literature on researching women since the appearance of the significant book *Doing Feminist Research* by Helen Roberts in 1981. These debates have centred on

methodological issues of power relationships between the researcher and the researched, subjectivity and objectivity, creating rapport, emotional work, promoting equality and so forth (Roberts, 1981; Finch, 1984; Cotterill, 1992; Maynard, 1994; Reinharz, 1997; Ribbens, 1989). Feminists have stressed the importance of listening to, recording and understanding women's own descriptions and accounts (Maynard, 1994). The success of feminist research is based on all these elements, so I strived to do my best in every aspect before, during and after my fieldwork.

Choosing qualitative interviews as the research method

I used qualitative interviews as my research method to explore Chinese female PhD students' lives and values. I believe this method fits my research topic for the following three reasons. Firstly, qualitative interviewing is appealing to feminist researchers. In the 1970s and 1980s, early feminists tend to draw a marked distinction between qualitative and quantitative approaches with the implication that qualitative methods were quintessentially feminist (Maynard and Purvis, 1994). As Kelly et al (1994:34) argues, the in-depth face-to-face interview was seen as "the paradigmatic feminist method". The current feminist research is characterized by the use of multiple and mixed methods and approaches (Doucet and Mauthner, 2008). I highly agree with Letherby's stance that feminists should employ methods that "enable women's experiences and voice to be distinct and discernible" (Letherby, 2003:102). It offers access to individuals' ideas, thoughts and memories in their own words (Reinharz, 1992). This is particularly valuable for the study of women because of its ability to reveal the "subjective experiences and meanings of those being researched" (Maynard, 1994: 11) In my research, this is also my goal and my participants' experiences and voice, such as their everyday life, ideas and values, personal experiences and future expectations, are planned to explored. I chose qualitative interview because it enables the researched to present the idea of themes above better. As Mason argues,

Through qualitative research we can explore a wide array of dimensions of the social world, including the texture and weave of everyday life, the understandings, experiences and imaginings of our research participants, the ways that social processes, institutions, discourses or relationship work, and the significance of the meanings that they generate.

(Mason, 2002: 1)

Feminist approach and qualitative interviewing are predicted to function and interplay well in the social science research. As feminist theorists and researchers Liz Stanley and Sue Wise (1990) noted that "feminist theorists have moved away from the 'reactive' stance of the feminist critiques of social science and into the realms of exploring what 'feminist knowledge' could look like." The issue of interviewing as a way of coming to know others and to construct knowledge about them (Doucet and Mauthner, 2008). In addition, some contributions are made by feminists to the interview method. The issues of non-hierarchical relations, power, rapport, and empathy, and the investment of one's identity in the interview process continue to impact feminist research practices. I will discuss some with combination of my research experience later in this chapter. My feminist research questions are designed to explore such topics as everyday life, and experiences and understandings of being a Chinese female PhD student, which are in accordance with the kind of issues qualitative methods can explore. So the data I want can feasibly be gathered through qualitative interviewing; asking people for their accounts, talking and listening to them, is the best way to generate the data I need. In addition, some contributions are made by feminists to the interview method. The issues of non-hierarchical relations, power, rapport, and empathy, and the investment of one's identity in the interview process continue to impact feminist research practices (Doucet and Mauthner, 2008). I will discuss some with combination of my research experience later in this chapter.

Secondly, the aim of qualitative research is to get to know how and why people behave, think and make meaning as they do rather than to find answers on a large scale (Ambert, Adler, Adler and Detzner, 1995). There have been long debates about the advantages and disadvantages of qualitative and quantitative research in social science subjects. Quantitative research mainly underlines the collection of social facts or explores the particular relationships between variables (Jayaratne and Stewart, 1991). However, a qualitative method "lays emphasis on depth, nuance, complexity and roundedness in data, rather than the kind of broad surveys of surface patterns and numbers" (Mason, 2002: 65). By comparison, quantitative research may never provide the kind of richly textured "feeling for the data" that qualitative research can (Jayaratne and Stewart, 1991). Patricia Sexton stressed this difference between the two methods in her study of female hospital workers:

> *Unfortunately, the abundance of statistics and generalizations about "work and its discontents" gives us little real understanding of how women lead their daily work lives, experience their jobs, or perceive work-related issues. Personal documents are needed, individual and group portraits of workers, slices of real working life, statements by the women themselves.*

(Sexton, 1982: 5)

Sexton clearly argues that qualitative methods can better generate the kind of data she wanted in her study. The same is true in my research. I aim to look at the experiences of Chinese female PhD students in China and in the UK, and attitudes towards them. I am exploring the answers to "What", "How" and "Why", rather than stating social facts. My study requires a deep and complex understanding, instead of a superficial statement. In addition, the interview data includes not only respondents' accounts but also their facial expressions, tones of voice and body language, which surveys and questionnaires

cannot provide. In my study, the qualitative data-gathering process can facilitate deeper and more vivid accounts.

Thirdly, previous research on Chinese female PhD students has mostly been based on textual analysis and quantitative methods with its statistics collected from surveys and questionnaires. Very few studies have adopted interviews to generate data (see Shen Yang, 2010). The varieties of data collected on Chinese female PhD students only focus on certain aspects of the whole group, such as love and marriage, mate selection or media presentations. It fails to picture the many-sided image of Chinese female PhD students. In addition, the existing literature reveals some social phenomena and problems about Chinese female PhD students, but what my research aims to do is to explain the reasons and propose potential solutions to the problems. To achieve this, I used in-depth interviews as my major approach to collect my participants' experiences and ideas. Furthermore, I also explored some secondary materials, such as news reports, online blogs, official statistics and other research to supplement my own data.

Research design

After choosing qualitative research as my method, I continued to decide upon the research participants and fieldwork locations. I finally determined my research participants within the limits of full-time Chinese female PhD students who are currently studying a PhD programme in Nanjing and Harbin, China, and in York and Leeds, UK. The term of my research topic "女博士 (*nü boshi*)", which is stigmatised as "the third gender", literately means "female PhDs". It mainly covers women who are studying a PhD programme or have obtained a doctor's degree. In this research, I chose as my participants female PhD students who are pursuing or have just obtained a doctor's degree, rather than those who have graduated and been working for several years. In addition, among female PhD students, I excluded part-time students from my research. Therefore, I only focus on full-time Chinese female PhD students in order to

achieve the aims of this research, which are to explore the experiences of and attitudes towards being a Chinese female PhD student, for the following reasons. First of all, I plan to picture an all-round view of the research interests and lives of female PhD students. However, female PhDs who have graduated and part-time PhD students are mostly focused on their employment and career, which means their lives vary greatly from those of full-time PhD students concentrating on studying and campus life. In the second place, an issue of key importance that greatly concerns the public about female PhDs is their love lives, relationships and marriage. Full-time PhD students are generally in their twenties, with a few in their early thirties. They are currently facing the "pressure" of finding a potential suitor and entering into marriage. Compared with young full-time students, those graduated women and part-time PhDs are generally over 30 years old, or in their middle age. A majority of them are already married and have a stable family life. Therefore, they do not fit into the social discussion of PhD women's difficulties with love and marriage. Thirdly, in terms of age, I propose to aim at the young generation, who were born after 1980, in order to explore their experiences and values, as well as current doctoral education. From this perspective, the life stories, values, and experiences of highly educated women in middle and older age may be quite different from those of the young generation, which could result in the complexity and loss of priority of the whole research. The fourth reason why I limited my participants to the category of full-time female PhD students is in order to understand their aspirations for their future careers and lives. Full-time PhD students are mainly enjoying a campus life and have not yet really come upon the stage. In a Chinese context, the public believes that coming upon the stage, or as we say in Chinese, *jinru shehui* (进入社会), literally meaning "entering society", is a watershed of life. After this, society and reality will teach young people "something" and individuals' values and lifestyles will probably change to some degree. Compared with women enjoying a stable life, full-time PhD students' uncertainty about their future lives is an essential question, making them confused. To summarise, I narrowed down the boundary of "女博士 (*nü boshi*)" (female PhDs) and

have defined the term as "full-time female PhD students" in this research in order to map the all-round aspects of their experiences, values and aspirations, as well as fitting participants more actively and positively into the social argument of "女博士 (*nü boshi*)" (female PhDs) and "the third gender".

The setting of my fieldwork is based on the way I recruited participants and the diversity of female PhD students. Since the end of the 1990s, the internationalisation of higher education has been observed worldwide (Iannelli and Huang, 2013). Ever since the late twentieth and early twenty-first century, studying abroad has flourished to an increasing extent in Mainland China, especially for higher education. China's PhD education has become involved in the internationalisation of higher education and it is most deeply impacted by this trend in undergraduate, master's and doctoral education (Shen, 2018). As an English-speaking country, the UK gained much attention of Chinese students. Many Chinese students decide to study abroad for a doctoral degree because of the advanced educational level at top universities, and also to gain overseas experience. As well as the female PhD students studying in Mainland China, there are thousands of Chinese women studying as overseas PhD students. Chinese overseas PhD students are an important group of PhD students and focusing on this group contributes to our understanding of the experiences and values of female PhD students. Therefore, I designed my research to cover female PhD students in both Mainland China and other countries. As a matter of fact, the quality of British higher education and doctoral programmes is recognised as advanced across the world. In 2014, the number of Chinese overseas students was around 459,800 (Ministry of Education of the PRC, 2015), with the UK being the second most popular destination (Education online, 2014). The number of Chinese students choosing the UK as their study destination is expected to continue growing. Also, as I am studying at a British university, I am familiar with the local educational environment and society. It was also easier to approach potential female PhD students as participants in the UK than in another country. So, besides China, I chose the UK as my research and fieldwork

location. Also because I, the researcher, am currently studying and living in York, inevitably, York became one of my fieldwork locations. York is a beautiful and historic city in the northeast of England. It has outstanding research and teaching academic institutions, such as the University of York, which has a high reputation among Chinese students. I believe my social circles in York and my knowledge of British graduate education are beneficial to my fieldwork in York. Another city I chose in the UK to find participants is Leeds, a half-hour train trip away from York. Compared with York, Leeds is a bigger city with more universities and more Chinese overseas students. In addition, the University of Leeds has a partnership for PhD programmes with CSC (China Scholarship Council)[2], which is an official office belonging to the Ministry of Education of the PRC and provides scholarships for Chinese students to study abroad. As these two qualified universities are both members of academic associations, such as White Rose and the Russell Group, they provide PhD students in the two universities with links to each other, which contributed to my personal network and the snowballing of participants.

In China, my research was designed to be based in Nanjing and Harbin. Nanjing has a population of over 8.2 million (Nanjing Bureau of Statistics, 2015). It was the capital for ten dynasties in Chinese history. During the period of late Empire and Republican China, education in Nanjing was quite advanced and outstanding (Xu, C., 2006: 6–7). After the establishment of the People's Republic of China in 1949, the capital was moved north to Beijing and Nanjing became the capital of Jiangsu Province. Even though Nanjing no longer serves as the national capital, it still has a strong accumulation and good tradition in education. Many outstanding universities are based in Nanjing, such as Nanjing University, Southeast University, Nanjing Normal University, and Hohai University. Harbin is the capital city of Heilongjiang Province, with a history of over one

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[2] CSC established an official partnership with the University of York starting in the 2015/16 academic year. At the time when I was finding participants and doing interviews, in 2014, CSC did not have a university-level partnership with York.

hundred years. In ancient China, it was a remote and undeveloped area. Compared with Nanjing, Harbin's education sector developed later in history and has weaker foundations. After 1949, Harbin became the location of the northeast industrial base. It followed the Soviet educational model and aimed at training professionals for industry. As a consequence, universities focusing on heavy and military industries and specialised institutions were built (Jiang and Shan, 2002: 22). Nowadays, most of the qualified universities in Harbin developed after the 1952 education revolution; for instance, Harbin Institution of Technology, Harbin Engineering University, Northeast Agricultural University and Northeast Forestry University. The initial reason to choose these two cities is that Nanjing is where I studied for my undergraduate degree and Harbin is my hometown. As I proposed to use my personal network to recruit interviewees, my schoolmates, friends, professors and family were able to introduce potential informants as intermediaries in academic institutions in both cities. This reduced the difficulty of finding participants. My familiarity with the cities also assisted me in understanding my participants' experiences. In addition, Nanjing and Harbin complement each other by covering female PhD students from different universities, academic backgrounds, family backgrounds, research levels and areas. Nanjing is in the south of China, whereas Harbin is in the northeast. The PhD students from both cities come from all parts of China. The subjects my participants are studying in Nanjing are more specialised in the humanities, social science and science to some degree. However, the disciplines of Harbin participants focus on science, engineering and technology, which are in accord with the historical, political and military impact on education in Harbin. The universities in Nanjing that my participants attend are among the top universities in China and required higher qualifications for PhD students to be admitted than the universities in Harbin. This differentiates the research capability, academic background and future aspirations of female PhD students. In summary, I decided to do fieldwork in four different cities in two countries to make my samples less biased, more balanced and more comprehensive.

My research aims to explore the experiences of and attitudes towards being a Chinese female PhD student in China and the UK. More precisely, my research questions focus on the issues I am curious about and what I intend to explore: What happens to Chinese female PhD candidates in their studies and everyday lives? How do they view love/marriage, aspirations, self-identity, and gender issues and why do they think so? How do they do gender in this transforming Chinese society? To explore these questions, I adopted qualitative interviews as the method to produce data. To guarantee the interviews going smoothly and to generate rich data for analysis, I carefully designed my interview questions beforehand, which are the questions I planned to ask my interviewees. The interview questions are well structured and designed (Appendix 2).

I intended to make the interviewees feel free to talk and have flexible space in the interview, while I, the researcher, could still follow and guide the conversation and have control over the pace of the interview. I set a flexible and open-ended interview frame, but this does not mean the interview questions are casual and unstructured. On the contrary, I designed a many-sided and very detailed interview outline to make sure to cover all the aspects that interviewees might talk about and prepare for follow-up questions. With this interview guideline, I could obtain an overall knowledge of their life stories and values, as well as focusing on their unique experiences and deeper thoughts. The fixed questions were only set at the beginning and the end. I planned to start each interview by asking some warm-up questions: how is everything going? What are your plans for the summer holiday? Or, did you go back home this summer? I proposed to finish each interview with the same open-ended question: do you have any questions for me? Actually, this ending question surprised me, and revealed their interest in my research and my own experiences. To structure the interview, I firstly developed the research topic by theme. Then I listed the potential interview questions under each theme. The following step was to catalogue participants and prepare follow-up

questions, which needed to cover all possible replies. The last and most important move was to write down the whole interview outline in a logical and easy-to-use framework (see Appendix 2).

To collect rich data for analysis, my interview questions covered almost every aspect of female PhD students' experiences and values. I developed five main themes: study and research, everyday life, love and marriage, self-identity and social stigmas of female PhDs, and future aspirations. Under the first theme, I planned to talk about female PhD students' educational and academic issues by understanding their research topic, everyday PhD studies, their difficulties and achievements in academic research, and the decision-making processes involved in doing a PhD. I extended the decision-making question by asking them about their aims, reasons, the attitudes of their family, supervisor and partner, experiences of applying to a university, sitting examinations, being admitted and so on. For overseas students, I wanted to know more about their motivation for studying abroad and their reason for coming to the UK.

The second theme explored their daily lives after studying. Specifically, I prepared several subtopics to discuss: what they generally do during free time, their hobbies and interests, participation in campus and social activities, social cycles, family and friends, with the aim of developing a vivid and multi-dimensional image of young PhD women.

The third theme was about their experiences and values of love and marriage. A necessary question was to know whether she is heterosexual or homosexual, even though heterosexuality is always taken for granted in a Chinese context. So I put it first in this section. This theme included the participants' current love/marriage situation, love stories, how to balance love/marriage and PhD life, their attitudes towards (future) marriage and family relationships, their work-lifestyle preference, and aspirations for a (future) spouse. As this was a big topic to talk about and individuals' experiences varied

greatly, I extended the subtopics into more specific questions. For instance, if she were in a relationship or marriage, I would continue by asking about her partner, their love story and his impact on her PhD life. However, if she was single, I would focus on her own and her family's attitudes towards singleness, matchmaking dates and her requirements for potential suitors.

The next theme explored how the public looks upon female PhDs, how female PhD students view themselves and how they respond to social opinions. It was a noteworthy question why some young women wanted to do a PhD but finally gave up. Obviously, my participants' experiences did not fit in with this, so I planned to collect stories of their acquaintances, whoever had encountered this situation. The background reading suggested that there are many negative stereotyped sayings about female PhD students. I concluded that there are five main social stigmas from studying a great deal of popular news, images and sayings of female PhDs and wrote them onto posters. I intend to hold the posters and let my participants address their ideas about these social stigmas. As I argued in the literature chapter, there are many negative stereotyped sayings about female PhD students. I gathered five widespread sayings from studying a great deal of popular news, images and debates about female PhDs, and wrote them onto five pieces of A4 paper as mini posters (Appendix 3). In the interviews, I held up these posters one by one and ask my participants to comment on the sayings. I would ask, for example, have you ever heard this? Do you agree with it? What are your ideas about it? I hoped that this technique could be helpful in the following ways. Firstly, if some interviewees were unfamiliar with the social debates, or they could not think of any social comments made about female PhDs at that moment, the posters would help to build up or remind them of the social context. Secondly, the posters each have a different but clear focus, including gender, education, love/marriage, odd and negative personal characteristics, like a target for the interviewees to shoot at. In this way, I hoped to facilitate the participants to address their ideas while focusing on the given topic. In addition, there

are some lively, popular and "funny" sayings, so I thought that it might be less boring and better than directly questioning them. Finally, most of the interview questions are about their life stories and personal experiences, but these posters aim to explore their values, especially gender values, and also help them to express their self-recognition and personal negotiations with social stigma. In practice, the posters boosted their comments and proved that it was an effective technique to elicit their opinions of the stereotypes about female PhDs.

The informants were encouraged to talk about their outlook on their future career, lifestyle and family in the fifth section. For overseas PhD students, their decision about whether to go back to China or stay in the UK is a key question to discuss. In addition, I asked them to describe an ideal blueprint for their life in five or ten years. The last part of the interview consisted of overall comments about their PhD life, including degree of satisfaction, worries and troubles, achievements and impact in life.

The whole interview structure was designed to gain an overall understanding, while also being in depth and in detail. Another characteristic of this interview framework is flexibility, in that the order of themes and subtopics could be changed. Being flexible also enabled me to shift focus and choose follow-up questions depending on the direction of the interview and the participants' replies. Moreover, this interview guidance covered almost all PhD-related aspects and the questions I had prepared for a one-hour interview were more than enough. As a matter of fact, not all participants could fit in every question. Even though I dropped some topics that the interviewee had never experienced or had no ideas about, the remaining sections still generated rich and useful data.

Finding participants

Finding participants was a complicated process filled with nervousness, expectation and surprise. I adopted a try-everything-I-can strategy to access potential informants, and finally 40 Chinese female PhD students participated in my research. I recruited them from universities in Nanjing and Harbin in China, and York and Leeds in the UK, through five different methods.

In China, when *guanxi* (关系) is used to refer to relationship between people, it not only can be applied to relations such as husband-wife, friendship and kinship, it can also have the sense of "social connections", dyadic relationships that are implicitly based on mutual interest and benefit (Yang, 1994). It is rooted in Confucian societies. As Bian and Ang (1997) suggests, Confucianism relates individuals to their significant others and this ties the abstract and concrete foundations for guanxi to operate in Chinese society. The Heimer (2006) shared the fieldwork experiences in Sunan (southern Jiangsu province in China) in 1996, and stated lack of connections (guanxi) was probably one of the main reasons of the slow progress. Liu (2007) recorded that she failed to find participants through the government sector (Women's Federation) because of her sensitive research topic, and finally asked her friends and relatives to suggest potential contacts. Based on previous experiences of qualitative research and interpersonal communication customs, especially the importance of *guanxi* in Chinese society, I was fully aware of the lack of feasibility of official routes in universities and institutions and decided to use my own social connections (*guanxi*) to find participants. Consequently, I adopted five strategies of finding participants, namely, gatekeeper, meeting in academic environments, personal networks, social media and snowballing (Figure 9).

Figure 9: Strategies of finding participants
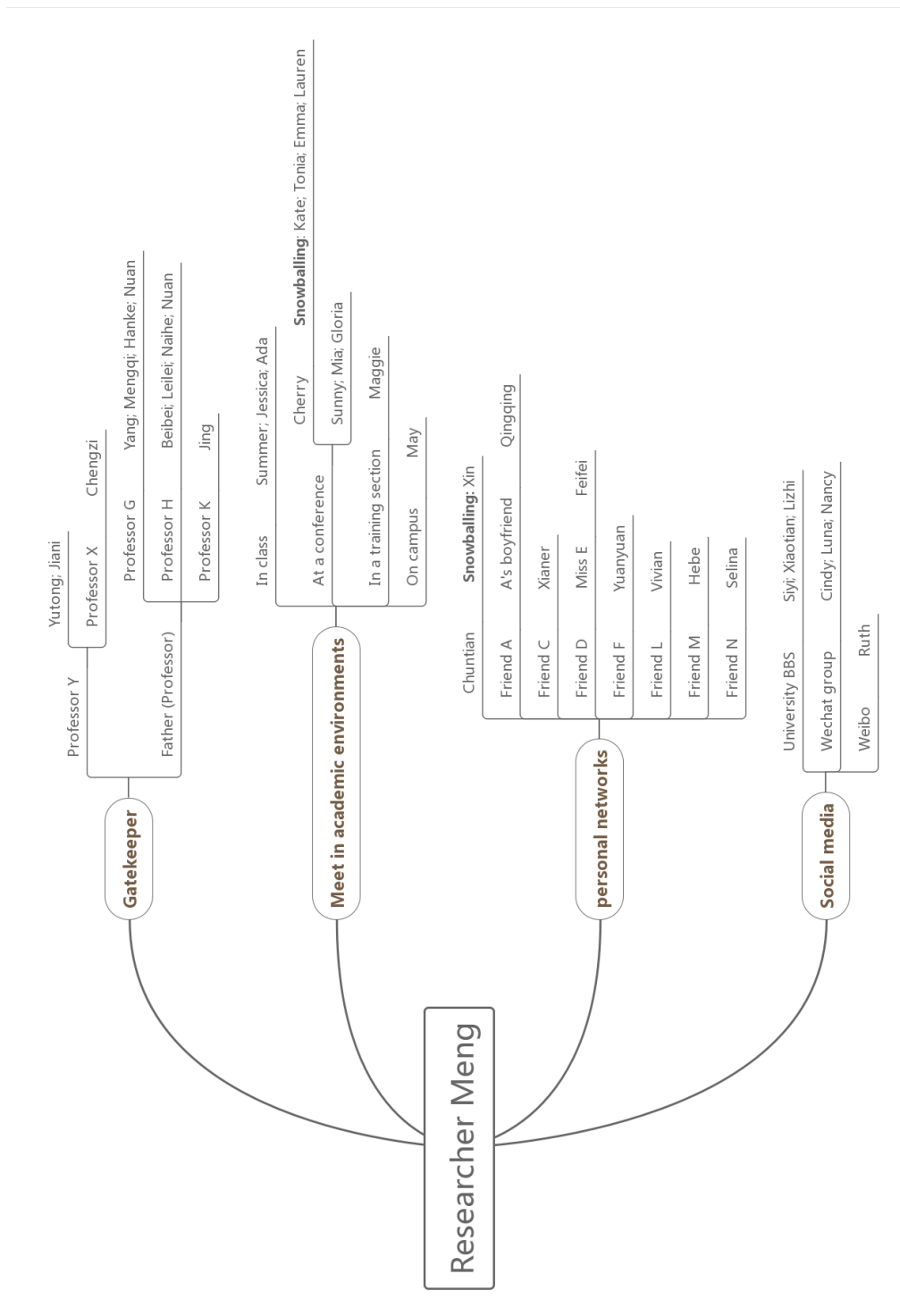
First of all, gatekeepers were used in most cases to approach participants in China. In Nanjing, I turned to Professor Y, who is my lecturer, and he introduced me to his PhD students Yutong and Jiani. He also asked his colleague Professor X in another department, and his PhD student Chengzi became my interviewee. In Harbin, as my father is an academic researcher, some of his friends, Professors G, H, and K, are supervising PhD students in universities. They felt that it was very easy to find female PhD students and were very happy to help a friend's daughter. With the cooperation of my father and his friends, Yang, Mengqi, Hanke, Nuan, Beibei, Leilei, Naihe, and Jing were selected for my research.

In addition, as an "insider", I had some opportunities to meet Chinese female PhD students in academic environments in the UK, such as in classes, in training sections, at conferences, or even on campus, and I had paid special attention to them. When I participated in conferences and training, I always walked around with a list of participants at the event and hunted for Chinese female PhD students during tea breaks and lunchtimes. I was courageous and self-motivated to communicate with total strangers. I proactively asked every young woman who had a Chinese face whether they were from China and if they were doing a PhD now. It was like an adventure because I did not know who they were or how they might react to my questions and behaviour. I was so excited if they said yes. Then I would introduce further research information and ask for their willingness to be my interviewees. Actually, I also encounter young women from Korea, Japan, Thailand and other Asian countries. By the time I started my fieldwork in the UK, I had accumulated a list of over ten prospective participants.

Thirdly, an effective method of finding participants was making the best use of my

personal networks. In my social circle, I knew some young women who were studying a PhD programme. My friend Chuntian was invited to join my research. As my own groups of friends were limited, I told my friends and colleagues about my research topic and the requirements for participants and asked them to suggest possible contacts. For one thing, my former classmates were doing their master's degrees at universities, so their senior colleagues (Xuejie[3] or Shijie in Chinese) were very likely to be PhD women. For another thing, male PhD students served well as intermediaries because there were always female colleagues in their departments or academic circles. In total, about ten friends played a great role in helping me to find eight interviewees.

As well as using these "real persons" as intermediaries, I also sought help from the Internet and social media. Taking the potential audience and Internet security into account, I chose a university BBS (Bulletin Broad System) and Wechat, whose users are identified with personal certifications, such as student number or telephone number. The local university BBS has enjoyed great popularity among students. When I recruited participants in Nanjing, I posted an invitation on several forums on the University BBS to briefly introduce myself, my research topic, interview information and personal contacts (Appendix 4). The total number of people who read my post reached 500, and within two days, Siyi, Xiaotian, and Lizhi took the initiative to reply and to participate my research.

In the UK, a Wechat group worked by providing me with a platform to approach prospective interviewees. Wechat is currently the most popular social medium in China, and had 549 million monthly active users in March 2015 (CuriosityChina, 2015). Wechat

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[3] In Chinese, Shijie (师姐) or Xuejie (学姐) is in a senior grade or a higher year at the same academic institution or under common supervisior. Shimei (师妹) or Xuemei (学妹) refers to someone who is in a junior grade or a lower year at the same academic institution or under common supervisior.

users create Wechat groups concerning a certain area or focusing on a common topic. I joined several Wechat groups related to academic research in certain fields or composed of PhD students in a common institution. The members of these groups might be possible participants. I contacted them and asked for approval one by one.

Additionally, Ruth was the only female PhD student I recruited through Weibo (which means "micro blog"). She was unexpected because I did not intend to find participants through Weibo, which is popular among young people. Because Weibo users are anonymous and users' blogs are open to all, I had no access to the uncertified users' real identities unless they disclosed personal information. One day while I was browsing Weibo, I found @PETD (People for the Ethical Treatment of Doctors) reposted a piece of Weibo by Ruth, which talks about her PhD life in York. I was very excited to "catch" a female PhD student and I could not wait to confirm her identity. She was also surprised to find me, another Chinese PhD student in York, because we had never met offline before. Then we followed each other. When I was doing my fieldwork in the UK, I contacted her and she was very happy to join my research. Thanks to the Internet and social media, which shortened the distance between participants and researcher, I recruited seven total strangers to interview.

Based on all the strategies above, I accumulated interviewees through snowballing. Every time I reached a participant and finished our interview, I would ask her to suggest Chinese female PhD candidates. Some of them were quite kind-hearted to help. I was so grateful that Cherry browsed her Wechat address book from top to bottom and introduce four more participants in the UK to me.

Through these five methods, I found 40 participants to interview as I had planned. Actually, I had some backup plans in case I was unable to accumulate 40 interviews. I thought of putting up posters on the university information board and in postgraduate

accommodation. I also planned to ask department administrators to circulate my research information within the university email system. Furthermore, I intended to "hunt" for Chinese female PhD students in libraries.

I reached my goal of recruiting 40 participants, 20 women in China and 20 women in the UK, who show a diversity of characteristics. The average age of female PhD students in my study was 27.25 years old, and they are mostly in their middle and late twenties. The majority of these female PhD students were in the early period of their PhD programmes and only one participant had already obtained her degree. I achieved my aim of covering different subjects, although there were more arts, humanities and social science students than students studying science and engineering. Single women made up a small proportion and four of the participants were married. An overwhelming number of interviewees were from urban areas (37) and one-child families (35). In terms of financial support for PhD studies, all the students in China and some overseas students (8) were funded by the Chinese government, their own universities, or a particular project. Sometimes, they still needed financial support from their families to supplement this. The detailed characteristics of my participants are shown in the following table (Table 4) and all the information about the participants and interviews are in the appendices (Appendix 5 and 6).

Table 4: Characteristics of the 40 participants

Variable	Number
Age (in years)	
20–25	8
26–30	30
31–35	1
36 and over	1
Year of PhD	

1st year	13
2nd year	15
3rd year	6
4th year	5
Post-doc	1
Subject	
Arts and humanities	13
Social science	10
Science	14
Engineering	3
Marital status	
Single	15
In a relationship	21
Married	4
Location	
Nanjing, China	10
Harbin, China	10
York, UK	13
Leeds, UK	7
Hometown	
Urban areas	37
Rural areas	3
Single daughter	35
With sibling(s)	5
Financial support	
Self-funded	12
Government or/and university	28

I found 40 successful cases, but I experienced being refused several times. Sometimes, I sent out messages and waited, but received no responses. When I invited a good friend, who is a sixth-year PhD, she rejected me by saying that she felt dissatisfied with her current situation and had nothing to talk about. It is quite understandable that she did not want to be interviewed because she regarded herself as a "loser". Another two similar examples happened when my interviewee Yuanyuan asked her roommates to be involved in my research. They refused and explained that they would feel awkward talking about love and marriage because they were single. In their understanding, interviewees are always those who are outstanding and can share their success stories, so they refused to talk about the imperfect aspects of their lives. Some young women turned down my request and gave me the reason that they had a very tight schedule and did not have enough spare time for a one-hour interview. However, I realised that, in some cases, time was only an excuse. Once an acquaintance declined my invitation by saying that she was occupied right then. I replied that I could wait for her. Then she told me, as a matter of fact, she did not like talking about her private life with others. Finding participants was very time-consuming and energy-intensive. I spent 100 days doing fieldwork, but I had already begun to build up my academic network and accumulate potential interviewees since my master's degree.

The method of recruiting participants related to who the participants would be and how the interviews would go. First of all, the participants who replied to me after reading my poster on the University BBS were the most self-motivated and talkative, so we had very long and deep interviews. For instance, the interviews with Siyi and Xiaotian lasted over three and a half hours, which were the longest among all the 40 interviews. However, some students who were suggested by supervisors were not so highly motivated, and they regarded the interview as, to a certain degree, a task given to them. In these cases, our conversations always lasted about one hour and 30 minutes.

Participants' interest in the research topic and willingness to talk facilitated interviewee recruitment. A majority of my participants' first impressions of my research were that "your research is interesting!" or "It's funny! Why are you researching that?" I believe that their interest was the foundation for joining my research. If the interviewee was not so into the topic, the interview might be unable to generate rich and relevant information. Take Qingqing's interview as an example. At the start of our interview, she asked me: "Why do you study this topic? Don't you think it's weird?" Her questions indicated that she did not respond to my topic. This beginning and her time limit of one hour made me very nervous and hurried. In the end, our interview lasted only 46 minutes, the shortest of all my interviews. In addition, the power hierarchy was a prominent issue while finding participants. One piece of obvious evidence is that none of the students suggested by their supervisors refused to join in my research. Under the authority of their supervisors, they did not have a strong enough reason to reject me. Mostly, Chinese students just follow their supervisors' advice. The female PhD students who were my friends or invited by my friends were more likely to refuse to be interviewed. Because we have equal status, they were free to decline the request if they were reluctant without extra pressure.

Furthermore, trust in the researcher is an important factor in prospective participants' decision-making. On the one hand, the trust comes from intermediaries, which is one of the advantages of using *guanxi* to find participants. It may be difficult for participants to believe in a total stranger and share personal experiences and values with her. They need to know my real identity and background. On the one hand, the trust comes from intermediaries, which is one of the advantages of using *guanxi* to find participants. Based on personal connections (guanxi), I was introduced by someone they knew, so my reliability would be greatly increased by their trust in intermediaries. In this way, intermediaries play a significant role in establishing participants' trust in the researcher. However, as for the researcher, intermediaries are also helpful to build up my trust in

the interviewees and it is a mutual trust. On the other hand, when I approached strange interviewees directly, a reliable environment was required, such as academic training or conferences. At least, I actively show my identity as a PhD student from the University of York to increase the reliability. When I posted interview information on the social media platforms, I clarified my identity at the beginning of the post to reduce the informants' suspect. In addition, sometimes, a researcher's personality and temperament are quite helpful. May, whom I met on campus, told me after our interview:

> *I am an introvert and I've never talked so much to a friend like today. That day I met you and you asked me to do an interview, if it happened as usual, I think I would have refused you. But I do not know why, when you talked to me, I felt you are kind, easy-going, and trustable, so I agreed.*
>
> *May, 25, Humanities，UK*

I was very happy my personalities and my way of talking made her decide to join in the research. I realised the importance of making a good first impression and a sense of trust from the interviewee may impact to what degree she wanted to "open her heart".

Another factor that contributed to the recruitment of participants was their familiarity with and knowledge of academic research. In terms of this, my research topic has an advantage because all female PhD students are doing academic research themselves. They have a good understanding and acceptance of research and interviews. Take Siyi as an example. She conducted questionnaire surveys *during* her master's research, so she had a good knowledge of doing social research. Also, she knew that finding participants requires other people's help. Many people helped her; therefore, she was very grateful and willing to help other social researchers.

Contacting participants and preparing for interviews

After determining the target population and obtaining potential participants' contact information, the next step was to contact them and, if they agreed to meet, make appointments. This required good communication skills and an ability to deal with interpersonal relationships. Proper manners and attitudes were very basic and important rules. I followed my "3P" principle, to be: "Polite, Patient and Professional" during the period of contacting prospective participants and arranging interviews. Being polite facilitated smooth communication with strangers and was advantageous in making a good first impression. Also, finding individuals to participate in an interview in a Chinese context means the researcher is asking for a favour. In such a circumstance, politeness is necessary. I believe that patience is especially important too. Contacting participants and making appointments was considerably more time-consuming and troublesome than I had imagined. Long waiting times for prospective participants' replies, or even getting no replies, their busy schedules and their consistent questions could easily make a researcher hurried and upset. At that time, being patient was the best choice. I made every effort and never over-worried about the results, fostering a professional attitude built on the authority of academic research and participants' trust in the researcher. Even though I always used casual and relaxed talk and behaviour to reduce the distance between the interviewees and me, I intended to leave them with the impression of a professional interviewer both before and after the event. I hoped they would regard the interview as a serious thing and trust me as a professional academic researcher. I used to emphasise that it was an interview with academic aims, which is different from those in the media. I chose the academic terms "interview", "academic research" and "consent" instead of everyday expressions, such as "talk".

I contacted the potential interviewees and arranged interviews mainly via two routes. One was communicating with participants directly (Figure 10). Most of the interviews

were successfully arranged in this way. I firstly obtained the contact information of potential participants, usually a telephone number or Wechat number (an instant messaging App). Then I sent a message to them containing a very brief self-introduction, the name of the intermediary, my research topic, interview information, and asked if they were willing to be interviewed and gave them my email address for more information (Figure 11).

Figure 10: Route to contacting interviewees: negotiating interviews directly

```
                    Obtain contact
                     information
                          |
                    Send messages
                          |
              ┌───────────┴───────────┐
        Interested in or         Refuse the
          willing to             interview
          participate
               |
        Send emails
        with informed
          consent
          attached
               |
        Question and
          Answer
               |
        Confirm to
        participants
               |
           Make
        appointments
         (when and
           where)
               |
          Interview
```
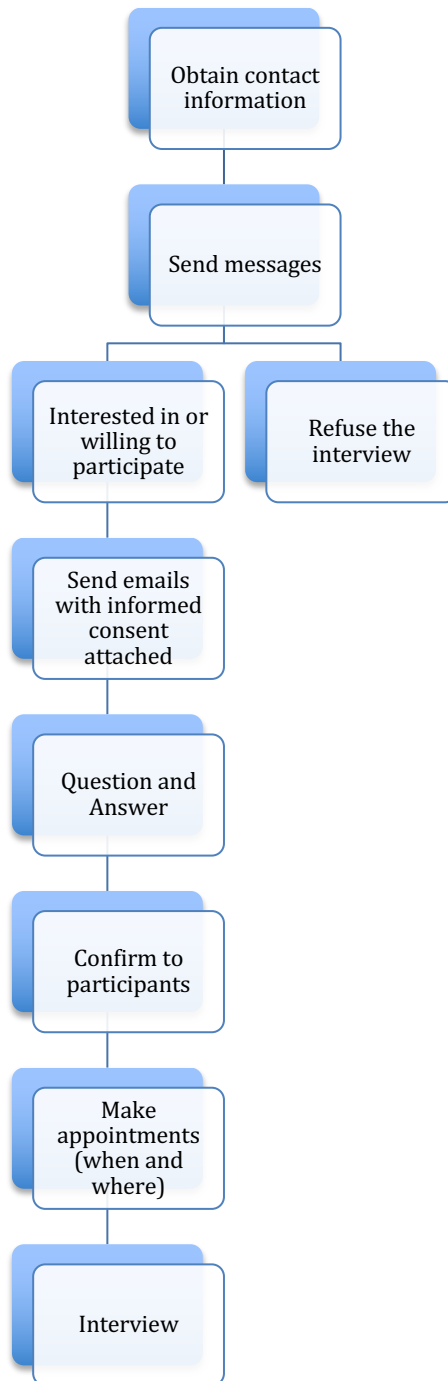
Figure 11: Screenshot of the messages with Vivian
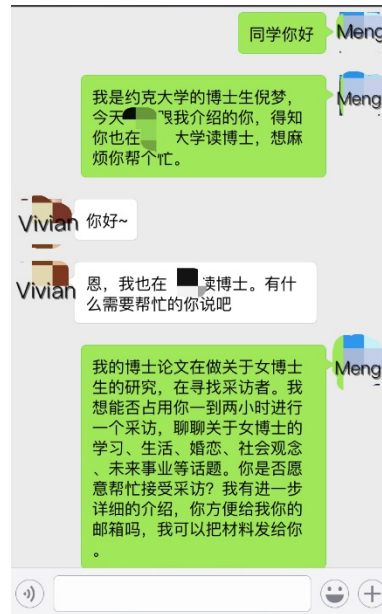
Messages translation

Meng: Hello

Meng: I am Meng Ni, a PhD student at the University of York. Today, XX introduced you to me and said that you are doing a PhD at XX University. Could you please do me a favour?

Vivian: Hello~~

Vivian: Yes, I am doing a PhD at XX University. What can I do for you?

Meng: My PhD study is about Chinese female PhD students. I am finding participants for my research now. Could I invite you to participate in an interview, which may take about one to two hours? We will talk about studying, life, love and marriage, social opinions and future aspirations of Chinese female PhD students. Are you willing to participate? I have further information about the research. Is it convenient for you to give me your email address? I can send you more materials.

Those prospective participants who were interested in the interview or willing to be interviewed gave me their email addresses and I sent them emails with the research information sheet and consent form attached. For those who still hesitated, we had a "Question and Answer" communication. However, some female PhD students did not reply or refused me, and in most cases explained why. The next step was for me to

confirm their participation in the research again. The final move was to make appointments and arrange the interview time and location.

Another route was via intermediaries arranging interviews for participants and me (Figure 12). This route only worked when finding participants through gatekeepers, and the intermediaries were typically PhD supervisors. The supervisors helped me to find female PhD students and they arranged the interview schedule and location. Then they informed the participants and me. Afterwards, the interviewee and I met each other. I offered her my research information sheet and the consent form to read and let her decide whether to participate or not. If she agreed to be interviewed, we started the interview at that time. Regardless of which route I followed, the process, generally speaking, went smoothly and contributed useful results.

Figure 12: Route to contacting interviewees: Arranging by gatekeepers

Contact gatekeepers (PhD supervisors)

They helped me to find potential participants and arranged the interview time and location.

They informed participants and me

Participants and I met each other

Offer information sheet and consent form

Ask for approval

Confirm to participant

Refuse the interview
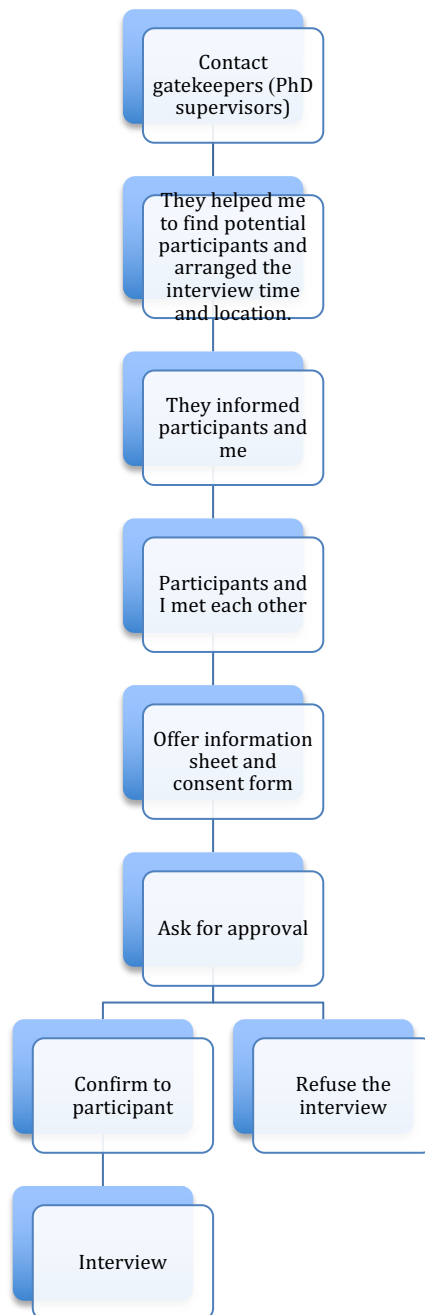
Interview

I came across many difficulties when making appointments due to PhD students' busy schedules. In some cases, it even took several weeks to arrange the interview time. For some PhD students who spent much time on research, especially those working in laboratories, it was not easy to find a one-to-two-hour time gap. Qingqing was an example. She spent nearly 12 hours every day and six days per week in her laboratory

and office. Consequently, she finally gave me only one hour to do the interview during her dinner break. Some participants had a periodic deadline for academic research, and they would be very busy with work just before the deadline. Therefore, our interview was postponed until they had free time. This situation always happened to students under the British educational system. When I first contacted Emma, she replied that she was very interested in the topic, but she would only be free after 21st September. I told her that I could wait for her and kept the information in my notebook. After 21st September, I re-contacted her and made an appointment for the 25th September. During that time, I recorded the schedules of over ten participants in detail so that I would not miss their short period of spare time because they were very likely to run into the next hard-working period soon.

In terms of the interviews arranged by supervisors, even though I never worried about finding a time gap, their arrangements might give me too much of a workload because the supervisors were not very clear about how long an interview took or how tired conducting an interview was. Therefore, they arranged three or four interviewees in one day. In the end, I conducted one interview in the morning and two in the afternoon, which reached my limit. I rearranged the fourth interview for the next morning. To be frank, I was exhausted and just wanted to sleep after three interviews in a day. When making appointments, the interviewees were asked to decide where and when to meet, according to their convenience. If they had no ideas about the location or had a flexible timetable, I then put forward a suggestion and asked for their ideas.

Before every interview, I prepared seriously and consistently. I took a list of items with me to use in the interviews: two mobile phones, a voice recorder, paper documents, name cards, a notebook and pen, a travel set of body care products as a gift, tissues and so forth. The reason I took two smartphones was that one was used to contact the interviewee and the other phone was to record the interview as a backup. I used a

document file to carry all my printed documents: research information sheet, consent form, personal information form, interview guideline and posters. I always checked the batteries of electronic devices and the document file. I deliberately did not make any changes to my appearance when conducting interviews. I dressed very casually and tidily just like a student, in conformity with my role as a PhD student. I believe these full preparations contributed to the smooth process of the interviews by increasing my confidence and reducing the possibility of making errors.

Conducting interviews

Conducting interviews with Chinese female PhD students was the most valuable experience during my fieldwork, and even in my PhD period. The 40 interviews were carried out in four cities, Nanjing, Harbin, York and Leeds, from late June to early October in 2015. I conducted very deep qualitative interviews with my participants. The average length of all my 40 interviews is around 2 hours. And the shortest interview last 47 minutes (only one less than one hour), while the longest one is 3 hours and 27 minutes. A majority of the interviews were between 90 minutes to 150 minutes and there were 3 interviews lasted over three hours (See every interview length in Appendix 6). In terms of language as a medium, interviewees could adopt their most convenient and easy way to talk. Both my interviewees and I spoke our mother tongue, Mandarin Chinese, in the interviews because Chinese enabled us to express ourselves more clearly and understand each other better. However, when doing interviews in my hometown of Harbin, some students spoke Dongbei (Northeast) dialect. I never stopped them and also tried to speak in the local accent, as long as I could understand them. I told my participants in the UK that they could speak in both Chinese and English. As a matter of fact, they sometimes said a few words or sentences in English, such as academic terms and UK everyday conversation. All of my interviews were voice recorded. As my participants knew that our accounts would be used for academic purposes, they understood this and probably took it for granted that voice recording was a necessity in interviews. Therefore, no one

refused my request to record our interviews with electronic equipment. Besides voice recording, I always kept a notebook to hand during each interview, in which I could write down key information or ideas that flashed into my mind. Actually, I was too concentrated upon our conversations and trusted the voice recorders, so I took very few notes during the interviews. After finishing each interview, I made notes or everyday dairies to record the key points that had come up, as well as my observations, feelings and ideas.

Creating rapport

Creating rapport during interviews is very strongly emphasised in studies of women (see Reinhard, 1992; Phoenix, 1995; Puwar, 1997; Liamputtong and Ezzy, 2005). An important part of the process of creating rapport is to build up participants' trust in me as an interviewer and researcher. Because interviewing for academic purposes in China is new to most people (Liu, 2007:16), even though my participants are very highly educated and working in academic fields, they sometimes still had queries and were confused about being interviewed. In the understanding of the Chinese public, interviews happen between a journalist and those who have achieved something in a certain field (Tang, 2002; Liu, 2007: 16) or have special experiences. Consequently, several young women refused me due to not being satisfied with themselves and regarding themselves as "losers". Some interviewees asked me, in turn, "Do I have anything (special) to be interviewed about?" or "What questions will you ask in our interview?" To gain their trust, I was very patient and professional about explaining and offering further information. I emphasised my identity as a PhD student at a UK university and lay stress on the research-based interview. I would readdress ethical issues to highlight the fact that their identities would remain confidential, which is a huge difference from interviews by the media. I provided them with my research information sheet (Appendix 7), ensuring that they had a brief and accurate knowledge of the interview and my research. Signing a consent form (Appendix 8) is a vital step for participants to understand their rights in interviews. This sincere and professional

behaviour increased my reliability. In addition, intermediaries were quite beneficial for building up interviewees' trust in me. Even though the participants and I were total strangers, they could trust me because of the connections between us as well as their trust in the intermediaries.

One strategy I adopted to create rapport with participants was to create a relaxed and comfortable atmosphere during interviews.   These interviews with academic aims are informal and casual. I tried to make them more like an everyday conversation. Apart from the relationship of interviewee and interviewer, my participants and I preferred to regard each other as schoolfellows or colleagues. Because we share the same identity as students, we are almost on an equal footing without any obvious social hierarchy, which is a natural advantage to reduce the distance between us. In terms of the form of address, I call them "Xuejie (学姐)" (meaning senior colleague) when they are in a senior class to me and "Tongxue (同学)" (meaning schoolfellow or student) when they are in the same or a junior grade. These salutations are very common and appropriate names on campus and can make PhD students feel relaxed and comfortable. During the interviews, I was very kind and easy-going to create a warm and friendly environment. I always had a smiling face and sincere eyes, never wearing a poker face. I concentrated on what they were saying and kept nodding to become a good listener. I hoped my friendly manner would facilitate participants to tear down their walls and create a rapport with me. When conducting the interviews, I tried to avoid the boring "one-question-one-answer" model. To make the interview more conversational, I aimed more actively to talk and respond, such as making comments on what she said, telling some stories about other participants and myself, giving news about heated topics in the public and media as examples. When I conducted an interview with Feifei, who was studying humanities and used archives as research materials, she complained about the strict requirements for looking up files in some Chinese institutions, resulting in wasting time and reducing work efficiency. Coincidentally, I had had a similar experience as an

undergraduate. Therefore, I told her about my experiences of hand-copying files word by word in a National Archive because photocopying and scanning were strictly prohibited. My sharing echoed her experience, and she replied with an understanding face: "What a poor experience!" which sounded very like an everyday conversation between friends. To establish a close and harmonious atmosphere, as well as encouraging participants to speak, I never expressed my disagreement directly. Furthermore, I seldom stopped them in the middle of their talk unless they were going too far off topic.

I designed the starting phase of the interview questions to relieve interviewees' nervousness. I followed the procedure that British social scientist Susan Yeandle (1984) used in her study on women's working lives. She began each interview with a standard form that asked for demographic information, such as the women's age, marital status, and the composition of her household. She considered this beginning section important.

> *As an "ice-breaker", enabling women to relax and talk about themselves. All the questions asked invited respondents to disclose information which was very well known to them, thus putting them at ease, and convincing them that the interview had relevance to them as individuals.*

(Yeandle, 1984)

In my interview guidelines, after the basic self-introduction and signing the consent form, they were asked to fill in a personal information form (Appendix 9), and what happened next was a warm-up conversation, such as plans for the coming summer holiday and whether she was busy or not. Then I formally entered the first interview theme of study and research. The initial questions did not need much thought and were easy to answer. By asking these, I avoided potentially awkward pauses at the beginning.

These arrangements could give interviewees some time to gradually adjust to the interview and put them into an easy and relaxed mood.

As my research is based in China and my participants and I are all Chinese, I followed many Chinese ways to cope with interpersonal relationships and create rapport. Good manners are an important sign of personal quality and good breeding. When contacting participants via messaging and email, I talked to them in a polite and modest tone by asking: "Would you please do me a favour?" "Sorry to trouble you" and "Thank you very much". Especially when contacting gatekeepers and in the first message, I used the honorific expression "min (您)", which means you, but shows the speaker's respect for them. In addition, to express my gratitude for helping me with the research, I always treated them to a cup of coffee or sent them presents. For my respondents interviewed in China, I prepared well-packed Body Shop gift boxes, which are popular UK products among Chinese young women. I purchased more than twenty gift boxes in the UK and took them back to China. However, for those studying in the UK, I always took chocolates or snacks. It worked well and everyone seemed to be very happy and accepted the gift. In Chinese culture, it is called "jianmianli (见面礼)", meaning a gift for the first meeting, which is good practice. I believe that following some Chinese ways of doing things with Chinese people can enable us to feel comfortable and create rapport.

Flexibility of interview structure

I adopted semi-structured interviews, during which the researcher proposes to ask questions about certain topics but the ways of obtaining information can be varied (Reinhard, 1992: 281). The use of semi-structured interviews has been the principal method in feminist research, enabling their participants to become actively involved in the generation of data about themselves (Graham, 1984: 112). I designed my interview structure beforehand. In practice, many changes took place during the interviews, which is expected in the use of semi-structured interviews. I believe that flexibility was the key

feature of my interviews. I generally followed the planned overall structure and the order of the five themes and covered the questions listed during each interview. Nevertheless, the order of topics and questions could change depending on participants' responses; follow-up questions could be asked to explore more information and details appearing in unpredictable places; some questions were skipped due to different interviewees' personal experiences. To generate a multi-sided and visual analysis, I compare the whole process of interviewing Xianer, as an example, to the designed interview guideline (see Appendix 10).

During the warm-up period, I asked about Xianer's plans for the summer holiday, as intended (Appendix 10-1). Then we came to the free conversation time. Due to her experiences of studying in the UK as an exchange student for half a year, we talked about life, food, shopping and travelling in the UK for a while. I noticed that she had already become very relaxed and entered the first interview theme.

When I asked her to introduce her research field and proposed thesis topic, she talked about the whole process of her two-year PhD studies in detail and how her thesis had been going up until the interview (Appendix 10-2). I had assumed that the reply would only be a couple of sentences, like "my topic is…" or "I am doing research on…" But her rich answers extended to the latter topic of PhD study experiences. As designed in the guideline, motivations for doing a PhD were the next question. However, I did not want to interrupt her flowing ideas about PhD studies by changing to another topic, so I continued to talk about her current PhD life and comments. Still, I bore in mind that had I skipped the question "why are you doing a PhD?" and left it until later.

After she had talked about her self-motivation for doing a PhD, I asked about her family's attitudes (Appendix 10-3). She told me that, generally, her family were supportive, but her mother had suggested that it would better if she was in a

relationship during her PhD period. She mentioned that on her initiative her family had arranged a matchmaking date for her and she had met her current boyfriend. At that time, I caught the interesting topic of matchmaking dates that I would have missed. Therefore, I asked her follow-up questions about her experiences of and attitudes towards matchmaking dates to explore more. This small topic of a matchmaking date seemed like an interlude, after which our conversation went back to the main stream of her family situation.

During the interviews, I could sometimes clearly and quickly tell whether the questions fitted in with participants' experiences and skip the questions that were unnecessary for them to save time and avoid an awkward situation in which interviewees did not know how to answer. Sometimes, participants' earlier responses had already covered a later question. I would then ignore the later question to avoid repeating answers. In consideration of different love/relationship statuses, I designed a two-sided guideline to meet the requirements of both single women and those in a relationship or marriage. In Xianer's interview, she mentioned that she currently had a boyfriend. So I skipped the question: "Are you heterosexual or homosexual?" and a series of questions intended for single women (Appendix 10-4). Another example is that Xianer told me she did not have any work experience and had never actually "entered the society". Therefore, I did not talk about experiences of job hunting with her (Appendix 10-7). I believe that the key to clear judgement and quick choice is focusing on listening to the participants and remembering important details.

A useful tip in the interviews is to make the transitions between different topics smooth and natural. When I intended to start a new theme, I always added some sentences to create an integrated context, avoiding a straight and sudden turn in the conversation. Transitional sentences are necessary for connecting two topics. For instance, after talking about research and studying, the next theme was about everyday lifestyles. I

said, "Besides studying and doing research that we were just talking about, what do you do in your spare time?" Another strategy I always adopted was to use the information I had obtained earlier in the interview and describe the background of the next topic. When it came to the topic of love and relationships, I was a little worried that the participant might feel shy or embarrassed. I paved the way by saying: "Let us move to talk about your love and relationships. You just mentioned you met your current boyfriend in a matchmaking date. What happened later? Could you say something about your boyfriend?" In this way, I tried to increase the fluency and reasonableness of both the transitional parts and the whole interview.

This case study of Xianer illustrates the flexibility of semi-structured interviews. Regarding my 40 interviews as an entire process, the interview questions changed as my fieldwork went along. I added some topics that were frequently discussed by participants to the later interviews. Several informants actively talked about stories and viewpoints of male PhD students and I put this in my question list. I also realised that I had forgotten to cover a few important questions, such as PhD women's work-family preferences and their current or desirable status within a relationship and marriage. These questions can assist with exploring their marriage values and feminist thoughts, so I applied them to the following interviews.

Interviewer and interviewee relationship

When I was introducing my research topic on Chinese female PhD students to different people, they typically reacted by saying, "You are studying yourself." I had to say yes, even though I did not interview myself. As the interviewer, I shared the same identity of a Chinese female PhD student with my interviewees. Such a relationship between interviewer and interviewee impacted on the equality of interview pairing, "insider/outsider" dynamics, the power balance and other aspects of conducting interviews.

As full-time PhD students, my interviewees and myself are all undergoing the experience of being PhD students and can be considered at the same stage of academia, that is, close to the bottom of the academic ladder. I considered that my interviewees and myself shared the same identity of Chinese female full-time PhD students. As Jenifer Platt (1981) defines a peer:

One's peers have a variety of relevant characteristics: they are in a diffuse sense one's social equals, they are one's equals in role-specific senses, they share the same background knowledge and subcultural understandings, and they are members of the same groups or communities. Some of these characteristics may, of course, occur without others, and the consequences vary accordingly.

(1981: 76)

From this perspective, the interviewees and myself are students following PhD programmes and doing research, sharing equal social roles and occupations. We are highly educated and have many similarities in background knowledge and thinking mode. In addition, we are all in the academic field and some are even at the same universities where I did my undergraduate or am doing postgraduate studies. According to this definition, I concluded that the Chinese female full-time PhD students I interviewed were my peers. Having so many common social attributes, to a great degree a non-hierarchical peer interview could be achieved. It built an equal, understanding rapport, providing a balanced foundation for interview relationships.

Even though the interviewees and I are peers, this does not mean we were equally positioned in the interviews. Sharing the same identity removes the potential impact of many factors, such as gender, race, age and occupation, from power relationship in interviews but, situated within the interviews, we had different roles and positions.

Generally, the researched are regarded "as the passive givers of information, with the researcher acting as a sponge soaking up the details provided" (Maynard, 1994: 15). A qualitative interview is a "conversation with a purpose" and the interviewer is responsible for achieving the goal of finding out about people via interviews (Oakley, 1981). In terms of my research, my purpose was to collect participants' experiences of and attitudes towards being a Chinese female PhD student. To achieve this aim, I played the dominant role in controlling the interview to generate the data I wanted. Kvale and Brinkmann (2009: 33) propose that there is a "clear power asymmetry between the researcher and the subject" in the interview encounter. According to the interviews I conducted, in most cases the interviewer, me, held a dominant and powerful position compared with the interviewees. I designed my research guidelines, but the interviewees never knew the detailed topics or questions beforehand. Bearing the whole interview structure and questions, like a big tree, in my mind, I would never become lost during the interviews if the interviewee was talking too much on one topic or moving off topic, just like going too far along one branch. Actually, I was very clear where we were in the whole interview and could draw her back to the mainstream of the interview, which is like going back to the tree trunk, and go on as planned.

In the interview with Ruth, when I asked about her activities during leisure time, she replied that she liked reading novels and then, to my surprise, she began to describe her favourite novel *The Moon and Sixpence* in detail. She talked about the novel and her understanding, which moved too far away from the original topic of leisure. I did not interrupt directly, but listened to her while thinking about what the next topic was and how I could transfer to it after her talking about the novel. Once she showed signs of stopping, I immediately actively changed the topic. Through this strategy, I was able to control the interview direction and cover all the questions I wanted to ask in the guidelines, so as to achieve the goal of the interview. Therefore, in consideration of the

interview structure and aims, I was in a superior control position in the interview pairing.

Some feminists argue that the power dynamics in an interview are fluid (Maynard and Purvis, 1994), which challenges the interviewer's assumed superior position. One argument is focused on the impact of individual differences in interviews. As Pamela Cotterill notes, no two interviews are the same: the interactive reflections and level of cooperation between the researcher and the researched are very individual and impossible to predict (Cotterill, 1992: 600). My interview experiences also suggest that the position is not fixed through the whole interview and may vary greatly according to the interviewees' personality and experiences. My superior position might be reduced to some extent by talkative and curious interviewees or some other factors. Naihe was an interviewee who always asked questions about me. After she had talked about her attitudes towards love and marriage, she asked me back: "Do you think I'm right? What are your ideas?" She asked me several times "What about you?" "What do you think of it?" during the interview. During that period of time, she was more proactive compared with the interviewer and seemingly she was in a dominant position in the interview.

Another situation was common with talkative interviewees. My interview with Siyi lasted three and a half hours. My first question in the theme of study and research was to ask about her research topic. I predicted that this was a very simple question and a couple of sentences could answer it. Many interviewees replied by giving their current research field or provisional thesis title. But Siyi spent half an hour explaining her research, ranging from what her research was and why she chose the topic, to her experiences of completing the research, even answering several questions I had designed to ask later. During this half hour, it may have seemed that she was totally dominant in the interview and I only worked as a smiling and nodding listener. In reality, her instant talking provided large amounts of useful information, so being

passive did not have much influence at that time. At the end of every interview, I gave participants the opportunity to ask me questions. It is obvious that they were in a dominant position during that question period.

I noted that this shifting of positions during the interviews always existed. I was experiencing the ups and downs in the interview power relationships from the aspects of time occupying and level of initiative. In accordance with Katherine Reed's research note, "the existing research hierarchy is always in process, moving from the researcher being dominant at particular times and respondents being dominant at others" (2000: 11). To conclude, the interview dynamics were fluid and sometimes the interviewer and interviewee had power hierarchy in the research. Generally speaking, however, I was clearly aware that I had the dominant position in the interview overall. As concluded by Maynard and Purvis, "it is not always so easy to reduce the power dynamics that are likely to be present in research and it is unlikely that they can ever be eradicated completely" (Maynard and Purvis, 1994: 16).

Interviewing peers, I naturally have more advantages to become an insider, "one of them" in the interview and "this is typically a reflexive approach characteristic of feminist research" (Charles, 1996; Maynard, 1994, in Tang, 2002: 709). Also, I had planned to disclose things about myself when necessary, which is regarded by many researchers as good feminist practice during interviews (Reinharz, 1992). During my interviews, it was very natural for me to be involved in the stories that interviewees told and serve as an insider because we had so many common experiences and opinions, and at that moment I wanted to react. To encourage and inspire interviewees to talk, I would show my understanding by nodding. In some cases, when they asked me questions about my experiences and ideas, I had to reply to them. However, I did not work as an insider during the interview. If I had done, my academic interview would have turned into a casual conversation between two colleagues and there would have

been no difference between interviewer and interviewee. From the beginning to the end of the interview, I had a clear concept that I needed to serve as an outsider to control the whole interview structure and pace.

Reinharz (1997) suggested that she had three selves: her research-based self, brought self and situationally created self, who functioned dynamically in her study. I considered that "insider" was the "brought self" who was focusing on the content of the interviews and enjoyed the interactions of the interview pair. And the "outsider" was the "research-based self", in most cases when I was remembering the interview guidelines and thinking about the follow-up questions. The "situationally created self" occurred when I intended to be an insider but realised that it was time to move the interview on to the next stage, and when the interviewee was talking about something the "brought self" was not so interested in but the "research-based self" was still listening to her patiently. It was an amazing exchange process. The "brought self", "research-based self" and "situationally created self" could exist simultaneously. I also worked as an insider at times and an outsider at other time periods during the interviews. So, I felt myself always "jumping" from insider to outsider, back and forth again. I had a shifting identity of both insider and outsider.

Emotion work

With the exploration of the research field, feminist sociologists have connected emotionality to gender (Denzin, 1984). Feminist researchers strongly advocate the importance of respecting the feelings of interviewees and focusing on emotion work in research (see Finch, 1984; Maynard, 1994; Kavel and Brinkmann, 2009). Doing research cannot avoid emotional issues, as Denzin (1984, x) illustrates:

> *Emotionality lies at the intersection of the person and society, for all persons are joined to*
> *their societies through the self-feelings and emotions they feel and experience on a daily basis.*

This is the reason the study of emotionality must occupy a central place in all the human disciplines, for to be human is to be emotional.

More recently, more researchers have indicated that it is not only the participants' emotions and feelings that matter, but the researchers' emotional issues require more attention as well, and they offer some suggestions for researcher self-care (Dickson-Swift et al., 2009).

Even though my research questions were not very sensitive, I took care of interviewees' emotion work during my interviews. At the beginning of the interview, I told them that the interview was conversational and informal, and it would be better to be relaxed. Before asking questions that were a little sensitive or stressed, I emphasised, "Please tell me if you don't want to talk about it and we can stop". These questions were about their cohabitation experiences, sad memories of former relationships, pressure about marriage, graduation, family and society, difficulties in PhD studies, mental health problems and so forth. I paid special attention to their emotion changes to avoid them becoming too emotional, stressed, nervous or embarrassed.

I believe there will be ups and downs in mood during any interview. Participants' emotions were changing, to some degree, according to the different topics and life experiences. If an interviewee kept the same feelings for a two-hour interview, it would be a boring conversation. When I interviewed people, I think it was quite normal for interviewees to have emotional changes and I did not intervene in their response or change the topic if they were emotional to just a slight degree. What I did was to be a good listener and comfort her by showing my understanding and feelings. Siyi told me about her experiences of gender discrimination while job hunting. She emphasised several times that her employer, a university in Nanjing, did not sign an employment contract with her after she had been promised a position orally. Siyi was very angry and

called the administrator but the administrator told her that because they needed to balance the gender ratio, they had decided to employ a male lecturer instead. What made Siyi feel that it was more unfair was that she knew the male lecturer and she affirmed that he had achieved less and was not as outstanding in either academic research or work experience than her. During her narrative, I could feel that she was a little angry to recall such a sad memory through her tone and facial expression. I kept echoing her narration by saying: "Like this? Unbelievable! They are too much! They were over the line!" After she had told this story, she calmed down and, with a much happier look, told me she had already found another job.

However, if the interviewee broke into a strong negative emotion, I would certainly adopt measures to help her to adjust her emotion. I comforted her, accompanied her, stopped the current topic at once, set her free from the negative emotion and took the next step according to her willingness. There was only once in all my 40 interviews that the interviewee's emotion went out of my control. Vivian suddenly started weeping in the middle of the interview. It was a totally unexpected emotional issue. During the theme of her experiences of and attitudes towards love and marriage, we talked about her being single and her opinion was that she was "taking everything as it comes" and she was neither hurried nor worried about it at that time. She was calm and peaceful and replied to me as usual. But when I asked whether she felt stressed as a single woman, her emotion began to change. She thought for one second and answered me: "Sometimes, I find when my parents see their friends' children getting married and they admire them" with a slow speed and a low voice. Then she began to weep in a low voice. I realised she had broken into a strongly felt sad emotion and I must take action. I immediately stopped talking and comforted her, saying "there there" in a soft voice. My role changed from an interviewer to a friend. She continued to say "Yes, but they didn't push me." Then I passed her a tissue and she wiped her tears and blew her nose. I tried to comfort her by saying: "You can feel they really love you. It is their way to love." Very

quickly, she was freed from sadness in only one minute. Then I asked whether she needed a cup of water and she had a drink of water. She calmed down soon, and the incident did not impact upon the following questions. The whole emotional emergency lasted less than two minutes. Actually, I felt very sorry at the moment when she wept in my interview. I had tried to avoid strong emotional changes by asking sensitive and stressful questions with care. We had talked about her ex-boyfriend, matchmaking dates, and her attitudes towards being single before the question that made her cry. In my mind, these questions were more likely to cause her emotional distress. Therefore, I never considered that she could be moved to tears by her parents' love and understanding. This question might be very normal to other female PhD students, but it touched her deepest pain in her mind, so her emotion burst out suddenly. Such an emotional crisis was totally unpredictable, so the first reaction was very important. Even though I had a sense of guilt for making her cry, my reactions worked well to improve her feelings.

Ethics

Ethical issues have become an essential part of qualitative research because such research requires a close interaction and relationship between the researcher and the participants, and because qualitative research methods, such as the interviews I used, are not structured and are hard to predict in practice (Liamputtong, 2013: 36). Ethics is a set of moral principles regulating the researcher and the research process and aims to prevent participants from being harmed (Liamputtong, 2007; Israel and Hay, 2006). As a researcher, I took these ethical responsibilities very seriously during my research.

Before my fieldwork, I made full preparations for research ethical issues and obtained the approval of the ELMPS Ethics Committee of the University of York. Informed consent is defined as an official and formal document in research ethics. The informed consent letter provides participants with information about the aims and content of the

research, and its procedure, potential risks and benefits, as well as the participants' rights (see Kavle and Brinkmann, 2009; Emanuel et al., 2000). Prospective participants must understand this information and make a voluntary decision about whether to participate or not. My informed consent introduced the researcher, research topic, participants' requirements, participants' rights, the procedure of the interview, the way their data and information would be used and my personal contact information. I highlighted that the participants were free to withdraw for any reason at any time up to six months after the interview. To maintain confidentiality, not only are the participants' names changed, but also any information that can identify the participants, such as university, department and supervisor information, is also anonymised. I intended to gain their trust and increase their sense of security in my research through this comprehensive informed consent. Some research has indicated that obtaining a signed consent form can be challenging or problematic in some circumstances and groups of people with local cultures and traditions, such as in China (Liu, 2007; Wei, 2011; Marzano, 2012). Therefore, my backup plan was to ask if oral consent was acceptable if they were not willing to sign the form. However, all my participants were very understanding and supportive and none of them refused to sign the consent form.

A typical ethical issue in my research concerns the fact that some participants were recruited through gatekeepers, who are the supervisors of the female PhD students I interviewed. The Chinese cultural values within the supervisor-supervisee discourse and their potential effects on the research ethics are considered. Within Confucianism societies, social hierarchy plays a central in defining a person's position. Most Chinese people respectfully submit to those perceived to be of higher education, higher social position and more experiences in some fields (Quek and Storm, 2012; Ino and Glicken, 2002). Therefore, there is a clear hierarchy between supervisors and PhD students. Supervisors are in a more authoritative position and ought to be highly respected by their students because of their higher social status and their supervising position. Many

supervisees tend to be more sensitive and emphasize social hierarchy within supervision (Quek and Storm, 2012). In Chinese academia, as many of participants mentioned, PhD students usually call their supervisors "boss" because the students, most commonly in science and engineering subjects, work for their supervisors and need to do what their supervisors tell them. In addition to the social hierarchical values, in practices, supervisors play a most important role in "controlling" PhD students' research, work and even their future careers. Due to this hierarchy, PhD students in most cases obey the orders of their supervisors.

The potential outcome of the social hierarchy in my research may be that they all participated in my interviews when their supervisors introduced them to my research. After reading my informed consent form, some showed a great interest in the topic, while some participants would not be very proactive or self-motivated to participate. But when I asked such a student whether she was willing to be interviewed, she did not refuse my invitation. I infer that the research was neither attractive nor bad for them, so they personally held an indifferent attitude and just followed what their supervisor suggested. The ethical problem is that these participants' voluntariness is under pressure from their supervisors to some degree. Especially in the case that the invitation was sent directly through the intermediary, their supervisor, they are less probably to refuse.

In China, there is a lack of ethical consideration and ethical procedures in social research and methodology. Even though there have been some emerging debates on research ethics since 1990s in China, it has not been emphasized in academia till today, no matter from the aspects of exploring the ethical theories or building up the ethical procedures. The ethical consideration and procedures are both at a starting stage (Wen, 2011). The ethic issues are limited in medical research, public health and some social science research in China (Guo; 2006; Wen, 2011). As Huang and Pan (2009) point out,

social research must be conducted within the framework of research ethics. However, because there has been no emphasis on this in China's context, they argue that every piece of social research with human subjects must follow three fundamental principles of ethics: informed consent, equality and respect, and non-maleficence and benefit. The lack of ethical procedures is a big question in social science research. For example, the Economic and Social Research Council in the UK published the Research Ethics Framework and all the universities and institutions have to carry out it into practices. All social science research needs to obtain the ethical approval from the research ethics committee. However, unlike the emphasis on ethical procedures in many western academia, such research ethics committees are mainly established to cope with medical research ethical issues in department of medicine science. Some pieces of social science research need the approval of committee, organization or universities, and it may be only "superficial procedure" to cope with the international cooperative projects (Wen, 2011). The ethical issues and ethical procedures in Chinese social science research need more and urgent attention and a localised research ethical framework and detailed ethical procedures are required.

Every participant was given the right to withdraw from the research before, during or up to six months after the interview, but I never thought that any of the participants intended to withdraw because we were talking too freely. This was an unexpected experience in my fieldwork. The interview with Feifei lasted for over two hours in a very friendly and sincere atmosphere. The next day, I received Feifei's email that she wanted to quit my research. She told me that she had felt so happy and relaxed in the interview that she had given me too much information about her family, her research and some improper stories about her supervisor and colleagues. She was worried about being identified by people who knew her very well, even though her basic information would be kept confidential. After consideration, she had decided to withdraw from my research. I valued her experiences and ideals as part of my research data and really did

not want to lose such a meaningful participant, so I replied to her to explain further about the process. I told her in detail about how I would protect her information and use her accounts to analyse and write my thesis in order to eliminate her worries. At the end of the reply, I said that I would respect her decision due to ethical considerations if she insisted on it. She finally decided to participate in the research on condition that she would read my transcript and cut out any accounts or voice records that she felt to be improper. I believe that this is the most balanced and satisfactory solution for both Feifei and me.

Interviewing female PhD students

I have talked a lot about the influence of sharing the identity of my participants in my interviews: creating rapport, reducing the distance between us, having more "insider" experiences and so on. Because very little research reflects the experience of interviewing female PhDs, especially in China, I next intend to discuss the features of Chinese female PhD students and some interesting and unexpected insights from my fieldwork.

When I introduce my research topic, Chinese female PhD students, to my colleagues or at conferences and training sessions, many colleagues say: your topic is good and your participants are very "*Kaopuer*" (靠谱儿), which means "reliable" in this context. Researchers consider many practical issues, especially in fieldwork, to increase the feasibility of their research. In practice, my "*Kaopuer*" Chinese female PhD students reduced many potential troubles. First of all, my participants are a group of highly educated women. After several years' academic training, they have good comprehensive ability, logical thinking and expressive skills, which facilitated our communication going smoothly. As I expected, they are specialised in independent thinking, leading to greater understanding of their own experiences and awareness about social phenomena. Consequently, they provided me with more and better data.

In the second place, female PhD students have a better knowledge of doing research and even conducting interviews than the general public. When Feifei was signing the consent form, she said: "It's good for you to ask us [female PhD students] to do interviews. If you ask an ordinary person, they will be frightened to death to sign such a form." What she said may be a little exaggerated, but it is true that some members of the general public do not understand what academic research is, especially the uneducated. I did an oral history study for my bachelor's dissertation. One day, I interviewed an old woman in a rural village in Northeast China, using the village head as intermediary. I explained that I was a student and doing research on migration from her village. She replied, "We have nothing worthy of being researched." Then I asked her questions about her family's migration history and she made me dumbstruck by saying: "Why do you ask? You can make it up by yourself." Comparing these two stories, it is obvious that female PhD students have a greater understanding of the meaning of research. Siyi was recruited through the University BBS. She told me that she had conducted surveys for her master's dissertation and many people assisted her finding participants at that time. Therefore, she was very willing to be a participant to help other colleagues to do research. I was so grateful for their understanding and support.

In addition, as interviewees, the female PhD students were always highly cooperative and had serious attitudes towards the interviews. Last and most importantly, a very practical reason for me to choose Chinese female PhD students as my research object is that they are not very difficult to approach. They gather in universities and academic institutions, which provided me with fixed locations to find participants. Also, colleagues work and live together, which is beneficial for using snowballing to recruit participants.

PhD students are professionals and elite in their specialist research field. That is to say, I

was interviewing researchers. The experiences of interviewing female PhD students from different disciplines varied greatly. Some participants had similar academic backgrounds to me, and some even used the same methods as me. In such situations, we sometimes shared our research experiences and ideas as colleagues. I left the final question for my participants to ask me things and I discovered that participants who were also studying social science were very interested in my research. "How is your research going?" "How many interviews will you do in total?" "What theories are you using for analysis?" were the questions they asked most frequently. In the interview, the roles they played were as interviewees, while they mostly worked as interviewers or researchers in their everyday research. Therefore, they might sometimes forget they were interviewees and think like interviewers. When I interviewed Hebe and asked for an overall comment on her PhD life, she thought a while and said: "Let me think...I know, as an interviewer, the last word you want to hear is 'good' because when I conducted the interviews I did not want to hear 'good' most." I think when I asked, her first response was "good", but she then realised that "good" might not be a helpful answer according to her own experiences as an interviewer.

Things were quite different when I interviewed PhD students from other disciplines, especially science and engineering. I had very little knowledge of their advanced research. Even so, with my general experiences and understanding of doing PhD research and the experiences of other participants, I could communicate and negotiate with them very well. It is also an adventure for me that I accumulated much knowledge about science, applied science and engineering after years of academic training in the arts and humanities.

However, the shared identity might lead to an over-close interview distance, which might cause a loss of data. I always showed my understanding and agreement on many topics and ideas, but I was worried the participants might consider that the researcher

could totally understand what they are experiencing and thinking and it was useless to speak out. I also might take what they said for granted and not ask follow-up questions, but in fact, these stories might be new and interesting to the general public. The potential shortcomings consisted of losing some data unconsciously.

Interview location

Location played an important role in building a friendly environment for the interviews. An ideal place to do interviews is comfortable, quiet, private and safe. However, due to some practical factors, the interviewees and I sometimes could not find a perfect location and chose the most satisfactory one among available places. As the interviewer, I gave the participants the right of priority to decide where to meet. Because my participants are full-time students in China and the UK, their living and studying environments varied from each other. My interviews were conducted in many different locations, including private space and public areas. The location of every interview is shown in the table below (Table 5).

Table 5: Interview location

Interview location		Participants
Private space	Home	Maggie, Cherry, Jessica, Vivian
	University accommodation	Chengzi, Xiaotian, Summer
	Office	Qingqing, Beibei, Ruth
	Classroom (Without others)	Jing
	Meeting room	Yang, Mengqi, Hanke, Nuan, Leilei, Naihe
	Study room	Jiani, Feifei, Yuanyuan
Public space	Café	Xianer, Yutong, Siyi, Lizhi, Xin, Chuntian, May, Cindy, Ada, Hebe, Luna, Emma, Lauren, Selina, Nancy
	Common areas on campus	Sunny, Kate, Tonia, Mia, Gloria

From the table, it is very clear to see where I conducted the interviews. Home, university accommodation, offices and cafés are very common choices for interviewing. However, classrooms, meeting rooms, study rooms and campus are comparatively not as common as the others. Take the example of a using meeting room as a location. This only happened when the supervisors arranged the interviews because these meeting rooms were in the charge of gatekeepers, not the students. For the convenience of participants, the interview locations were all within their living and studying areas. Some places provided by the university or department were good choices, such as study rooms, classrooms and common rooms. I also made great efforts to borrow an empty study room from a friend in Nanjing to do interviews at night in order to avoid office hours.

Among all the interview locations, most interviews were conducted in cafés. These are

easy to find on and around campuses, very comfortable and relaxed. In the UK, it is even more popular and generally accepted that a café is the right place to meet people. Having a cup of coffee is another way of saying that let's have a talk. However, as an interviewer, I have to say that a café is my last choice for a place to conduct interviews. The first reason is that it may be very noisy sometimes. I was worried that the noise may impact upon the voice record and the emotions of my interviewees. The conversations of other customers and the sudden sounds of working machines were the main sources of noise. When there was a very loud sound, we might have difficulties in hearing each other clearly and have to speak louder. Once, in the middle of the interview with Siyi, the couple sitting next to us broke into a quarrel. They displayed a sharp increase in emotion as well as voices. The young woman was yowling to her boyfriend and the man shouted back angrily. Simultaneously, we were talking gently. I was anxious about the voice record and the interviewee's emotions because the voices of the couple had exceeded ours while I was pretending to be peaceful, listening to Siyi and nodding in response. To be frank, I was very nervous at that moment. Fortunately, Siyi was concentrated on talking about her stories and was not interrupted by the couple. Several minutes later, they left, and I was released from this intense mood.

Secondly, interviews in a café may be interrupted by others. Even though it might be only a very short break, it can impact upon the whole smooth running of the interview. While I was interviewing Yutong, the waiter came to serve our coffee and cakes. Our conversation had to be stopped. After he left, Yutong asked me what we were talking about just now. I told her, and we continued our topic. Sometimes, we also met colleagues and friends during interviews in a café, interrupting our interviews unexpectedly. During the interview with Emily in a campus café, a colleague of hers met her in the same café by coincidence. He walked towards Emily and began to talk to her. Emily felt a little awkward and looked at me. I nodded with a smile to imply that I could wait. Their talk lasted a couple of minutes and then Emily returned to our interview, expressing her apologies. I

was able to remember where we were in the whole interview structure when we were interrupted and continued the former topic as though nothing happened, so we were never lost after the "break". Even so, being stopped did cause missing data, it wasted time and broke the rhythm of the interview.

In addition, some uncontrolled factors influenced the interviews in cafés. I interviewed Lizhi one evening in a café near the university. Everything went well, and we had been talking for one hour and three quarters. A waiter suddenly told us that the café was closing in five minutes because it was summer holidays and they closed two hours earlier. Therefore, we had to leave. Fortunately, our interview was also close to the end. We stood on the street, holding the voice recorder, and conducted the last ten minutes of the interview. I was sorry about the incomplete arrangement, but I really had not thought of such an unexpected situation. To conclude, interviews in a public café can be interrupted by noises, service, unexpected meetings and special cases that are out of the control of both the interviewees and me. But in most cases, a café was the only choice for us and we managed to minimise the potential impact.

I have divided interview locations into two categories: private space and public areas. It is very interesting to discuss how the PhD students' everyday studies and lives interacted with private and public space, as well as how the situation was different in China and in the UK. Seven interviews were conducted in my participants' living places: home and campus accommodation. At Chinese universities, every student is provided with campus accommodation, but things are different in the UK. Because university-owned properties are limited and expensive, many students decide to rent a house or apartment off campus. I was invited to interview people in their houses in the UK, but never in China. Also, almost all students in the UK have a single room, whereas most students in China live in a shared room on campus with generally one to three roommates. Only a few PhD students, who are married, have a partner, or have other personal reasons, choose to rent a house. So,

most female PhD students in China possess a smaller living space and less privacy compared with those in the UK. The interviews in university accommodation were conducted only when their roommates were absent. Office use varied greatly in different countries, universities and departments. Some participants did not have fixed office or study areas; some shared a big room with dozens of people; and some shared a small office with several colleagues. Since no one occupied a single room, the office was not available for interviews. The only two interviews in an office are Qingqing and Ruth. When other people were present during the interviews, it may impact both the interviewer and interviewee. Before the interview, I informed them of the interview content and gave them the option to choose the meeting location, and they decided to talk with others present. It means the interviewees did not care it. During the interview, the others seldom interrupted our conversation, only once or twice saying something like a joke. The interviewee felt free. Even when I asked private questions, such as about their love history, the interviewees replied very naturally. I inferred that these stories were not secrets from Qingqing's colleagues and that everyone knew them. The colleague who shared the same office with Ruth is her husband, so this office could be regarded as their own private space. But, to be honest, having others present did make me, the researcher, a bit more nervous. Especially in the interview with Qingqing, which was the first interview in my research, I felt that her colleagues in the office were all listening to me, and I was the only outsider present.

In terms of common areas on campus, UK universities provide many more areas for students to meet and talk. On campus, different colleges, buildings and departments mostly have common areas with sofas and tables which are very comfortable and relaxed. Some departments set up a common room for their students and staff only. I noticed that British universities tend to establish a friendly environment for students and staff to communicate and exchange ideas. In York and Leeds, five interviews were conducted in the common areas on campus. However, I did not find any places with the same functions

as a common room on Chinese university campuses. When they need to talk, they usually go to a restaurant and have dinner, which is a very Chinese way to communicate.

After the interviews

During the interviews, I focused on asking questions, listening to participants' replies and understanding their ideas, and I also highly trusted the voice recorders, so I only took very few notes. After the interviews, when I went back home, I recalled the whole interview and wrote down any useful information, details, stories, feelings or special points which had left a deep impression. These notes are not academic or professional at all. Sometimes, I only wrote down a few key words. In particular, I laid stress on the information that could not be recorded, such as my observations of the participant, my feelings and ideas that flashed into my mind during interviews, emotional changes and body language.

Sometimes, I wrote in my notebook. But sometimes, I was so exhausted that I did not want to write anything. Still, I had to keep the ideas immediately in case I forgot them. So, I used the function of voice recording on my iPhone to make an audio note. After all the interviews, I intended to back up the audio notes and connected my iPhone to my laptop. Unfortunately, my phone updated its system automatically and all my audio documents disappeared. It was a very sad story and I felt so disappointed and grieved but it was unrecoverable. From this accident, I learned never to trust one hundred percent in electronic facilities, and always to store and back up all data in at least two different storages. Even though I recalled almost all these memories when I listened to the voice record and did the transcription, the loss of these partial notes was a severe blow to my emotions and confidence in research.

It was hard for me to leave the field. The friendship with my participants was built up by the interviews and even carried on afterwards. Sometimes, after the interview, we had

dinner together, and then we were freer to talk about other topics, not limited to the research questions. I then got to know them better in their free time. In addition, some participants and I followed each other on Wechat. I still keep in touch with them through social media. I could keep an eye on what happened to them in their research and lives when they shared their moments on Wechat. For those participants in York, we had more connections in research and everyday life. We had many opportunities to meet each other on campus or at academic conferences and we shared our experiences and ideas about recent research and life. Because we knew each other's research topics well, some participants majoring in social sciences in particular, we always shared useful information with each other. Once I received an online news link from Maggie about Chinese female PhDs. I was very grateful that my participant had thought of my research and shared with me when she found some related materials. When the interview with Jiani was conducted in June 2015, she said she would be studying in London for one year as an exchange PhD student. We kept in touch and became good friends. When she came to the UK, I invited her to visit York and we spent three days together in October. Two months later, I visited her in London. We had an enjoyable and deep communication and shared many ideas with each other. We have already become very close friends. However, during some moments in our conversations, I had a thought flashing into my mind that what she had just said could be very meaningful and useful in my thesis. Unfortunately, it was not an interview and I was not an interviewer, so her accounts were not allowed to be used in my research. It is very interesting that, even after fieldwork, every time I heard useful words said by female PhD students, I wanted to record them and apply them to my data analysis. It seemed that it was hard for me to forget I was no longer an interviewer and I felt sorry to lose the "data". When I met a new Chinese female PhD student, I always immediately introduced my research and myself and wanted to ask some questions about her experiences and values. Ever since my fieldwork started, I have been highly sensitive to all the information related to my research and have formed the habit of actively talking to people who I am interested in.

Approaching and processing the interview data

There are a variety of approaches and analytical strategies available for working with and making sense of qualitative data, and the process implies, and indeed requires, some principled choices (Coffey and Atkinson, 1996: 4). Qualitative data does not occur in just a single type and, in my research, I collected data in the forms of interview transcripts, field notes, observation, documents, official and academic survey results and so on. Among them, the interviews provided me with abundant and primary data for analysis. These interview transcripts record the participants' experiences of and attitudes towards being a Chinese female PhD student. Predominantly, the data generated from these interviews are a transparent reflection of what happened in their lives and how they reacted to them, as well as how they thought about PhD studies, gender issues, and some related questions at the time of being interviewed. My central principle for handling interview data is to let the data speak, and all the ideas are generated from the data, which is also in line with my feminist approach, which aimed to allow female PhDs' voices to be heard.

However, regarding the aim of understanding their experiences and values in a transforming Chinese society, apart from only telling their life stories, further analysis is needed to deliver their values and deliver insights into the personal, cultural and social rationale behind them. It is important that researchers explore data from a variety of perspectives (Coffey and Atkinson, 1996; Welsh, 2002; Mason, 1996; Richards, 2006). Mason (1996: 54) proposed three approaches to interview data, and named them "literal", "interpretive" and "reflective" readings of interviews. The distinction between them will assist me as a researcher to locate my stance and generate ideas. Firstly, in the literal sense, researchers would probably be interested in and focus on the interview interaction; for example, the literal dialogue, the use of language and the form of expression. Secondly, the interpretive approach is used to make sense of participants'

accounts and it is the researcher who interprets the participants' meanings and may infer something that lies outside the literal interaction itself. Thirdly, the reflective approach enables the researchers' role and creates an interface when they are engaged in data processing, and their contributions matter in a reflective sense. Mason (1996: 54) suggests that many researchers may use a combination of the three approaches to derive data, but they need to think carefully about how to balance them. In my process of practical analysis, which is based on the interview transcripts as data, the literal approach is fundamental. In addition to this, I may take an interpretivist position. This is because I am aware that what the interviewees told me was what they chose to tell me at that time, but it might have been affected by some social reality or influential ideology. My interpretation attempts to explain why they held these views and made these decisions, and how these values generated and developed. And their stories were not straightforward answers to my research questions, so the researcher needs to explore more linkages to make sense of participants' experiences in the transforming Chinese society. In terms of a reflective approach, I did not often account for my role and contribution as data to analyse, although I had good and positive interactions with my interviewees, and even sometimes shared my experiences and values if the participants wanted to know.

With a feminist standpoint, Eichler (1985) deprives four epistemological propositions for feminist research and they are that: all knowledge is socially constructed the dominant ideology is that of the ruling group; there is no such thing as value-free science and the social sciences as far have served and reflected men's interests; and because people's perspective varies systematically with their position in society, the perspective of men and women differ. Stanly and Wise (1990) quite agree with Eichler and they treat as a "base-line" for all feminist research. I am inspired by their stance. As the knowledge of the participants are socially constructed and the ideas may be impacted by the ideology that is advocated by Chinese government and rooted in

Chinese culture, the interpretive role of interviewer is necessary. In addition, the acceptance of different and personal values is important to interviewers. I tried to avoid bias in the design, interviewing and data processing, but sometimes it may still exist due to the different position and personal perspective.

Back to the practical analysis process, after returning from my intensive fieldwork, I began to deal with the massive amount of data. As Glucksmann (1994: 150) has noted, there is a different and unequal relation to knowledge between the researcher and the researched, so I was very aware of the risk of silencing the voices of my participants or misunderstanding their meanings. Therefore, I made efforts to clarify my data, to keep its original flavour and better interpret the hidden and underlying meanings of the accounts. As all my interviews were conducted in Mandarin Chinese, I transcribed them all verbatim in Chinese. After the analysis, I only translated selected paragraphs into English as quotations for this thesis.

Transcription was a long and burdensome process for me. I had 40 interviews, each lasting for two hours on average. Mergenthaler and Stinson (1992: 129) defined seven principles for developing transcription rules and argued that the transcript should be an exact reproduction and should not be prematurely reduced but should be kept as a raw data form. So I adopted a "verbatim transcription" strategy to ensure that the loss of information from audio recording to written record was as small as possible. Transcription was not difficult technically, but it was very tedious. On my computer, I played the audio file on the audio player for several seconds and memorised what I heard. Then I pressed the "Pause" button and shifted the desktop from audio player to Word. I typed what I remembered in Word and then shifted back to the audio player. This process circled around at brief intervals over and over again. I had to shift between pieces of software very quickly in case I forgot what had been said. It was very hard to concentrate on such detailed work for any length of time. Due to my extensive, long and

rich interviews, it took me nearly a week to completely transcribe one interview, and the whole transcription process lasted for one year. It consumed much time and patience on my part. All the transcripts together amount to approximately 1,200,000 words in Chinese.

In addition to the spoken words on audiotape, many scholars argue that nonverbal information should also be incorporated into transcribed texts, such as silences, body language, emotional notations and so on (Poland, 1995; MacLean et al., 2004; Halcomb and Davidson, 2006). I paid particular attention to silences and pauses, which referred to time for thinking. And I recorded these silences with ellipsis marks (…). Emotional issues frequently arose while transcribing interviews, and I recorded these in the transcripts. Additionally, listening to the audiotapes brought back to me the scenes of how we met, how we talked and how we behaved. Reviewing the interviews sometimes led to critiques of myself as an interviewer. I often realised that it would have been better if I had asked a follow-up question here or there. What was worse, the extremely long interviews seemed to be endless and I was sometimes tired of listening to the same voice for more than 10 days. There was a risk that I might lose patience or feel hopeless. The mixed feelings of dissatisfaction and losing patience reduced my efficiency to a certain extent and caused me to procrastinate over my transcription.

The process of data analysis might be seen as a reflective activity and as part of the research design (Coffey and Atkinson, 1996:6). It runs throughout the entire collection and processing work, rather than only during the final step of research. In my research, data analysis was carried through backwards and forwards several times. The transcription process was a very preliminary analysis in my mind, and could be seen as the first-run data analysis. I reviewed all the participants' life stories and values and naturally some very interesting, special and impressive stories emerged at this stage. One small act that I undertook during this period was that I gave all the participants

pseudonyms to maintain confidentiality. In order to clarify and identify their study locations, I gave those who were studying at Chinese universities Chinese names (written in Pinyin) and overseas students English names. As a result, they can be easily identified during the analysis process and in the quotations.

After transcribing, I moved on to coding. Due to the large number of transcripts, I used the computer software Nvivo to help with analysing the data. Fundamentally, Nvivo has two functions: it can store and manipulate documents in different formats, such as text, audio and pictures; and it can also support the creation and manipulation of codes, known as "Nodes" in Nvivo (Gibbs, 2002: 16). I input all my transcripts into Nvivo, storing and managing them as internal resources. Relevant information from the documents was recorded, including name, description, creator, modifier, marked colour. Coding with Nvivo was the core function to me. Open coding, drawn from the transcripts, is involved (Strauss and Corbin, 1990). In Nvivo, I made a close line-by-line reading of each text in order to identify as many ideas and concepts as possible. Then I selected some lines to give them a name/label; this process is called creating a "Node". After completing this stage, I built up a coding system. When I was ready to make a further analysis of certain topics, I could easily review all the transcripts under those particular "Nodes" to develop my ideas and arguments. This process of coding is also known as "organising" the data and I broke down the transcripts into "more manageable chunks" (Miller, 2000, cited in Welsh, 2002). Every chunk delivered an individual piece of information, viewpoint or story. This could be considered as my second-run analysis, and some topics and themes germinated during this process.

Finally, the third-run data analysis took place under the heading "analysis". Here, analysis refers to a very specialised method of transforming data, in line with Wolcott's (1944) term, rather than being an all-encompassing term. During this process, the researcher expands and extends the data beyond a descriptive account. Through a

systematic, careful and structural analysis, many key factors, features and relationships are identified. In my practical analysis, broader topics and themes were generated from the research questions and interview questions I had designed. As each whole interview covered all-round aspects, it was unlikely to cover every aspect and question in the interview guide. Thus, I selected several themes that were thoroughly discussed by my participants as well as being central to my research topic to analyse further. These themes are: Chinese female PhD students' everyday lives and studies, motivations for doing a PhD, and love and marriage. These three themes constitute the main body of the thesis. This led to a thematic analysis in my research. Under every theme, I browsed the coded data to create categories regarding a sub-theme or narrow topic, and then catalogued my participants' ideas as evidence. During this period, to assist in the analysis and further writing up, I managed my data in Nvivo by reorganising the data under each "Node". By focusing on "Nodes", I was able to gather all the transcripts of the 40 participants that shared some experiences or discussed a certain topic into a single file. This facilitated the sorting, comparing and analysing of the data. It was quite efficient and convenient to use Nvivo to aid my analysis. Inevitably, some interviewees hold similar attitudes towards certain issues, and I might choose only one or two pieces from their detailed accounts to cite as examples in the thesis to avoid repetition. In making sense of the data, I often draw on both Chinese practices and academic studies to compare and discuss. The deep, step-by-step analysis across all participants contributes to the comprehensive and strong argument. That is to say, the broader themes that I explore are what I designed, but the data and ideas are absolutely coming from the participants.

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Chapter 4

Exploring everyday life and study

In the last chapter, I discussed methodological issues around researching Chinese female PhD students. In the interviews, my participants and I talked about the following five themes: (1) educational and research experiences; (2) everyday lives; (3) experiences and values of love and marriage; (4) their attitudes towards social stereotypes and stigma; and (5) future aspirations (for details, see Appendix 2). Because of the large amount of data about these themes and sub-themes, it is not possible to cover every single issue we talked about in the interviews. I selected several themes that are central to my research questions to analyse further, and these constitute the main body of the thesis. They are: Chinese female PhD students' everyday lives and studies, motivations for doing a PhD, and their negotiation of love and marriage under the social stigma of being a female PhD. The discussion of these themes can also provide insight into some of the core gender issues that I discussed in the literature review, such as work (study)/life balance, gender equality in education, women's career and employment aspirations, women's love and marriage practices and values, gender ideology in contemporary China, social stereotypes and stigma. Some topics I have to leave out. For example, educational background and research topics, achievement and difficulties in research experiences, detailed love stories and the ending question what do the interviewees want to know from me. Due to the great variety and diversity of experiences and values of the Chinese female PhD students I interviewed, I cannot cover all their stories in the thesis. However, they all contributed much to understanding Chinese female PhDs. In this chapter, I look at my participants' everyday schedules and activities in order to depict their lived reality.

It is a Chinese tradition to meet family and friends during Chinese New Year. Even though we overseas students in the UK do not have holidays and are 10,000 kilometres

away from our hometowns, we definitely celebrate in a Chinese way. For the 2016 Chinese New Year, I had a get-together with some of my PhD friends, mostly female. We gathered and had a Chinese hot pot at a friend's accommodation. We cooperated in the preparation and shared the food happily. Our chat covered an enormous range of topics, including food and cooking, homesickness, happy and terrible experiences in the UK, future plans, love stories, interesting people we had met and so on. After the hot pot, we made wonton together. Some had never done it before, but they were actively involved in learning how to make it.

Yun was studying the piano at that time, and she played a piece of music for us. Xin added that she had played piano for over 10 years before she prepared for the university entrance examination. I didn't know that she was such a professional piano player and neither did other friends. Then Xin played several pieces and we were all amazed and enjoyed the beautiful music. Qi was a photography lover, and took her DSLR (digital single lens reflex) camera with her everywhere. She recorded every moment of our get-together to capture our valuable time in every warm picture.

We had a happy time that afternoon. If our toast words had not been "hope you graduate early" "have more publications" "hope everything goes well with your thesis", no one would have realised that it was a party of PhD students. It was just an ordinary get-together with good friends, like everyone has. We gossiped; we talked about music, drama, films and sports; we wanted to be prettier in the photos; we enjoyed delicious food; we wished each other a promising future. Indeed, we are PhD students. But as well as that, we are household experts, electronic products lovers, shutterbugs, make-up bloggers, piano players, storytellers and so forth. However, what is a party of female PhD students like in the imagination of the general public? It will definitely be different.

The lives of female PhD students remain mysterious to the general public in China

because they have very little access to get to know this particular category of people, who are confined to universities and academic institutions. As I have introduced in the literature review, the social media and some individuals have stereotyped images of and negative attitudes towards Chinese female PhDs, but some Chinese people hold a positive viewpoint of women pursuing a doctorate. I asked my participants a question: "What is others' attitudes when they know you are doing a PhD?" and there are some positive responses. A majority of Chinese people, both the young and old generation, believe "knowledge changes destiny" and "receiving more education is good". Some parents see it as very proud to gain face and provide support for them. A mainstream future occupation of female PhD students is university lectures, which is regarded as very suitable for women, so they consider women doing a doctorate referring to secure a prospective "good work". At least, many people confirm, "doing a PhD referring to a very good study performance", which is most mentioned in the interview in terms of positive feedback. More than one participants described the same scene. When some adults with young children knew the women in front of them are doing a PhD programme, they said to their children, "This elder sister/ auntie study very well, you should learn from her. Study hard." They may not understand the meaning of doctorate, simply taking it as good study performance and high scores.

As a feminist student, I aim to explore the experiences and values of Chinese female PhD students from their own perspectives and to enable their voices to be heard and their lives to be seen without the external definitions and stereotypes. Facing the various social opinions, I will try to further reveal this cohort of women. This chapter, as a first and important step, will illustrate their daily lives. What activities occupy female PhD students' lives? How do they balance the various aspects of their lives and manage their time? What study and living habits do they develop? What factors can impact upon their lives and how do they negotiate these? To write about Chinese female PhD students' lives, I intend to give a generalised depiction first, and then further describe their

detailed and respective everyday schedules by focusing on several differentiated categories.

Depicting Chinese female PhD students' rich lives

Many people see female PhD students as "nerds" who study in a pedantic way and live a boring life. Without doubt, as doctoral students, learning and researching is the "serious business (*zheng shi*/ 正事)" of their current lives. However, this does not mean that it is the only thing they know or that their lives are monotonous. Even though my participants' lifestyles vary greatly, most of them claim that they live a rich and full life.

Yutong described her everyday PhD life:

> *As a first-year PhD student, I have many modules to take. This year, I'm mainly focusing on taking classes. Thus, my schedule is broken up into small pieces, so it's hard to do a whole thing in a whole day. When I don't have classes, I always go to the library during normal working hours, that is, in the morning and afternoon. But I don't like to go [to the library] in the evening because I don't want to go outside when it's dark. Then I usually stay in my accommodation, reading or watching films.*
>
> <div align="right">

Yutong, 27, Arts and Humanities, China
> </div>

In the Chinese higher education system, PhD students are required to take some modules, which mostly occupy the first year of their PhD programme, so Yutong's current study timetable is comparatively regular and stable, more like that which a taught postgraduate follow. She explained that she had a very busy timetable last term and in this less occupied semester, she is enrolled in half-day lectures every Monday, Tuesday, Thursday and Friday, as well as one whole day of lectures on Wednesdays. Apart from her fixed module schedule, she can arrange the remaining time for herself. She decided to study in the classroom and the university library during nine-to-five

working hours on workdays and to regard the other time as her own spare time. She can distinguish clearly between her study and relaxation. She spends her free time on her interests, hobbies, sports and entertainments.

I am most interested in reading, not limited to my major. I enjoy reading itself...My hobby is playing the piano. I learnt how to play it when I was young. I have a piano in my home and here in the university, there is a piano room with three poor-quality pianos. I will go there when I'm free. Especially sometimes when I want to be alone, I will go there and have a play. I think it's very good to have such a hobby; In addition, this term, I began to do yoga exercises once or twice a week in the university gym... Definitely, I always surf the Internet and watch television dramas and films.

Yutong, 27, Arts and Humanities, China

According to her hobbies and interests, I find that she prefers "quiet" activities: reading, playing the piano, yoga and even watching TV series and films for entertainment. In addition, she always spends her spare time alone, although she lives in a shared bedroom with two roommates. The only activity she does along with others is yoga, which was introduced by her roommate. Actually, yoga is also a quiet sport to communicate with the self. As Yutong recognised, she enjoys "*zhai (宅)*", which means staying at home. This is a very popular lifestyle among some young adults in China whereby they stay inside for a long time and avoid going out unless it is necessary. Yutong is a typical "*zhai*" woman (宅女) and her everyday activities are almost limited within the campus. Once, she even took pieces of laundry soap from her hometown of Hefei to Nanjing because she was too lazy to go to the supermarket, which is only a ten-minute walk away from campus. To summarise her daily life, she told me: "Definitely, I spend much more time on study-related issues. The other time may be used for relief and entertainment." In her PhD life, she lays stress on learning and researching, with a variety of hobbies and interests to relax. Even though she regards her lifestyle as a little

plain, Yutong still fills her spare time with various enjoyable things.

Quite differently from Yutong's lifestyle, Cindy dedicated her spare time to working for a student association at her university. She was in her writing-up year when interviewed. Nowadays, she always spent the whole day on writing her thesis in the library. However, when she recalled her four years' PhD life, her working experience for the association left an indelible mark on her life history.

Working for the student association is what I really wanted to do at that time. It's not at all related to my current research and can be seen as a part-time job. I know it's where my interest lies, and I enjoy doing it very much. For me, I learn a lot from being an officer, and that's why I dedicate myself so much to it.

Cindy, 29, Social Science, UK

Cindy enjoyed the part-time job in the university association and also achieved a great deal. During the second year of her PhD programme, she worked as a senior manager. Therefore, Cindy invested a large quantity of her time and energy into running programmes that year, leading to something of a negative impact on her research schedule. She was occupied with campus activities and found it impossible to leave for her fieldwork research in China after confirmation in the 18th month of her PhD programme. So she had to postpone her data collection period until the end of her second year. She claimed that she had invested too much in work and misguided priorities during that time. Thus, Cindy spent comparatively less time and energy on her research. She was facing the problem of balancing her job at the GSA and PhD research. What was worse, her supervisor was not satisfied with her lack of concentration on her research and exerted intense pressure on her.

During that time, my supervisor prevented me several times, asking me to stop working for

In spite of huge stress from work, research and her supervisor, Cindy did not quit the job in the middle of her second academic year, instead successfully running the programmes to the end of the year. After finishing her work at the GSA, she gave her undivided attention to her PhD research. She is writing up her thesis this year as a general PhD timetable proceeds and aims to submit the final thesis on time by the end of the fourth year. During her time of doing a PhD, studying, apparently, was not the only thing she intended to do. Even though she aims to become a university lecturer in the future, and doing a PhD has been a necessary step towards achieving her goal, Cindy desires to try more things that interest her at her age. Working for the GSA was a wonderful and valuable experience during her PhD period. In Cindy's words, "It's paid off", although it had a somewhat negative influence on her studies and research. Besides her part-time job, Cindy also has a regular get-together with her friends. She calls it "girls' night". When I asked her to sum up her everyday PhD life, she replied, "Sometimes it's boring, but sometimes it's wonderful. I can't say it in one word."

Xin is a PhD student in a laboratory-based discipline. She spends 12 hours or even more per day in her laboratory and office. In addition, she only has one day off, or sometimes two, every week, which leaves her little spare time. She has been living such a life for over two years, since her PhD started. I was amazed at the busy schedule and heavy workload, but she explained that it was very common and average working hours in her laboratory, and some colleagues worked even harder than her. It seems that Xin had little time for relaxation or entertainment. How does she fill her "little poor" spare time?

The biggest fun in my everyday life is to play with my puppy. I love dogs very very very much. I

am cohabitating with my boyfriend now and we raise a dog together at home. We also keep a

hamster, but it doesn't need walking around. In addition, I like watching cartoons and comics

a lot and still keep doing it while doing a PhD. So, basically, playing with my puppy and

watching cartoons and comics online make up my spare time.

Xin, Engineering, 28, China

Xin was renting a house off campus with her partner, enabling her to raise her puppy, because keeping pets is not allowed in university-owned property. Cohabitation provided her with more private space and a personal life, but she is responsible for some domestic work, which also occupies her time at home. In addition, she admitted that doing a PhD had forced her to give up some interests and hobbies.

I had many interests and hobbies before, but now, I don't have so much spare time. I liked

painting, and I used to draw some pictures during my master's and even in the first year of my

PhD. But since then, I've rarely painted.

Xin, Engineering, 28, China

As time is limited, a busy research schedule reduced her spare time for entertainment and relaxation. Xin had to "cut down" on some enjoyable activities that were time consuming and of less interest, keeping her favourite interests and hobbies in daily life. Xin identified her life as a little dull, but she enjoys the lifestyle: focusing on PhD research, a stable relationship with her boyfriend, playing with her pets and watching cartoons and comics for relief and entertainment.

Ruth is a science doctoral student in the UK. In accordance with the British doctoral training system, she has regular meetings with her supervisor. In addition, she is preparing for several certificate examinations related to her research and study subjects. Consequently, Ruth's everyday studying keeps the same pace with supervision

meetings and examinations. She always concentrates hard on working before deadlines, while she has comparatively more leisure time after them. This is Ruth's strategy to balance her work and relaxation. In her spare time, Ruth's interest is quite different from the three participants above; she is a big fan of online gaming.

I like to play games very much. I find it very interesting. I like to play some online games, like DOTA, LOL (League of Legends), that's a battle game. The game I am playing is Heroes of the Storm. We have five players in a team and we fight each other. I like fights like this… I used to enjoy playing games, but not so fiercely and intensely. After becoming a PhD student, I have been living with my boyfriend. We had some free time and looked for some interesting games to play. Then we found it and began to play.

Ruth, 25, Science, UK

Although Ruth enjoys games, she does not over-indulge in playing or have misguided priorities. She usually had a good time arrangement. Therefore, her time for research and playing is well balanced. It brings her a great deal of happiness and satisfaction in her everyday life and has become her main entertainment activity.

Besides playing online games, she has another interest, which is reading. Ruth told me, "I also like reading, not related to my subject. I prefer detective novels, and ironic style." In addition, she loves travelling. She travels once every half a year with her boyfriend. I can feel how much she loves her games and reading during the interviews. She described her favourite book *The Moon and Sixpence* to me in detail and kept talking about it for over ten minutes. Even after the interview, she actively displayed and explained how to play *Heroes of the Storm* to me on her computer. Ruth has a very colourful and pleasant everyday life experience.

Differentiated everyday schedules of Chinese female PhD students

I have given a general description of Chinese female PhD students' lives in which the core of life is studying and researching, while they still have spare time to deal with personal life, develop their interests and hobbies, keep fit, relax, engage in entertainment activities, accumulate work experiences and engage in social activities. However, I realised that those female PhDs' everyday schedules varied greatly due to their subjects and research methods, situated educational system, cities and countries where they lived, love/marriage status, preferred lifestyle, living habits and customs, personalities, surrounding environment in their departments, social cycles, and so forth. Therefore, it is unfeasible and unreasonable to try to fit all female PhD students into the same life pattern. Among all the elements mentioned, I conclude that there are three dominant and influential factors: research discipline, marriage status and the country where they are involved in doctoral training systems. These three elements mainly determine their daily activities, construct their everyday timetables and restrict their workplace and living areas. I intend to adopt three dimensions: time, location and activities, to explore the common traits of everyday schedules in each category and make some comparisons between different categories.

Research disciplines

First and foremost, research subject is a decisive factor in female PhD students' everyday schedules. Taking their different disciplines and research methods into account, I basically classified the PhD students into two categories: students who major in Science and Engineering (理工科) and those who study Arts, Humanities and Social Sciences (文科), according to the *People's Republic of China Classification and Codes of Disciplines* (National Institution of Standardisation, 2009) and the Joint Academic Coding System 3.0 (JACS 3.0) in 2012/13 (HESA, 2013).

Science and Engineering disciplines can also be considered as laboratory-based subjects. These students generally have a fixed workplace and work as members of a research team with a regular timetable. Beibei, a third-year Science PhD student, described her daily arrangement:

> *Basically, I'm at the laboratory or my cubicle during normal working hours. Near the laboratory, our team has a big office and we each have a cubicle. I usually come here at eight or nine in the morning and we also stay here in the evenings. I normally go back to my accommodation after ten. I work like this on weekdays, while at weekends I will relax a little bit. Usually, on Saturday and Sunday, I won't go to work at least one day.*
>
> *Beibei, 28, Science, China*

She spends more than ten hours every day in her workplace, almost from eight in the morning until ten in the evening on six out of seven days a week on average. It is quite a busy timetable. However, Beibei told me that she was just among the ordinary students and that most of her colleagues had a similar schedule. As for some PhD students who are more hardworking, they even work until nearly midnight, or never rest at weekends.

Qingqing, a postdoc, enjoys her life in the laboratory and she explained her supervisor's requirements for attendance:

> *Our supervisor requires us to come to the laboratory before nine in the morning and no later than two in the afternoon and also be here in the evenings six days a week. But, actually, sometimes, the boss doesn't check it very strictly, and we can arrive a little bit late. Whatever, earlier or later, we still have to come, and six days a week.*
>
> *Qingqing, 31, Science, China*

According to Qingqing's timetable, she, like her colleagues, stays in their laboratory for

more than eight hours per day. Even though her working hours are shorter than Beibei's, they are still longer than those of an average nine-to-fiver. Their schedules ensure that the time spent in the workplace occupies most of their disposable time and leaves very little for her personal life. Does this indicate that they focus on studying and researching all the time in the workplace? Their answer is no. Also, I will take Beibei's and Qingqing's everyday lives as examples.

> *When we have experiments to do, we work in the laboratory. When there are no experiments, we can stay in our cubicle to have a rest. I have a habit of napping after lunch. So, as long as my experiment isn't very busy, I will go back my accommodation to sleep for a while. Thus I can improve my work efficiency and avoid feeling sleepy in the afternoon. Sometimes after dinner, at about six, we [she and her colleagues] may have a chat in our laboratory together and then move to work. Then, once in a while, we take some exercise. There is a badminton court in our laboratory building and we sometimes play there.*

> *Beibei, 28, Science, China*

As a laboratory-based researcher, Beibei's everyday task is to do experiments. However, when she is not doing experiments or is waiting for the results, she is just staying in the workplace but not working. She uses this time to rest and relax. In accordance with Beibei's experiences, Nuan, a second-year PhD student in Science also argues that sometimes the experiments are run by a machine; she must be present in the laboratory but is doing nothing. In such a situation, they are still in the workplace but are doing things unrelated to research.

When I asked Qingqing about her motivation to do a PhD, she replied that she liked the atmosphere in the laboratory. During our interview in her office, her colleagues came back from dinner and stayed in the room. I was wondering whether she was willing to be interviewed with others present in the same room, but she told me it does not matter

because everyone knows it (referring to what she is talking about). I could see that she gets along well with her colleagues. Qingqing claimed that they had some leisure activities during their office hours:

We all come here in the evenings, but we don't do much serious business [research and study related]. We just stay in the laboratory. Actually, during this period of working hours, we may include all kinds of activities. Like, at this time every day, after dinner, we always gather in the office to have a pleasant talk. We may also watch a movie, browse the Internet or some other leisure activities during these hours.

<div align="right">

Qingqing, 31, Science, China

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These activities, unrelated to research, contribute to creating a friendly atmosphere in the laboratory and office. Obviously, the laboratory environment that Qingqing enjoys is not only a place where she and her colleagues do experiments and research, but also in which they can chat, gossip and have fun together.

It is not only Science and Engineering students in China, but also students at UK universities who have similar experiences. Their accounts indicate that, even though these PhD students have very long working hours, they never spend all their time on studying and researching. Besides working, they also conduct some leisure activities during working hours and at the workplace. This phenomenon can be considered as presenteeism in the workplace. Most scholars agree to the definition of "presenteeism" as "going to work despite feeling unhealthy" (Aronsson et al., 2000; Dew et al., 2005; Evans, 2004; Johansson and Lundberg, 2004). They emphasise that employees go to their workplace while they are ill or have some problems that might normally compel absence. One notable consequence of this is reduced productivity (Turpin et al., 2004; Hummer, Sherman, and Quinn, 2002; Whitehouse, 2005). However, in terms of my data, the participants did not particularly share experiences of working while feeling unwell. I

prefer some early definitions of presenteeism as "attending work" (Smith, 1970) and "exhibiting excellent attendance" (Stolz, 1993). In this research, presenteeism basically refers to going to the workplace but doing other things that are irrelevant to studying and research. Therefore, I will not focus on health conditions but on reduced work efficiency. The PhD students in Science and Engineering are all equipped with a shared laboratory and office, and they each possess an independent cubicle with a study desk and personal computer. Their research institutions provided a comfortable and personal workplace. Due to the requirements of supervisors or the heavy workload, they usually need to spend over 60 hours a week there. However, it is impossible to focus on work for such a long time. When they have to stay in the workplace, but are actually unwilling to work or have no work to do, they will seek leisure activities in the laboratory or office. For the convenience of Internet access, computers are provided, so they can easily surf the Internet for relaxation and entertainment. Also, working with other colleagues enables them to chat, play badminton or go for other activities together. Thus, the students' productivity is lower and seems not to correspond to the long hours spent in the workplace. As another participant, Xin, said: "Sometimes I'm in a good mood, and I can focus on my studies. But sometimes, I'm confused and I don't want to do anything. If I'm in a bad study state, it will be good enough to study only one hour in a whole day." Therefore, presenteeism is a common phenomenon among female PhD students in Science and Engineering. Their workplace has a research function, but also includes social, relaxation and entertainment usage.

To conclude, I have mapped a general everyday schedule for these female PhD students majoring in Science and Engineering (see Figure 13). They strictly followed this timetable six days a week. They invest long hours in their workplace, and always work overtime in the evenings and at weekends, although they are unlikely to be working for the same length of time as they spend in the workplace. They have a fixed and regular everyday schedule.

Figure 13: General schedule of female PhD students in Science and Engineering
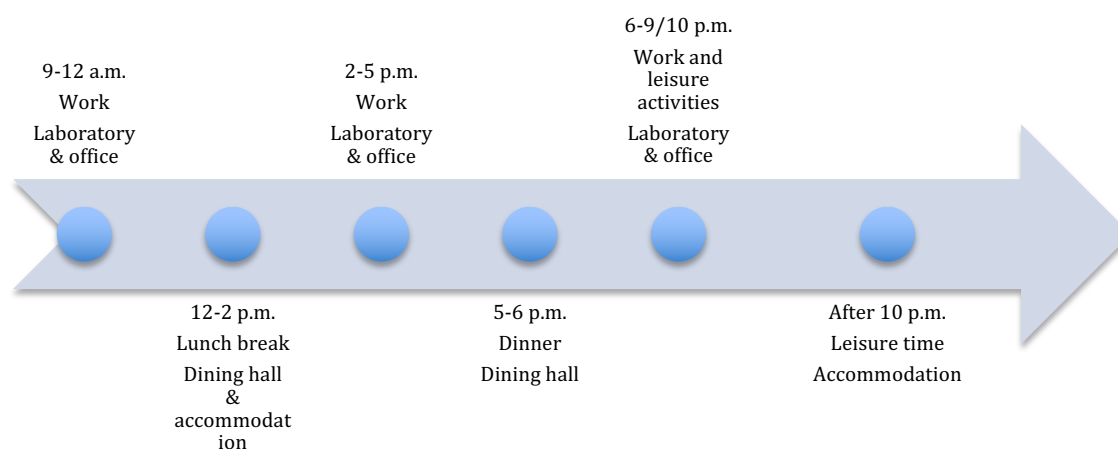
However, the everyday schedule of female PhD students who are majoring in Arts, Humanities and Social Sciences reveals a different picture compared with the laboratory-based researchers. Their everyday arrangements are quite flexible and self-directed. When I asked the participants about their daily schedule, they found it hard to be definite and they always replied, "It depends" or "I'm not sure". Siyi had just finished her four years' PhD study and graduated from a university in Nanjing. She described her life during the final writing-up year:

I usually can't get up in the morning, my daytime all begins at noon. If I've decided to work hard, I may get up earlier, maybe around ten. Then I go to the dining hall to have lunch and go to the library. I stay at the library the whole afternoon till five or six. Later, I go to the dining hall for dinner and it may only take me about half an hour. After that, I go back to the library, and I'll stay there until it closes. Sometimes, I'll spend another hour in the classroom; the classroom closes at half past ten. When returning to my accommodation, I'll conclude that I'm learning today. If I haven't finished, I'll continue to study until midnight sometimes. After midnight, I can relax and watch some entertainment TV programmes.

Siyi, 28, Humanities, China

Figure 14: Everyday schedule of Siyi during writing-up year

| 10-11 a.m. Get up Accommodation | | 2-5.30 p.m. Work Library | | 6-9.30 p.m. Work Library | | 11-12 p.m. Work if necessary accommodation | | around 3 a.m. Sleep Accommodation |
| | 12-1 p.m. Lunch Canteen | | 5.30-6 p.m. Dinner Canteen | | 9.30-10.30 p.m. Work Classroom | | 0-3 a.m. Leisure time accommodation | |
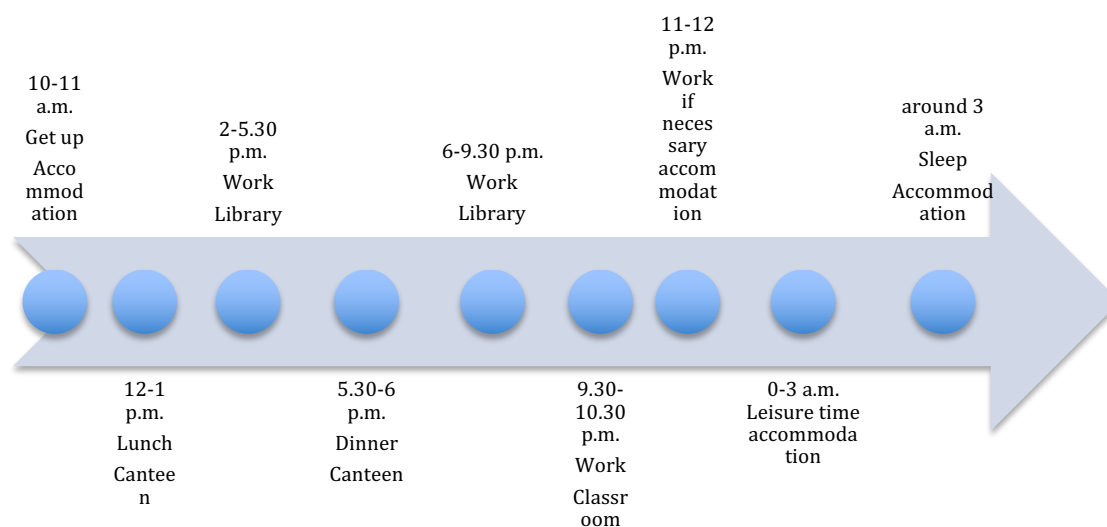
This timetable (Figure 14) was followed while she wrote up her thesis. Without doubt, it was the busiest and most hardworking time of her PhD period. On average, she dedicated over eight hours to work every day. As her department did not provide PhD students with any kind of independent or private study areas, Siyi chose to work in the public study areas of the university library and classrooms on campus. Siyi's timetable indicates that she kept very late hours every day, and she also told me that she had been struggling with insomnia for the last two years. However, her sleep problems obviously changed right after she submitted her PhD thesis. Among the Humanities and Social Science students I interviewed, her schedule for the writing-up year can be considered well planned, very intensive and quite regular.

For some PhD women studying Humanities and Social Sciences, their schedules seem less intensive and more casual; take Xianer as an example. Xianer was at the end of her second year when interviewed. She was mainly in the process of collecting literature and accumulating materials for her thesis. She acknowledged herself to be a very lazy PhD student:

Normally, the PhD students all do some research-related issues every day, but I feel I'm a little bit too lazy. My living habits are not good. I will stay up late to around one or two. So, I can't get up early in the morning: it's early enough for me to get up at nine or ten. In the morning, I will do some reading. You know our reading materials are in English, and it's very hard to focus on it for a long time. So I always do other stuff after reading only a few pages. After lunch, sometimes, I will take a nap, but sometimes not. If I do, the whole afternoon will be "discarded" because I won't wake up till four. If I don't, I will still have a break to watch a movie or video, or surf the Internet. Later in the afternoon, near dinnertime, I start to hurry and read another few pages of books. After dinner, I start to work, maybe from past seven to nine. I feel tired then and go to play. But, if I have a task to do, I can become very hardworking: having very regular hours of work and rest, and getting up at eight, which is very early for me.

Xianer, 27, Humanities and Social Science, China

Figure 15: Everyday schedule of Xianer
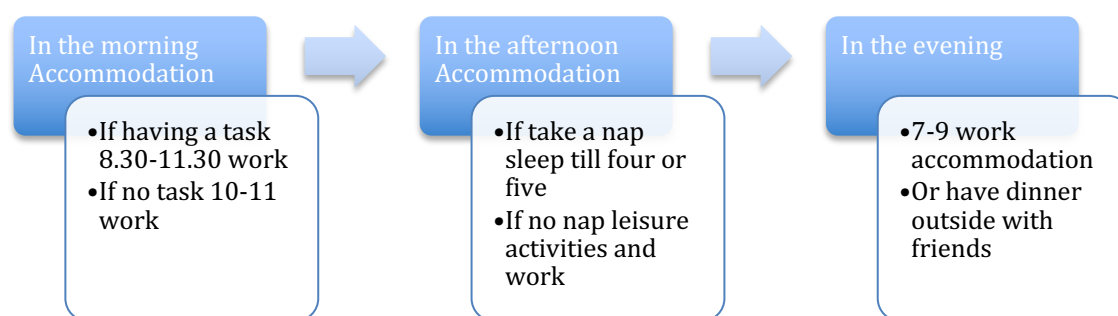
From Xianer's description of her everyday arrangements, I managed to depict her daily schedule (Figure 15). I realise that her timetable is more flexible; in each session of the day, namely, in the morning, afternoon and evening, her activities are not fixed and can be affected by various factors, far more than a nap, a task or dinner with friends. Also, I

noticed that, differently from Siyi, Xianer prefers to study in her accommodation even though she is not equipped with an office either. She claimed that studying in her accommodation frees her from taking a heavy laptop, but admitted that she can distract herself from reading and writing. She is not satisfied with her current study habits because she believes that more time should be devoted to studying and research. Also, she believes that she will be more productive in her research and thesis as the pressure of graduation increases, but this does not necessarily mean her everyday schedule will become regular and fixed.

Although Xianer does not have a fixed timetable to follow, at least she has clear and normal arrangements for each section of the day. Nevertheless, some PhD students in Arts, Humanities and Social Sciences live an extremely casual and erratic lifestyle. May was a first-year PhD student at a UK university. She did not have regular lectures or seminars to attend, so her time was totally controlled by herself. She had adopted a "super free" everyday schedule:

> *I'm not sure of it [timetable]. I will study when I want to and do other things if I don't want to. I'm very free, and I will do what I want. I'm not like others who go to the office every day, I seldom go there and always stay at home. At home, I study for a while, read comics for a while, and then study again for a while, read comics for a while. When I'm hungry, I will cook and have some food. In addition, my rest timetable is abnormal. When my body feels sleepy, I go to sleep. I may sleep for over ten hours or even nearly twenty hours. When I have enough sleep, I will get up. So, sometimes, I don't even know if it's in the daytime or at night when I wake up. Many people have told me it harms my health and I know it, but now I want to be free.*

> *May, 25, Arts and Humanities, UK*

Figure 16: Everyday schedule of May
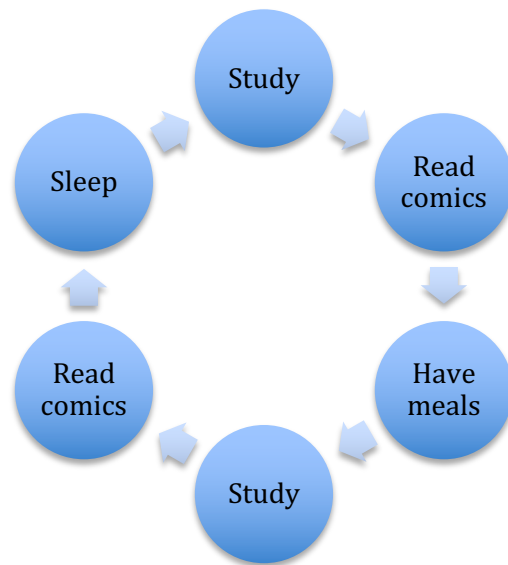
From May's narrative, she does not have any fixed times for meals or sleep, let alone study and leisure activities. She has a private study area in her department building, but she is not accustomed to work there. Evidently, studying ranks high on her "must-do" list, but even she herself is not sure how much time she invests in research. She is a big fan of Japanese comics, so her leisure time is mainly filled with reading comics. Most of the time, she is living and studying alone in her accommodation. The only principle of her everyday activities is "doing what I want" and she mentioned being "free" several times when she depicted her life. She is a standard "zhai" woman, living in her own world. Her timetable (see Figure 16) is like a cycle without a fixed time for any particular activity. When she stays inside, everything is arranged based on her own ideas and her room may be in a mess. Moreover, she has no intention of changing her current lifestyle, saying: "Maybe, in several years, when I'm older, it will be time to pay attention to healthcare. At that time I will change my living habits a little to normal life, but not now." In a word, her schedule is deemed disordered, irregular and totally self-determined.

To summarise the everyday schedules of female PhD students in Arts, Humanities and

Social Sciences, I selected three examples to interpret it. Their everyday timetables are extremely varied from each other due to the different stages of their PhD programmes, research subjects and methods, personal habits and preferred lifestyle. They usually do not have a fixed timetable to follow or a fixed place to work, which indicates that they are more flexible in arranging their daily lives. Therefore, female PhD students whose disciplines are Arts, Humanities or Social Sciences live various, flexible, self-managed lives.

Based on the everyday schedules of female PhD students majoring in Science and Engineering, as well as Arts, Humanities and Social Sciences, some comparative analysis of their different lifestyles and approaches to study will be conducted under the following aspects. First of all, in terms of workplace, the researchers in Science and Engineering are mostly required to work in laboratories and offices because their everyday research cannot be done without experimental facilities and computers. Therefore, they are all equipped with a laboratory and office, which is shared with colleagues. Their research-related activities are limited to their fixed workplace. However, Humanities and Social Science students' daily work is reading and writing and the materials they need, such as books and laptops, are more mobile and moveable than those experimental facilities. As Xianer said: "Give me a laptop, and I can study anywhere". Consequently, a fixed study area is not necessary. Whether a private office is provided is largely decided by the universities and departments where they are registered. Even if they possess one, they are not required to work in it. So, they can choose anywhere that feels convenient and comfortable, such as a library, public study areas, classrooms, private offices or accommodation (home). Therefore, the Science and Engineering students are laboratory-based, and they have to work in fixed places, while Humanities and Social Science students can change according to their preference.

Secondly, in terms of scheduling, it is obvious that laboratory-based students have to

follow a regular timetable, while the students of liberal arts are more flexible in their working time and need self-discipline. Usually, the Science and Engineering students are required or strongly advised by their supervisors to work during working hours, as demonstrated in Schedule 1, from 9 am to 9 pm at least on weekdays in the laboratory, although this may differ slightly among laboratories. Moreover, although they are not forced to obey a certain timetable, the laboratory members will develop an unwritten general timetable because they work together in the same laboratory as a team. Presence is part of the laboratory regulations for every member to follow.

In addition, supervisors and tutors are very likely to work next door and may pop in at any time, resulting in the students complaining about surveillance by their supervisors all the time. Foucault demonstrates the theory of hierarchical observation with the example of the panopticon in *Discipline and Punish,* "The exercise of discipline presupposes a mechanism that coerces by means of observation" (Foucault, 1977: 170). In the specially designed panopticon, the prisoners are visible and under the surveillance of a watcher in the tower, but they cannot see the watcher. "Each gaze would form a part of the overall functioning of power" (Foucault, 1977: 170). Similarly, this model, or at least its underlying principle, can be applied to explain the hierarchical observation in laboratories. The supervisors and tutors work as "watchers" or "observers", while the PhD students are the potentially observed and everything they do is visible. If they are always absent, they will be regarded as lazy, idle and inactive by their supervisors and colleagues. To avoid punishment and getting a bad reputation, the Science and Engineering PhD students exercised and internalised self-surveillance under the hierarchised observation of their supervisors and tutors. So, students of laboratory-based disciplines developed the habit of a regular work timetable.

In contrast, there are no such regulations for students in the Humanities and Social Sciences and they are not under supervision at any time. They are more autonomous in

their time-management. This leads to two results. On the one hand, their study timetable is flexible. In Siyi and Xianer's examples, they both get up late and even start working in the afternoon, which is impossible for those Science and Engineering students. On the other hand, they have to have self-discipline. Without the "surveillance" of supervisors and colleagues, the researchers in Humanities and Social Sciences are, to a large degree, relying on self-control. Their own study habits and attitudes affect their everyday schedule and work efficiency, as Xianer argued: "Unlike the Science and Engineering students who must go to the laboratory, we all depend on our self-discipline."

The third comparative aspect is work and life patterns. For Science and Engineering students, their laboratory and office are almost their only location to work. They seldom take work back to their accommodation or home because of the inconvenience of carrying experimental facilities and computers outside the laboratory. In general, going to the laboratory indicates that they are at work despite not working all the time, and going back to their accommodation means finishing a whole day's work. Home or accommodation is totally for rest and relaxation. To some extent, the location defines whether they are in the study pattern or life pattern. From this angle, they can keep their work and home lives separate. However, with the students in Humanities and Social Sciences, some individuals prefer to study at home and some work at night or during weekends. Without the surveillance of supervisors, they seldom have a fixed time to focus on study and, in a similar way, they also find it hard to define when is totally their leisure time, free from working, or thinking about research. In addition, some of their research topics are quite close to everyday life. It is impossible for them to separate research from personal life. They may "come across" news related to their research topic when browsing websites; they may find useful materials for their PhD thesis on social media or TV series and films; their research topic may be interesting to their friends and become a topic of conversation. In these cases, the boundary between

research and personal life is very blurred. So they will mix their study and life together, as May demonstrated, "I feel my life is study, and study is my life, I can't separate the two." Therefore, the work and life patterns are relatively more separate and independent for Science and Engineering PhD students than for Humanities and Social Science students.

Finally, the research strategies of different academic disciplines vary. As a member of a laboratory, Science and Engineering PhD students are more engaged in teamwork. Most of them are researching on the same project or areas as their colleagues, with different focuses. Their collaboration with and support from team members is great. Also, as they all spend a great number of hours working together, the whole atmosphere of the laboratory is created and has an impact on every individual researcher. Qingqing emphasised that enjoying working in her laboratory had motivated her to continue with PhD research. Regarding this, friendships among colleagues and the solidarity of a laboratory are more likely to build up. But, Humanities and Social Science PhD students, in most cases, work individually. Each student has her own unique research topic. Their research questions can vary greatly from those of their colleagues, even if they have the same supervisor. They can also build up a good relationship with colleagues in terms of knowledge exchange, experiences sharing and emotional support, rather than direct cooperation in the research process. To conclude, the comparisons between students of different disciplines are stated in the following table (Table 6).

Table 6: Comparison of female PhD students in different disciplines

	Science and Engineering	**Arts, Humanities and Social Sciences**
Workplace	Fixed laboratory and office	Preferred study areas
Timetable	Regular long working hours	Flexible and self-managed working hours
Work and life pattern	Separate work and life	Joint work and life together
Research strategy	Teamwork	Individual work

To sum up, the everyday schedules of Chinese female PhD students are differentiated by different research disciplines. Female PhD students majoring in Science and Engineering invest long hours in their workplace and have a fixed and regular everyday schedule. They can separate their research from life and enjoy teamwork. However, Arts, Humanities and Social Science PhD students' daily schedules are various, flexible and self-managed. They mostly work alone and require self-discipline to manage their everyday studies and personal life well.

Love and marriage status

The second influential factor in everyday schedules and lifestyles is the love and marriage status of Chinese female PhD students. Generally speaking, relationship status includes being single, in a relationship or married. However, for various and complicated reasons, I cannot simply classify my participants into these three groups to analyse and compare. On the one hand, one category of love and marriage status covers several different situations. For instance, a young woman in a relationship may live in the same city, be in a long-distance relationship, or cohabit with her partner. Obviously, these

three different relationship patterns lead to diverse daily arrangements. For married women, having a child can absolutely and dramatically change their everyday life. From this perspective, I need to narrow down the classification into more detailed categories. On the other hand, some couples with a different relationship status may share a very similar life pattern and schedule. Taking cohabitation as an example, the everyday schedules of cohabitating boyfriend and girlfriend, and a living-together married couple have much in common, and their similarities are more apparent than those of couples in a long-distance relationship. In terms of this, the living and interactive patterns of their intimate relationships in practice play a more important role than the relationship status in theory, in shaping a female PhD student's everyday activities and time arrangements.

Viewed from this angle, I need to assemble those individuals who are classified into a different relationship status but have a common living pattern with their partner, as one category, in order to explore their traits. Therefore, through a complex procedure of detailed classifying and regrouping, I divided Chinese female PhD students into five categories to develop the following analysis and comparison; namely: 1) single, 2) in a geographically close relationship, 3) cohabitation (including unmarried and married couples), 4) in a long-distance relationship/marriage, and 5) married women with child(ren). In this section, I will depict how love, relationships and marriage impact upon female PhD students' everyday schedules, and how their relationship status influences their studies and spare-time activities, as well as attempting to disclose the laws of time balance and make comparisons across various categories.

Single female PhD students

Generally speaking, the young single women who are doing a PhD spend very little time on relationship-related affairs in their everyday lives. They do not need to invest time in

maintaining a relationship or accompanying their lovers, while seeking a potential suitor may cost them some time, but not too much. In this way, they can concentrate on their PhD programme and being single is beneficial to their academic career.

Because they seldom worry about being single at present and generally do not have a strong desire to find a boyfriend hurriedly in a short time, as well as being occupied with busy research, they are not highly motivated to spend much time looking for a partner. To access potential suitors, the two main strategies are through matchmaking dates and engaging in various activities to meet new people. As for the blind dates introduced by their families and friends, a majority of the female PhD students I interviewed accepted rather than restricted it. Tonia (29, Social Science, UK, single) described her views of matchmaking dates by saying: "I accept it. It's only a way to meet a person, but what happens next depends on yourself." Similarly, Chuntian (27, Engineering, China, single) told me:

> *I don't reject matchmaking dates. It doesn't matter a lot, just taking it as a way to have a friend. If we are "chatable" (聊得来), and we can develop it into a relationship, that will be great. If we can't develop it into a relationship, we just have one acquaintance or friend more. It doesn't matter to me.*
>
> *Chuntian, 27, Engineering, China, single*

The female PhD students, whether studying in China or in the UK, regard matchmaking dates as a method of meeting a friend, instead of finding a husband to marry in the near future. They attend matchmaking dates or communicate with each other via messages and the Internet, but it happens very occasionally and has almost no impact on everyday life. Jing (24, Science, China, single) had experienced two matchmaking dates since starting her PhD. The first only cost her the time for a meal. That man was working abroad. When he came back home for Chinese New Year, they had dinner together. But

she was not satisfied with him and ended this date. Jing's second date lasted a longer time. She described it:

> *A classmate introduced a male PhD student to me, a slim guy in a nearby city. When we met, I felt good. But when we didn't meet, he didn't contact me often, and it made me feel bad. His hometown is the city where I am, so once he came back, we could meet. However, maybe because he did not take a fancy to me, or because we are at a long distance, he didn't always chat with me. And eventually, it came to nothing.*
>
> *Jing, 24, Science, China, single*

Jing's dates with these two potential mates ended in failure. To be frank, neither Jing nor the men invested much time or emotion into these dates. Dating takes up only a very small part of Jing's everyday life.

Tonia's blind date was even more time-saving than Jing's, as they ended the date without meeting each other. Tonia is studying in the UK, while the potential suitor is working in China. They exchanged their contact information and communicated via mobile phone. Soon Tonia realised she could not continue with this relationship.

> *He had a strong desire to find a girlfriend and marry her within one year. But I don't want to marry in such a short time, so I'm a little scared of it. He was moving our relationship forward too fast. I realised that what he wanted was what I couldn't give, while he also couldn't give me what I want. He felt that I'm suitable for him and we can start to discuss our marriage. But I'm not ready to graduate and go back home in one year. I want to deal with my own stuff, such as finding a job, first and then consider marriage.*
>
> *Tonia, 29, Social Science, UK, single*

After communicating via messaging, they found that they have some conflicting ideas

that make it impossible to reach an agreement, so they dropped this relationship even before they met each other face to face. This kind of matchmaking date costs Tonia some time to chat on the phone, but has very little impact on her daily timetable.

Another strategy to find a partner is to attend more activities to increase the possibility of meeting prospective suitors, such as academic activities, parties, dinners, campus communities, clubs, and hobby groups. However, a majority of Chinese young women, of course including female PhD students, believe that a young woman is preferably the passive one in dating before a romantic relationship begins (Guo, 2013). As Jing told me, "I think I'm the passive party, because I'm a girl. And I am that kind of person, very inactive. I don't express my ideas actively." Chuntian has a similar explanation for her passive actions.

> *I felt that it's my personality that makes me passive [in dating]. It's less likely for me to chase a boy. Unless I'm very very into him, then I may be a little more active. But that is not to say I will do something obvious on purpose, instead, I may give some clues in an implicit way.*
>
> *Chuntian, 27, Engineering, China, single*

Therefore, they seldom actively create the opportunity to meet a potential suitor, or at least they let nature take its course. Furthermore, most Chinese female PhD students complain that their social circle is very narrow. Although they have been aware of the importance of enlarging their social circle and making more friends, they are not likely to take action for a variety of reasons, among which their busy study schedule may be the top one. Feifei's attitude can provide a good example.

> *My current attitude from my heart is active. I realise that, at my age, I need to find a boyfriend, so I have a strong desire. But there is a long distance from my desire to practical actions. Maybe the constraint is the heavy pressure from studying and I don't have so much*

time to do anything to broaden my social circle and get to know people. This is the current situation; I may spend more time later.

<div align="right">

Feifei, 28, Humanities, China, single

</div>

Feifei is actively trying to find a boyfriend in her mind, but she is passive in her actions. Actually, she told me that she was learning to dance at a campus dancing club because of her interest. As she was occupied with her PhD studies, she had limited time remaining for leisure activities. She preferred to dance due to her interest, rather than to attend some activities with the purpose of finding a boyfriend. It is desirable for Feifei to meet a suitable young man in her everyday life, but she will not do it on purpose.

In their spare time, the activities they join mostly depend on their own interests to satisfy their needs for academic research, entertainment and relaxation. As a result, they do not always participate in academic and social activities with the clear aim of finding a partner. None of my participants ever told me they went to a pub or club to "hunt for" a boyfriend. From this perspective, the activities they attend are a part of their leisure time, with little relevance to seeking a boyfriend particularly. These activities happen during their arranged spare time, such as at night and on weekends, which will not influence their everyday study schedule.

Therefore, the single female PhD students seldom make extra efforts to seek out a boyfriend, and their everyday schedule proceeds with their everyday studying arrangements and activities in their spare time. As for the single female PhD students, their relationship status enables them to focus on studying and leaves time for leisure activities, and their everyday schedule mainly follows the timetable shaped by their PhD subjects and spare-time activities. From this perspective, being single is advantageous to female PhD students' research.

Female PhD students in a geographically close relationship

Female PhD students and their partners who are geographically close to each other, generally in the same city, but do not cohabit, usually follow their independent everyday timetables and have a regular arrangement for chatting and dating. In China, the universities provide cheap accommodation for all students, so most prefer to live on campus. Also, some couples are not yet ready to cohabit. They have their own accommodation or home even though they are living in the same city. This phenomenon may be very common for young college students, but there were only two of my participants with their boyfriends living separately in the same city.

Beibei and her boyfriend are both PhD students in the same city, but they are living on different campuses with a distance of about half an hour's drive. They have been in a romantic relationship for nearly eight years and are planning to marry within the next year. Beibei describes their interactive pattern as follows.

> _We've been together since an early age. We supported each other all the way during our undergraduate, master's and PhD studies. When I come across problems and talk to him, he can understand and comfort me well. Because we have been in love for a long time, our daily pattern is basically very fixed. We are both very busy; we do our own stuff separately on weekdays. At weekends, if we have spare time, we will meet and date. We always stay together the whole day on Saturday or Sunday. Sometimes, if I have something to do on his campus, we will have a meal together._
>
> _Beibei, 28, Science, China, in a relationship_

Beibei and her boyfriend are in a very stable and supportive relationship and have formed a regular and fixed living pattern that they are both accustomed to. On weekdays, they focus on their research and follow the common timetable of their office

and department. The time they spend on their relationship is part of their leisure time at weekends. They do not spend time to meet every day, just meeting once a week. Beibei believes "it doesn't affect my research" and she can balance her research and relationship well.

Another example is Selina and her boyfriend. Different from Beibei's story, Selina has been in love with her boyfriend for less than a year. Their love has not yet stepped into a very stable and interdependent stage. Therefore, she has a comparatively independent and free lifestyle.

> *We usually contact each other by telephone calls and messages. I come to my office every day, but he doesn't. We have different body clocks and timetables. I am here now [at noon], but he may not be up yet. So, we are both independent. Like, several days ago, his friends came to his house and played games together, I knew that, and we didn't contact each other much during that time. When we are free or have something to do, we will meet.*
>
> *Selina, 25, Arts and Humanities, UK, in a relationship*

Even though Selina and her boyfriend live separately in the same city, they each follow their own everyday schedule to study and live their lives. Their relationship leaves much room for each of them to live their own lives, studying, making friends and developing hobbies. They are both very independent people and mainly focus on their own lives. Not spending too much time on their love affair, they are both satisfied with their current relationship pattern. Selina claims that this relationship makes up just a small part of her life, and will not hamper her studying and research, which are regarded as the serious things in her current life.

Although Beibei and Selina are at different stages of their relationships and deal with their everyday romantic relationships using varying measures, the two couples can both

arrange their everyday timetables with balance. They both give top priority to studying and research; the time they spend to maintain the relationship is basically in their spare time, such as weekends or in the evenings. Because they live in the same city, it will not cost them too much time or energy to meet. To conclude, those couples who live in the same city but do not live together follow their independent daily schedules, and spare some leisure time to stay with their partners. Their relationships seldom have conflicts with their everyday arrangements, which are dominated by study and research.

Female PhD students in cohabitation

The cohabitating couples include unmarried boyfriends and girlfriends as well as married husbands and wives. No one can deny that marriage is a vital decision for Chinese women in their lifetime. Because I am exploring how their love and marriage status interacts with their everyday schedules, there is no big difference between couples in a relationship and those who are married. The married couples take living together for granted, while premarital cohabitation is unacceptable, especially for a young woman, in traditional Chinese culture. However, many researchers have argued that there have been tremendous changes in love, marriage and family behaviour in recent decades (Yu and Xie, 2015a; Goodkind, 2011). Also, many surveys and news reports indicate a wider acceptance of cohabitation in today's China (e.g. Feng, 2014; Zeng, 2013). Based on data from the 2010 and 2012 waves of the China Family Panel Studies (CFPS), a nationally representative longitudinal survey, among participants who married between 2010 and 2012, 46.4% of women and 41.5% of men have cohabitation experiences before first marriage (Yu and Xie, 2015b). This also demonstrates that the cohabitation rate is higher among highly educated people (Yu and Xie, 2015b). For female PhD students who are mainly aged between 25 and 30, it is acceptable to cohabit with their partners, with a higher prevalence among PhD students in the UK.

Two examples will be given to map the lives of cohabitating PhD students, Xin (28, Engineering, China, in a relationship) and Luna (24, Social Sciences, UK, in a relationship). Xin and her boyfriend fell in love nine years ago when they were classmates during their first year at university and have been living together for nearly two years. Xin is in the fourth year of her PhD programme, and her partner has been working in the same city. By comparison, Luna and her boyfriend are a "new" couple. They have known each other for almost a year and had just begun to cohabit a couple of months prior to the interview. Luna was entering the second year of her PhD while her partner was doing his master's project when she was interviewed.

As PhD students, there are many unstable factors in their current and future lives. The university where they are studying is only a temporary home, so they and their boyfriends may leave when they graduate and find work. In order to live together, at least one of the couple needs to compromise. Xin experienced a short-lived long-distance relationship, but could not get used to it. She described it to me:

> *After he [Xin's boyfriend] graduated from his master's, he worked in Beijing for several months. But neither of us could stand that long distance. We wanted to be together. So he quit his job, came back, and found a job here [in the city where her university is located].*
>
> *Xin, 28, Engineering, China, in a relationship*

They then rented an apartment and started to cohabit. Luna and her boyfriend are studying in two neighbouring cities, with a distance of half an hour by train. In addition, Luna has to study at York for at least another three years, but her boyfriend will graduate the next year. Apparently, to stay with each other for a longer time, they are facing a more complex problem. After negotiation, they both compromised and came to an agreement about their current and future life. Luna told me their plan with a happy face.

This year, I will live in Leeds with him and he is applying for a second master's at York for next year, so he will live in York with me then. After that, he plans to do a PhD here. If everything is okay, we will get engaged next year.

Luna, 24, Social Sciences, UK, in a relationship

To achieve the aim of living together, Xin's boyfriend gave up his job opportunity and development of a career in Beijing and decided to work in the provincial city where Xin is. Luna's boyfriend needs to spend a lot of time attending master's classes in Leeds this year, so Luna moved to Leeds. It takes her over an hour to reach her office, otherwise, her accommodation is only a one-minute walk from her office. But, aiming at being together with Luna for the coming years, her boyfriend will apply to the university in York. Without Luna, her boyfriend would be less likely to choose York. To conclude, in order to maintain the relationship, they are both making their best efforts to create opportunities to accompany each other. They both believe that some compromises are necessary and worthwhile for a happy relationship and a promising future.

Because they are living together, they do not expend extra time on their partners. Their everyday schedules generally follow the arrangement of PhD-related activities. As Xin depicts their daily living pattern:

I feel we're very "clingy" in everyday life. Even though we have been together for a long time, we're still "clingy". And I'm very dependent on him. We can see each other every day. We don't contact each other during daytime except for having something to say and just do our own stuff. After work, we both go back home and spend time together.

Xin, 28, Engineering, China, in a relationship

They both regard the daytime as working hours, and focus on their own research and

work. It is a very reasonable arrangement and their work and home life separate clearly and seldom have conflicts. In Luna's case:

We now spend most of the daytime and nights together, and do many things together, such as having meals. I don't always come to the university, unless I have some modules, training or meetings with supervision. The other things can be done via the Internet or at home.

Luna, 24, Social Sciences, UK, in a relationship

Fitting into the characteristics of the everyday schedule of Social Science PhD students, Luna has a very flexible timetable and can freely choose where and when to work. Apart from the few occasions when she has to be present at the university, she works at home, enabling her to live in the neighbouring city with her boyfriend. Her everyday activities are mainly based at home. Luna designs a balanced work-family pattern to avoid the potential problems of living apart in two different cities.

On the premise of guaranteeing enough workload and being productive, cohabiting female PhD students attempt to maintain their happy relationships to the maximum limit, and balance their time among PhD studies, their relationship and leisure activities. Cohabiting seldom impacts upon their academic performance, but squeezes their personal life and space to some extent.

Female PhD students in a long-distance dating relationship/marriage

Couples who are frequently "living apart together" (LAT) are not a new phenomenon (Holmes, 2004). Geographical separation can happen to partners for various reasons (Kelmer et al., 2013). For my participants, the most probable reasons are their pursuit of higher educational goals, and their partners' pursuit of career opportunities and further education. In addition, it is not rare for people to have originally been living in two

places, but getting to know each other through matchmaking dates, the Internet or other channels. It is commonly believed that geographical distance has a negative impact on the maintenance of a romantic relationship and that these relationships are more likely to fail (Helgeson, 1994; Sahlstein, 2004). Even though a long distance is a challenge to a romantic relationship, there are signs that such relationships are increasingly common (see Guldner and Swensen, 1995; Rhodes, 2002; Stafford, 2004; Stafford and Reske, 1990). Research results indicate that long-distance relationships constitute 25% to 50% of college students' dating relationships on residential campuses (Maguire and Kinney, 2010; Aylor, 2003; Guldner, 1996; Stafford, 2005). A survey conducted in a Chinese university, with a sample size of 480, indicates that the attitudes of graduate students towards long-distance relationships are that 77% of the participants hold a positive view (Li, L. et al., 2014). As Chinese female PhD students are still mobile and have an uncertain future, they have a comparatively high rate of maintaining long-distance relationships. As for my participants, three-quarters of the PhD women are living apart from their partners in two different cities, or even two different countries. How they balance their PhD research and romantic relationship is the question to be discussed next.

Xianer has been in love with her boyfriend for one and a half years. Her boyfriend is working in a city in the neighbouring province, which is also her hometown, at a distance of nearly 200 kilometres. This distance still enables them to meet regularly. Xianer explains their relational interaction as follows.

> *At the beginning, we met at least once a week. You know in my subject, where to study makes no big difference for me, and I just save everything on my laptop. To be honest, I study harder at the university, and don't work too much at home. Actually, during the first half of the year, I neglected my studies to some degree. I was blinded by love at that time, and even my supervisor told me to communicate more with colleagues and teachers. Before loving him, my*

life was packed with "study" and "play". But after it, I want to play at what I want, also, I want

to play with him. So, time for studying was squeezed. In addition, at the stage of being

lovestruck, even if I was free, I would seldom be thinking about my own research; instead, I

would be in the mood of missing him. It was only a couple of months, and since that period,

things are much better. Now, I can balance study and love affairs well. I am not dominated by

hormones.

<div align="right">

Xianer, 27, Humanities, China, in a relationship

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At first, Xianer failed to cope with her romantic relationship within proper limits. She over-invested her time into her relationship during the lovestruck stage. Going back home to stay with her boyfriend too frequently and being addicted to the happiness of a romantic relationship resulted in little time or thought to concentrate on studying and research. Due to the geographical distance, she stayed in another city, which meant being absent from some academic and departmental activities. Although these are not obligatory, they contribute greatly to being able to communicate with other scholars and colleagues. After their relationship became stable, she gradually realised that she had to re-locate her everyday focus to her PhD studies. At present, she is very willing to spend a lot of time on campus and actively participate in academic and social activities. The time spent together is less, but she said, "We've been together for 18 months, and I still enjoy our relationship so much. Our love doesn't fade away." After a short period of being lost in love, Xianer gradually realised and adjusted to a more balanced pattern of study and love.

Further apart than Xianer and her boyfriend, Kate is studying in the UK, while her boyfriend is working in China. Especially among overseas students in the UK, it is common to maintain an extra-long-distance relationship with an eight-hour time difference. It is impractical to always create opportunities to have face-to-face dates, and they mostly managed to keep up frequent and regular communication via mobile

phones and Internet-based media. Kate described their daily interactive contact.

We always make a voice call every day. At the beginning, we always had video calls. Sometimes, I didn't dress up and I looked a mess. I don't want him to see me like this. So, I changed to using voice calls. Later, we both got used to it and only make video calls occasionally. When I had just come here, we always planned to communicate at his night time, it's our afternoon, around two or three. But sometimes, I'm in a lecture or busy doing something. I will always be thinking of him or won't forget him. Then we found that maybe my night time is better, because he wakes up early. So, we contact each other every night before I go to sleep, and it's his morning time... At first, I think we needed to talk for about half an hour every day. But I found it's not enough and I don't want to hang up. I just want to talk to him. The time lasts longer and longer, until he has to leave for work, generally, nearly one hour... You may be curious about what we can talk about [for such a long time]. Just talk about the people around me, what I did today, what I ate today. In most cases, I talk more, because his life is comparatively boring.

Kate, 26, Science and Engineering, UK, in a relationship

The advancement of technology provides couples in a long-distance relationship with a variety of channels to communicate (Kirk, 2013). Even though they cannot often physically meet, they can negotiate to decide on the most comfortable means of communication and frequency for both of them. Kate and her partner are accustomed to voice calls for one hour every night. It is a process for them to adjust the distance and relational pattern: when to be in contact, how to communicate, what to talk about, how to obtain satisfaction. After coping well with these challenges, their long-distance relationship has stepped into a steady and smooth stage. Xianer and Kate have already entered this stable long-distance relationship. Then, such relationships will not consume much time or intellectual energy of the female PhD students, which could lead to the neglect of their academic research.

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In summary, geographical separation definitely will be challenging to a relationship in many respects. However, if the couples can cope with these problems and adjust to their interactive pattern, the relationship will grow into a stable, healthy and satisfactory stage. Then, negative performances, such as reduced working time and a distracted mind in studies are less likely to occur. As research by Duncan et al. (2014) suggests, LAT can provide advantages in terms of autonomy and flexibility and allows individuals some freedom in balancing the different aspects of their lives and personal needs. So a long-distance relationship, to some degree, leaves more time and space for female PhD students to work and they can enjoy their research-relationship balanced lifestyle. Their everyday schedules are packed with research, love affairs and leisure activities with a clear and balanced arrangement for each portion.

Married women with children

The traditional family structure has been simplified and has moved towards a small-family culture in China (Greenhalgh and Bongaarts, 1987; Hesketh, 2005). The conventional family cares more about parental and older people's needs and preferences than children's needs (Logan et al., 1998; Bian et al., 1998). However, since the economic reform and the implementation of the one-child policy at the end of the 1980s, the quality of life has increased and views on childbirth and childcare have changed. These only children are the only "hope" of the family, and urban parents mostly decide on better childrearing and education (Liu, 2013). Before the economic reform, the urban danwei system provided childcaring organizations. After the danwei systems flopped in reform era, some families with kid(ren) have problems in childcare. The conventional Confucian heritage prescribes strong ties between grandparents and grandchildren, and grandparents are often seen as important and voluntary alternative providers of childcare (Chen et al., 2000), especially for dual-worker families. Research indicates that

a majority of grandparents are helping the parents to take care of their grandchildren (Ma et al., 2011; Goh and Kuczynski, 2010). Grandparents' support with childcare is crucial in helping working mothers to survive from work and family (Chen et al., 2011). Even though it is a common pattern in many families (Xie, 2019), grandparent care should not be taken as a given for they might struggle from lack of social network and activities, physical exhaustion and feeling of unfairness (Goh, 2009). Since the single child is of great value to the whole family, they invest considerable energy, time and money into childcare and education. The whole family, including parents, grandparents, and sometimes babysitters or nannies, "revolve" around the only child (Liu, 2013). Nowadays, the pattern of many families is to be child-centred and the child has become "the pearl on the palm" (掌上明珠) (Liu, 2007). In a Chinese context, childrearing ranks at the top in a family, especially for mothers, due to the traditional gender division and gender values.

A majority of Chinese women are facing a family-work conflict, and both the women and researchers are attempting to find a solution and live a balanced life. Especially, as soon as women have a child, it becomes the centre of the whole family. Thus, mothers' daily schedule is often fully occupied with children's activities, and female PhD students are no exception. When they are in China, their parents can be childcare givers to reduce their domestic workload. However, those studying in the UK without the assistance of their parents are responsible of every aspect of their children and it is very tiring. Even though they are full-time students and plenty of time is required to do research, they still spend a lot of time taking care of their children. The participant Jessica (37, social sciences, UK, married) best described her everyday life as: "I am a full-time mother and a part-time PhD student". As for Chinese PhD students who have children, their family life has a great impact on their PhD studies, and taking care of children always has top priority when they are arranging their everyday schedule.

Based on their children's activities, they arrange their studies and everyday life. Jessica's

son is eight years old and is enrolled in a UK primary school. She is managing a company in China and doing a full-time PhD programme in the UK. Her everyday life is very occupied with different things: working, studying, taking care of her son and enjoying leisure activities. Also as a manager, mother, student and wife, Jessica's daily schedule is different from that of an average PhD student.

> *I am running my business, so the time I spend on studying may be less than three hours every day because I have to Skype to manage the business in China. I am here in the UK, but I need to see what is happening in the office. After they get off work, I just start my day and do my things. In addition, I am taking care of my son all by myself here, and it is very tiring.*
>
> *Jessica, 37, Social Sciences, UK, married*

Jessica is the oldest interviewee with the richest working experiences among all the participants. With multiple identities, she has to deal with different things and balance every aspect of her life. From Jessica's account, it is apparent that she is facing problems with time management because she is forced to do everything in person. Jessica complains that the economic environment is terrible at present, so the morale of her staff is also very poor, which is quite different from when she was working in the company. So she needs to spend more time communicating with her staff and supervising the running of her business. In addition, she is the only one who is in the UK to raise her child. Her husband and other family members are all living and working in China. Her husband flies to the UK and stays for around one week to see her and their son about once a month, which is very frequent for long-distance couples, but he is unable to help her with everyday activities. Almost all of her son's activities are her responsibility. In the daytime, her son is at school and this is the only time for her to control freely. Jessica usually Skypes and deals with business in the mornings, and focuses on her PhD research in the afternoons. After his school is over at four in the afternoon, Jessica has to accompany her son and look after him at home and cannot do

any personal work until he goes to bed at night. Therefore, this is the normal schedule of a working day. Jessica is very busy and tired, but she has no other choice except to manage her studying, business and family life well.

Taking into consideration Jessica's everyday timetable, it is evident that everything related to her son has top priority in her time-management. She also claims that her child dominates her life.

> *He [Jessica's son] is the centre of my life. My arrangements revolve around my son. He goes to his friends to have parties, and I go with him and have a chat with his friends' mothers. He and his classmates have a barbecue, or go out to do something. Basically, like these things, he is the dominant one. If I have good friends to visit, I will ask them to come to my home, because I can't leave my son by himself at home.*
>
> *Jessica, 37, Social Sciences, UK, married*

From this description of everyday activities, it can be concluded that taking care of her child is Jessica's first priority and therefore her freely controlled time was dramatically compressed, which leads to her current biggest problem, that the time she invests in her PhD research is not enough. Jessica seems to be very busy every day and sacrifices her own spare time to look after her son, to work and do research. However, she finds her own way to relax and reduce the overwhelming pressure.

> *During the first year, I felt I was very busy and couldn't find any leisure time, but later, I realised that I can put the time for sports and the time for children together. So, I took my son swimming every evening. This is the first solution. The second one, I like travelling very much. Every month, when I submit my work, there are about five days ahead of the supervision meeting. I can know the exact time I am free, so I book the flight and hotel in advance. After the deadline, I leave here and travel away to relax. I need some time to make my mind blank.*

It is very important to me. If I don't go away, I will spend these days doing the household chores. Working hard is a way to reduce my pressure.

Jessica, 37, Social Sciences, UK, married

Even though Jessica's everyday schedule is fully occupied, she tries every means to "squeeze" in her time for relaxation: swimming with her son, travelling during the gap time between submitting work and supervision meetings and doing housework. It is very important for Jessica to find time to spiritually relax and reduce the pressure. Her favourite method of relaxation is to keep doing things to empty her mind, rather than just resting without doing anything. Although she has to cope with so many things, Jessica manages her time well and leaves some time for relaxation.

Sunny is also a mother and PhD student in the UK. Unlike Jessica, her husband is living and working in the UK as well, and her daughter is only two years old, much younger than Jessica's son. However, Sunny and Jessica have many experiences and feelings in common: a child-oriented schedule, a busy and tiring everyday life, and insufficient study time. Sunny describes her daily arrangement as follows.

Because I have a child, she is the centre. After sending her to kindergarten, I come to study in the office. It's only half the day, from around half past one to half past five, around four hours every day. During the weekends, Saturday and Sunday, I must be at home, because she [Sunny's daughter] doesn't go to kindergarten. You know, at home [in China], the whole family can take care of one child, parents, grandparents and even babysitters. Actually, we are really very tired. There is so much work that needs to be done by the whole family, but my husband and I must do everything. The household chores, like cooking, buying groceries, cleaning the floor, changing diapers, I have to do everything. In addition, I need to do my PhD and some part-time work. It's very tiring.

Sunny, 26, Arts and Humanities, UK, married

Taking care of a toddler, without doubt, costs much time and energy. Without the help of other family members and babysitters, it is really not an easy thing for Sunny and her husband to raise their daughter all on their own while they are both working and doing a PhD. Sunny can study in her office only under the condition that her daughter goes to the kindergarten, which is the same with Jessica, who studies while her son is at school. A two-year-old toddler requires considerable time and care from her parents. Sunny felt very tired because of the lack of good rest. She complains, "If she cries at midnight, I have to wake up. If I have a conference or deadline the next day, I have to stay up late and get up early." To look after the baby and support Sunny in completing her PhD, her husband quit his former full-time job and found a more flexible part-time job. They both sacrificed something for the family and baby, but it is inescapable. Having a child dramatically changed her lifestyle and reduced her time to focus on the PhD and for relaxation, but she still holds a very optimistic view.

> *It's really very tiring. However, I want to do the PhD, and having a family and baby is also what I want, so I never feel that I scarifice too much or how poor I am. I'm very happy, because I like these two things and I want them to happen.*
>
> *Sunny, 26, Arts and Humanities, UK, married*

Although Sunny is tired, she enjoys it. She is very clear about what she likes and what she does not like, what is worthy of sacrifice and what is not. To achieve a balance between studying and family, she has to make more efforts and she is very happy to do it at this stage of life. As a PhD student, she admitted that the time invested in her PhD studies is not enough. Most of her everyday activities are based on her family's needs.

Compared with mothers who are employed full-time, PhD students' everyday time is more flexible and self-controllable, especially for Humanities and Social Science

students, which is a key advantage in looking after children. The focus of most female PhD students who are single, in a relationship or married without children, is their PhD programme, while the mothers who are doing a PhD are living a child-oriented lifestyle. To be frank, in terms of the PhD, for students with children, their children have dramatically changed their lives and reduced the time and energy they invest in their PhD research.

Countries and doctoral training systems

The country where the PhD students are studying is the third factor shaping their everyday schedules. To be more precise, the doctoral educational systems and lifestyles in China and Britain have guided, and also limited, the female PhD students' study habits and patterns of life during the PhD process. Due to different educational regulations and traditions, as well as the living conditions on university campus, the everyday activities of Chinese female PhD students varied between China and the UK.

The educational regulations and traditions differentiate the study patterns of PhD students in China and the UK. For example, the time for completing a PhD programme in China is three to four years (only a very few universities and departments extend it to four years) (State Education Commission, 2000). However, the majority of students are unable to finish on time and applying for an extension has been a commonplace for Chinese PhD candidates (Liu, W., 2016). Universities set a maximum time limit for PhD students, which is five to eight years according to different universities and departments. Therefore, Chinese PhD students are mostly unsure of the duration of their doctoral studies. As some of my participants said, "I have already dismissed the hope of graduating on time and I just want to graduate as soon as possible." However, in the UK three years has been the norm at least in terms of the length of full-time doctoral study over the last three decades, but people can normally have an extra year for writing up (Park, 2007; QAA, 2011). In practice, as the Roberts (2002) acknowledged, most UK PhD candidates take more than

three years to complete their thesis. Every student must submit the thesis by the end of the fourth year. With the fixed and exact end-date, British PhD students have a clearer plan of their current study, as well as their future career and life, which is what Chinese domestic PhD students long for.

In regard to the doctoral training system, the Chinese system sets out general educational guidelines and graduation criteria for PhD students, including taking compulsory public courses, major compulsory and optional courses, passing the research proposal and mid-term assessment, publishing high-quality journal articles, completing the PhD thesis and passing the viva and so forth. Universities and departments also make comparatively detailed rules for PhD students to follow (according to the official documents of the nation and universities). Within these regulatory principles, the practices greatly depend on personal efforts, supervisors, the research project, the publication of articles and even some uncontrolled factors.

In their first year, Chinese PhD students usually focus on coursework to lay a foundation for further independent research. Then the majority of them become engaged in the research project that their supervisor or department is leading, alongside whom they begin to work on their own research. During this process, they have to spare a lot of time and energy to write papers for publication. The PhD thesis is always left to the end. Take Yutong (27, Humanities, China), Feifei (28, Humanities, China) and Jing (24, Science, China) as examples. They are all at the end of their first year. They have been occupied with modules and assessments for the past year, and have not yet decided upon their thesis topic. To summarise, the PhD procedure of Chinese universities is staged: a foundation year to take various courses; working for supervisors, collecting research data, writing journal articles and preparing for the thesis for several years; with writing up their thesis coming last.

In contrast, in the British PhD training system, besides the "big" assessment framework including confirmation of upgrade, submitting the thesis, viva and correction period, universities and departments usually have detailed regulations, plans and assessment to enable students to complete their PhD programme within the scheduled time period. Different from the graduation requirements in China, their doctorate is awarded on the condition that the PhD thesis is passed. From beginning to end, the main task is to complete the thesis. So, students at British universities work on their own research and thesis constantly for four years. Many students in the UK also do coursework in their first year, but the workload is comparatively less. In addition, among the regulations, having regular face-to-face supervision meetings has an enormous impact on PhD students' schedules. Since students are typically asked to submit work to their supervisors before each meeting, they have to work on their own research and be productive for when they meet their supervisors. Even though the meeting frequency varies among different universities and also depends on the professor's timetable, generally it is once a month on average, according to my participants' experiences. So the workload is explicit, and no one can escape from independent research for long.

In addition, the motivation and production of PhD students often increases as the deadline approaches. Many participants claimed that they tend to procrastinate and find it hard to overcome this. Under the pressure of regular deadlines for submitting work, consequently, many PhD students in the UK have formed a periodic work pattern in which they are relaxed for the first couple of days and then work very hard and are highly productive in the week before the deadline. Kate describes her study schedule as follows:

> *Some time earlier, I feel I had more leisure time. I sometimes browsed the webpages and*
> *Weibo [a popular social network in China] for a long time, watched a movie and went for*
> *dinner. I spent a lot time doing these. But in recent days, I need to submit a report to my*

supervisor, so I have to speed up and am dedicated to studying. I can work in my office from nine in the morning to ten in the evening. And even then, I need to stay up late to complete the work. If tomorrow is the deadline, it's impossible to go to sleep when the work is still not completed. I sometimes work until three in the morning. You know, because of the deadline, the deadline is the first power to push me to work hard. It doesn't always happen, because my supervisor meets me around once a month.

Kate, 26, Science and Engineering, UK, in a relationship

Apparently, both Kate's working hours and her efficiency increase dramatically from the early leisurely days to the days close to the deadline, with the night before deadline reaching a peak. Because she has a regular meeting with her supervisor once a month, her working pattern cycles every month. In the supervision meeting, they discuss the submitted work and clearly plan what is to be achieved during the next month. The same story repeatedly happens throughout the PhD programme and the student moves forward step by step as the supervisor controls the university plans.

Ruth has a similar experience and she has shaped her fixed study pattern.

I think a PhD student does not need to work nine-to-five. But, for example, if I have a meeting with my supervisor this week, I will be working frantically; if I have an exam by the end of this month, I will prepare for it very intensively. It's my study pattern. My study rhythm is decided by the deadlines. I think if only I can control the rhythm, it's no problem. If I can pass the exam by preparing for one month, there is no need to work in advance and I can spend it on entertainment, right? Thus, I can have a very happy life. That is to say, the key thing is I can control the time I spend and complete the tasks before deadline.

Ruth, 25, Science, UK, married

From Ruth's perspective, if she can pass the exams and submit her work on time, leaving

the work to the last minute is her strategy for time-management. She can balance her entertainment and study through this arrangement. Therefore, the deadline is the decisive factor for her daily schedule. The days after the deadline are always a leisurely time for playing games. Then the workload and production grow sharply before the next deadline and she must totally devote herself to studying in the office. Her schedule also obviously displays the periodic pattern.

On the other hand, the living facilitates provided by universities in the two countries lead to different everyday activities and lifestyles. As Chinese universities provide all PhD students with cheap accommodation and catering, domestic PhD students enjoy a very convenient and collective life. They mostly live in shared bedrooms on university property and have their meals in the campus dining hall, which can cater for thousands of students at the same time. Therefore, they live, eat and study on campus and are freed from travelling for long distances. Many participants describe their living pattern on working days as "three points one line", that is, their accommodation, office and the dining hall constitute their daily life. So they are seldom worried about basic living issues, such as where to live and what to eat.

However, PhD students' lifestyles in the UK are much more independent and complicated. As British universities can only provide campus accommodation for a small number of students and it is comparatively more expensive than the average price in the local housing market, many students make the decision to rent a room off campus. So, they have to choose between spending time travelling to campus or studying at home, and this greatly influences their everyday activities. In addition, the students are self-catering. Due to their eating habits and food budget, most PhD students prefer to cook for themselves, even though there are cafeterias providing food on campus. Self-catering requires considerable time to be spent on grocery shopping and cooking every day and increases the students' housework burden. Students in the UK have to do many

domestic chores to support themselves as part of their inescapable everyday activities. This results in an independent living pattern among overseas PhD students.

Luna is cohabitating with her boyfriend and they have come to an agreement on housework. She narrates,

> *We share the housework together. Our general division is, I cook, and he washes up. But when I'm busy and have no time to cook, we always eat out. Also, like recently, I've been working hard to prepare for the confirmation, so he does the laundry.*
>
> *Luna, 24, Social Sciences, UK*

Even though Luna and her boyfriend are both co-responsible for doing these domestic chores, much time and energy is still required. When she is occupied with research, they decide to eat out to avoid cooking and washing dishes. However, students in China never have to worry about cooking or washing up. They can just have a quick meal in the campus dining hall and go back to work. Ada also spends much time on housework, but she enjoys doing it.

> *Working and studying have already occupied most of my time. So, after work I come back home, I usually don't want to do anything relevant. My everyday life at home is doing housework. Because I'm mainly doing brainwork, doing housework can make me relaxed. It's my way to relax myself. And without me, who can do this? Seeing everything become clean and tidy, I feel happy.*
>
> *Ada, 29, Social Sciences, UK, single*

Ada points out that she is the only one to do the housework and no one else can help her. She has no alternative choices but to do it independently. The good thing is that she sees doing housework as a method of relaxing. She has fun doing chores. PhD students

in the UK are obliged to do many domestic chores such as cooking and cleaning. Their everyday life, especially spare time at home, is separated from campus to a large degree.

To summarise, Chinese female PhD students present different study and living patterns during their PhD programmes because they are differently involved in the Chinese and British higher education systems. The regulations and traditions of each doctoral training system have a great impact not only on the research activities and registration duration of PhD students, but also on their everyday schedules and study patterns. Compared with overseas students, Chinese domestic PhD students are under more pressure to publish journal articles and from the sense of uncertainty about the extended PhD duration. Taking PhD study as a long-term process, it is structured into stages, and each stage has its own focused goals. However, students at UK universities are constantly working on their own research and PhD thesis and their study patterns display a periodic cycle according to the regular deadlines. From the perspective of everyday living activities, Chinese domestic students live a collective and convenient campus life, while living in the UK requires a better ability to self-care in daily living and their lifestyle is more independent.

Conclusion

I began by mapping a general life of Chinese female PhD students. The female PhDs highlight that most of their time and energy are spent on studying and research, which is the core of their lives. Apart from academic research and work, they still have some spare time for interests and hobbies like average young women, such as doing part-time jobs, reading, playing sports, raising pets, travelling, and social activities with friends. Even though female PhD students are occupied with a heavy workload, the fulfilment and richness of their spare time is still of great importance, which challenges the stereotype of "nerds". Their lives are not very different from those of general young people at the same age, but the work that female PhD students do is studying and

academic research.

However, Chinese female PhD students are not living a cookie-cutter life. Their everyday activities and arrangements vary greatly due to their different research disciplines, love and marriage status, and the countries and doctoral training systems where they are located. PhD students in Science and Engineering spend long hours in their workplace under the surveillance of supervisors with a fixed and regular everyday schedule, while students researching in the Arts, Humanities and Social Sciences have quite a flexible and self-directed lifestyle. Even though Science and Engineering students spend long hours, they sometimes may be "presenteeism".

Love and marriage have different influences on female PhD students' everyday lives, mainly demonstrated through balancing love-related affairs, studying and leisure activities. According to how much love and relationships impact upon the other aspects of life, I suggested and ranked five categories of love and marriage status. The least influential status is singleness, followed by women in a long-distance relationship, in a geographically close relationship, and cohabitating. The category with most impact is married women with child(ren). Single women seldom spend time seeking potential suitors and this enables them to focus on their studies and leaves time for leisure activities. For women whose relationship is stable, their everyday schedule is usually dominated by work, and the love affairs are always squeezed into the time for relaxation, or they arrange to do leisure activities with their partner instead. Women who are LAT may enjoy a more independent and flexible life compared to cohabitating students. Without question, if the relationship is in a mess or, contrastingly, in a lovestruck phase, these women will be unable to concentrate for a period of time, but it will not last long. The PhD students who are raising a child cannot avoid sacrificing their PhD studies to some degree. They attempt to invest as much time and energy as possible into studying, but taking care of their child still has top priority in their everyday

arrangements.

With respect to female PhD students' involvement in different doctoral training systems, Chinese domestic students are mostly concerned about extended PhD duration throughout their staged PhD procedure. In contrast, British overseas students' schedules clearly display a periodic cycling pattern of hard work and a more leisurely pace and they have a clear map of what to do currently and next. In addition, PhD students in the UK are living a more independent life, while Chinese universities provide students with a more convenient and collective campus life.

Chapter 5

Motivations for PhD study and research

As a Chinese PhD student studying in the UK for over four years, I meet many Chinese master's students every year, the majority of whom are female. They call me *"xuejie (学姐)",* respectfully following Chinese-style manners. Being perceived as an experienced *"xuejie"* and an "expert" on doing a PhD in the UK, I am always asked about doing a PhD and related questions.

At the beginning of the one-year master's courses, many master's "*xuemei* (学妹)[4]" told me they were considering doing a PhD, and some straightforwardly asked me: "*Xuejie*, I want to do a PhD, what should I do?" I was very happy to provide useful information about PhD programmes and hoped that my experiences were helpful to them, while I was simultaneously quite curious about their strong interest in pursuing a PhD. As we communicated more, I gradually sought their understanding about doing a PhD and the variety of reasons why they intended to earn a doctoral degree. Ella was one of the hesitant students.

Ella and I firstly talked about the PhD issue early in her master's year. To my knowledge, she was very studious and serious-minded in her academic work and had an outstanding academic achievement in accounting. She intended to learn more in the research area and work in a college afterwards, but she was constrained by the enormous cost of overseas PhD study and her parents' hope that she would settle down early in China. In spite of her successfully getting a PhD position at a UK university, Ella was convinced by her parents and she gave up the PhD offer. Because they insisted that

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[4] "*Xuemei* (学妹)" refers to junior female students/colleagues in the same university; in this context, they are the ones who call me "*xuejie* (学姐)".

the "serious and right" thing (*zhengshi*/正事) at her age should be to have a job and find a boyfriend so as to settle down earlier, she went back to her hometown, a provincial city in China, and worked as an English tutor.

However, Ella's PhD story did not come to an end. Two years later, she asked me again about PhD applications, research and future careers. Ella told me that she quite enjoyed her work as an English teacher, but that both she and her parents considered teaching English in an English training institution to be a "youth occupation (*qingchun fan*/青春饭)", which means it is for young people and not a long-term career. Therefore, they intended to find a lifelong position in the state-owned work units (*danwei*/单位), such as a lecturer in higher education, which definitely requires a doctoral degree. However, many practical reasons hindered her from doing a PhD. She had dropped accounting since she graduated, so she lacked confidence in her academic ability, and in addition she was also reluctant to quit her current job. Furthermore, she was still single so the "marriage pressure" was more intense. Ella's PhD plan has existed in her mind for several years now, but she has not yet made a final decision. It is a very complicated and confusing choice. Like Ella, many Chinese female master's students have at some point considered doing a PhD after graduation, but only a small proportion of them practically applied for it and finally did it. These stories inspired me to explore the motivations of Chinese female students to pursue a PhD.

In my communications with the female master's students, I learned that they cared about the career opportunities and income after completing a PhD programme to a huge extent. They mostly expected that they would be employed in a university or top enterprise and live a good life afterwards, while very few were curious about the life while undergoing a PhD or were familiar with what PhD students were actually experiencing. Seemingly, they are unaware of the increasingly high doctoral attrition rates (MERS, 2013; Nettles and Millett, 2006; Wendler et al., 2010) or of the diverse

experiences of being a PhD researcher, especially the difficulties and pressures. So the experiences that female PhD students are undergoing are another area in which I am greatly interested.

In this chapter, I intend to provide insight into the motivations of female PhD students. I attempt to answer the questions: why do Chinese female PhD students pursue a PhD? I will analyse the motives that lead the Chinese female students to continue studying at the doctoral level and, accordingly, categorise them into: knowledge seekers, instrumental reward seekers and acquiescent followers. It is worthwhile to investigate how these motivations imply and negotiate with personal values, gender norms, academic environment and the Chinese context.

Motivation to pursue a doctorate

Regardless of the educational level, motivation has played a key role in understandings of academic achievement, performance and persistence (Pintrich, 2003). However, being a PhD student is considerably different from the experience of being an undergraduate or master's-level graduate student. The doctoral graduate is capable of independently conducting original research that meets the professional standards of a particular discipline. The main purpose of doctoral training is to prepare a student to do creative academic research for a lifetime of intellectual inquiry (Council of Graduate Schools, 1977, cited in Lovitts, 2008: 296). The nature and expected standard of the PhD is "independence", "contribution to knowledge", "originality" and "suitability for publication" (Finn, 2005: 7–22). Continuing to study from high school to higher education, and from undergraduate level to master's level is widely accepted as accumulating knowledge and improving one's professional skills. These levels of students are mainly course-takers. Admission to bachelor's and master's programmes is largely dependent on academic achievements via passing entrance examinations in China or applications to UK universities. However, a doctoral degree is obviously not as

necessary as undergraduate and master's education for every student. Some graduate faculties in Lovitts' research acknowledged that many students face difficulties in transitioning from course-taking students to independent researchers. And the faculty themselves find it even harder to predict who will successfully make the transition and complete the doctorate based only on their course records and academic performance during their undergraduate period and the master's year (Lovitts, 2001). Hence, it is very complicated and ambiguous to judge who is "suitable" to do a PhD, especially compared to former educational decisions, like entering a university.

Motivation is the strength and nature of a person's desire to engage in an activity (Sternberg and Lubart, 1995), which is a key factor that determines the difference between what a person *can* do and what they *will* do (Amabile, 1996). Many master's graduates are capable of successfully obtaining a doctorate, but they do not choose to do so. Along the same lines, among all the students who are undertaking a PhD, their academic performance and achievements vary greatly. The motives for engaging in a PhD programme not only determine the doctorate completers and non-completers, but also relate to the quality of a student's PhD research (Lovitts, 2008: 313). So, the motivation for doing a PhD could be particularly important (Litalien et al., 2015) and count for more than at other educational levels. As a matter of fact, the vast majority of undergraduates and master's students choose to go into the workforce after graduation, and more male than female students are enrolled in PhD studies (Ministry of Education of the People's Republic of China, 2016), so PhD women are those who have made an alternative choice from the mainstream female graduates. Hence, I wanted to explore why they prefer such a narrowly accepted path and what makes them "exceptional" compared to the ordinary young women in China?

Many previous studies have suggested that the motivation to pursue PhD studies is multifaceted, and diverse motives have emerged from the existing literature. Several

reasons are widely endorsed, such as the desire to gain knowledge, to teach in higher education, to obtain a well-paid job, be a role model and so on (Anderson and Swazey, 1998; Bair and Haworth, 2004; Mueller et al., 2015). However, the literature seldom analyses these factors from a gender perspective or considers how gender, particularly being a Chinese women, features in this decision-making process. My participants highlighted a variety of factors, as the previous studies suggest, and I will analyse their motives through a typology, situate them in the context of transforming Chinese society and explore their gender values.

Typology of motivation to do a PhD

As expected, I collected a variety of reasons from my research participants driving them to do a PhD. Some are commonly mentioned by Chinese female PhD students, such as teaching in higher education, for a better workplace, accumulating more knowledge, following the advice of supervisors, parents and partners and so on, while some motives are very individualised and situational. For example, Yang's plan to study for a PhD was provoked by breaking up with her boyfriend, and she wanted to prove that "I can" through obtaining a doctoral degree. Considering the great diversity of motives, I attempt to classify them in order to separately situate them in different social and personal circumstances, as well as make comparisons across three categories.

According to self-determination theory (SDT), which has demonstrated its value and validity in the field of education (Ryan and Deci, 2009), individuals have a natural tendency to learn and develop as a reaction to their internal needs and external context (Deci and Ryan, 1985, 2000; Ryan and Deci, 2009). Intrinsic and extrinsic types of motivation have been widely studied and distinguished in terms of educational practices (see Ryan and Deci, 2000; Lovitts, 2008; Mueller et al., 2015; Litalien et al., 2015). The distinction between the two types of motivation is based on "the different reasons or goals that give rise to the action" (Deci and Ryan, 2000: 55). As Deci and Ryan define it

(1985, 2000, 2009), intrinsic motivation refers to performing an activity for its own sake. It derives from the task itself and a person's positive reaction to or enjoyment of the activity itself. Commonly, it is understood as interest, enjoyment, involvement, curiosity or satisfaction (Amabile, 1996). Extrinsic motivation refers to doing something because it can lead to a separate outcome (Deci and Ryan, 1985, 2000, 2009). It derives from sources outside the task itself and a person aims to obtain some reward or benefit from the task. For example, people are motivated by different forms of expected evaluation, or contracted-for rewards like money or gifts (Amabile, 1996).

In order to apply the theory to my research on Chinese female students, I developed a typology of motives for doing a PhD, based on both intrinsic and extrinsic motivations. In the first type, students are intrinsically motivated. Their reasons are totally and directly focused on the PhD itself: such as an interest in academic issues or a passion for doing research, learning and gaining knowledge. Featuring an inherent interest in knowledge and academic research, I name these "**Knowledge seekers**". The second type of Chinese female PhDs are mainly motivated by extrinsic goals, which are the rewards and benefits that a doctorate can bring; for example, a satisfactory workplace, a promising career, and an ideal lifestyle. Based on these characteristics, this type of woman is an "**Instrumental reward seeker**". Differently from intrinsically and extrinsically motivated students, who are basically self-determined, the third type of Chinese female PhD student is following others' advice and decisions. The plan of doing a PhD is proposed by or for the sake of others, mainly their supervisors, fathers, or partners. The female students disagreed or had no ideas initially, but they were persuaded or just naturally seized the opportunity to engage in a PhD programme. So, for students of the third type, the key influencing factor is external, and they are obeying others. I define such a student as an "**Acquiescent follower**".

Table 7 summarises the number of each type of Chinese female PhDs, their major and

study location according to my research. One point to note is that some participants have multiple motives to do the PhD, so the total number for the three types exceeds the total number of my participants (40). Intrinsically motivated students (knowledge seekers) are fewer in number than instrumental reward seekers or acquiescent followers, who are more influenced by extrinsic regulations and others. Basically, women studying arts, humanities and social sciences are highly driven by their own interest and longing for knowledge. Students in Chinese institutions considered such factors as rewards and benefits and the suggestions of others more than their inherent desire to study for a PhD.

Table 7: Typology of Chinese female PhD students

Type	Total	Subject studied		Study location	
		Science and Engineering	Arts, Humanities and Social Sciences	Mainland China	United Kingdom
Knowledge seekers	16	1	15	5	11
Instrumental reward seekers	19	11	8	10	9
Acquiescent followers	15	9	6	9	6

Knowledge seekers

Learning has long been an important feature of Chinese culture, and originates from Confucianism (Li, 2001). Learning refers not merely to acquiring knowledge and skills

but, more importantly, to the contemplation of moral life (Lee, 1996). The central significance of learning was institutionalised as the Civil Examination system from the 7th century to the beginning of the 20th century (Lee, 1985), but women were excluded from this system. Chinese people are expected to pursue human perfectibility. The supremacy of learning in Chinese culture served as a source of inspiration for generations of Chinese intellectuals and it still remains a strong influence in the Confucian heritage society of China (Lee, 1996; Li, 2001). Over the past few decades, with the economic and political reform, the increasing educational investment of only-child parents (Tsui and Rich, 2002; Fong, 2002; Liu, 2007), and the massification of higher education (Li, 2010), gender inequality in higher education has changed dramatically in China (Liang et al., 2013; Liu, 2017). Women have a growing awareness of the importance of education and the pursuit of advanced knowledge. Consequently, Chinese female students can access academic research in a variety of fields and can also pursue doctoral training, which may lead them to grow into knowledge seekers.

When exploring the ideas and experiences of knowledge seekers, two different motives emerge: academic interest and the desire to gain knowledge, which cover the overwhelming majority of intrinsic motivations of Chinese female PhDs. The first motive is academic and research interest, one of most the widely recognised motives leading female students to continue studying for a doctoral degree. "Interest" and "like" are the most frequently mentioned keywords when the participants addressed their reasons for undertaking a PhD.

Ada had been working in a European country and Beijing for several years before she began her PhD research. She had been away from the academic field and her career was developing smoothly, so what changed her primary career path and led her to the UK to do a PhD?

At that time, I read an advertisement for my current project. It is also a PhD programme. I was very interested in this project and then came to participate in this PhD programme. Actually, it's not necessary for me to have a doctorate. I preferred doing some practical and applied work, and I just came across a good work opportunity, so I directly went to work after graduating from my master's. If there were not a suitable project topic and a research field of interest, I definitely would not do a PhD. But, this programme appeared. The research was what I was interested in, and the field was very relevant to my academic background, so it attracted me greatly.

Ada, 29, science and social science, UK

The project Ada enrolled in was an EU-funded PhD research programme, based at a university, and given a fixed research topic. The topic being right was what attracted Ada. A high level of intrinsic motivation makes people more willing to take risks (Lovitts, 2008: 314) and this is definitely what appealed to her when she made the decision to engage in the PhD programme. Ada told me that she had many doubts, because doing a PhD meant dropping a satisfactory job in Beijing and facing an uncertain career future after the PhD project. Finally, her interest in the project outweighed the risks, and she accepted the offer. For Ada, earning a doctorate may not be her ultimate goal, but she values the opportunity to do what interests her.

Xianer is in the second year of her PhD programme. She made the decision to continue on to doctoral studies during the second year of her master's degree, and then completed her master's study one year early. She explained her reasons for "reading for" a PhD as follows.

At that time, I was quite confident in my research ability. During my undergraduate and master's, I felt that I am interested in doing research and capable of persisting in it. I enjoy thinking about these things and writing something. I didn't see writing academic work as a

burden. Well, I was very lucky to pass and be admitted, so I continued on to read for a PhD.

Xianer, 27, Arts and Humanities, China

Her descriptions are in keeping with the feature of intrinsic motivation: that it is "Inherently enjoyable" (Ryan and Deci, 2000: 55). As Lovitts (2008: 314) argues, when people have a high level of intrinsic motivation, they will spend more time and energy to find the solution to a problem and acquire more knowledge and relevant information. Since Xianer decided to continue to do a PhD in her research field, she has been working very hard to achieve that goal. She defeated other competitors in the doctoral entrance examination and completed the compulsory credits and master's dissertation within two years, something that normally takes three years. Intrinsically motivated individuals are more likely to produce positive outcomes (Deci and Ryan, 1985, 2000, 2012). During the period of her PhD, her academic performance has been outstanding. She applied for an international exchange programme to study at a UK university for one year. I have recently learnt that she has many high-quality publications and has found a position at a top Chinese university. Xianer's highly interest-orientated motivation drove her to prepare for a PhD programme, to be persistent and studious in her doctoral studies and achieve much in her early academic career.

The second motivation of knowledge seekers is the desire to gain knowledge and self-improvement. For some students who are not specifically interested in the particular research field, their PhD plan may originate from a desire to accumulate more knowledge, develop professional skills, read more, and improve themselves in different aspects through their PhD studies.

Summer was a first-year PhD student in the UK. When I asked why she had continued her studies to become a PhD student, she replied:

For my undergraduate degree, I learnt the Japanese language and economics. When I applied for a master's in the UK, I realised that only language is not enough. Because my mom is a teacher, there are many related books in my home. I sometimes read them, and we often discussed various children's stories and gradually I found my interest in childhood education, so I entered a new field. The transition was really large. I feel the one-year master's course was not adequate and I'm still lacking knowledge in this area. I think I'm far from an expert if I plan to work in this field. So, I want to learn more, and I need self-improvement in the UK. My master's dissertation is relevant to the topic (I'm working on) and I wrote a research proposal, and then applied for PhD positions. Not many supervisors were researching on this topic, but fortunately I got some offers and finally came here.

Summer, 27, Social Science, UK

Unlike Ada, who is particularly interested in certain research topics, and Xianer, who enjoys thinking and writing in her field, Summer's multi-disciplinary academic background resulted in a lack of solid accumulation of knowledge in her current research field. Therefore, Summer had a strong thirst for academic knowledge and professional skills, which strongly motivated her to pursue a PhD degree.

When we talked about her original motivation to do the PhD, Siyi, a newly graduated doctorate holder, described her motivation with the word "naïve".

Initially, my motivation for doing a PhD was reading more books. I didn't aim just for the degree itself. Actually, we rarely have a long time to read books freely. You know, many scholars and professors are unable to do research following their own preferences. At that time, I thought that during my PhD I could read whatever I wanted. My interests are always changing, from a French philosopher, to a Danish philosopher, then to another French philosopher... I did much reading and I find my interest lies in reading itself. Anyway, I wanted to read more, and a PhD is a perfect time to read freely. After doing the PhD, I found that my

ideas were too naïve and the initial motivation almost crashed because PhD studies are about 75% different from what I thought at that time.

Siyi, 28, Arts and Humanities, China

Siyi believed that PhD study is a perfect time and opportunity to read freely, so she was very intrinsically motivated and decided to do a PhD. However, during her practical PhD studies, she was still "required" to do many readings she was not fond of, and to do some things she did not enjoy. Her fairy tale of reading has been shattered by the reality. Consequently, she critiqued her initial motivations as too simple and naïve. Anyway, the desire to read more was primarily what motived her to enrol in a PhD programme. It is worth noting that the huge difference between "imagined PhD study" and "real PhD study" occurred not only to Siyi, but is a universal problem among PhD candidates. Many of them might lack adequate knowledge of PhD studies. These prospective PhD students might have no clear ideas of a doctoral student's everyday activities and the incidental hardship. Although most PhD students clarify their PhD programmes and aim for academic training (Huang and Jin, 2016), they have only a very vague and superficial understanding of PhDs in every way, which may lead to a "simple and naïve" decision and create a strong psychological let-down, or even regret, soon after the commencement of their PhD programme.

With the deeply rooted importance of learning and gaining knowledge in Chinese culture, and the increasing opportunities to receive higher education, a growing number of female students are passionate about academic research and are longing to acquire further knowledge in order to achieve self-improvement. Although some of them might not make a fully considered decision, it is reasonable to infer that the Chinese female PhD students who are very interested in academic research and have a thirst for knowledge are more likely to persist, to perform well in PhD-related activities, and to be inspired and motivated to actively engage. As SDT (self-determination theory) proposes,

intrinsic motivations are the most autonomous type and generate the most positive outcomes, which indicates that more internalised self-regulating produces more positive outcomes than a less internalised process (Deci and Ryan, 1985, 2000, 2012). In summary, knowledge seekers prioritise their academic and knowledge expectations, are autonomous in making the key decision to study for a PhD, independent in thought and ambitious about their future academic field.

Instrumental reward seekers

Instrumental reward seekers are mainly extrinsically motivated. In contrast to intrinsic motivation, extrinsic motivation pushes people to engage in an activity as a means to achieve some goal that is separate from the activity itself (Deci and Ryan, 2012). This does not mean that they are totally controlled or forced to do so for external reasons, because it can still be internalised and it is perceived as a means to an end. Through PhD studies, Chinese female PhD students can be rewarded with a doctorate and subsequent professional capabilities and academic achievements, contributing to many benefits, among which career would be the most important and widely recognised factor. Most doctoral students in China emphasise the close relationship between a doctoral degree and their future career (Huang and Jin, 2016). Yin (2014) also states that, in his study, half of PhD students are motivated by the doctorate and about 70% of them are aiming to meet the needs of a job. A UK study shows that motivations related to the labour market play an important role for PhD students (Leonard et al., 2005). Among my participants, instrumental reward seekers are motivated to do a PhD because they believe that the doctorate will increase their competitiveness and capabilities in their future career.

The doctoral degree is the final and highest educational level, which implies that all doctoral graduates will flow into the job market. It is forward-looking for students to take their career into consideration when they make the educational choice to study for

a PhD. With the expanding scale of education across the world since World War Two, a growing number of higher education graduates entered the labour market. Despite an increasing demand for labour, the growth in the number of people in need of a job is much faster than the job positions available (Bishop, 1995). Therefore, employers and enterprises have increasing expectations of employees, and an academic degree is a notable criterion. It is reasonable to infer that higher education graduates have to choose the jobs that used to be open to those who have a lower level of education, such as senior or even junior high school graduates. This pervasive and persistent phenomenon has been generally defined as over-education (Groot and Brink, 2000; Hartog, 2000). It is a problem that every employee, every company and even the government have to face (Tsang, 1987). Over-education has also occurred in China. The expansion of higher education in China since 1999 has greatly affected the labour market and social mobility (Mok and Wu, 2015). The massification of higher education has generated a large number of graduates, including those with undergraduate and postgraduate degrees, who are prospective employees in the labour market. The biggest challenge is how to provide enough jobs for new graduates each year (Wu and Zheng, 2008). In terms of postgraduates, there were six times as many in 2008 as in 2001 (Li et al., 2010). As a result, enterprises have increasing educational and professional requirements for applicants. The graduates started to doubt whether a college/master's degree is enough, and the pursuit of higher academic degrees prevails in Chinese society. The growth in the numbers of master's graduates enlarged the candidate pool of doctoral students. Some individuals believe that a doctorate is beneficial for their future career in today's Chinese and global job market. Enhancing their strength in the competition for employment becomes the key reason to pursue a doctorate.

A variety of styles of career attract different people who intend to do a PhD. For instance, some students go for a prestigious and promising job; some students have a preferred dream occupation; some graduates prefer a stable and secure job; some

people aim at a well-paid job, and some believe that a doctorate will contribute to a higher probability of finding a job in general. To gain a detailed insight into career-related issues as the motives, I classified them into three specific categories that emerged most frequently in my research: for better job opportunities generally, teaching in higher education, and escaping from an unsatisfactory workplace.

Better Job opportunities

Many instrumental reward seekers aim at better opportunities after the completion of their doctoral studies. In some occupations, a high level of professional knowledge and capability is required, so a doctorate is essential. Medical science is one example. Vivian graduated from the school of medicine at the top university in China and is engaging in a PhD programme in the same discipline in the UK. She took PhD studies for granted because of her current field of study and future occupation.

> *I came to do a PhD just because I'm studying medical science. I like my major and if I want to work in something medical science related, like be a doctor in a hospital, or a researcher in medical research institutions or universities, all these jobs require a doctor's degree. Basically, because of my major and the occupation (doctors), only if I have a doctorate, I will find the job I want to do.*
>
> *Vivian, 28, Medical Science, UK*

Not only in China, but also in many other countries across the world, the medical system has very high requirements for candidates' academic degrees. In China, doctors at high-quality hospitals (especially state-owned hospitals) and researchers in medical science require a very high level of professional knowledge and skills. Consequently, having a doctorate became the threshold for finding such jobs. In Vivian's case, she had been aware of this long before she applied for it and seriously mapped out her future career development. Doing a PhD seems to be her only choice to achieve her goal of doing a

medicine-related job. As Mueller et al. (2015) pointed out in their research plan, in some fields of study, gaining a PhD can be described as standard, and obligatory for career advancement. In China, medical science is certainly one of these. For Vivian, a medical student aiming to become a doctor or medical researcher in high-level institutions, it is very reasonable to become a PhD student driven by her expected occupation.

Some female PhD students claim that doing a PhD leads to a promising career in the future. Ruth believed this, so she had a PhD plan.

> *At that time [during her master's], I couldn't decide for sure. Then I got to know that doing a PhD will bring a promising career, so I decided. The main reason may be because it's easier to find a job in the UK. In addition, in the Chinese job market, there are too many overseas masters and it's highly competitive among them. Overseas students with a doctorate, certainly, are a minority, so I will be more competitive. In terms of my field of study, the skills I am learning during my PhD are useful for work, so I can find suitable positions in many good companies and enterprises in industry. Also, I can earn a higher salary there, so I decided to get a PhD degree.*
>
> *Ruth, 25, Science, UK*

Ruth is in a different situation from Vivian, who is capable of being employed even as a master's graduate, but she pursued the highest academic level with the aim of enhancing her future employability. Although overseas education is still regarded as contributing to competitiveness in the labour market in general, the value that an overseas qualification carries has declined (Li, 2013). As a Chinese student in the UK, over-education devalues her employability in both her country of study and her home country. To solve this problem, she decided to differentiate herself from other Chinese overseas master's graduates and upgrade her academic qualification to become a "minority" in order to be more competitive in finding a promising job (such as getting a

job in the UK, or a high-end and well-paid position in industry). Similar ideas emerged among many Chinese female PhD students' accounts. Under the high pressure of finding a good job, they have to prepare themselves to be more outstanding and irreplaceable than others. They might be unclear about what kind of job they want particularly, but they firmly believe that doing a PhD will contribute to their future career prospects and lead them to higher and broader career choices. To negotiate with over-education in the global labour market, they choose to pursue a higher educational level to increase their employability.

Teaching in higher education

As all doctorate holders will enter the job market eventually, a career plan after graduation is inescapable for every individual. A doctorate provides them with better job opportunities, while in terms of a specific occupation or workplace, teaching in higher education institutions is the most ideal job among Chinese female PhD students. Huang and Jin (2016) survey Chinese doctoral students' motivation for doing a PhD and their prospective career plans with a sample size of 1399 PhD candidates from 44 universities in Mainland China. It is a comprehensive survey covering a variety of motives, gender, marital status, undergraduate schools, ways of obtaining degree and so forth. Among a diversity of motives for pursuing a PhD, the close connection between the choice of engaging in a doctoral programme and career path is repeatedly emphasised. In terms of working in higher education, they suggest that almost 70% and over half of PhD students expect to teach in universities and work in research institutions, respectively. In addition, although it is not primarily from a gender aspect, the data and findings provide insight into female PhD students' motivations as well as the differences between two genders. Women PhD candidates show more interests than their male counterpart in the stability and security of higher education system. Based on a 2014 report on the employment of university graduates in China, over 50% of doctorate holders worked at universities (postdocs excluded) and 9.6% of them found a position at research institutions (Gao and

Shen, 2016). Higher education institutions are actually the largest receivers of PhD holders in China. The data in the UK from HESA (Higher Education Statistics Agency) shows that the majority of science PhD students will end up in careers outside scientific research, and only 3.5% of science doctorate holders can become permanent research staff in universities (The Royal Society, 2010: 14). Choosing higher education as their future workplace seems not to be as clear an option as the PhD students predicted. In China, a doctoral degree is a necessity to gain a teaching and research position in the higher education system, especially for key universities and common universities. Some top Chinese universities prefer overseas PhD holders from the world's top-level universities. Numerous examples of employment information from higher education institutions can accessed on official university websites and job-hunting websites, such as www.gaoxiaojob.com. On the one hand, scientific research requires an extremely solid accumulation of professional knowledge and creative ideas, which is mostly guaranteed by well-trained doctorate holders. On the other hand, universities' increasing requirement of academic degree is the result of over-education. Completion of a doctoral education has become the stepping-stone into the higher education system. Consequently, it is very understandable for those who plan to work as an academic in universities to pursue a doctoral degree.

As Feifei stated, she had had a clear idea of her future occupation since she was young, which led her to make the decision.

> *When I was in high school, I wanted to become a teacher in a university. Teaching in universities must require a (high) academic degree. At that time, I thought that having a master's degree is all right for teaching in universities, but as the "situation" has been developing, at present, a master's is not enough, and it requires a doctor's degree. I intend to teach in a university, so I must do the PhD, or I have no way to become a college teacher. My "biggest" motivation for doing a PhD is the desire to be a lecturer in a university.*

Feifei clarified a typical process of how over-education happened in the Chinese higher education system and emphasised the institutional changes that have taken place over the last few decades. At the beginning of the twenty-first century, a master's degree was enough to be qualified for some universities and colleges. In 2006, only 10% of full-time teachers at Chinese universities had a doctorate (Minister of Education, 2006). So Feifei thought that she needed to do a master's degree. However, as the requirements for teaching in higher education increased, a doctorate became the access to successfully achieve an academic position in higher education. She continued to pursue a doctoral degree to achieve her goal. Her ultimate aim since high school has always been to have a teaching position in higher education, so her decisions were all made to qualify herself academically for university teaching.

Then, the follow-up question emerges: why do Chinese women want to teach in universities? A damwei "within system" is still preferred by Chinese women. The "danwei (work unit)" here refers to the new danwei system. The traditional danwei system (before economic reform) provided a permanent position in the organization and also had multiple social, political and economic functions (Xie and Wu, 2008). This system guaranteed its employees a variety of perquisites: secure jobs, affordable housing, exexpensive medical care, a range of subsidies and generous retirement pensions, as well as an entitlement to lifetime employment (Tang and Tomba, 2012; Walder, 1986; Lu and Perry, 1997) It usually used to define the difference between rural and urban employment. After the transformation into market economy, the new danwei system (government offices, state institutions, state-owned enterprises and enterprises with mixed private-public ownership) lost many of its all-encompassing functions. Today it supports a new, smaller, urban working unites and remains some privilege and advantages, including higher than average incomes, more support with educational, medical and housing

opportunities and services (Tang and Tomba, 2012; Naughton, 1997).

The most important reason is that teaching in higher education is widely recognised as a good job (*Hao gongzuo/好工作*) for Chinese women. It is favoured because they believe it is secure and stable employment and they are attracted by the many benefits the job may bring, such as long holidays, flexible working hours, and a prestigious position. These "Chinese-style" ideas are constructed by the gendered labour market in China and the traditional social and family expectations of women and mothers. A survey from 2016 illustrates that more female students are motivated to undertake a PhD in terms of working in universities and research institutions than their male counterparts, which meets the expectation of women finding stable work (Huang and Jin, 2016). The explanations may be multiple and personalised.

Firstly, *wending (稳定),* which refers to the stability, security and reliability of the employment, is regarded as desirable for women's work. The higher education system, including colleges and universities and some research institutions, is state-owned, and deemed to be an "iron rice bowl (tie fanwan/铁饭碗)" (Zhu et al., 2017)[5]. State-owned enterprises in the centrally planned economy, as the dominant work units of Chinese society, guarantee stable lifetime employment, a steady income and good welfare, including health insurance, a pension and housing (Gallagher et al., 2011; Liu, 2003; Liu, 2014). A *wending* job provides long-term prospects (Long, 2016) and indicates a low risk of being laid off or experiencing dramatic career changes.

Some instrumental reward seekers did not focus so much on research and teaching

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[5] There are also private universities in China, however, generally education industry is run by the state and government. In addition, Chinese private universities are often considered to be of a lower teaching and research quality compared to public higher education institutions, so they are not always the choices of PhD holders in employment market.

activities in terms of working in higher education. A *wending* job in a university is what they actually what. The ideas and experiences of Mengqi provide many clues.

I knew something about doing research, but to be frank, I was not so into it and my interest in it was just so-so. At that time, I didn't think it was necessary that one's job should be what interests one. I just took it as a piece of work. I knew myself well and I realised that I was not fond of doing a PhD. But, I knew for sure that I could find a job I wanted through doing a PhD. My goal was to work in a stable danwei *(work unit) and, to be specific, I planned to work in higher education, like a university or college. But now, I may accept more job choices, like working in research institutions, or something related.*

Mengqi, 26, Science, China

Mengqi clarified her lack of interest in research and doing a PhD, so undertaking the PhD is an indispensable task to complete, which can lead to her desirable job of teaching in higher education. Whether it is in her initial ideal job of teaching in universities and colleges, or her new acceptance of doing research in research institutions, they share a common ground: they are state-owned enterprises. Despite lacking scientific passion, Mengqi chose teaching in a university as a perfect occupation due to its stability within the state-owned system. However, with the economic reform, urban China has moved away from the "iron rice bowl" system to a market-determined employment system characterised by variations in wages, welfare provision, labour, law enforcement, and job security in many industries (Gallagher et al., 2011). The implementation of labour contracts has begun to threaten the security and stability of state-owned enterprises, and the traditional assumption that once held in the state-owned system, that employees would hold this position forever, is disappearing (Liu, 2003). In recent years, a contract-based faculty employment system, which is called "up-or-out (非升即走)", which is similar to the tenure-track system in American higher education, has begun to be employed in some high-level Chinese universities. These young scholars must

achieve the performance standard regulated by their university and department within their contract period, usually including several high-quality publications, projects and teaching, and then they will be given a permanent position, called "bianzhi (编制)" in Chinese, or else they are dismissed (Tian et al., 2016; Lou, 2015). Many pieces of news have reported that some scholars have had to change their job, such as moving to work as administrators instead of teaching and research, or have failed to renew their contacts because they did not meet the required standard (Huang, 2014; Zhu and Lei, 2018). This is a clear signal showing that teaching in higher education institutions is no longer an "iron rice bowl" (Huang, 2014; Lou, 2015). This contract-based "up-or-out" system is changing the faculty employment from top universities to other universities, but many universities and colleges still provide their teachers with permanent positions. The *wending* of higher education systems will be in doubt in the future.

Secondly, teaching in higher education is described as leisurely, free, lively work with long holidays. These benefits of university lecturers are attractive to many female PhD students and become the dominant factor in their decision-making process. Comments from Kate are worth presenting.

> *I came to the UK to enrol in the PhD programme partially because I want to "play" here [travel in the UK], and partially because I want to teach in universities in the future as this job can allow me to still "play" as before. I have the impression that staff at universities have long holidays: a summer holiday and winter holiday every year, as well as no work at weekends. I can travel to wherever I like and do whatever I want during these long holidays. In addition, university tutors are always in touch with students and I like to "play" together with young people. So, I was oriented by career goals. However, some visiting scholars here told me it was very hard to find an academic job in China and also that academic work is under big pressure. As a lecturer, you are required to continuously pass many evaluations within a certain period*

and upgrade to associate professor, and then professor. Anyway, it's very stressful work. So,

now I'm hesitating about whether to teach in higher education.

<div align="right">

Kate, 26, Science and Engineering, UK

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During the interview, Kate frequently emphasised that she likes "playing", which is a general description of travelling, engaging in recreational activities and having fun in her spare time. In the eyes of Kate and many other participants, teaching in higher education was characterised by long holidays, no need to work overtime, and a lively workplace with young students, which would leave plenty of leisure time to "play" and enjoy life. She was drawn to the occupation because its attached advantages are in accordance with her imaginary comfortable and fun lifestyle, rather than for the work itself. Kate perceived teaching in universities as a cushy and relaxed career before she really entered academia. However, when she realised that teaching in higher education is tough and busy, and far more tiring and stressful than she had imagined, she began to reconsider her career plans. Many surveys indicate that, due to the limited positions provided in higher education (Shen et al., 2015; Hou and Ni, 2017), there is a decline in the percentage of PhD holders working in universities, colleges and research institutions, which indicates a loosening connection between doctoral studies and working as academic researchers. In terms of gender, female PhD holders are likely to be unequally treated in job-hunting. For example, Siyi (28, arts and humanities) had a terrible gender discrimination experience. She had been replaced by a male PhD after the university had already informed her that she had been accepted. She told me: "The department said they wanted a man because they already have many female staff. So, if a woman wants to get the position, she has to be much more outstanding than the other, male candidates." Female PhDs face more gender, age and marriage discrimination in job-hunting than their male counterparts (Gao and Yang, 2019). Although they are finally employed by universities, they are overloaded with research, teaching and administrative tasks. These young scholars are described as "worker bees", who are

burdened with overwhelming pressure from academic research and teaching, but have a comparatively low income (Lian, 2012). To promote the quality of their research and compete for government funding, Chinese universities, at least the research-centred ones, are exerting great pressure on their research staff to publish. Under the impact of educational globalisation, international high-quality journals are highly esteemed in Chinese academia. The number and quality of journal articles appearing in the Science Citation Index (SCI), Social Science Citation Index (SSCI) and Engineering Index (EI) serve as "objective" indicators to measure the academic performance of scholars and institutions. Consequently, a global "publish or perish" culture has emerged on campuses, which particularly impacts upon young faculty members (Tian et al., 2016). With Chinese higher educational institutions' introduction of various evaluation and incentive policies, such as "up or out" and the "tenure-track" system, young scholars are under great pressure to publish internationally indexed papers, competing for government funding, teaching courses and engaging in other, administrative work (Jiang et al., 2017; Wang et al., 2018; Zhang et al., 2017). Teaching in universities is no longer as leisurely, undemanding and free as many participants imagined before they did their PhD.

These recent changes in academia suggest that teaching in universities, at least research-centred institutions, is not as *wending* (secure and stable) or stress-free as many female PhDs perceived, but they still long for such a good job for women. This is because these attractive attributes are strongly associated with traditional gender roles. Their choice of working in higher educational institutions is their strategy for coping with work-family conflicts.

Kate, who used to believe that teaching in universities is a very leisurely and stress-free job, revealed the relation between her decision to work in higher education and her focus on family life.

I think the reason I chose to become a university lecturer is because it would help me to take

care of my family. When my kids are young and need me, I won't place my focus on career, and

I will choose my family, definitely. When they grow up and don't need me any more, I will

change my focus to my career. That's my opinion.

Kate, 26, Science and Engineering, UK

Following the traditional gender norms and values, women are responsible for household chores and childcare (Qian et al., 2002). Even though many Chinese women are now working outside, they are still expected by Chinese culture to focus on their family life as usual (Gierc et al., 2014). Female caregivers prevail in practical everyday life. So, a job within a state-owned institution can provide a secure position that guarantees a stable income, flexible hours and leisurely work to facilitate their family caring, in order to achieve some degree of work-life balance. That is why society and the public see working in higher education as a good job for women. These gender ideologies, personal and social values and work aspirations construct the meaning of work in China (Long, 2016). Women have internalised this conceptualised meaning of good work and in turn they are required to make specific choices. The gendered career socialisation is reflected in Chinese society.

However, in Kate's case, she intends to have a work-life balance through working in universities, but she may have difficulties in achieve it in practice. As I have argued the high competitiveness in academia and newly carried-out "up or out" system in quality universities, she may face much workload in the first years of her career. The time period of building up an early career is actually almost the same as her entry to a marriage and having a baby, at the age of around 30 to35. If she chooses to lay her focus on family when the kid(s) are young, she would have problems to manage the heavy

academic burden at the same time. She will be in the risk of leaving the position. When her kid(s) grow up, she may lose the opportunities to return to academic career. Kate's plan sounds like a well-balanced one, but it is hard to achieve in practice. One possible solution is having a permanent position in a less competitive and quality university to free from the risk of being "out". It means giving up good academic opportunities, resources, and further career development, which is a compromise in academic career.

Back to answering the question of why female PhDs regard teaching in higher education as an ideal occupation. The reasons can mainly be grouped into two aspects: the job's duties and its consequent benefits. On the one hand, we cannot ignore those intrinsically motivated knowledge seekers who intend to enter higher educational institutions in order to carry on their academic research and dream of doing it as lifelong career. On the other hand, the instrumental reward seekers are driven by the advantages of being a university lecturer, including a secure workplace, good welfare, long holidays, a flexible timetable, simple interpersonal relationships, undemanding everyday work and so on. Many of these benefits facilitate women to take care of their families. Their choice to work in higher educational institutions is their strategy of coping with work-family conflicts. And these highly educated women have internalised these social gender norms and are reconciled to the social expectations of women.

Escaping from unsatisfactory employment

Masters graduates in general and undergraduates following some majors are the talent pool for PhD students. The decision-making process of graduates can be seen as a competition between continuing to study in academic institutions and entering the job market. Universities need young academic students to maintain and improve their quality of research and teaching, and at the same time, enterprises, including both state-owned institutions and private firms, have a continuing demand for labour aimed at fresh graduates (Mueller et al., 2015). Universities are at a competitive disadvantage in

the war for talent. Employers can retain graduates by using promising career opportunities and offering attractive contractual conditions based on their larger financial scope (Roach and Sauermann, 2010). But universities are only able to offer limited funds to PhD students (Ehrenberg, 2005) and this indicates an uncertain future. In the perception of graduate students, if their academic achievements and personal skills qualify them for most of the job opportunities they want, there will be no need for them to spend another several years doing a PhD before entering the job market. In China, the statistics illustrate that a majority of master's graduates enter the job market (nearly 90%), while those who continue to study both at home and abroad only make up 5% (Xinjincheng Research Institution, 2016). Without doubt, finding a job is the mainstream choice of master's graduates, and doing a PhD serves as an alternative path. For those whose plan to continue with PhD studies wins, why do they choose the non-mainstream path? One important consideration is difficulties in finding a job or dissatisfaction with their current job or workplace. Therefore, doing a PhD provides an alternative choice or an escape.

Nuan was a second-year PhD student, and she reminisced about her attitudes towards and experiences of finding a job during the final academic year of her master's programme.

I was seeking jobs at that time. You know, my family and I both have high expectations of me, and I wouldn't like to do anything like... it's common for master's graduates in my subject to work in private or small firms. I don't like it because in those firms they don't use what we learn at university and we need to learn it [on our own] at the same time as we are conducting the project. Later, I tried to take the civil service examination to work in state-owned institutions, but I failed, maybe because of lack of preparation. And then after the Chinese New Year, the recruitment for the doctorate entrance exam began, and my supervisor also encouraged me, so I signed up.

When Nuan approached the crossroad of her future life, she adopted the strategy of "try first and see what happens" according to her willingness. She was not satisfied with work activities in private enterprises and failed to enter the state-owned *danwei* (work unit). The two mainstream career destinations were obstructed, so doing a PhD was left as her last chance. In the decision-making process, doing a PhD was never planned as the first priority, but a life-saving final straw. By undertaking a PhD, she escaped from continuing to seek jobs, lowering her expectations for her career, or re-taking the civil service examination. If she had been successfully engaged in private enterprise or had passed the civil service examination, she would not have dropped the job opportunity and continued to do a PhD. Nuan prioritised work instead of doing a PhD, so she was undoubtedly extrinsically motivated.

Differently from Nuan, Kate prioritised doing a PhD due to her career plan to teach in higher education. But, her firm plan to find a comfortable job in a state-owned institution may have originated from her former unsatisfactory internship experiences.

> *During my internship in a firm, I felt it was boring in the workplace. My colleagues in the whole office were inanimate, not energetic at all. Also, the work I did was just coding, model building, and drawing. It was simple and repetitive work. I saw that my colleagues were drawing on paper every day, low in technology and profession, and they all needed to work overtime and stay up late. I think the job was so boring and not fun, I couldn't imagine I would do the same things as they did.*
>
> *Kate, 26, Science and Engineering, UK*

As Kate always highlighted the importance of "fun" in work and life, and even made it the major criterion to determine whether a job was suitable for her, the internship

experience at this firm obviously did not meet her expectations. To avoid being engaged in such a workplace and doing such a boring and busy job in the future, she decided to undertake a PhD and teach in higher education as her career plan. In building up this future career plan, Kate dropped the other possibility and chose doing a PhD and teaching in higher education as an alternative gateway.

In the competition between entering the job market and continuing to study, some individuals prefer to do a PhD as an alternative choice when they come across difficulties in the workplace, whether they had failed to find a good job or were dissatisfied with employment. As Xianer (27, Humanities, China) told me, she was not well prepared to "enter society".

To summarise, instrumental reward seekers are motivated by the rewards and advantages of a doctorate; for example, certain occupations, well-paid and broader job opportunities, secure positions in higher education, or the avoidance of unsatisfactory employment. These extrinsic reasons may reduce intrinsic motivation and creativity to some degree. Some students with high levels of extrinsic motivation are more likely to adopt the fastest method to reach their goal (Sternberg and Lubart, 1995). The instrumental reward seekers' motivation to undertake a PhD is strongly connected to their future career plans, which are affected by many institutional, social and cultural factors. In such a competitive job market, the expansion of higher education and over education, and social expectations of women's household role, Chinese female students adjust themselves to find a position in society. Doing a PhD is their strategy for having an ideal job and lifestyle. Even though female PhD students have strong academic abilities to qualify for further work and some are independent and ambitious, they are still constrained by traditional gender norms and economic and social practices.

In the analysis above, I have introduced several internal factors that impact upon

Chinese female PhD students' desire to do a PhD, including interest-driven reasons and career orientation. In this research, many students are very self-determined, but some do not have clear inclinations, so they may follow the advice of others or be motived by some external reasons. In the following section, I continue to explore why Chinese female students choose to enrol in PhD programmes, but with the focus on external factors.

Acquiescent followers

The third type of Chinese female PhD students is acquiescent followers, who differ from knowledge seekers and institutional reward seekers in that their plan to do a PhD is substantially triggered by others. Growing up in the patriarchal and hierarchical Chinese culture, children are educated to be *tinghua (听话)*, which refers to following the words of the authorities. Girls especially are praised for their acquiescent, obedient and submissive behaviours. Since the post-Mao era, Chinese women have been negotiating their identities between traditional Chinese sex-role discourse and modern western gender discourses (Liu, 2014: 21). Decades after the economic reform and opening-up, influenced by the never-ending trend of modernisation and consumerism, Chinese young women have an increasing awareness of the possibility of taking charge of their lives and a growing individualism. This notion of independence and autonomy has prevailed among the younger generation (Hoffman, 2003; Liu, 2008). But the traditional ideas and practices still remain influential and weaken women's ability to think independently and self-determine and, even worse, some women are taken charge of by "authoritative" others. According to self-determination theory, which proposes that individuals tend to naturally learn and develop in order to meet their internal needs and react to the external context, academic motivation has three dimensions: intrinsic academic motivation, extrinsic academic motivation, and amotivation (Deci and Ryan, 1985, 2000, 2002; Vallerand et al., 1992). No matter whether they are eager for

knowledge or pursing the rewards of a doctorate, intrinsically motivated knowledge seekers and extrinsically motivated instrumental reward seekers take the PhD option through independent thinking and self-determination. However, the acquiescent followers are those amotivational students who have no ideas, or never intended to become involved in PhD training initially but were then persuaded by others, or are at the mercy of external forces. Here, the external forces or authoritative others are always those who are influential and powerful names to female students; specifically in this study: supervisors, parents and partners.

Supervisor's suggestion

A supervisor's encouragement to do a PhD plays a highly positive and active role in students' decision-making processes. As every postgraduate knows, the PhD supervisor is the key figure in the academic field, and is the gatekeeper to PhD studies. This might be more applicable to science and engineering subjects, where teamwork is the main working pattern. From the perspective of supervisors, they need talented PhD students to improve the quality of research, maintain knowledge inheritance and join their research team. If the supervisors appreciate master's students' research abilities and ideas, they will hope these students will continue doing research under their supervision. If their master's students have no clear blueprint for their future career and life, then, to a large degree, they will just follow the advice of their supervisors.

Emma is in her second year of a PhD programme, and she told me just one simple reason for enrolling in PhD studies.

> *At that time, I felt I was* huyou *[literally meaning "tricked"] by my supervisor. He/She told me that I am very well-fitted for doing a PhD and I can continue doing academic research. He/She strongly encouraged me to do it. So, I did it and here I am.*
>
> *Emma, 25, Science, UK*

The word "*huyou (忽悠)*" reflects Emma's shifting attitudes towards doing a PhD. She initially had no plan to do so, and it was her supervisor who changed her ideas. His/her words were highly convincing because the supervisor's appreciation demonstrated her strong academic ability and achievement. In Chinese culture, the supervisor is in a higher position within the academic and social hierarchy, leading to a more authoritative and powerful suggestion. Historically, supervisors ("shi/师") have been in a respected position within Confucian society, as someone who not only delivers knowledge and skills, but also cultivates moral practices. An ancient Chinese saying goes "A day as a teacher, life for a father" (一日为师，终身为父), which reveals the prestigious and respected identity of teachers. In Chinese schools, teachers' words are the rules of discipline that must be followed. This deeply rooted hierarchical system cultivates acquiescent students. In recent years, the Chinese supervisor–postgraduate student relationship has developed into a complex and integrated relationship in a variety of sectors, including teaching and learning, academic activities, everyday life, morality, emotions and economics (Shi, P. and Zhang, Y., 2015). Despite a democratic and equal teacher–student relationship becoming the mainstream since the early twenty-first century (Li, C. and Tao, L., 2013), supervisors have absolute control over their students in some respects. According to the experiences and accounts of my participants, many PhD students call their supervisor "Boss", which is more applicable in science and lab-based subjects because they have a very close, but hierarchical relationship within the teamwork. In this context, a supervisor's appreciation of a student's research ability is a great honour for the student. The supervisor's suggestion to do a PhD is a very influential comment for an "innocent" and "acquiescent" master's student. Eventually, Emma decided to continue doing research, with her supervisor playing a decisive role in making up her mind.

Another example to illustrate the strong impact of supervisors is the story of Lizhi. She

was in the final stage of her PhD studies. She narrated the long process from five years
ago.

> *I used to think doing a PhD was a distant thing for me. Having a master's degree and finding*
> *a job, most graduates in my subject work in state-owned institutions, which is fine. I never*
> *considered obtaining a doctorate at that time. However, maybe it's destiny (*yuanfen/缘分*).*
> *My supervisor moved to Nanjing. It's my hometown and he asked me whether I wanted to*
> *"follow" him there and do a PhD. Firstly, I refused him. Seemingly, his team lacked PhD*
> *students and I was the only student under his supervision. So, he tried very hard to persuade*
> *me to do it. I replied that I needed more time to consider … I was worried about the high*
> *requirements of the doctorate. It required publishing papers, SCI papers, you know, it's not*
> *easy. My supervisor encouraged me that my academic performance had "no problems" during*
> *the master's period and I was totally capable of making it. Also, he told me he would do his*
> *best to help me with graduation. His commitment was a "comforting pill" to me.*
>
> *Lizhi, 29, Science, China*

From Lizhi's perspective, following the suggestion of her supervisor indicates two
strong points, which are both key factors in the completion of her doctoral studies: solid
academic ability and the support of her supervisor. No one can deny that a doctorate
requires high-quality research and strong academic ability. In Chinese universities,
publishing several high-quality papers and completing a creative thesis are necessary
for obtaining a doctorate. Lizhi was worried about her academic skills, and her
supervisor confirmed that she was capable. Supervisors' appreciation and comments
about their students' abilities and ideas are trustworthy due to their experience in
supervising postgraduate students and their authority in the research field. In addition,
the interactions and mutual appreciation between PhD students and supervisors impact
upon the daily academic activities and the completion of PhD studies. As a survey
reports, some PhD supervisors keep asking PhD students to work on their project and a

lack of communication and guidance from supervisors may result in postponing students' PhD completion (Song et al., 2012). The supervisor's commitment to assisting her with a smooth graduation attracted Lizhi and increased her confidence in completing PhD studies. Due to these considerations, Lizhi gradually changed her mind.

A supervisor's support and assistance facilitates a student's studies and frees them from many difficulties and worries. Therefore, the supervisor's advice is highly convincing and influential in the decision to do a PhD.

From the supervisor's perspective, he was very ambitious in his academic career and in urgent need of building up his new research team. The Chinese government has created a national faculty ranking system that determines basic salaries and reflects academic ability and achievements. The three ranks are: lecturer, associate professor and full professor (Mohrman et al., 2011). For faculty evaluation and promotion, most colleges and universities emphasise the number of courses taught, publications, research grants, or projects enrolled (Gonzalez, Liu and Shu, 2012). Due to the contract system that has gradually been implemented in many public Chinese universities (Mohrman et al., 2011), the new faculty members, like Lizhi's supervisor, are facing the extra pressure of potential job loss at the end of their contract. The importance of academic research is growing, especially in high-quality universities. In the evaluation of research, the quality and quantity of published papers are both counted. Indicators of educational attainment with respect to international rankings across countries, the publication of papers and books, and citations are factors affecting the faculty's annual performance (Yao et al., 2008). In the UK, the evaluation and promotion system may be somewhat different, but it is a matter of fact that faculty, PhD supervisors included, are under overwhelming pressure to do research to ensure productive and quality academic output. In science subjects (where Lizhi's field belongs), the supervisor–student relationship is mainly visible in the form of research cooperation (Shi and Zhang, 2015). Thus, it is easy to

understand why Lizhi's supervisor was so eager to ask her to do a PhD under his supervision. As a new lecturer, her supervisor was highly motivated to conduct research and to build up his new research team. As his only master's student, who also performed well in academic research, Lizhi became his target. So, he persuaded Lizhi to do a PhD and work in his team.

Parents' hopes

Within the Chinese familial system, vertical intergenerational relations are regulated by filial piety. Built on the basic guidelines established by patrilineality and Confucian doctrine, filial piety, in Chinese terms *xiao (孝* also say*, xiao jing 孝敬* or *xiao shun 孝顺*), regulates the relations and obligations between parents and children. Throughout Chinese history, stories of filial children, especially those who made sacrifices for their parents, have served as classic examples of moral behaviours, and it has been highly valued as a core virtue of family life (Shi, 2009). A Confucianism classic book *Classic of Filial Piety (《孝经》)* records many filial norms and stories. *Xiao* requires children to take care of their parents in their later life by providing physical care and financial support (Yeh et al., 2013; Zhan et al., 2008; Chan and Tan, 2004). *Jing* or *shun* refers to the nonmaterial aspect of filial piety, respect for and obedience to the elder generations even when they are wrong (Whyte, 2004; Zhan and Montgomery, 2003). Displaying *xiao* obliges children to show their gratitude to their parents for bringing them up. This reciprocity within Chinese families functions in a society that lacks a social welfare system of provision for the aged (Hu and Scott, 2016). "Among the various forms of virtue, *xiao* comes first (百善孝为先)" declares a well-known Chinese proverb, which signifies the importance of *xiao* in Chinese thought.

The values of being filial and obedient to parents were challenged during the Cultural Revolution, but in contemporary China they have been reinforced by the government and

law (Xu and Ji, 1999; Whyte, 2004; Palmer, 1995). Many studies have suggested the transforming gendered practices of filial piety in contemporary Chinese society (Shi, 2009; Yan, 2003; Evans, 2008a; Fong, 2004). In the traditional Chinese society, filial piety was mainly defined as a male virtue because the sons were obliged to take on the responsibility of offering material and physical support to their parents and married daughter joined her husband's patrilineal and was not expected to contribute to her natal family (Knapp, 2005; Lo, 2004; Chan and Tan, 2004; Baker, 1979; Wolf and Huang, 1980). However, some studies have revealed the existence of an increasing intimate bond between a daughter and her natal parents and even some of them take over the main filial responsibility as caregivers and financial provider (Qi, 2016; Yan, 2003; Evans, 2008a; Fong, 2004; Zhan and Montgomery, 2003; Zhang, 2007).

Implemented in 1979, the one-child birth control policy substantially altered the Chinese family structure and traditional ideas. The traditional parent-centred family transformed into child-centred families in the model of a nuclear "2-1" (2 parents and 1 child) or "4-2-1" (4 grandparents, 2 parents and 1 child) (see Logan et al., 1998; Liu, 2007; Tsui and Rich, 2002; Greenhalgh, 2008). Many studies have argued that urban daughters benefit from the one-child policy because city parents have invested in their only child regardless of sex (Croll, 1995; Tsui and Rich, 2002; Fong, 2002). It is obvious that most Chinese female PhD students are among these privileged daughters. Without brothers, receiving numerous investments, especially educational investments, they are regarded as the only hope of their parents (Fong, 2002). Both financial and emotional bonds between the singleton daughters and their natal families have been growing under the effects of one-child policy.

The younger generation ought to obey their parents as a primary principle according to the notion of filial piety, even though their daughters are adults in their twenties. Although many suggest the decline of parental power due to the individualization of the

young generation and the empowerment of women due to their participating in employment and education, the parents' advice remains very influential or sometimes decisive in today's China (Qi, 2016; Fong, 2002). When young women make crucial decisions, they usually obey their parents, seek advice, or at least get approval from their parents. As a turning point, doing a PhD is no exception. Here, I look at how parents' hopes and the notion of filial piety impact upon women students' decision to do a PhD

Xiaotian was very young (20) when she considered her "master-doctor continuous" project. Her reasons are multiple, and the first one she told me about was to fulfil her father's hopes.

> *One reason is about my family. My father is a teacher in a secondary school. Since I was very young, I have been cultivated and educated in this family environment. They valued education, much more than other families. In addition, my father graduated from a normal short-cycle college and was assigned to work in a secondary school by the government. Many of his classmates passed the college entrance exam and got a bachelor's degree, but he didn't because, first, his family couldn't support him, and second, his academic scores were too low. So, he very very much yearned for higher education and academic degrees, with a very strong desire.*
>
> *Xiaotian, 25, Science, China*

Xiaotian's father's failure to receive higher education led to his obsessive desire for academic degrees: the higher the better. He transferred his pursuit of a high academic degree to his daughter and rooted this notion deeply in Xiaotian's mind. Yeh et al. (2013) define a dual filial piety model (DFPM), proposing two fundamental aspects of filial piety: reciprocal and authoritarian. "Reciprocal filial piety (RFP) is guided by spontaneous affection originating from long-term close interactions that fulfill the psychological need for mutual relatedness between two individuals" (Yeh et al., 2013:

278). RFP entails children's gratitude and willingness to repay their parents. Xiaotian values her father's dream and responds to his spiritual needs through hard work, which was her way of displaying *xiao*. Her father exerted a subtle and continuous influence in terms of education, and she regarded this as positive and valuable support. Xiaotian's active response to her father's educational pursuit belongs to RFP practices.

Lizhi is not only under the pressure from her supervisor, but also from parents.

> *Lizhi: My father's stance is that I definitely should do a PhD. He even talked to my supervisor in private. At that time, I was kind of evading this issue, and my parents were "pushing" me. They did not exert the pressure on me with a strong hand, but in an emotional way. My mother sometimes told me "your father knows you don't want to do the PhD, so he can't sleep at night". It made me consider whether I should have a try.*
>
> *Meng: Your father insisted on it, so what were his reasons?*
>
> *Lizhi: They believe the more education and knowledge the better. And, my father cares about* Mianzi *[面子, literally meaning face], but this is not the only reason. People all think that the rare things ought to be the good things. There are very few PhDs and people seldom know them, so doing a PhD must be good. In addition, my father had a friend who graduated from a top university and taught in a university, earning a very high salary. So my father sees it as a very promising career choice. He hoped I would do it.*
>
> *Meng: So it's mainly the factors of your supervisor and father?*
>
> *Lizhi: Yes. It was also related to the fact that I didn't have a firm idea of doing it or not doing it. I wasn't sure about it … so I was "pushed" here and finally decided to do the PhD.*
>
> *Lizhi, 29, Science, China*

Although her parents did not straightforwardly force her to follow their desires, they exerted an emotional influence on her. It was highly effective in practice. The strong means to an end reflects her father's power in the family. And the fact that Lizhi's refusal

to do a PhD made her father sleepless provoked her sense of in-filial piety (*bu-xiao* 不孝) and guilt. This is Lizhi's practice of *xiao.* Locating Lizhi's example in the DFPM, it is obvious to infer that her relationship with her father belongs to authoritarian filial piety (AFP), which is "guided by obedience to normative authority (role of parents) and fulfills the need for collective identification" (Yeh et al., 2013: 278). Parents are those representing absolute authority and children's behaviour of *xiao* aims to satisfy parental demands and expectations. Lizhi dropped her stance of not doing a PhD to cure her father's sleeplessness and meet her parents' hopes. Although parental authority often gradually diminishes as children grow into adolescence, Lizhi, at the age of 29, had failed to escape from her parents' authority.

Gaining face *(mianzi/面子)* is very important in Chinese culture, which may be different from how "face" is understood in the western world. As Hu (1944: 45) defined the Chinese concept of *mianzi*, it is a reputation achieved through getting on in life, through success and ostentation. Qi (2011: 288) implies that face (*mianzi*) is how a person thinks the others in his/her community, social group or wider public sees him/her. As Jia (2001: 31) argues, emotion and face (*mianzi*) intertwine and overlap with each other. In gaining face, strong feelings of pride, honour, dignity, satisfaction and confidence arise, while people experience strong feelings of shame and inferiority when losing face (Qi, 2011; Goffman,1972: 8; Redding and Ng, 1982: 215). In Lizhi's father's perception, his daughter will have a doctor's degree, which is a big honour and a prestigious title obtained by very few people, and a promising and well-paid career, which definitely leads to him "have a *mianzi (gaining face 有面子)*". This will bring him the positive feelings of pride and honour. It is an ultimate virtue for children to honour their parents by making them proud (Hu and Scott, 2016). He cares about *mianzi* (face) very much, so he was highly motived to encourage and persuade Lizhi.

For the sake of her partner and relationship

As the traditional "three obedience (*sancong*/三从)" principals for Chinese women, a woman obeys her father before marriage, her husband while married and her son in widowhood. In traditional Chinese families, conjugal relations were arranged with the husband at the centre of the household (Hu and Scott, 2016). The wife's role was complementary in order to facilitate her husband's productivity (Whyte and Parish, 1985). A notable proverb goes, "Marry a chicken and share the coop, marry a dog and share the kennel (嫁鸡随鸡，嫁狗随狗)". This highlights that married women should follow their husbands under any circumstances. Even though women's status has dramatically changed in current Chinese society, prioritising a male partner's plan is still very common practice. Many female PhD students were in a relationship before they were involved in their PhD studies. Their partner's life and career plans were very important. Some participants stated that their decision to do a PhD was for the sake of their boyfriends and to benefit their relationship, rather than their own initial desire.

Chengzi worked as a university lecturer for one year before she returned to her familiar university campus. She replied to my question "Why are you doing a PhD?" as follows.

> *Why am I doing the PhD? That's how the thing is going. I did my master's at this university for three years and then worked for one year afterwards. Because I am from Hebei [a northern province of China], I went back to my hometown and found a position at a local university, where I did my undergraduate degree. I worked as a lecturer there. After one year of work, I decided to apply for the PhD. Considering the realistic thing, you know, in the higher education system a doctorate will be beneficial to one's future career and promotion. On the other hand, I did it for the sake of my boyfriend. I met him when I did the master's here, and we were in the same class. He got a recommended place examination-free to do a PhD, and became a PhD student at this university, and I went back home to work. In that year, we were*

separated by a long distance. So, I wanted to apply for a PhD at this university to end our long-distance relationship.

<div align="right">

Chengzi, 29, China, in a relationship

</div>

From the perception of love and relationship, it can be inferred that the one-year long-distance relationship emphasised for Chengzi the importance and enjoyment of being together with her boyfriend. So she intended to make some changes. As her boyfriend's location was impossible to change, she decided to move close to him. Furthermore, a doctorate will benefit her future career promotion. Applying for the PhD programme at her partner's university seemed to be the best solution to satisfy both sides (her relationship and her career). Something similar happened in the UK. Hebe told me her story and the decision-making process.

My motivation for doing a PhD may be different from others. It relates to my love story. I met my boyfriend in March 2010, when I was doing my first master's. It was during the Easter holiday that I joined a group to travel in Europe, and he was my friend's friend, and also a member of the group. We enjoyed the trip so much, and afterwards in about April or May we became boyfriend and girlfriend. At that time, he had already received a PhD offer from this university and decided to continue studying here, so I was considering staying in the UK. So to speak, if I hadn't met him, I would have gone back to China immediately after graduation. But I was in this relationship, so I decided to stay and apply for a PhD. Also, I never considered other universities, just applied to this university. Actually, I was a little bit regretful. It would have been better if I had applied to a more famous university in the UK.

<div align="right">

Hebe, 27, UK, in a relationship

</div>

Soon after Hebe fell in love with the young man who had accepted a PhD offer, she changed her original plan of finding a job back in China and decided to stay in the UK for a longer time. With the sole aim of living together, she barely considered her academic

ability, or her prospective university location.

These two participants' plans to do a PhD were triggered by the desire to avoid being separated from their partners. It is commonly believed that geographical distance has a negative impact on the maintenance of romantic relationships and that such relationships are more likely to fail (Helgeson, 1994; Sahlstein, 2004). In my study, the majority of PhD students ever experienced long-distance relationships or were living apart together for reasons of schooling and work. The acquiescent followers, who were at the mercy of their partners and relationships, like Hebe and Chengzi, negotiated their own life plans in terms of the couple's common benefit and future. As their boyfriends' plans for the coming years were confirmed, there were no choices and these women were the ones to compromise in their relationships. Obviously, they prioritised love and their relationship, and attempted to find a solution to satisfy both sides. Doing a PhD at their boyfriend's university was the final strategy. However, in this decision-making process, the needs of the women were ignored to some extent, and the risks of losing job opportunities and breakup were assumed more by the woman, rather than by their male partners. Men are perceived as the leader in a relationship, while women always play a role of followers. It is a risky choice for women because they are not sure whether their relationship will last. If it lasts, women can have a desirable boyfriend and a doctorate. But if it does not, they have to continue with their PhD with less motivation. In practice, I also realise in most cases the women follow their partner to do a PhD. However, very few male PhD students decided to pursue a doctorate for the sake of their girlfriend.

Conclusion

It is evident that women are motivated to do a PhD for a variety of reasons. Knowledge seekers are interested in research and long to accumulate more knowledge. Instrumental reward seekers believe that a doctorate can bring them a satisfactory job

and ideal lifestyle. The decisions of acquiescent followers are affected by the important people in their lives; namely, their supervisor, parents and/or partner, who are the authority figures in Chinese women's academic life, original family and (future) nuclear family. Most participants have multiple reasons for pursuing the highest academic degree, even though many of them had very little knowledge or even a misunderstanding of the PhD programme they are currently involved in.

With respect to their study experiences and outcomes, and in line with self-determination theory (Deci and Ryan, 1985, 2000, 2009), the autonomous knowledge seekers are more likely to persist, to perform well in PhD-related activities, and to be inspired and motivated to actively engage. However, the instrumental reward seekers and acquiescent followers lack an internal evaluation of their academic potential and interests. They are thus very likely to lack motivation and to encounter difficulties during their PhD research, resulting in their suffering from anxiety and depression, as well as extended enrolment and even failure to complete.

As a result of the expansion of higher education and increasingly competitive employment market in China, there is an apparent trend towards pursuing higher academic degrees in order to secure an ideal job and achieve self-betterment. Without doubt, the positive side is that this provides more opportunities for Chinese women to receive extremely advanced knowledge and professional skills. But the findings also indicate that, for Chinese young women, especially instrumental reward seekers and acquiescent followers, doing a PhD is to a large extent an alternative means of becoming successful in a career, and that they enter the higher educational system to secure a job that can balance work and lifestyle, and as a way of postponing "entering society", performing filial piety (*xiao*) to parents, maintaining a romantic relationship and/or deferring to authority in a hierarchical system.

Looking across the various motives for doing a PhD, I argue that Chinese female PhDs are living with contradictive values. On the one hand, to be a modern independent woman, they need a decent job to "achieve success" (Liu, 2014) and have a stable salary as economic support. A doctorate is definitely a job guarantee. On the other hand, their ideal workplace and lifestyle is highly traditional, and they are reconciled to the role of "dutiful wife and good mother". In the eyes of PhD women, the most popular occupation among them, that of university lecturer/researcher, means a secure and undemanding job, which can leave much time and space to look after their family and enjoy life. Therefore, doing a PhD seems to be a good choice in order to achieve a balance between work and home life, and negotiation of modern and traditional values.

Chapter 6

Love and marriage and the negotiation of social stigma

When I was doing fieldwork in my hometown of Harbin, China, in the summer of 2015, my mind was filled with the experiences and ideas of women doing a PhD originating from the amazing conversations with so many brilliant minds. My participants told me many stories of how various people treated them as a PhD woman differently: some made them feel proud, while some upset them. To my surprise, this happened to me very soon.

One day, while I was waiting with my mother for the lift on the ground floor of her block of flats, we met a middle-age woman. She seemed to know my mother and also lived in the same block. She saw me and then started to chat with us.

Neighbour: "Your daughter comes back home?"

Mother: "Yes."

Neighbour: "Is she studying abroad?"

Mother: "In the UK."

Neighbour: "Gone out for many years? What are you doing?"

I: "I'm doing a PhD."

Neighbour: "Do you have a boyfriend?"

I: "I have."

Neighbour: "Oh, it's all right then. How old are you?"

I: "Twenty-five."

Neighbour: "It's time to consider it."

Later in the lift, she continued to talk about her son. "My son is in high school, and I don't want him to do a PhD even though he's a boy. You, a young woman, are doing a PhD…"

She pulled an amazed face when she learned I was a PhD student, and the following question she asked shows that what she was most curious about me as a female PhD student, was my love-related issues (感情问题). This also happens to many female PhD students. Different individuals have a variety of reactions and attitudes towards the identity of female PhDs. People are most concerned about their love and marriage status, instead of their studies or other education/career-related questions. Love and marriage are always the favourite topic of gossip among neighbourhoods and friends, and PhD women are no exception.

In this conversation, the tone and implications of my neighbour were very "interesting". When she knew I was in a relationship, she let out a big sigh, which is an expression of relief, and it seemed that in her view this was "huge" good news. I could imagine how she would react if I were single, and she would think my marriage is very problematic. Despite the fact that I had a boyfriend, she insisted on persuading me to "consider more about it" when she knew my age. The age of 25 is the timing to marry; otherwise I will be considered a "high-aged" woman. When telling me that she did not want her son to do a PhD, she highlighted the sex, "he is a boy", which indicated that she did not understand why I, a young woman, would choose to do a PhD. This reflects the way in which sex matters in educational choices. Therefore, it is reasonable to infer that, in her belief, a young Chinese woman of my age should prioritise love and marriage, rather than doing a PhD.

In this chapter, I will focus on female PhD students' love, relationships, and marriage, and their negotiation of the social stigma. I propose to structure this chapter around the following aspects: the social stigma of female PhDs' marriage and its consequence of discouraging women from pursuing a doctoral degree, female PhD students' love and marriage status, an analysis of the various factors influencing their love and marriage from the perspectives of both social opinions and their own requirements for partners,

and, finally, exploring their values of singleness, love, marriage, gender and (future) family.

Female PhDs' "marriage difficulty" measured against pursuing a PhD

As a stranger, my mother's neighbour's talk and beliefs are very commonplace among the general public. There exist widely-held negative stereotypes of female PhDs in social opinions and on social media, such as "the third gender", "marriage difficulties", "nerds", "bad looks", and "lack of sophistication". Among these stigmas, love and marriage issues draw the most concern, as well as heated debate in society and among the public. Due to the deeply rooted Confucian and patriarchal social values and norms, Chinese women are still constrained by traditional gender and family roles. Marriage is a taken-for-granted thing that happens as part of the life course in the traditional view. The marriage rate is comparatively high in China, especially for women. According to the 2010 nationwide population census, unmarried women aged 30 to 34 made up only 5.35% on a national scale (National Bureau of Statistics in PR China, 2010), which is obviously lower than in many Asian countries (Jones, 2018) (see Figure 17). The proportion was higher (7.35%) in the cities and much higher (12.4%) in the international metropolitan city of Beijing (National Bureau of Statistics in PR China, 2010).

Figure 17: Percentage of never married women aged 30–34, in selected Asian countries
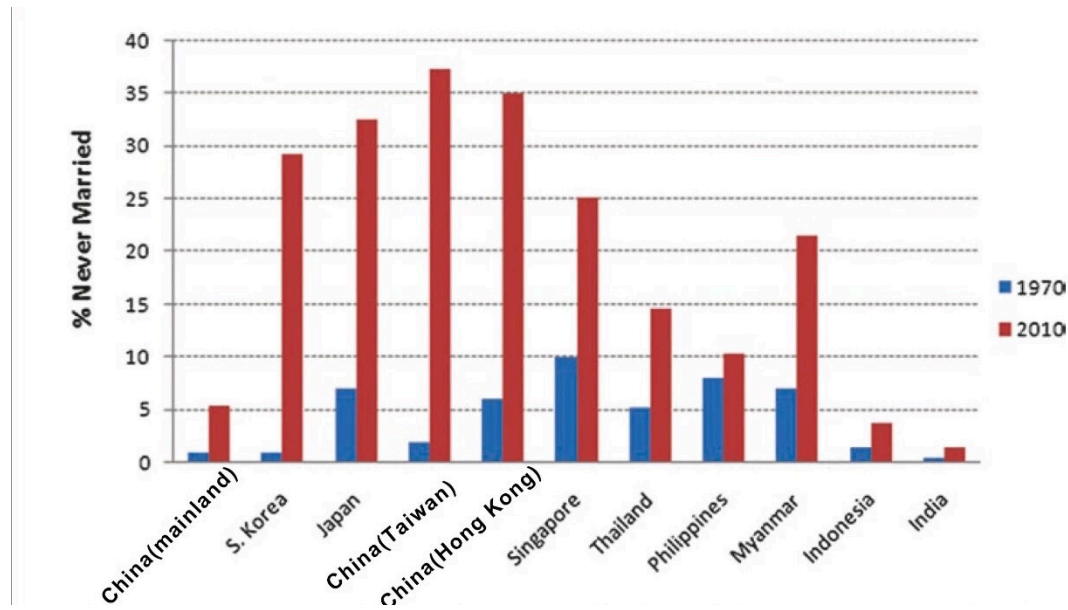
Resource: Jones, 2018 (Figure 9.1)

Chinese women are expected to marry in their early or middle twenties. As their age increases, they are perceived as having difficulties in finding a husband and are labelled "leftover"[6]. Many traditional marriage values, such as: "A woman with a family can be complete" and "Marriage is the matter of primary importance in life", still remain influential in Mainland China. Consequently, being single at a marriageable age seems to be an alarming and shameful problem, especially for the older generation.

In addition, female PhDs are portrayed as undatable and unmarriageable, struggling to find a suitor and worried about "marrying off" (嫁出去) on social media. As the comic below describes it, a PhD woman is at her wedding banquet with the husband absent, she only has a hanging two-piece suit. Such a ridiculous scene highlights the unmarriageable status of female PhDs and their anxiety about becoming leftover women. It shapes the typically stereotyped image of female PhDs as having a "marriage crisis".

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[6] The term 'leftover woman' is a new contemporary term emerging in 2000s.

Figure 18: Comic of female PhDs' wedding

A video extract from a Chinese TV programme *Speak Aloud*, entitled "A doctoral woman was rejected 50 times on matchmaking dates for her bad looks" drew great attention online and was viewed more than 155 000 times on Tencent Video (See Figure 19, *Speak Aloud*, 2014). Xiaoying was in her thirties and has a doctor's degree. Her mother was highly worried and anxious about her marriage and pressured her on matchmaking dates. Xiaoying said with anger on the show:

> *My mother told me I must solve my marriage problem before 35 and arranged five blind dates every week. For the last half year, I have met over 50 men. I am suffering. They did not think having a doctorate is useful [in the marriage market] … They disliked my appearance, and even never looked me in the face. The general impression of the 50 daters of me is ugly, old-fashioned and fat. I am not an appropriate partner for them.*

Figure 19: Screenshot of the video "A doctoral woman was rejected 50 times on matchmaking dates for her bad looks."

In her narrative, she felt very oppressed by her mother and also very ashamed of being criticised as ugly, fat and old-fashioned. Having 50 blind dates and being rejected by all 50 men is attractive news, which indicates that finding a boyfriend is dramatically problematic for Xiaoying, and that a doctorate is extremely uncompetitive compared to good looks in the marriage. Moreover, I discovered that the same woman, Xiaoying, appeared on another TV show *Fighting to save your marriage (《婚姻保卫战》)* to complain that her boyfriend discriminated against her bad looks, but on this occasion (in 2016) she was given a totally different identity, that of a receptionist in a company. It is reasonable to infer that Xiaoying is an actress hired to play the fake roles and that the entire matchmaking experiences of the female PhD were designed by the programme. "Female PhDs" becomes a label that, to a large degree, equates to women in marriage crisis.

In this context, it seems that having a good relationship/marriage and doing a PhD is an "either-or" problem that female PhD students are facing, and they are very anxious

about being single and "leftover". Having a doctoral degree can reduce their competitiveness in marriage. Consequently, "love and marriage problems" have been a widely accepted excuse to persuade women against pursuing a doctoral degree. As Yang told me:

> *My mother did not support me to do the PhD. She wanted me to marry and settle down earlier. She thinks a woman doing a PhD is useless, having a master's degree is enough. And my age … when I graduate, I will be 30. It's kind of "old". She sees the people around her, they get married, have good partners, and have kids, but me, I was single at that time. So, she might worry a lot.*
>
> *Yang, 28, in a relationship, Science, China*

Yang's mother spoke out about what many mothers of female PhD students believe. Her daughter had achieved a great deal in terms of educational level, but doing a PhD is not necessary. Being single is a huge threat to her personal life. If she misses the proper timing for finding a partner and marrying due to doing a PhD in her late twenties, it will not be worthwhile. This illustrates that her mother considers that marriage and family outweigh a doctoral degree for a young woman at this stage of her life course. Nevertheless, Yang is one of the lucky ones in that she finally managed to do a PhD because her father supported her, and her mother respected her choice. Even so, her mother always asks her to be active in finding a boyfriend to avoid being "leftover".

As a matter of fact, many young women who intend to do a PhD are persuaded to give it up because of the overwhelming pressure around love and marriage issues. Sandy To (2015: 36) researched China's leftover women and one of her participants, Abby, gave a case in point. "There was a period when they *[her parents]* were quite worried about me, that was when I was doing my master's … They wanted me to get a higher degree, but when I asked them if I should do a doctorate, they said no, because my appearance was

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already quite intimidating." Abby (27, private equity manager) has an extraordinary height of 1.75m, which would threaten suitors and put them under too much pressure. Due to this unchangeable fact, her marriage has been worrying her parents. Additionally, her parents believe that women who undertake a PhD will further depreciate in marriage value. Based on this, when she asked her parents about their attitudes towards her doing a PhD, obviously, they discouraged her "for fear that it would further lessen her chances of finding a partner" (To, 2015: 36). Education as "marital capital" both for young men and women is commonly agreed in marriage, but "over-education" is taken as "useless" and "devalued" for women only.

When young women make the decision on whether to do a PhD or not, the primary reason given by others, especially parents and relatives, for not supporting the idea is being single, or lessening the opportunities for marriage, which ranks higher than academic skills, career needs, economic situation and so on. These ideas like, "female PhDs are hard to marry off" and "Young women should prioritise love and marriage, rather than pursuing an advanced degree in their late twenties" have become widespread and generally accepted by the public. These social opinions generate an unfriendly environment for female PhDs with respect to both their marriage and education. The female PhD students, like ordinary young women at the same age, are burdened by the overwhelming pressure from Chinese society to marry.

Chinese female PhD students' love and marriage status

In the imagination of social opinion, female PhDs are undatable and hard to "marry off"; therefore, they are more likely to be single and anxious about finding a partner all the time. To explore this, I analyse the love, relationship and marriage status of my participants when they were being interviewed, and the results are displayed below (Figure 20).

Figure 20: Love and marriage status of all 40 participants
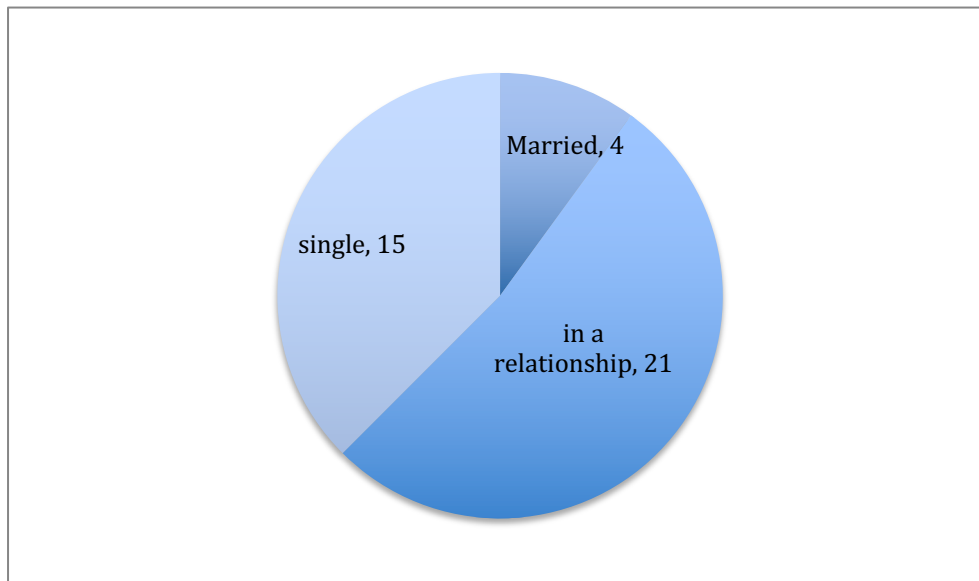
According to the personal love and marriage status of all 40 participants, a majority of female doctoral students are in a relationship or married: four female PhD students were married and 21 had a boyfriend, while 15 participants were single. In contrast to the stereotype, most of my participants were in a relationship or married and furthermore, I will categorise their love status to identify whether they are less likely to find potential suitors, "worry about their marriage" (愁嫁), and "hurry to marry off" (急着嫁出去).

The first type of female PhD students was composed of those who were already in a relationship before they started their PhD programme. Jiani is at the end of her second year and has been going steady with her boyfriend for four years.

> *My boyfriend is in the same department as me and we have similar research topics. During my master's period, he was my senior colleague, three years ahead of me. Our department was always organising activities and we met there. At first, we had a lot to talk about and I felt he was a good guy, and naturally, we fell in love. Two years later, I wanted to apply to do a PhD. He was very supportive and thought it very valuable. Since I began my PhD, we've been in a long-distance relationship. He's graduated and found a job in another city. I think our*

relationship is very stable now.

<div align="right">

Jiani, 27, in a relationship, Arts and Humanities, China

</div>

Jiani never worried about marriage as a female PhD student, because she had been in love with her partner for four years and he understood and encouraged her PhD path. The long-term solid foundations of their romantic relationship enabled them to form an loving unit. Similarly, Beibei has been in a relationship longer than Jiani, and she told me her love story.

Meng: You mentioned your boyfriend; can you tell me something about him?

Beibei: He's also doing a PhD at this university and he's in the same year as me. We met when we were undergraduates, and he was also here during our master's, and now [during the PhD] we're on different campuses.

Meng: How did you meet and get to know each other?

Beibei: We always participated in class activities and we both worked in the same department of the student union, so we got in touch very often and got to know each other better and better.

Meng: When did you begin to "be together" [referring to "become boyfriend and girlfriend"]?

Beibei: The second term of the first year during our undergraduate degree, or a little earlier?

Meng: You have been together for over eight years?

Beibei: Yes.

…

Meng: What's his attitude towards you doing a PhD?

Beibei: He was doing well in his master's, so his supervisor wanted him to stay. I wanted to do it mainly because I was not satisfied with my career future as a master's graduate. So, we chimed in easily (一拍即合) to continue our schooling together.

Meng: How do you think your relationship is right now?

Beibei: We've been together for such a long time, and it's not something passionate. We're

very familiar, and I feel we're like family members now.

<div align="right">*Beibei, 28, in a relationship, Science, China*</div>

Eight years in a romantic relationship is a long-term love run (爱情长跑). They have accompanied each other in everyday life, experienced many big transitions in their lives, and they made the big decision to do a PhD together. After years of dating, they regard each other as their closest companion and future spouse. They each keep pace with their partner since they are in love. A stable relationship is a beneficial factor for both young women and men to be engaged in a PhD programme. Even though they are not in a hurry to marry, their families hope they can marry and settle down (成家) earlier. So they have decided to participate in a campus collective wedding next year. Many participants have the same relationship status as Beibei, and Xiaotian (25, in a relationship, Science, China) best describes it as: "The only difference between our relationship and marriage is that piece of paper". Here, the piece of paper refers to the marriage licence.

The married PhD women in this study all became boyfriend and girlfriend before beginning their PhD studies. What is more, Sunny, Jessica and Ruth got married before beginning their PhD. In these cases, it was a family decision to study, and they did not care about marriage issues if their husbands supported them. To conclude, if a young woman has been in a steady relationship and her partner supports her to pursue an advanced degree, she seldom worries that doing a PhD will "threaten" her relationship or marriage. It may postpone the time when they enter marriage, but they do not change their ideas because of hurrying to marry. They suffer less pressure from their family members, relatives, friends, supervisors, and society than others who were single before commencing their PhD programme.

The second category comprises female PhD students who found a partner during their

PhD studies. As many individuals, such as Yang's and Abby's mothers, believe that a PhD may reduce the chances of meeting a suitor, they persuade young women to start work directly after graduating from their master's. However, many cases in my research challenged this view; many young female students found a partner during their PhD in both China and the UK. Xianer was single when she planned to do a PhD programme, so her mother was very anxious about her love and marriage issues at that time.

> *My family has always supported my decisions, as long as it was not a bad thing. But I was single at that time, and my mother told me her worries. She didn't say something like I must get married first. She thought that I would need to date someone during the PhD. When I was preparing for the doctorate entrance examination, she knew I was very busy, and she didn't mention it. However, after I got the offer she began to mention it. She also asked her friends and relatives to find potential suitors and my family arranged matchmaking dates for me. Very luckily, the first young man I dated became my boyfriend, yes, we met through matchmaking dates.*
>
> *Xianer, 27, in a relationship, Arts and Humanities, China*

Even though their love story started in the form of a traditional matchmaking date, they never regarded themselves as someone who "can't find a partner on their own and needs to rely on others' introduction". They were neither highly realistic nor goal-oriented, so they just saw the blind date as an opportunity to meet someone and have a talk. This relaxed and peaceful attitude facilitated their communication and interaction. Xianer began her relationship during the first year of her PhD and they have been getting along well for the past one and a half years, coming to an agreement to marry after her graduation. Differently from Xianer's strategy of a matchmaking date, Maggie met her boyfriend through social activities.

> *Every year at the beginning of a new term, the Graduate Student Association always*

organised some social activities. We met last year on an activity held especially for new PhD

students. We met each other there and swapped telephone numbers. Later, we sometimes had

dinner and hung out together. Gradually, we felt we liked each other and, naturally, we began

to date and became boyfriend and girlfriend.

<div align="right">

Maggie, 26, in a relationship, Arts and Humanities, UK

</div>

Maggie met and fell in love with her boyfriend through participating in social activities. Even though she did not intend to find a potential suitor via these activities, she enlarged her social network, which increased her chances of meeting a potential partner. Her boyfriend is also a PhD student at the same university and is British-born Chinese. Maggie told me she never thought she would have a relationship with a non-Chinese man because she was, to some degree, physically unattracted to western people, and her partner is originally Chinese. He was born and educated in a typical British way, and Maggie has very modern and western values, compared to average Chinese young women. Her boyfriend inherited some traditional Chinese views about love and marriage from his family, which attracted Maggie greatly. From various perspectives, it seems they are a perfect "match" and "he understood her very well". They have been cohabitating and enjoy their relationship greatly.

No matter which strategy or channel they adopted, with the assistance of others or through their own personal networks, no matter where they were, in a department with more female students in China or in a university with more women in the UK, Xianer, Maggie and many other young Chinese female PhD students have started a happy relationship during their PhD period. These cases indicate that it is not impossible to find a suitor after becoming a PhD student, which is a blow for those who consider the workplace to be more beneficial than the campus. In this way, my research, to some extent, illustrates that female PhD students can give consideration to both PhD studies and love issues. So in fact, these first two types of PhD women are exceptions from

"marriage difficulty".

Thirdly, some female PhD students were single at the time of being interviewed. As the public label "unmarried crisis" applied to female PhDs, these single female PhD students seem to match the public imagination. However, the key ideas that the public and social media tend to emphasise are not simply the singlehood of female PhD students, but also their "worry/anxiety (愁)" and "difficulty (难)". As a widespread saying goes, "Female PhDs worry about their thesis during daytime, while worrying about their marriage at night" (Figure 21). This negative description of female PhD students' love experiences turgidly expresses that they deeply long for a date and exaggeratedly describes how difficult it is for the female PhDs.

Figure 21: Female PhDs worry about their thesis during the daytime, while worrying about their marriage at night.[7]

Resource: Liaoshen Evening News (Wang, Z., 2009)

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[7] The illustrator of this comic is Yu Jingsi. The sentence in the comics was written in Chinese "白天愁论文，晚上愁嫁人" and was translated by the researcher.

A piece of news reporting that the Top 10 occupations are experiencing an "unmarried crisis", was given the title "Escaping from singlehood: a woman with PhD lies that she only has a college degree when looking for a partner" (TSnews, 2016). In this news item, the staff of a marriage agency in Urumchi said: "The female doctors here don't dare to say they have a doctor's degree, they just tell others they have a college degree". This is not an individual case. Much earlier, in 2004, *Guangming Daily* posted the news that a Dr Han in Nanjing had asked a marriage agency to change her educational information from doctor's degree to bachelor's degree (Deng, 2011). Such news and phenomena provide evidence to illustrate that having a doctor's degree devalues women in the marriage. Moreover, these women would rather lie to and cheat potential suitors because they are afraid their high academic degree would "scare them away". They are caught in the difficulty of finding a partner, which makes them extremely anxious, and they are forced to adopt any strategy to escape from this dilemma, including reducing their academic achievements to attract more suitors.

In Chinese society and on social media, single female PhDs are always described as problematic in terms of love and marriage and as having a strong desire to "escape from singlehood (脱单)". "Worry/ anxiety (愁)" and "difficulty (难)" have always gone along with female PhDs in terms of their love and marriage prospects. Therefore, to examine this debate, I explore the singlehood of my participants. Are they worried about failing to find a partner? What are their attitudes towards romantic relationships? How about their singlehood?

Yutong was a first-year PhD student aged 27. She had a secret crush on a classmate in high school and has never been in a formal relationship. Her blank love history was a rare thing among young women of her age. Consequently, her parents were very worried about her love issues when she decided to pursue a doctor's degree.

Meng: What did they [her parents] do?

Yutong: My father would mention it sometimes, and mom seems more worried. She told me that someone introduced potential suitors for me, but she thought the men were not reliable (靠谱) enough, so she didn't ask me to meet them. I found it a very interesting thing that she could clearly remember every man I have ever mentioned a little bit at home. Some days later, she would come to ask me about the man. I knew she was always concerned with this stuff.

Meng: Do you feel anxious about it?

Yutong: No. If I were anxious, I would not have been single for so many years.

…

Meng: Your parents worried, but you didn't.

Yutong: It's not to say I never worried about it at all, but I'm not in a hurry to find anyone at present. However, I remember when I was just beginning my PhD, I was in a very bad state of mind. At that time, I was tired and thought if I had a boyfriend, we two could bear the pressure together. I might need a person to rely on. But when the bad state had gone, I realised that this idea was very selfish. So, after recovering from that poor condition, I found that love was not necessary to worry about, and being anxious was useless.

Meng: How do you think of your current singlehood?

Yutong: I've been used to the single life. I can arrange the time and my life is very full with things I want to do. So, unless I meet the one that I like, I don't need to find a boyfriend or have a date.

Meng: Do you do anything to seek "the one"? Like participate in some activities?

Yutong: I haven't been at "that stage" of taking measures, I want to take everything as it comes (shun qi zi ran/顺其自然).

Yutong, 27, single, Arts and Humanities, China

It is quite commonplace for the parents of single PhD students to worry about their dating and marriage. They often attempt to do whatever they are capable of, such as nagging their daughter and arranging matchmaking dates. Obviously, Yutong was far

less anxious. Her single lifestyle seems good: enriching her life. She was independent in coping with everyday life and emotional instability. In terms of "doing" something to seek a partner, in contrast to her parents' over-attention, she did not want to act intentionally and hoped that everything would come naturally.

Chuantian, based in a science and technology university, was 27 years old. She was not under as much pressure as Yutong from her parents, but the voices urging her to marry never stopped. When I asked about her dating experience and current state, she replied:

> I have had two boyfriends, one was during my undergraduate degree and the other one was during the early master's period. I've been single for over three years. At present, I don't care much about it. Some people tell me that I need to consider it seriously right now, but I feel it's a very normal situation. How to say it? I'm not refusing dating. If I meet a suitor, that's great. But I don't agree that we need to fear about our age or anything, or like some people said, I should find a partner of a certain kind. To be honest, I feel that when I'm doing some things, being single makes me more free and relaxed. I might only think about having a boyfriend when I want to shop but no one accompanies me, or when I need to carry heavy things. However, if you're independent you won't care too much.
>
> <div align="right">Chuntian, 27, single, Engineering, China</div>

Chuntian was under pressure to find a boyfriend, but she was not as anxious as the people around her. She clearly understood why others held such points of view, while from her own perception, her singlehood was "normal", not something "wrong", and she appeared to enjoy the freedom and relaxation of her single lifestyle, so singlehood did not bother her. Like Yutong, she only longed for a partner when she needed help, such as accompanying her to go shopping or carrying heavy bags. She admitted that these problems could be overcome by an independent personality. In addition, Chuntian had been refused by many young men for her high academic degree. Once, when she was

chatting with a man introduced by others, she told him she was doing a PhD. The man replied, "You're great", and then stopped chatting and disappeared. Chuntian regarded these shrinking men as ridiculous and comical, and definitely not the one she wanted. With rich experiences of matchmaking dates, she had calmed down and was focusing on her own life, no longer affected by the annoying voices.

Tonia broke up with her boyfriend before she came to the UK to do a master's, and has been single for three years. Very fortunately, she has a very open-minded family who support her in doing her PhD and also do not press her to stop being single. Tonia told me about her experiences and ideas of romantic relationships.

Several months ago, I met a man who was introduced by a friend. I was here [in the UK] and he was in China. We just talked online and everything is under development. Actually, I appreciated him, and he is attractive to me. He also regarded me as suitable. However, we have stopped the relationship because we were in an inconsistent rhythm. He wanted me to go back home and marry him as soon as possible, in one year. But, I wasn't prepared to enter a marriage in such a hurry. It's impossible for me to graduate within one year. So, we didn't continue with the relationship.

I don't have much pressure. I don't care about the age or the high degree, because I'm already "older" than average people [in terms of marriage]. Even so, we care more about the quality [of the partner] ... If I'm employed in a work unit (单位) back in China, I will meet more people and my older colleagues will be very happy to introduce people to me. The fact is my limited social circle here. I plan to find a job and settle down first in China, and then consider seeking a boyfriend. But it doesn't mean I refuse dating in the UK. If I meet a man and we match, I will.

Tonia, 29, single, Arts and Humanities, UK

Tonia had just ended a matchmaking-date relationship with a man who had hoped to marry within one year. The inconsistent rhythm of their life plans stopped their relationship from developing further. However, this failed relationship neither made Tonia lose hope nor worry about her future relationship and marriage. In spite of a little regret, Tonia was still very optimistic and she believed that a good match was waiting for her in the future. Due to her limited social network, she expects to find a potential mate in China when she has a job and settles down. At this point, she has postponed her love and marriage until after the completion of her PhD and settlement in China. Tonia is not an individual case. The long period of doing a PhD also refers to future instability and uncertainty. Many female PhD students have no clear idea of where or when to work and settle down, which increases the risks for a current relationship if they start one. Postponing their marriage issues to the time when they actually settle down and find employment seems to be a more secure and responsible choice.

Taking all these single cases into account, whether they are suffering from high pressure or surrounded by a friendlier environment, female PhD students are seldom anxious about being single and enjoy a free and fulfilled single lifestyle. "Anxiety" and "difficulty" are not synonymous with female PhDs' marriage status. Romantic relationships seem not to be prioritised at present. As almost every participant in my study claimed: "The heaviest pressure comes from research, papers, graduation … of course, not finding a boyfriend, marriage". They would like a boyfriend in the cases when they come across difficulties and need company, but their independent personalities leave little space for them to rely on a partner. They mostly hold a neutral attitude towards dating, neither actively participating in social activities with the clear aim of seeking a suitor, nor refusing matchmaking dates. They are open to all possibilities and chances on the condition of "meeting a suitable person (遇到合适的人)". They are unlikely to compromise in order to "marry off" and they prefer to "take everything as it comes (顺其自然)". By exploring single women's lifestyles and values, I argue that, despite being

single, the female PhD students are neither worried nor in a hurry to enter a relationship, contesting the social opinion that they are longing for a partner and very anxious about being leftover women.

To conclude, for all three types of female PhD students in terms of their relationship status, the social imagination of their "unmarried crisis" is very different from their actual practices and values. Later marriage has been a worldwide trend, including most East Asian countries with patriarchal family system (Raymo, et al., 2015). Data from the Nanjing Civil Affairs Bureau shows that the average age of first marriage in Nanjing is 30.4 for women, and a little bit younger, 30.3 for men (Modern Express, 2015). The phenomenon of marriage delay is more notable among highly educated people. Women's education is positively associated with age at first marriage (Raymo et al., 2015). According to the 2010 population census (Figure 22), the unmarried rate among highly educated people is higher than that of the general population at the same age nationwide. The data shows a trend of delayed marriage among highly educated people, both for men and women. As the educational duration of PhD students lasts longer, it is reasonable to imply that PhD students may enter their first marriage at a comparatively higher age than undergraduates or master's students, but this does not mean they are in "marriage crisis".

Figure 22: Percentage of never-married population aged 30–34, in China

Resource: 2010 China population census (National Bureau of Statistics in PR China, 2010)

Female PhD students who have maintained a long-term steady relationship, even though their marriage may be postponed by their education for a period of time, are not that different from the general public. If they marry during the PhD period or right after their graduation, their marriage will be among the average age, or even before (such as 30.3 for Nanjingers). Some PhD women can find a suitor after doing their PhD, which provides strong evidence against some parents' perception that it is impossible to find a boyfriend after doing a PhD. According to the *2015 Chinese love and marriage report* conducted by the Institution of Social Science Survey (ISSS) of Peking University and Baihe.com (a leading matchmaking date website) (2016), female PhDs have 7.12 romantic relationships on average, slightly higher than male PhDs, with 6.47, which is the highest among all educational degrees. This indicates that women PhDs are not "undatable"; on the contrary, they are popular to some extent. Even the single female PhD students are not as "poor", difficult and anxious as social opinion believes. They

have a fulfilling singlehood and expect a suitor to come along in the future. In summary, there are no signs that an "unmarried crisis" happens to female PhD students, which challenges the widespread social stigma around female PhDs' marriage prospects.

Female PhD students' negotiations of love and marriage

The discussion of female PhD students' love and marriage status was undertaken to challenge the public belief in an "unmarried crisis". Much attention will be paid to the reasons why the general public believe that female PhD students are anxious about their intimate relationships and how they interact and negotiate with these social opinions. The discussion will further analyse a range of factors impacting upon female PhDs' affection issues and the characteristics of their requirements for prospective partners.

In ancient China, the marriage pattern was based on patriarchal marriage norms and a traditional sexual division of labour. In contemporary society, these conventional and patriarchal views still remain influential in mate selection and marriage patterns. Nowadays in China, the mainstream and widely accepted marriage pattern is still inherited from the traditional paradigms "*mendanghudui* (门当户对)" and "*nangaonüdi* (男高女低)" (Li and Xu, 2004; Sun, 2012). "*Mendanghudui*" refers to couples from families of equal social status who are well-matched for marriage, which can be best explained by the sociological homogamy theory. "*Nangaonüdi*" is the marriage model of women "marrying up" and men "marrying down", and it can be regarded as the Chinese practice of hypergamy in marriage.

Marital homogamy, or Chinese "*mendanghudui* (门当户对)", theory highlights the "similarity" of the potential couple; specifically, in terms of race, religion, education, economic and social status, family background and so forth. Many scholars (see Kalmijn, 1998; Lichter, 1990) argue that love and marriage do not occur randomly in society and have described a situation in which people prefer to marry a person who is close to

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them in status (homogamy) or marry within their social status/groups ("*mendanghudui*"/endogamy). To visualise this theory and pattern in mating and marriage, I draw an analogy that Chinese people always adopt. If men and women are graded into four levels (A stands for the best while D refer to the last group), the ideal matching model is displayed as follows (Figure 23).

Figure 23: Homogamy
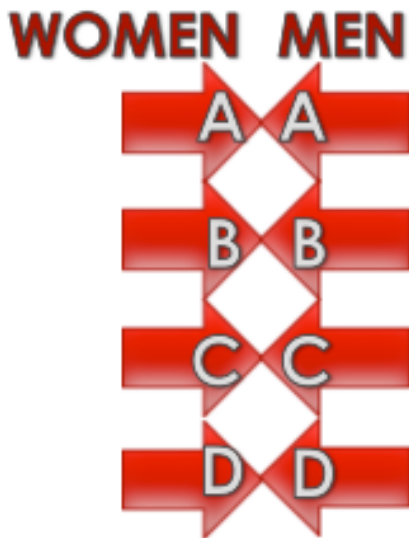
According to marital homogamy theory and Chinese *"mendanghudui"* tradition, the A-graded women match A-graded men, B-graded women are suitable for B-graded men, and D-graded women are more likely to marry D-graded men. Existing western research has explored marital homogamy and endogamy mainly from the perspectives of race/ethnicity, religion and socioeconomic status (Kalmijn, 1998). Much literature has attempted to answer the question of whether various nationality/ethnicity groups would intermarry with one another and has then examined the effects of religious homogamy in mate selection and marriage worldwide (Drachsler, 1920; Wirth and Goldhamer, 1944; Kennedy 1944; Heaton and Bratt, 1990; Wilson and Musick, 1996). However, in the Chinese context, racial and religious issues are not very common problems in terms of marriage, so they are not of great reference value or significance to

Chinese marriage patterns (Sun, P., 2012). Therefore, the central factor to be considered in the choice of spouse is socioeconomic status, which can be constituted by achieved status and ascribed status (Kalmijn, 1998). As young individuals, to some extent, carry on the characteristics and fortunes of their parents' families, Chinese people consider a marriage as the integration of two families, not simply the wife and husband. In this analysis, the social and economic status of the family of origin, also deemed ascribed status, is also taken into consideration in choosing a marriage candidate, which is what the Chinese traditional "*mendanghudui*" pattern emphasised (Zhang, Y., 2003). Many people advocate marital homogamy and endogamy because the couple have been through similar life experiences and may share the same values and lifestyle, which will ease their communication and interactions, as well as increasing their marriage satisfaction and stability (Luo and Klohnen, 2005).

Alongside the preference for marrying people with a similar background and social grouping, Chinese marriage still follows the "*nangaonüdi*" pattern, also known as the "hypergamy" mating model. Originating from the Chinese patriarchal "male superior" tradition, women are dependent on men, either their father, husband or son, following the ancient Chinese moral values of "three obediences" (三从): obedient to father before marrying, obedient to husband during marriage and obedient to sons when widowed (未嫁从父，既嫁从夫，夫死从子). Therefore, marriage is the only channel for women to achieve upward mobility in social status. Consequently, women trend to seek a spouse with higher socioeconomic status and better personal conditions (个人条件), while men prefer women of lower or equal status as wife candidates. Many examples and evidence have been given to support the argument that the hypergamy marriage phenomenon still continues and prevails in contemporary Chinese society (Thomton and Lin, 1994; Xu, Ji and Tung, 2000; Li, Z. and Wei, S., 1986; Freedman, 1970). China is not the only country displaying this tendency, and worldwide sociologists (Lasswell and Lasswell, 1987; Rose, 2001) have contributed to the marital hypergamy theory of women

marrying up and men marrying down in an assortative mating process. Also, take the four-grade model as an analogy. According to hypergamy theory, A-grade men prefer B-grade women, B-grade men are very likely to marry C-grade women, and C-grade men match D-grade women, while A-grade women and D-grade men remain "leftover", as depicted in Figure 24.

Figure 24: Hypergamy
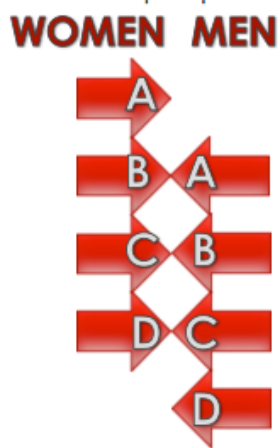
To further explore the hypergamy system, education, age, occupation, economic condition, social status and many other elements are the concerns of both the general public and scholars in mate selection. It has been widely believed that an ideal partner for a woman is expected to be older and taller, have more education and a higher income, and enjoy better social capital and family background (See Zhu, C.1966; Xu, Ji and Tung, 2000; Xie, Y., 2013).

Homogamy and hypergamy mating theories can provide an answer to the question of why the general public and social media regard Chinese female PhD students as having "marriage difficulty" and being in an "unmarried crisis". As the Chinese practical "*mendanghudui*" and "*nangaonüdi*" assortative mating models have become deeply rooted in the values and became a criterion when choosing a marriage partner, Chinese people believe that female PhDs are supposed to marry men who are "better" in general or at least with respect to some important aspects, such as educational degree, age,

socioeconomic status and professional skills. However, female PhDs have the highest possible academic degree and a seemingly promising career in the near future, and they are in their late twenties or early thirties. Also, many of them come from natal families with good economic and social status and live a decent life. So, who matches female doctors and is qualified to marry them? The general public may, to a large degree, expect their suitors to be at the age of around or above the thirties, also undergoing a PhD programme or having obtained a doctoral degree, to have a good occupation and high income, come from good natal families, have good personalities and so forth. Undoubtedly, the number of qualified single young men who can meet all these requirements is very limited, which throws Chinese female PhDs into the "unmarried crisis". In other words, female PhDs are over-qualified, and most people exclude them from being "wife candidates". I will now discuss female PhD students' requirements for potential suitors and their negotiation of social opinions with respect to education, economic conditions and personal preferences and characters.

Education

The literature on assortative mating addresses the question of who marries whom, as well as who marries and who remains single (Murstein, 1976; Becker, 1991; Rose, 2001). Among many factors, education is of great significance and much empirical work has typically focused on how education impacts upon mating and marriage (Kalmijn, 1991 and 1998; Lin, 1977; Mare, 1991). Much research has argued that the prevailing practices of educational homogamy exist worldwide, of course including China, even though the degree may vary between genders and countries and shift during different time periods (Rose 2001; Sun, P., 2012; Cai, W., 2005; Mare, 1991; Smits et al., 1998). Education is a key indicator to measure achieved status, and ranks top in assortative mating. In most countries, educational homogamy is the strongest factor, more evident than occupational or social class homogamy (Kalmijn, 1998). Lin (1977) documented that people in Taiwan preferred to marry someone with a similar educational

background as the result of a higher enrolment of women in the educational system. Li Yinhe (1989) examined 300 marriage-seeking advertisements and discovered that education ranked third, only lower than age and height, with respect to importance in choosing a suitor, and women valued it more than men. The tendency of educational homogamy is dynamic under the impact of modernity, economic and cultural development, and romantic love (Mare, 1991; Kalmijn, 1998; Smits et al., 1998), while education has become a trustworthy and stable criterion in mate selection.

Educational homogamy seems to be a good approach for society and the public to "imagine" who will marry female PhDs. Based on this, people commonly believe that men with a PhD or higher academic achievement can match female PhDs because they have equal academic degrees. Therefore, the potential partners of female PhD students can only be chosen from male PhD students, doctors, postdocs, and some men with great professional achievements. In the population aged from 25 to 29, which is generally in accord with the age range of female PhD students, the gendered educational distribution displays the shape of a "converse V" with postgraduates making up only 1% of the total population (Figure 25).

Figure 25: The gendered educational distribution (age 25–29)
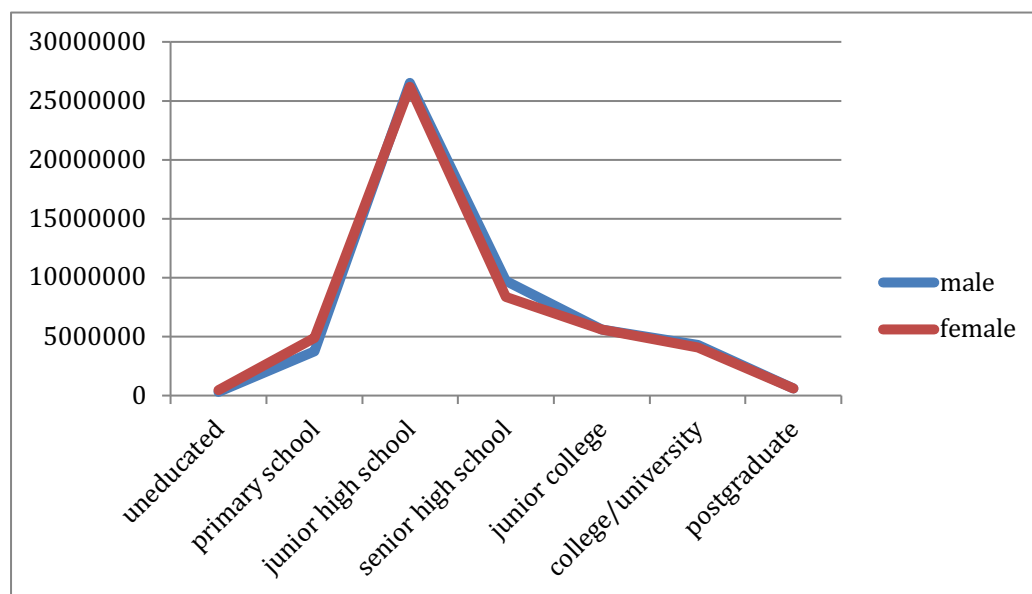
Data source: 2010 nationwide population census (P.R. China)

Because no data specifically describes the population of doctoral degrees, the postgraduate situation is the closest evidence. As postgraduates include masters and doctors, it is reasonable to infer that men who are undertaking a PhD or have obtained a doctor's degree must be fewer than this number. In this way, the range of female PhD students' potential suitors is quite limited and narrow. Therefore, the "unmarried crisis" appears to be convincing in terms of educational homogamy.

However, all of the above lies in the imaginations and beliefs of the general public and social media. It is worth investigating female PhD students' actual requirements for their potential partners with respect to educational background. Naihe, 27 years old, ended a sad relationship one year ago and was a second-year PhD student in a science laboratory. She told me about her own and her parents' requirements for a suitor's educational degree.

> *Meng: What's your requirement for your future boyfriend?*
>
> *Naihe: Actually, I don't care. I don't have a certain requirement for educational degree, but*

my parents do.

Meng: What do they expect? Master or doctor?

Naihe: They want the man to have "at least" a master's, but they both think if he is a doctor, it

will be better because we'll have a lot to talk about. Actually, we'll still have few common

topics if we majored in different subjects. However, my parents believe this is

"mendanghudui", or, to say the least, we have similar experiences.

<div align="right">

Naihe, 26, single, Science, China

</div>

Naihe's parents had exactly the same expectations as Chinese "*mendanghudui*" and educational homogamy theory argue. They preferred their daughter to marry a doctor, or at least a master, because the same educational background would provide them with more common topics and similar experiences. From their perspective, a university graduate is not "qualified" to match their daughter, currently a PhD student and a doctor in the foreseeable future. In contrast to her parents' insistent requirements, Naihe was indifferent to academic degree and never set up any particular level of educational degree as a threshold in choosing a partner. This case indicates a gap between the requirements of female PhDs and others. Whether their partner has the same doctor's degree is not as important as the public imagines.

Lizhi is a practical example of having a less-educated boyfriend; however, they enjoyed a happy relationship and planned to marry by the end of the year (2015). Lizhi and her boyfriend are not a good match measured by average mating criteria. She is a PhD student, aged 29, whose parents both worked for the government, while her boyfriend only has a junior college degree and works in a factory, having grown up in a peasant family. There exists a "huge" gap in educational background and future career prospects. This relationship was opposed by her parents.

He [Lizhi's boyfriend] didn't go to college, and is a junior college graduate. My parents were

very dissatisfied with this and I was "fighting" for it with my family for a long time. We have

been together [referring to being in a relationship] for nearly three years. He is very tolerant

and accompanying and good to me ... The most important thing he gives me is a sense of

security. I think this may relate to my previous relationships. I feel he [ex-boyfriend] didn't

care about me and I was always guessing what he thought, but that wouldn't happen with

him [current boyfriend]. Our relationship is very stable, and we've decided to marry when I

graduate this year.

<div align="right">

Lizhi, 29, in a relationship, Science, China

</div>

From Lizhi's narrative, we can see that she was not concerned about the lower education of her partner. In contrast, she highlighted the love and goodness he can bring, which, to a large degree, is not related to educational issues, as Lizhi commented, "many people think our relationship is unbelievable, but I only care how much we love each other." She treasures his good values, considerate behaviour, loyalty and good temper, instead of his lower educational background. Educational homogamy fails to apply to Lizhi's relationship, while I argue that social exchange theory may be a better explanation. Assortative mating is a process of resource exchange. Women and men exchange tangible and intangible resources to achieve the most in a marriage (Edward, 1969). Lizhi's high education, promising career and family capital are given in exchange for her boyfriend's considerate care, company, tolerance and love. Through this exchange, she has gained a sense of security and self-confidence that is of more value than education. Therefore, Lizhi accepted his pursuit and they interacted and communicated well.

When I asked about the lowest expectation for suitors in terms of educational degree, a majority of my participants gave a similar reply. Hanke, 26, was single at the time of interview, and we talked about what kind of partner she wants.

Meng: Your requirement for his educational degree?

Hanke: I don't have any requirement.

Meng: The lowest requirement?

Hanke: Never mind it, a college degree? Um, having a bachelor's degree is all right.

<div align="right">

Hanke, 26, single, Science, China

</div>

Hanke did not set a certain academic degree as the criterion and her mood indicated that she had never considered it as a very serious aspect in finding a partner. When I asked her for the lowest requirement, she just thought about it for a few seconds and gave a casual answer: a college graduate is all right. For Hanke, a man with a bachelor's degree, which is "two-degrees" lower than her, is quite satisfactory.

Similarly, Summer, who has studied in the UK since her master's programme, told me her understandings of a partner's educational experiences.

Meng: What's your requirement for education?

Summer: I don't care about it too much, as long as he's an undergraduate, no matter what level of university. Even if he graduated from "erben" *(common institution of higher education) or* "sanben" *(private college), I can accept that.*

Meng: A bachelor's degree is all right? You don't require a master's or doctorate?

Summer: Yes, bachelor, I can accept. The undergraduate education, no matter if it's three years in the UK or four years in other countries, is irreplaceable to shape the personalities and characters. And, entering a college/university is not very difficult, especially an erben *university or* sanben *college.*

<div align="right">

Summer, 27, single, Social Science, UK

</div>

As Summer mentioned, Chinese institutions of higher education (including colleges and universities) exist at various levels of quality. They are classified into three levels: *yiben*

(一本) or zhongben (重本), referring to key institutions of higher education, and government-run universities in Mainland China; *erben* (二本), the public common institutions of higher education; and, *sanben* (三本) colleges, which are also seen as common institutions of higher education, but are generally private and independent colleges. As the quality of institutions varies, students are graded by their score in the Chinese *gaokao* (college entrance examination)*.* Basically, the academic achievements of students in *yiben* (一本) are more outstanding than those in *erben* or *sanben*. She accepted *erben* and *sanben* graduates who have achieved less, which is not a high requirement in terms of educational degree, especially given that Summer graduated from a *yiben* university and was enrolled in a PhD programme. She highlighted that she deemed an undergraduate course to be the threshold because it is a very important and vital period in forming young people's personalities and developing their values, rather than focusing on their academic achievements and the degree only. Her argument was in line with Kalmijn's (1991 and 1998) interpretation of educational homogamy, that "education is not only strongly related to income and status, but also to taste, values, and lifestyles". In other words, Summer requires her partner to have formed some good personality traits, taste and values, and obtaining an undergraduate education is the channel to achieve them.

When the participants express their expectations of the educational degree of their potential partners, no one claimed a doctoral degree is a must-have. Men with a bachelor's degree are accepted by a majority of female PhD students I interviewed. In line with Mare (1991) and Kalmijn's (1991) argument, whether enrolment in higher education is the threshold, as well as, the strongest boundary is that between college graduates and less educated persons. Completing an undergraduate course is the bottom line to measure whether the man is qualified to match a female doctor, and the academic degrees above this may be better, but not necessary. In contrast to the social

imagination that female PhDs require their partner to have a similar educational background, many of my participants can accept a partner with lower academic degree.

This social bias has largely reduced the range of potential suitors for female PhDs and the possibility of successful mating. Take the educational condition of Chinese young men, aged 25 to 29, as the evidence. Men who have completed or are completing postgraduate courses composed only 1% of the population nationwide, while the proportion of those who are studying or have obtained an undergraduate education increases sharply to 9% (Figure 26).

Figure 26: The educational attainment of male adults by 2010 (aged 25–29)
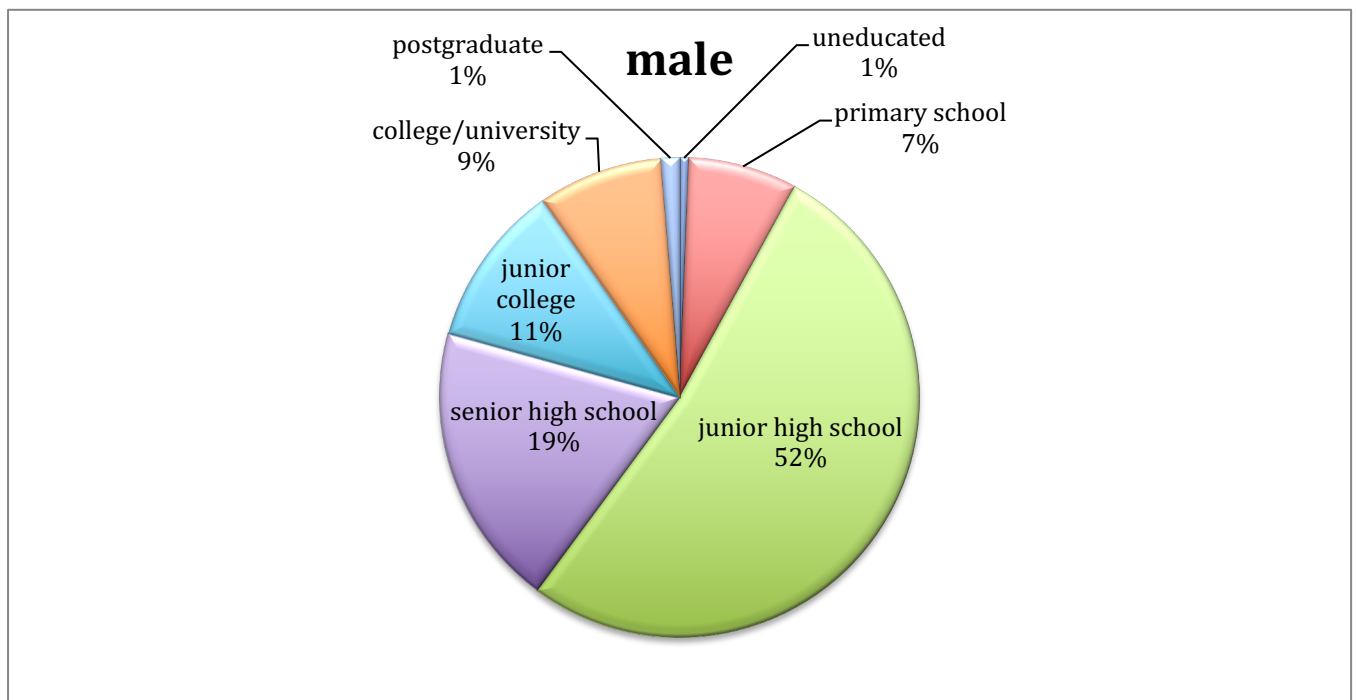
Data source: 2010 nationwide population census (P.R. China)

In public opinion, female PhDs are supposed to find a partner from the "1%" of the population (postgraduate.) However, a majority of them are happy to find the "right one" from both the 9% (college degree) and the 1% (postgraduate). Therefore, the

number of potential suitors increases by 9 times. I argue that the possibility of successful mating for female PhD students is much larger than the public imagines because society sets dramatically limited and narrow criteria for female PhDs' partners.

Economic conditions

Material situation is deemed to be the foundation of marriage in the Chinese context. Economic ability plays an increasingly important role in individual competitiveness in the marital market in today's world. In Chinese culture, the traditional gender roles also emphasise men as the breadwinners. Economic situation is always among the most important elements when single women are looking for potential suitors in China (Li, Y.,1989; Li, Y. and Xu, A., 2004; Xu, A., 2000; Chinese Academy of Marriage and Family and Baihe, 2010). Men's occupation, income and natal family background are the most direct factors impacting upon their economic situation, further relating to their ability to afford the marriage and support a family.

In addition, dominated by the traditional Chinese marriage values of women marrying up, men and their families are expected to be in a better economic situation than their female partners. According to the values of Chinese people, having their own house is the foundation of a marriage. Traditionally, it is the duty of the man's family to provide the new couple with their home. However, real estate in cities is very expensive for the young generation to afford, and it takes years of saving by them and their parents, and this is where their heaviest pressure originates. Therefore, possessing or being able to afford an apartment (and a car) is the acknowledged criterion for weighing the economic capability of a man. In the eyes of many single women, a house has been a vital requirement for young men to marry and the "basement" for a marriage. Even though many women and their families are willing to share the cost of the house and marriage due to their financial independence, they still expect to marry a man with a house, which can free them from a tight budget after marriage. In a word, whether a

man possesses a house is the key concern of most young women in urban areas in terms of estimating their marital life.

Women's expectation of their partners' material situation has been a deeply rooted and widely recognised social practice. In the marriage market, one unavoidable question for the male is: "Do you have a house?" However, according to my research, female PhDs seem to deviate from these mainstream values.

Ada has been studying and working overseas for years, and she shared her economic requirements for a potential suitor with me.

> *It's not necessary for him to have a house and a car, or a big fortune. If he has, that's great. If he hasn't, it doesn't matter, because we two can make it happen together. But, what I am concerned about is that he needs to be independent, economically and spiritually.*
>
> *Ada, 29, single, Science and Social science, UK*

Ada comes from an engineering family and worked in a European country for several years. In addition, she is a project-funded researcher at a UK university. Objectively speaking, she is financially independent and under less economic pressure than most self-funded Chinese PhD students in the UK. It is very reasonable for her to set a high standard for the economic conditions of her partner; however, she is ready to strive for the house with her partner, instead of expecting to marry a man who already has a fortune.

Similarly, Gloria, a single young woman, states her values for partner choice and attitudes towards material resources in marriage.

> *Meng: What are your requirements for your future partner in terms of economic conditions,*

like house, car, income, salary?

Gloria: I think it should not be defined by a number or having something. At least, I hope he has a satisfying job and, maybe, a promising future. I very much appreciate ambition, self-motivation, and potential, things like these. I don't care whether he possesses an apartment and a car currently, but in my eyes, his job will make improvements step by step. Just like us, you know PhDs are always poor when just graduating, and the income will increase later. It is acceptable that he just graduated, or his family isn't providing. I also come from a very common family and they can't support me with it, either. It doesn't matter. The important thing is that he is passionate about his job and responsible for himself and his family.

<div align="right">Gloria, 27, single, Social Science, UK</div>

Gloria does not stress the current economic ability of her partner, but cares a lot about his potential and diligence in his career, which is anticipated to improve their life in the future. Additionally, Gloria quite understands that some young men are in poor circumstances when they have just commenced their career if their families are unable to financially support them. She has an insight into the rough time and difficulties that young couples have to survive. Gloria has a long-term vision and deeply believes that a promising career and ambitious and industrious personalities are the guarantees for life and marriage, rather than currently owning a house and car.

Tonia was born into an intellectual family in a provincial city, and her parents are both well educated, working as a teacher and a doctor. She has been single for several years and has rich experiences of matchmaking dates. In the interview, she has a clear idea of what she expects.

Meng: Is his economic condition important to you? Or, how important is it?

Tonia: I can't say it's not important at all. He ought to be xiaokang *(小康/comfortably-off) in terms of economic life. I don't want to pursue a very* tuhao *(土豪／very wealthy or super rich)*

life, but it should reach the level of xiaokang *life.*

Meng: Compared with your current life?

Tonia: About the same as my current life. My parents give me my current living environment.

If I had a boyfriend, I think our life should be, more or less, at the same level as my current life,

or better than it. I don't want my life going backwards after marriage. That is to say, my

quality of life can't be reduced [by my boyfriend].

Tonia, 29, single, Arts and Humanities, UK

Tonia's family provides her with a comfortable living environment. In her expectation, a suitor's economic ability would enable her to maintain her current quality of life, and furthermore, her middle-class lifestyle. She regards matched material conditions as the basic requirement for love and marriage. She never dreams of marrying up into a very rich and powerful family, but she is unwilling to sacrifice for a relationship at the cost of reducing her living standard. This value resonated widely among my participants. Xianer also shared similar views.

In my opinion, my standard of living after marriage can't be lower than my single life. I don't

need that he can give me very good, or something, living conditions, but it should be "OK". For

example, if I can eat something before marriage, but I can't afford it after marriage, thus, I

can't accept it. In terms of this, his condition is on the same level as my family. Economic

issues are the foundation of marriage for me.

Xianer, 27, in a relationship, Arts and Humanities, China

Xianer met her boyfriend through a matchmaking date and has been in a stable relationship ever since. She believes that matchmaking dates are a good and trustworthy choice for looking for a boyfriend because the intermediary knows both the single man and woman, or their families. Consequently, he/she weighs the *tiaojian* (conditions) of the date candidates and introduces a good match in terms of age,

educational qualifications, economic conditions, family background, appearance, occupation, personality and so on. Men in a worse economic situation than Xianer will be excluded from matchmaking candidates, which best meets her criterion of maintaining her current standard of living after marriage.

Yuanyuan makes a more wide-ranging analysis based on her future career and life, and makes her economic demands for a prospective partner.

> *Doing research is a long process. You can't make a fortune or have achievements in a short time. It's a long-term accumulation, so I hope my partner can accompany me to live through this period constantly and stably. You know, after such long-running academic training I plan to work in higher education. As a lecturer, the salary may be just 3000 yuan [350 pounds] a month, and life will be hard. So, it is impossible for him to have a lower income than me, or be not very motivated. Or, we can't survive. So, I hope he can keep our life stable and sustainable, but it's unnecessary to be very rich. I don't cost much, just to satisfy my basic life needs, groceries, clothing, something related.*
>
> *Yuanyuan, 27, in a relationship, Arts and Humanities, China*

Yuanyuan has determined her future career path and clearly predicted the hard times of the first few years. Based on this, she requires her future husband to have a stable and sustainable job to support her. However, Yuanyuan does not have big expenses or high daily demands, so she does not have a high expectation of her partner's economic situation. She sincerely expresses her reasonable economic needs, which is also in accordance with her personality, economic condition and future plans.

According to my participants' depictions of their economic requirements for a future husband, many of them are inconsistent with the emphasis on material need. Some of them (such as Ada) do not perceive a house and a car as a must-have thing provided by

the men, while they highlight the significance of great efforts being made by the couple together. However, some seems to have no clear requirement for their partner's economic capacity, but they greatly appreciate men with promising careers and ambition, rather than only caring about the properties they currently own, which is a prospective view and a long-term sustainable perception, like investing in a blue-chip stock. This is in line with the speculation of some scholars, who argue that as the economic status increases, on the surface, they have fewer concerns about their partner's economic condition, but what they do care about, such as occupation, ambition, career prospects, abilities and knowledge, are actually attributes that can transfer into material and economic potential (Yang, S., 1988; Tian, L., 1993).

In addition, some participants, such as Xian, regard economic are the considered factor. As they mostly come from well-being and privileged urban families and the high educational qualification ensures these women's financial independence, they expected a partner with an equal economic condition. They seldom expect to rely on their partners as the main breadwinner, nor accept a husband who may lower their current comfortable and well-off quality of life. Finding a matched partner is a perfect practice of the traditional Chinese value of "*mendanghudui* (homogamy)" in terms of financial support. Whereas, no one of my participants are dreaming of marrying into a wealthy and powerful family, so marrying up (hypergamy) is not necessary to the female PhDs I interviewed.

Spiritual communication

I have discussed female PhDs' expectations of the educational and economic condition of their future husbands, which are regarded as "hard" prerequisites. In traditional Chinese marriage, as the old saying goes "父母之命，媒妁之言" (*Fumu zhi ming, meishuo zhi yan*), it means new couples are mostly brought together by a matchmaker and their parents.

As the awareness of individualisation and independence grows and takes root in the generation born under the one-child policy, the pattern of love match and the idea that the young have the right to choose their spouses prevails in current Chinese society. Therefore, the role of some "soft" affection factors is becoming increasingly important in a relationship and a marriage. In the perception of the young generation, the good qualities of a partner vary. The key words often mentioned and expected from a relationship are "feeling", "*yuanfen* (destiny)", "romance", "moment" and "love", which are all abstract, emotional, untouched items without a fixed standard or a physical shape.

In my research, when I asked: what are the good qualities of your (future) partner or in your relationship, the participants prioritised the "soft" attractions. Chinese female PhD students emphasise spiritual communication and compatible values. *"Liaodelai (聊得来)"*, which means being a good communicator, was the top-mentioned quality in the interviews that female PhD students expect from their boyfriends. Chuntian is not very anxious about currently being single and hopes to meet her Mr Right at some point. When I asked what she cares about most in a relationship, she replied:

> *I feel that whether he's the right one depends on whether we can communicate well and get along well. Good communication is very important. If our talk and understandings can't reach the same level, it will be very tiring.*
>
> *Chuntian, single, 27, Engineering, China*

Chuntian also told stories of matchmaking dates she has been involved in.

> *I had some experiences of blind dates. You know the kind of date, someone introduces a man to you and we sit down together and have a chat. He knows very little about me, and his*

values and ideas, in most cases, are different from mine. We have difficulties in "chatting

together".

<div align="right">Chuntian, single, 27, Engineering, China</div>

Chuntian ranked good communication first among all the good qualities of a boyfriend. Having compatible values about the world and life are also the basis for "chatting together" and getting along well. Good spiritual communication and compatible views are the prerequisites for a good relationship, and furthermore for a satisfactory marriage. Otherwise, being unable to communicate well and get along comfortably, is likely to lead to a boring life, and it is unacceptable for Chuntian to suffer such a marital existence for the rest of her life. Chuntian has been single for three years, and she is still in search of the right one who is a good communicator.

Resonating with Chuntian, Hanke also highlights the importance of good communication, especially in the current Internet era.

Meng: What good qualities are important to you?

Hanke: Good temper, filial piety, and our talk can get to the same point.

Meng: You mean "liaodelai (聊得来)"?

Hanke: Yes. We definitely "liaodelai", it's a very basic requirement. So to say, nowadays we

mostly chat online with smartphones. If our talk can't get to the same point, it will be very

embarrassing, and there will be no topics to continue.

<div align="right">Hanke, 26, single, Acience, China</div>

Without doubt, the Internet draws individuals closer together. At present, new people begin to know and get in touch with each other through talking via apps, like Wechat or QQ. In the matchmaking process, intermediaries always exchange the Wechat of the man and woman first, and if they feel satisfied after chatting online, they will make a face-to-

face date. Consequently, the online communication creates the first impression of each other. As Hanke pointed out, "*our talk can get to the same point*" is a pleasing communication effect, which can be interpreted as sharing common interests, understanding what the other person means, and coming to an agreement on some issues. If not, they may lose the chance for further contact.

Chuntian and Hanke are both single and the above ideas are the qualities they expect in a good relationship. The following examples will illustrate the attitudes of female PhD students who are already in a romantic relationship towards spiritual communication and compatible values in their daily life. Xianer met her boyfriend through a matchmaking date, and they were both satisfied with each other during the date. Xianer depicted her first impression of this date.

> *In our first date, I feel good. When I first see him, he looks very young, doesn't seem several years older than me. During the chat, I find that our thinking patterns are very similar. We can* liaodelai *and it's very comfortable to talk with him. Not like someone when I talk to him and I know his values have "some problems", so we don't match in the communication.*
>
> *Xianer, 27, in a relationship, Arts and Humanities, China*

Communication reflects the thinking patterns, depth of thought, topics of interest and values of a person's life. Good communication or "*Liaodelai (聊得来)*" plays a key role in reducing the distance between two strangers, and increasing their willingness to get to know each other deeper and further. It is predicted that there is a high probability for them to continue dating and, maybe, develop into a romantic relationship. Xianer and her boyfriend are the practitioners. Their similar thinking patterns enable them to understand better and more easily what the other's ideas and behaviours will be, and create rapport with each other. Their values are compatible, so they may have common ideas about some issues and thus, to a large degree, avoiding big disagreements and

serious conflicts in their future relationship. Feeling comfortable, as Xianer said, is the start of entering into an intimate relationship, and the sign of establishing a good relationship.

Since half of my participants are studying overseas in the UK, some of them have a non-Chinese boyfriend. The cross-national relationship, or as I prefer to describe it "intercultural" relationship, indicates differences in race, ethnicity, religion and/or language (Wang, P., 2015: 3). Intercultural couples will experience natural obstacles in communication and getting on due to their different languages, cultural backgrounds and everyday behaviours. It seems less likely for them to be a perfect match in terms of values and communicative style. However, are good communication and compatible values still important for the Chinese PhD women and their non-Chinese partners? Maggie's story provided good evidence to give an affirmative answer.

Maggie and her boyfriend Alex are both second-year PhD students at the same university, but in different departments. Alex was born and educated in the UK and identifies as British, although he is originally Chinese and his parents are both from Guangdong Province. He can understand some Cantonese, but very little Mandarin. Maggie is also from Guangdong, and speaks Mandarin and Cantonese as mother languages, and is very fluent in English. Their daily communication is in English. They met at a campus activity during the orientation week, followed by phone calls and later dating. Maggie stated how their values are matched.

> *Alex's values are mainly British, including financially, sharing the bills in our relationship. He is also open-minded. Actually, I agree with these values, I am very open-minded compared to most Chinese girls. However, he is under the influence of his family, the Chinese-style family, to some extent, so he has some traditional Chinese values. Like some traditional family values, he cares about family very much. In*

western culture, family members are very casual, like friends, but in his family, it is kind of strict, for instance, taking a girlfriend home is a very important thing, and it may mean that she is the one you want to marry. About these family-related values, he is traditional. I think this may be the reason why I chose him as my boyfriend. To some degree, he understands me.

Maggie, 26, in a relationship, Arts and Humanities, UK

Although Maggie and Alex grew up and received their education within different cultural contexts, some of the values that concern them are similar, contributing to their mutual understanding. They are equal and independent, both financially and spiritually, to a large degree in accordance with the western values. With respect to their love and relationship, they are taking it as a very serious thing and contributing to keeping it a long-running and healthy relationship, which matches the Chinese tradition. Maggie and Alex hold mixed western and oriental values in similar respects. In addition, doing a PhD also provides them with common topics to share their ideas. These basic agreements reduce the possibilities of culture shocks in everyday life.

Compatible values and good communication lead two strangers to become a couple. In contrast, a relationship is likely to end if they have little spiritual interaction and conflicting values. Yuanyuan studies hard every day as a Humanities PhD student in Nanjing, and her boyfriend Feng works in Chengdu, over 1700 km away. In the interview, Yuanyuan told me that she was breaking up with her boyfriend and complained a lot about their relationship.

He is an administrator in a hotel and works in an office, how to say it, kind of officialism and very social. I am studying on campus, so I sometimes feel our social circles have no intersection. If I go back to work in Chengdu, our lives will gradually have some intersection. But I am hesitating and unsure if our values are compatible.

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Sometimes, our talks make me unhappy. For example, I talked about my research team, or my ideas on a topic, and I asked for his ideas. It's very natural for me, but he replied: "These are not profitable, why do you talk about it with me?" You know, he has totally another way of thinking. I don't mean that making money is not good, but I feel it was very rude to interrupt our communication and I was uncomfortable. Another case, I think after watching a movie, we needed to discuss it. After we saw Frozen*, very excitedly, I wanted to discuss my ideas and feelings about the story, the role, and something. Well, he said that it's a commercial film, you don't need to think about it too much. Afterwards, I feel, kind of, disappointed. Little disappointments accumulate gradually, and they make our relationship like a "chicken rib" [an expression for something insignificant].*

Yuanyuan, 27, in a relationship, Arts and Humanities, China

On the surface, their physical separation in two cities seems to be a big obstacle for their current relationship, but it can be overcome when Yuanyuan goes back to work in Chengdu, and at that time they will have more intersection. However, radically, the biggest problem in their relationship is "incompatible values", as Yuanyuan said, which pushes the two lovers further and further apart emotionally and spiritually. The ideas that Yuanyuan wants to share are things that Feng is not interested; the conversation that excites Yuanyuan is rudely broken up by Feng. Yuanyuan also admits that Feng is "not a bad guy", and there is no right and wrong between them, only because of unmatched values. Accumulated disappointments have induced Yuanyuan to end their relationship. What made her confused was that, when she requested to break up because of incompatible values and unhappy communication, Feng did not agree. And obviously compatible values are what Yuanyuan principally expects from her partner, but Feng could not fulfill her. Their opinions still differed in terms of breakup. At the time of interviewing, their relationship was in an unclear and inexplicit state and Yuanyuan had already made the decision to end it.

To summarise, the female PhDs prioritise spiritual communication and compatible values in a relationship and marriage. What they expect in a marriage is a soul-mate, rather than only a matched person in terms of so-called "*tiaojian*" (conditions).

Age

Although the criteria for marriage partners are gender specific in many respects, age is ranked highest by both genders (Li, 2002). Age is a highly sensitive issue for the Chinese woman, especially relating to her competitiveness in the marriage. Without doubt, it is generally recognised that the older she is, the lower "value" she has in the traditional Chinese view. According to marital age homogamy and *nan gao nü di* (*男高女低*) social practices in China, men tend to find a younger girlfriend; in other words, women prefer their partner to be older and more mature, or at least of the same age (Mu and Xie, 2014). A "Elder wife and younger husband" marriage is non-mainstream in Chinese marriage practices and in 2010 it only constituted 15% of the total number of marriages (Feng, 2015; 2019). My participants, to a large degree, insisted on the age hierarchy in their requirements for suitors. When asking their expectation of partner's age, Yutong (27, single, Science, China) says: "He can't be younger than me, or at least can't be much younger". Yutong's preference for her partner's age is in line with the majority of Chinese young people. According to Jia and Feng's (2018) research findings, the age difference between couples (older man and younger woman) is commonly accepted by urban youth and, compared to young men, young women hold this viewpoint more firmly.

Chuntian expressed her requirements and the reasons behind them.

> I hope we are close in age, around a few years. It's OK [if he is] one or two years younger, but more than that is too young. If he's older, three or four or more is acceptable, because a woman wants to find someone to depend on, slightly. But if [having a younger boyfriend] it's

like taking care of a kid, it makes no sense.

Chuntian, 27, single, Science, China

Chuntian's concern about the age issue represents her values of love and marriage. She expects to play the role that she is protected and taken care of in the relationship so that she can rely on her partner, to some degree. A husband of "higher" age means that he will be more caring and protective in love and marriage. Under traditional marriage values, Chinese women prefer to find an older partner because older men generally give them a sense of security and they are able to protect younger women as well as providing emotional and material support (Liu and Liang, 2014). Otherwise, women have to pander to young men, which is like "taking care of a kid" in Chuntian's words. Meanwhile, Tonia's acceptable age range is wider.

Meng: Do you have any requirements for his age?

Tonia: Not exactly, but I think men should be more mature. After all, men become mature later.

Meng: What age range can you accept?

Tonia: Three to five years younger, to three to five years older. Oh, no upper limit for older, even ten years older is all right. But younger, five years at most.

Tonia, 29, single, Art and Humanities, UK

Tonia points out that another important issue she cares about is maturity. She believes that men become mature later than women, so an older man can have reached the same level of maturity as her. Some studies support her belief. In the traits of psychological development, women's development is generally two or three years earlier than that of men. That is to say, among men and women of the same age, men's psychological maturity is two or three years younger than women's (Liu and Liang, 2014).

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Chuntian and Tonia's values indicate that a higher age represents some inner qualities in men, such as caring, maturity and protectiveness. This reflects Tonia has fitted in some patriarchal gender norms that women are inferior to men and gender hierarchy has been internalised. Their belief of a protected woman and muture man is an reinforcement of the gender inequality in marriage and relationship. It seems that they seldom have the awareness of challenging the stereotype of week women. Based on the evidence above, female PhD students, to a large degree, abide by the traditional age hierarchy for their partners, and older men can be mature enough and provide a shoulder to lean on.

A Chinese saying goes, "*nan da dang hun, nü da dang jia* (男大当婚，女大当嫁)", which literally means "When men grow up they should take a wife and when women grow up they should marry someone". This indicates that Chinese people see marriage as a taken-for-granted thing in life and that individuals ought to marry at the proper age. China has a very high, near universal marriage rate, which implies that almost all Chinese people finally enter into marriage, even today (Ji and Yeung, 2014). Here comes the key question: how old can be considered as "grown up" and the "proper" age? The single urban professional women who are over 27 years old who have a high education and high salary are defined as "leftover women (*sheng nü*)" (To, 2015; Fincher, 2016; Zhang and Sun, 2014; Ji, 2015). Women in urban areas are expected to marry in their middle twenties, certainly no later than 30. Given the long-term doctoral training of female PhD students, generally, they graduate at the age of around 30. If they are highly efficient in their undergraduate studies, such as skipping the master's programme, joining a continuous academic project that involves both master's and doctoral study, or doing the one-year taught master's programme in the British educational system, they may obtain their doctor's degree in their late twenties. Anyway, PhD women have moved beyond the ideal marriageable age in Chinese society.

The single PhD students in their middle and late twenties are under a great deal of pressure to find a partner and get married, especially from their family, peers and neighbourhood. The external circumstances push single young women to enter a marriage sooner rather than later in case they will grow "old" and "unmarriageable". This phenomenon is named "*bihun* (*逼婚*)", which means pressuring unmarried people to marry. Parents are typically at the forefront of "*bihun* (*逼婚*)" (Ji, 2015; Sun, 2012). According to a survey among single young people, about two thirds of the single population have had "*bihun*" experiences (Zhenai.com, 2016). This mostly happens when many family members get together, such as the Spring Festival (Chinese New Year). Siyi was 28 when interviewed and she complained about it to me.

> *Every time I go home for the Spring Festival, I feel very odd and uncomfortable. I was 26 or 27, but their [family members'] eyes made me feel I was 36 or 37, but still unable to "marry myself out". I know they really care about me and love me, but their eyes, their glances … They looked at me with that kind of eye light. I understood that I was a loser. Getting married is a basic thing in their minds. Like my younger cousin, she began to work right after graduating from college and she didn't have that high an education like me. She married at 23 or 24 and had a baby soon afterwards. They all think this kind of life is great and very happy. But, I didn't do it at that age. Actually, I'm not jealous of her. I don't feel it's something good.*
>
> *Siyi, 28, in a relationship, Arts and Humaniteis, China*

Siyi's family has a very Chinese mainstream valuing of age and marriage and believe that women should do the proper things at the proper age. The gender and family values vary between two generations (Hu and Scott, 2016; Ji, 2015). Parents hold a more traditional and conservative view of age. According to their marriage value, age is the most important criterion, while higher education, busy work, or great achievements are not excuses for being single for women. Siyi narrated her relatives did not show their anxiety by direct saying, but their eye contact could delivery this message, which is a

very subtle but powerful way. Without one word, Siyi received much pressure from her anxious relatives. In most parents' expectations, marriage is the ultimate goal (Ji, 2015). Some parents pressure their daughters to marry only through chattering, but some anxious parents take action to engage matchmaking dates and go to the "matchmaking corner" in public parks to seek potential suitors (Sun, 2012; Ji, 2015). The existence of parental matchmaking corners indicates the enduring significance of marriage in urban China, and shows that the intergenerational bonds between the one-child generation and their parents are very strong (Zhang and Sun, 2014).

If the unmarried female PhDs are fortunate enough to flee from the stress exerted by older generations in the family, the pressure from peers is inescapable. Ada, aged 29, was shocked after she went to a classmate reunion.

> *Before this year, I thought singleness is great and I enjoyed my singlehood all the time. In spite of being the only daughter of my parents, I have older cousins still unmarried, so the whole family hasn't yet pushed me. But, I find classmate reunions, I won't go to any more. At that time, among a dozen people sitting around the table, I was the only one still single. Oh, I felt shocked. They cared about me and asked me so many questions: do you have too high requirements? Why? How? However, in my perception, I just feel like time flies and I don't think too much about it. I was not aware that I have "grown" to the age considered "old", but it comes naturally and soundlessly.*
>
> *Ada, 29, single, Science and Humanities, UK*

Ada has studied and worked overseas for more than five years and her unmarried older cousins have relieved the pressure from her family, so she has been away from the stress of singleness and age. Once back among her peers, however, she is the unique one in other people's eyes because she has not married at the proper age. In such a community, others have moved on to the next stage of their lives and the single women seem to be

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falling behind in this life course. Therefore, under such peer influence, when the people around are mostly married, the unmarried women can feel isolated. Reflecting upon the title of the book, *As Normal as Possible* by Yau, Ho et al. note: "Being normal, behaving normally, or like everyone else, is crucial to the Chinese... This way of thinking has deep roots in Chinese cultural traditions, associated with the Confucian emphasis on harmony and fitting into one's allotted place in a hierarchical social order" (Ho et al., 2018: 493). Even though Ada may not have regarded herself as "old" in age and the marriage market, she was aware of her "uniqueness" among her peers.

As I have highlighted, the age issue is a very Chinese-style dilemma, and female PhDs in the UK state that British circumstances are much friendlier about age and marriage. When discussing the difficulties that female PhD students face in seeking a suitor, Ruth argued that it is mainly because they are over the ideal marriageable age in China.

> *It's the age problem. After at least three years' PhD, they may be 27 or 28 when graduating. At that age, you want a boyfriend. If they fail [break up with a partner] once or more, they will be 30 or above. In China, people get married earlier. If they are in Europe, most people at the age of 30 may be single, they can easily find someone. However, if you are in China, people at a similar age are mostly married. There are fewer people they can choose from, so it's hard to find someone in this way. The best situation is doing a PhD after getting married. If the female PhDs really study overseas and haven't got boyfriends when they graduate, my suggestion is that they had better stay overseas, instead of going back to China to find a boyfriend.*
>
> *Ruth, 25, married, Science, UK*

There has been a worldwide trend in recent years of women marrying later (Nakano, 2015; Cai and Feng, 2014). Although a rising age of marriage has emerged, on the whole marriage remains early in Chinese society (Ji and Yeung, 2014; Raymo et al., 2015; Cai

and Feng, 2014). In 2017, the average age at first marriage of Chinese women was 25.7 (National Bureau of Statistics of China, 2017). In England and Wales, the average age of women entering their first opposite-sex marriage is 31.5 years and that of men is 33.4 years (Office for National Statistics, 2016). People's perception of the ideal marriageable age is higher than that of China. At the age of 30, it is quite commonplace for western people to still be single, while it is seen as old for marriage under Chinese values. Consequently, single female PhD students have less stress in the UK because the society is more permissive and friendly about age and marriage. That is why Ruth argues that it is more challenging for female PhDs to find a partner in China.

Chinese society has strict requirements for women's age because it is closely related to childbearing. The importance of children in Chinese families has been widely documented (Evans, 2002; McMillan, 2006; Jacka, 2009). In the medical and health discourse, the best physical age for childbearing is 25 to 29, while older than 35 is regarded as being risky (Li, 2019; Hai, 2019). Many medical experts call on women to catch the golden timing and not to miss out on it (Qiao, 2019). According to the widely accepted best age for reproduction, female PhDs, to a large degree, choose to marry and have babies after graduating and finding a job. Inevitably, they are beyond the optimal age for childbearing in social opinions.

Jiani shares her understandings of the interactions between age, marriage and fertility issues.

I know some women take marriage as a very very important thing, but in my mind, I didn't take marriage as that important, only a part of my life, at most 50%, even less when I was a college and master's student. At present, I think I will consider it [marriage]. Because my age is increasing, I think it's necessary to think about childbearing. Having a baby, I will do it sooner or later in the future. The later I leave

it, the more troubles I will have. Overall, I don't consider marriage so much, but about

fertility, I will.

Jiani, 27, in a relationship, Arts and Humanities, China

Jiani is in a stable relationship, but she did not take marriage as the most important and urgent event in her life before. But when it comes to childbearing, she hesitates. She has accepted the discourse on best age for childbearing and she is approaching the upper limit of this best age range. She is aware of the intense time for reproduction and has been persuaded to try to follow it as well. In China, the policy stipulates that only on the condition of legal marriage can couples obtain a birth licence for childbearing and only thus can the child gain a legal hukou status (Ji and Yeung, 2014). She is considering prioritising marriage because of fertility issues.

Yutong addressed her perceptions of age and fertility, feeding back to the social opinions on the ideal childbearing age.

Anyway, I can't say the public opinions are unreasonable. Because from the medical aspect,

the best reproductive age for women is 28 years old. Afterwards, women's fertility status will

worsen gradually. In this way, 28 is a proper age for marriage and childbearing and after 28,

indeed, it is a little late for women. So, it is rational only considering the physiological factors.

In fact, the current marital age has already been delayed compared with the ages my parents

married.

Yutong, 27, single, Arts and Humanities, China

Holding the same belief as Jiani, Yutong also strongly agrees with the "scientifically" best age for reproduction. Medical experts emphasise the benefits of 'the right time' om terms of ease of achieving pregnancy, low risk of health problems and can ensure a healthy baby (Qian, 2019; Hai, 2019). Yutong never seems to doubt the credibility of this

medical discourse. However, she realises that, in practice, medical and eugenic functioning seem to be in conflict with social reality and the trend towards later marriage. Consequently, she is facing the dilemma of approaching the ideal reproductive age while delaying the time for entering marriage.

In addition to public consensus about the proper and best childbearing age for women, women attempt to avoid getting pregnant and giving birth to babies at a high age, and female PhDs are no exception, even though they are open-minded in terms of age and marriage. Luna said:

> *I don't think whether people should get married is decided by age. Anyway, marriage is not something people should do at a proper age, and the key to marriage is meeting the right person. At a proper time, the couples get married and have a baby. Nowadays, people's lives are longer and the proper maternal age period is perhaps no longer limited to the twenties. Even though women in their early thirties belong to the over-aged lying-in women medically, they can still have very healthy babies and mothers. But, if they are older than that [in their middle thirties or above], the risk is relatively large and it is not safe.*
>
> *Vivian, 28, single, Science, UK*

Age is not a reason to push Vivian into marriage and she is aware of the possibility of extending the proper maternal age due to people's longer lifetimes. At the age of 28, Vivian does not currently want to rush into motherhood due to the social pressure, which indicates that she does not to totally accept that the best reproductive age is 25–29Yet she had accepted and internalised the beliefs about risky older pregnancy because she planned to catch the deadline of having a baby (35) to avoid the potential risks of becoming an over-aged woman giving birth. Therefore, we can see that female PhDs are very concerned about the childbearing issue, even though they have a relatively flexible and deferred schedule for marriage and reproduction. The conflicts

around increasing age, later marriage and reproductive timing faces PhD women with a dilemma.

Their older age and its links to fertility function has degraded female PhD students' competitiveness in the marriage market and in practice they are suffering from age discrimination in society because they are beyond the ideal marital and maternal age. However, they adopt various strategies to negotiate with the age discrimination.

On the one hand, four of my 40 female PhDs got married before or during their PhD programmes. They all married at an early or proper age coherent with social standards for marital age. Their examples are convincing evidence to challenge the public opinion that female PhDs are old and leftover in the marriage.

On the other hand, many of them disagree with and break through the immanently Chinese-style old-fashioned age stereotypes. The increased age of first marriage has become a fact in Chinese society (Raymo et al., 2015). The inherent stereotype that the proper marital age for women is in their early and middle twenties needs to be changed. It is increasingly commonplace for women in urban areas to remain unmarried until their early thirties. This reveals the trend in the marital age of women with higher education extending beyond the average age for women in general (Wang, 2010). As higher education continues to expand, it is reasonable to infer that more highly educated women will further postpone the time of entering marriage (Ji and Yeung, 2014). Female PhD students have already been aware of the social reality and have updated their marriage values, so late twenties is not late at all and early thirties is very acceptable. Based on this shifting gendered age ideology, in the face of *bihun* (逼婚) by family members and peers, they seldom believe that they are old or leftover in the marriage market. They enjoy their current singlehood and are willing to enter a relationship and marriage at a "higher" age compared to the average Chinese woman.

Only when age is associated with fertility, does age matter. They mostly accept the medical discourse of the best reproductive age, and plan to have a baby early, during the golden reproductive age, or at the latest to catch the deadline of 35.

In addition, Chinese female PhDs can seek a potential suitor outside the traditional patriarchal Chinese age framework. For example, as illustrated, western society is more generous and flexible about age. There is a growing number of transnational marriages among Chinese people and it is now more common and acceptable in society (Nehring and Wang, 2006; Jeffreys and Pan, 2013; Friedman, 2010). In my studies, several female PhD students, such as Maggie and Emily, were dating a non-Chinese or had settled down in a western country, which had freed them from the pressure from Chinese society and anxiety about age.

Beauty

For most people, facial beauty appears to play a prominent role in mate selection (Johnston, 2006). In contrast to women's emphasis on economic conditions, a good appearance is the top factor impacting upon men's selection of a partner (Li and Xu, 2004; Sun, 2012; CAFM and Baihe.com, 2010). For women, attractiveness and youthful appearance are their biggest advantages in the marriage market (To, 2015). Chinese men show a pronounced preference for women with a slender waist (low waist-to-hip ratio) and lighter skin colour (Dixson et al., 2007). Men prefer pretty, well-shaped and well-dressed women, so this stereotype may reduce the competitiveness of female PhDs in marriage.

As discussed in Chapter 2, Chinese female PhDs are characterised as bad-looking on social media. Female PhDs are mocked as "UFO", of which "U" stands for "Ugly" (Ren et al., 2013). In the media, such as news reports, TV dramas and movies, female PhDs are often depicted as not good-looking, wearing glasses, out of fashion, with an unadorned

style, and lacking in physical or sexual attraction, as the cartoon below describes (Figure 27).

Figure 27: Cartoon of a Female PhD

Xiaotian shared her ideas about looks and appearance.

It is a mainstream idea that female PhDs are bad looking. Many people think that beautiful girls don't need to read a lot [receive very high education]. There was a very heated topic on Weibo [the most popular social network site in China] tagged #Beautiful female PhD# a few days ago. It seems that people look at these pretty female PhDs like aliens: how come the female PhDs are beautiful? The media and public are amazed at such a topic, that is to say, in their eyes, female PhDs are unkempt, bad looking, wearing thick glasses, not talkative and dull. While people conceptualise pretty women as like the vase. They have big breasts but are mindless, only have a pretty face but nothing else.

Xiaotian, 25, in a relationship, Science, China

The stereotype of female PhDs' bad looks is not new to my participants. In the debate about "beautiful female PhDs (美女博士/*mei nü bo shi*)" mentioned by Xiaotian, a couple of pictures of Claire (@毛毛虫 Claire) became popular on Weibo and Hupu. In these photos, a very beautiful young woman wore natural-looking makeup and was in decent

and fashionable outfits in the laboratory and on campus (Ou, 2014). In the opinion of the media, a good appearance and high education/brilliant mind are unlikely to coexist in one person. Female PhDs are thought to probably be women who only focus on studying and have little knowledge about beauty and fashion. The media actively posted and reposted the photos of this "beautiful female PhD" given that she was unusual and outstanding for her beauty as a woman with a PhD. In the market-oriented, commercialised media ecology, in which the media aim to capture a larger audience (Poell et al., 2014), this piece of news gained much popularity.

However, in my research, female PhD students disagree with this social opinion by arguing that, although there may exist some less physically attractive women, it is not a general reality that female PhD students are bad looking. With respect to the stigma of female PhDs' lesser feminine attractiveness, Feifei demonstrates that it is biased.

> *Generally, the beauties are in the minority, so it's not only in the category of female PhDs, but also any other groups of people. In addition, female PhDs are also in the minority in society, so the number of beautiful female PhDs must be far smaller. The female PhDs and other groups of people are no different: a majority of them have average looks, very few are ugly and also very few are pretty.*
>
> *Feifei, 28, single, Arts and Humanities, China*

Feifei approached this phenomenon from a statistical perspective. Beautiful female PhDs definitely make up only a small percentage of female PhDs, and it is the same in any other group of women. Summer (27, single, UK) has a similar explanation, "There really do exist some female PhDs who are not good-looking. It's normal." She believes there is no smoke without fire in the world and this stigma could be applied to some certain persons. Feifei and Summer both admitted that some female PhDs are below the average *yanzhi (颜值)*. It is common to note that there are bad-looking women in almost

every cohort of women, and Summer identified this as "normal". These cases of bad-looking female PhDs may be over-emphasised and exaggerated through private conversations and news items, so such a bad impression was reinforced, and the stigma of bad looks was constructed (Yang, Y., 2011). However, this does not mean that female PhDs' appearance is comparatively unsatisfactory or deserves to be discriminated against by the general public. Bad looks ought not to be seen as typical of female PhDs.

Another reason needs to be dated back to the origins of this social opinion. The stigma against female PhDs and their appearance commenced decades ago. As Yang (28, in a relationship, China) noted, "At that time the female PhDs were really not good looking. It was commonplace dozens of years ago, but it isn't nowadays." As time passed, the situation has changed, but the public still holds the old and fixed viewpoint to judge female PhDs, which is the reason why the social stereotype of female PhDs' appearance still prevails.

Xiaotian commented that the social stereotype of ugly female PhDs is very "childish" and "ridiculous". Some participants refute the stigmatisation based on their own practical examples around them and their subjective feelings.

> *There are many pretty girls around me, especially those in our department learning a variety of languages, a majority of them [are beautiful]. Like my colleagues in the same year, personally speaking, they are of a high "yanzhi" (颜值).*
>
> *Chengzi, 29, in a relationship, Arts and Humanities, China*

"Yanzhi" (颜值) is a newly created Internet catchword to describe the quality of one's appearance. "Yan (颜)" means face and appearance in Chinese and "zhi (值)" means "score" (Jing, 2016). It has become widespread and is used in everyday life to judge how beautiful a man or woman is. It is "borrowed" from Maths and Economics. The score

grades the degree of a person's beauty (Jing, 2016). The subtle differences in people's facial beauty or ugliness can be revealed through these scores. The high frequency of the use of "*yanzhi*" on the Internet, and more recently in everyday dialogue, indicates people's pursuit of beauty as a social trend (Zhang and Li, 2016). In Chengzi's view, the female PhDs around her are not as ugly as society depicts, while a majority of them have a high "*yanzhi*", which means they are outstanding in appearance.

Even though the face is given by nature, beautification can enhance and change the appearance and looks to a large degree. The impression of bad looks among female PhDs is left to social media and the public because they suppose that PhD women are all only focusing on research and never care about their appearance or beauty. However, female PhDs express their desire for beauty and good looks.

> *We [female PhDs] care about our looks, not that kind of sluttery and unhygienic, but some male PhDs are. Basically, the young women around me pay attention to dressing up. Like me, I care about it and I always wear some makeup when I go outside.*
>
> *Luna, 24, in a relationship, Social science, UK*

They are also concerned with beautiful looks, and making-up and styling are part of their everyday life. Meanwhile, Feifei's attitude towards beauty has changed since she began a PhD.

> *My attitude has changed a lot. During my undergraduate and master's period, I neither paid any attention to it nor spent time on it. In my mind, beauty does not occupy an important position, because I think studying is the most important thing I should do. I didn't know how to select and match clothes, and that's okay as long as I have clothes to wear. But my values are totally different now. I began to pay attention to it since I came here to start my PhD. I missed it too much before, and now I'm learning how to dress up. I know life is about far more*

than studying.

Feifei, 28, single, Arts and Humanities, China

This indicates that doing a PhD and the desire for good looks are not paradoxical or contradictory. Feifei's experience provides strong evidence to refute the stereotype of female PhDs' ignorance of beauty. Luna and Feifei's awareness of looking more attractive and pursuing a beautiful appearance endorses the current social discourse that reinforces the essential role of feminine beauty and feminine youth in developing consumer capitalism in China. Under such consumerism, everybody should have the right to pursue beauty because pretty women have more opportunities and are more successful than others (Yang, 2011). Women have been seeking different methods to enhance their beauty, such as skincare, makeup, buying fashionable clothes, styling, changing hairstyle, body-shaping and even plastic surgery. Such an emphasis on beauty and women's pursuit of good looks promotes the consumption of beauty products and services and contributes to China's a booming beauty economy. China has become the second largest consumer of cosmetics, with only the USA consuming more (Reportlinker, 2019).

The pursuit of beauty among young women signifies the changing gender ideology of the reform period. During Mao's era, gender differences were erased, and female individuals were largely defined by male standards. Consequently, beauty and fashion were frowned upon as frivolous and decadent (Croll, 1995; Jin, 2006; Yang, 2011). During the reform period, however, with the development of a market economy and consumerism, gender ideology increasingly celebrates beauty, youth and sexuality as tokens of femininity. My participants share the same eagerness as other Chinese young women to beautify themselves. The pursuit of beauty is also regarded as a way for women to demonstrate their freedom, individuality and human rights. As Yang (2011) suggests, the emphasis on the pursuit of beauty in relation to freedom and individuality

fosters consumerism on the one hand, while, on the other hand, it functions as a neoliberal technology to promote individualism and a kind of market economy lifestyle. Many women believe that it boosts their ego and leads to a better lifestyle. Feifei enjoyed her new lifestyle and said that "*life is far more than studying*" resonated with this idea. In addition, the idea that "becoming beautiful is everyone's right and it is a natural human desire" has been a well-known notion among Chinese. In line with Zhang's (1998) argument, beauty is the right of all citizens.

In addition, some female PhD students attempted to make a very reasonable and objective analysis to explore the relationship between good looks and academic achievement. Summer tried to explain the reasons why some media and people think that female PhDs' bad looks is a rational idea.

> *It's rational to some degree. Also, some pretty girls may find it hard to concentrate on studying and find it easier to be chased after and enter a relationship or marriage at an early age. In addition, different people have different ideas, and pretty girls may think differently from others. They can get the things they want through good looks and youth, so they may be less likely to choose to do research and academic work.*
>
> *Summer, 27, single, Social science, UK*

Some studies also indicate the phenomenon of appearance discrimination (lookism) in the Chinese labour market (Jiang and Zhang, 2013; Gu and Ji, 2017). A good appearance (including facial beauty, a slim body figure and height) is beneficial for female employees when seeking a job or building a good social network in the workplace (Jiang and Zhang, 2013; Gu and Ji, 2017). Summer figures out a possible reason why some good-looking women are less likely to do a PhD. This explanation reminds me of a popular Internet catchphrase that ugly people need more reading/education (人丑就要多读书/ *ren chou jiu yao duo du shu*), which indicates that ugly people should pursue

higher education to compensate for their bad looks, while the pretty faces can achieve what bad-looking individuals cannot. However, as my analysis in Chapter 5 argues, the motivations for pursing a doctorate are multiple. A minority of women's PhD plans are strongly associated with hardship in finding a job or escaping from unsatisfactory employment. However, for those who want to teach in higher education and those who are intrinsically motived by interest in and passion for a certain field of study and doing research, they make a positive choice to continue their studies. It is an overgeneralisation to infer that female PhDs are not good-looking.

The female PhDs argue that they are concerned about beauty, but their beauty may be degraded in some circumstances. For instance, when they are continuously doing experiments in the laboratory, or writing their thesis under overwhelming pressure, they do not pay much attention to dressing up or makeup at that time. Hanke admitted that they really do not "look good" in the laboratory and explained her outfits for everyday work.

> *We [female PhDs] really don't look good sometimes. Because we do experiments every day using soil and various chemicals. It's impossible for us to care about dressing up. For example, we use many chemicals. Even if we are very careful about operating the experiments, it's very likely to spatter on my clothes when I wash up the apparatus. Once it spatters, there will be a hole. We also weigh acidic medicines, only a little bit can destroy a piece of clothing. So we all have an experimental suit and white gown for work only. I indeed care about my looks. Once, I went to have lunch with friends and I wore a long dress. After the lunch, I came back to the laboratory to work, and the long dress was not convenient of doing experiments, so I got changed, the suit for work only.*
>
> *Hanke, 26, single, Science, China*

According to Abbas' team's investigation of safety facilities and safe practices in

chemical laboratories, proper clothing and the use of lab coats showed positive results (Abbas et al., 2015). The chemical laboratory of Purdue University proclaims the regulation of proper laboratory clothing (Purdue University website). It clarifies that researchers should wear: a shirt that covers the stomach and lower back as well as the upper arms; long trousers; and shoes that completely cover the foot. Much well-designed and fashionable clothing and accessories that can make women look more beautiful are prohibited, including contact lenses, cropped tops, mesh shirts, skirts and sandals. When at work, the PhD students working in laboratory sciences gave the highest priority to experimental safety and convenience, while in their spare time they might still care about dressing up and makeup.

Apart from their working environments, an occupied schedule prevents them from sparing much attention for "beauty" building. Nuan (29, in a relationship, China) said: "During the PhD training, we are really very very busy, so we don't have time to think about dressing up or anything related. I, myself, am an example, I always go out for fieldwork the whole day." Some also complained that they work continuously and write their thesis day and night before the deadline, leading to little free time or energy to spend on beautifying themselves.

Financial constraints directly impact upon the ability to consume beauty products and services. A majority of female PhDs are government/university-funded or sponsored by their families and have a lower income compared to their working peers. Xiaotian introduced her financial situation.

> *In my opinion, for young women at this age, beauty is their nature. Everyone has the desire to dress up, but we're restricted by economic conditions. We can't afford the beautiful clothes and so on. We PhD students do not have salaries, only the national allowance, no more than 2000 yuan [about 200 pounds] per month. This enables us to live on campus because the*

prices on campus are relatively cheap. However, if we consume in the shopping mall in

Nanjing, a single piece of clothing will cost many hundreds of yuan, sometimes maybe over

one thousand. I really can't afford it. I have to be grown up, I don't want my parents to pay for

my spending.

<div align="right">

Xiaotian, 25, in a relationship, Science, China

</div>

The sponsorship from the Chinese government and university can only provide PhDs with basic living expenses. Even though the PhD students in this study do not have the financial burden of their tuition fees and everyday expenses, a great deal of beauty consumption is, to some degree, a luxury to some of them. The money they can spend on beauty products and services is limited by their economic situation. In the growing consumerist society, economic capacity plays a key role in enhancing women's beauty.

Therefore, bad looks may be assumed to be typical of female PhDs, but there is no evidence to indicate that this is necessarily true. The participants often repudiate the idea of not being good-looking female PhDs and say that many of them are pretty young women. They generally pursue activities related to their physical appearance. However, sometimes their "desire" for beauty may be limited by their working environments, busy schedules and economic situation. In China, the role of feminine beauty and feminine youth in developing consumerism is emphasised (Yang, 2011). Even female PhDs, who are the holders of the highest academic degrees, are still judged by their beauty and even discriminated against due to their so-called bad looks as described in the media and perceived by some individuals. It is the site for objectification of women. Chinese female PhDs' values of skills and personalities, and contributions to their academic and professional fields are downplayed.

Conclusion

In this discussion about love, relationship and marriage, female PhD students present some characteristics. Under the deeply rooted stigma of "undateable" and "unmarriageable", the idea of "marriage difficulty" has been widely levelled against Chinese women pursuing a PhD. And there may be many more young women whose desire to do a PhD was killed by the fear of becoming unmarriageable. These social opinions generate an unfriendly environment for female PhDs with respect to both their marriage and education. "Parents pressing them to find a partner" (*逼婚/bihun*) always happened to unmarried PhD students, not only single young women, but also those in a relationship. However, my participants' love and marriage status challenge this marriage crisis. The majority of them were in a stable relationship or marriage and even the single young women did not match the social portrait of facing a "marriage crisis" or being extremely anxious about being "married off".

To explore the reasons for "marriage difficulties" of female PhD students believed by the society and public, as well as their negotiations of love, relationship and marriage, I applied marital homogamy ("*mendanghudui*") and homogamy ("*Nangaonüdi*") practices to explain. One key public assumption underpinning the idea that female PhDs are unmarriageable is the assumed requirement for their partners to have an equivalent educational degree, whereas, in reality, they seldom expect to marry a male PhD student or postdoctoral scholar. Having a bachelor's degree is the average requirement for a potential partner, which enlarges the mate pool by ten times.

A study in Shanghai, a highly consumerism metropolitan city, argues some educated Chinese young women highly emphasize material and financial security for a future husband, with love and sexual desire often absent. The pragmatic nature of partner selection is now expressed in a new way with new criteria (Zarafonetis, 2017), but female

PhDs generally seems to be different to some degree. They do not prioritise financial status. Some of them basically do not require their partner to pay house and car and they are willing to share expenses. They seldom dream of marrying into a super-rich family and are against the traditional view that marriage is adopted as a strategy for women to marry up to a higher social class. But men in an equal economic condition and family background are preferred. In addition, they lay emphasis on romantic love and spiritual communication. Being a good communicator and having compatible values are the leading expectations of male suitors. Love comes first in a marriage and marriage is not the must-happen thing in their lives if they do not meet "Mr Right" or a soulmate.

In Chinese discourse, age is an unavoidably gendered topic for women. They admit PhD studies may delay their age of marriage, especially for those who are in a stable relationship. Their older age and its links to fertility function have degraded female PhD students' competitiveness in the marriage and in practice they are suffering from age discrimination in society because they are beyond the ideal marital and maternal age. However, these female PhDs do not internalise age in the way that society constructs and the public shares. The delayed age of first marriage has become a fact in Chinese society (Raymo et al., 2015), so the inherent stereotype that the proper marital age for women is in their early and middle twenties needs to be changed. They seldom believe that they are old and leftover in the marriage market and do not rush into a marriage. Bad looks are always labelled on female PhDs, but there is no evidence to indicate they are below the average "Yanzhi" (颜值). Bad looks may be assumed to be typical of female PhDs, but there is no evidence to indicate that this is necessarily true. The participants often repudiate the idea of not being a good-looking female PhDs and say many of them are pretty young women. They generally pursue the activities related to their physical appearance. However, sometimes their "desire" for beauty may be limited by their working environments, busy schedules and poor economic situation.

The "marriage difficulties" of Chinese female PhDs are a Chinese-style stigma based on

Chinese traditional and patriarchal marriage values. The finding of this research argues they are challenging the public imagination. They stress on high spiritual requirements for potential suitors, advanced and modern marriage values, equality and independence in marriage. But some traditional values still coexist, for example, emphasis on "mendanghudui" (homogamy marriage), preference to an older partner, and intention to give birth at young age and so on.

Chapter 7

Conclusion

The purpose of this research was to learn more about the all-round lives of Chinese female PhDs and make their voices heard. Throughout the thesis, I have explored their accounts of everyday activities, lifestyles, studying and research, motivations, aspirations for the future, experiences and values of love and marriage, and their understanding and doing of gender. Using a feminist and qualitative approach, I interviewed 40 Chinese female doctoral students in both China and the UK. My participants are fairly diverse: studying different subjects at home and overseas universities, coming from different parts of China and family backgrounds, with different love and marriage experiences and status, different personalities and lifestyles. I cover a variety of possibilities and situations of women doing a PhD. Based on the accounts of these Chinese women, the themes concerning women, higher education, love/marriage, and Chinese society emerged.

It is obvious that this study is far from perfect. Due to the realities of life and my personal academic experience, there are many limitations. Firstly, time, resources and my research ability were very limited for such a complex topic. In the interviews, I asked about every aspect of their lives: studying, love and marriage, leisure activities, aspirations for the future and employment, values of gender, education and society. I was too "greedy" to include everything in the PhD thesis and I felt as though it was endless. I collected a large amount of data from the 40 participants: about 80 hours of interviews and 1,200,000 words of transcription (in Chinese). With the limited length of a PhD thesis, I could only use a small fraction of their stories and abandoned many of their interesting experiences and inspiring ideas. I was unable to give the entire story of any one individual and only fragments of their life history and values are provided here. Choosing which accounts to quote and which themes ought to be prioritised is not

straightforward. My selection may have missed some worthwhile and important topics and stories.

Secondly, this is only a small-scale qualitative study. "Qualitative inquiry typically focuses in depth on relatively small samples, even single cases, selected purposefully" (Patton, 2002: 273). There is a huge diversity within the category of Chinese female PhDs. Different subjects, family backgrounds, universities, countries and cities, love/marriage status, personalities and lifestyles have been included amongst my 40 participants, but some possibilities may have been missed. My participants cannot represent all Chinese female PhDs, let alone all Chinese young women. However, this qualitative research can inform and facilitate insights into young women doing a PhD in a Chinese context.

Thirdly, some Chinese realities seem incomprehensible and ridiculous to western eyes, while the western interpretations of sex, gender and sexuality are inapplicable to Chinese gender practices. Chinese female PhDs, in my perception, are in such a dilemma. In my research, I have tried to adopt gender, feminist and educational theories developed by both western and Asian scholars, but I still found it very difficult to explain this very Chinese-style "third gender" phenomenon.

Nevertheless, some key findings and arguments emerged. First of all, the disclosure of the lives and values of Chinese female PhDs challenged the social stigma, such as being unmarriageable, unsophisticated, rigid and odd, old and ugly. Studying is not the only activity they devote themselves to, but they have a variety of hobbies and interests – including reading, online surfing, music, TV dramas, computer games, hanging out with friends, travelling, cartoons and comics, keeping fit – covering almost all popular entertainment and leisure activities. Many of them have accumulated social and interpersonal skills through part-time jobs and academic activities during their PhD

studies. The research depicted their rich and full lifestyles, which provided strong evidence against the social stereotype that they are rigid, unsophisticated nerds who focus only on studying.

In addition, the majority of Chinese female PhDs were in a stable relationship or marriage and even the single young women did not match the social portrait of facing a "marriage crisis" or being extremely anxious about being "married off". As many of my participants complained to me, "That saying is not true. I don't worry about marriage, what I am very worried about is my thesis, is graduation." According to traditional practices of women marrying up and educational homogamy, one key public assumption underpinning the idea that female PhDs are unmarriageable is the assumed requirement for their partners to have an equivalent educational degree, whereas, in reality, they seldom expect to marry a male PhD student or postdoctoral scholar. Having a bachelor's degree is the average requirement for a potential partner, which enlarges the mate pool by a factor of ten. Another prevailing assumption is that PhD women are not competitive in the marriage market because of their age, bad looks, and lack of femininity. The delayed age of first marriage has become a fact in Chinese society (Raymo et al., 2015), and the age of marriage of women with higher education is higher than the average age for women (Wang, 2010). Late twenties (the age range of most Chinese female PhD students) ought not to be mocked as "old" or "leftover" in present-day urban China. However, some individuals still retain the idea that women should marry young, contributing to the social stigma of women's age. Through its analysis and discussion, this study disputes the negative labels and stereotypes given to these highly educated women and advocates more respectful treatment and fewer misunderstandings from society.

Secondly, Chinese women are constrained by traditional gender norms, and female PhDs are no exceptions in this patriarchal system. Women's obligations and the expectations

placed on Chinese women do not change because of their high academic achievements. On the contrary, at times they are under extra pressure alongside doing a PhD. They carry a dual burden in modern Chinese society: being a "virtuous wife and good mother" within family life and working as an independent professional to "hold up half of the sky" in public life. One notable issue is that the idea of "marriage difficulty" has been widely levelled against Chinese women pursuing a PhD. I have to clarify that my participants are those who successfully became PhD students, but there may be many more young women whose desire to do a PhD was killed by the fear of becoming unmarriageable. The consequences of doing a PhD, in an old-fashioned opinion, such as becoming over-educated, of advanced age and with an unstable future, are direct factors leading to the "marriage crisis". In Chinese discourse, age is an unavoidably gendered topic for women. Highly educated urban professional women in China who are over 27 are labelled "Leftover women" (To, 2015). There is also an expectation that first birth happens before 30, which reflects the importance of producing a high-quality child (Zhu, 2010; Ho et al., 2018). "Parents pressuring them to find a partner" (*逼婚/bihun*) always happened to unmarried PhD students, not only single young women, but also those in a relationship. Age is the core where PhD studies and marriage conflict and intertwine for Chinese women. As To argues, "the fact that many patriarchal constraints are faced by 'leftover women' in the marriage market reflects how the patriarchal ideology lags far behind the socioeconomic reality" (To, 2015: 164).

In addition to marriage, occupation and employment are also very gender-specific in China. To balance work and family well, Chinese women are expected to have a secure and stable job (Huang and Jin, 2016). State-owned enterprises guarantee stable positions and good welfare policies, known as the "iron rice bowl (铁饭碗)" (Zhu, J. et al., 2017; Liu, 2014). State-run higher educational institutions seem to be the best choice, despite the comparatively low salary, which attracts many parents' and young women's attention. With respect to work-lifestyle choice, in recent years, the Chinese

government, consistent with traditional patriarchal practices, has encouraged women to prioritise family (Fincher, 2016; Song, 2011). The newly implemented "two-child" population policy, the hot debate on women returning home and the state's emphasis on women's obligations of filial piety and caring for children and elders are all good examples of government strategies. China's state media must conform to the official ideology and state censorship. In the late 2000s, the media's interpretation of work-life conflict always implied that women were choosing to return home, with the focus on economic and individualistic factors (Sun and Chen, 2015). But Song (2011) suggests that the apparent "choice" of middle-class urban women is only one of their strategic responses when facing discrimination in the labour market and the pressure of the double burden. The government's propaganda has proved effective and powerful. Research data illustrate that there is increasing support for the idea of a conventional gender division: breadwinner husband and housewife (ACWF, National Bureau of Statistics, 2000 and 2010) and a gradual decline in women's participation in public employment (National Bureau of Statistics, 1990–2007). This confines young women's educational advancement and career ambitions within their lived reality.

Thirdly, Chinese female PhDs embody many positive attributes, including their high academic achievements and professional skills, independence, gender equality, and many other modern values. As members of the only-child generation, these young female holders of higher educational degrees have benefited from unprecedented educational investment from their parents, and grew up during the high-speed economic growth and transforming ideology (Liu, 2007; Fong, 2002, 2004). Many western ideas and lifestyles have become popular in China. Consciously or unconsciously, they are influenced by and practise these modern ideas, such as consumerism, individualism, neo-liberalism, urbanism, globalism, etc. (Liu, 2014; Yan, 2009; Hoffman, 2003). As PhD students, their everyday activities mostly focus on academic work, and their invested time, intelligence, and mental and physical efforts are

reflected in their accumulation of knowledge and skills in their research fields, which are far beyond those of average Chinese women. Through doctoral training, their academic achievements and professional skills have reached a very high level, on the one hand, contributing to academia and social development and, on the other, shaping a capable and independent self in the employment market and society. In terms of future career, their high aspirations to achieve in teaching and research inform the career ambitions of professional young women. Independence can also be indicated through their decisive minds. In most cases, the decision to do a PhD was made by the young women themselves, and some of them had to overcome the difficulties of unsupportive parents or a tight budget. From their independent thinking and decisive minds, I can tell that Chinese educated young women have more freedom and say in their life choices.

With respect to expectations of a partner and marriage values, they strongly hold a belief in gender equality[8] and have attempted to abandon some traditional practices. For example, they seldom dream of marrying into a super-rich family and are against the traditional view that marriage is adopted as a strategy for women to marry up to a higher social class. The economic capability of their partner is not the most important factor in choosing a prospective husband, but they place emphasis on romantic love and spiritual communication. Being a good communicator and having compatible values are the leading expectations of male suitors. As for marriage, love comes first in a marriage and marriage is not the must-happen thing in their lives if they do not meet "Mr Right" or a soulmate. They hope for equality in the aspects of everyday housework, mental respect, and economic position. In some ways, Chinese female PhD students seem to be modern and independent, and are advocates of gender equality.

Nevertheless, in the view of social media and the Chinese public, Chinese female PhDs

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[8] As feminism is, to a large degree, misunderstood by people and is a very sensitive term, I used "gender equality" in the interviews to explore their gender and marriage values.

are regarded as special, whether they are socially stigmatised as "the third gender" or, in a positive perspective, seen as doing "awesome" work. They are "othered" in Chinese discourse. I have argued here that they are unusual in some respects. The total number of Chinese female PhDs is still small, and many individuals have little knowledge about them. They are about to earn the highest degree and doing academic research is their everyday work. However, they share many similarities with other educated Chinese women from middle-class families of the one-child generation. In the words of my participants, "we are just normal young women, with no big difference from the ordinary women of our age. The biggest thing may be that our work is doing academic research. Like everyone else, we are busy with work and at the same time developing many down-to-earth hobbies." They are clever and intelligent to engage in a PhD, which is not normal, but they are trying to fit in the social concept of normality. They regard their biggest difference from other people is their experiences of PhD study and the doctorate they will soon have. As Sandy To (2015) argues, the higher education degree is just a stepping-stone to finding an ideal job, which may be what they themselves desire, or what their parents and the wider society hope for them. Those who come from an intellectual family background have decided to do a PhD and planned to find a position in higher education, consciously or unconsciously following the life path of their parents. They are keeping to their social class instead of moving up.

Finally, Chinese female PhD students are living with contradictions. I have integrated the practices of my participants and the social expectations of women and best age for reproduction discourse to map out the "life-course timetable" (Figure 28) that Chinese female PhD students are facing (To, 2015; Qiao, 2019; Li, 2019; Hai, 2019). The idea of life course timetable was adapted from Xie Kailing (2018) and adjusted it to fit my participants' situation.

Figure 28 : Life-course timetable for Chinese female PhDs
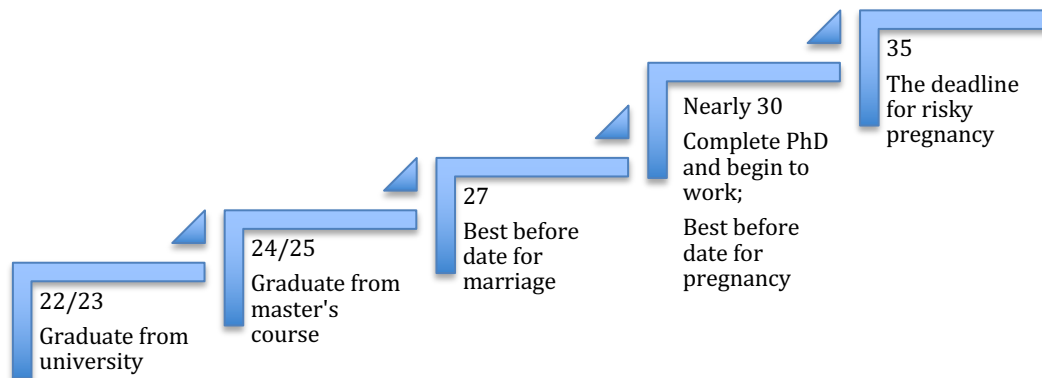
As shown in the timetable, PhD students usually finish their university course at 22/23 and then receive their master's degree at the age of 24/25. If they directly join a PhD programme without a gap year, they are on schedule to complete their doctoral education at the age of nearly 30. Afterwards, if they are lucky to find a job immediately, they will start their career at the age of 30. This is how a PhD is built up. Due to social expectations, they had better marry before 27, or they may be under great pressure of *bihun* exerted by their parents, peers and society. Afterwards, they are encouraged to give birth at the best time for reproduction (26–29). Under the second-child policy, if some of them desire to have a second baby before the deadline of 35 years old, the timescale will be even tighter. Although many of them are willing to postpone marriage, they mostly plan to follow "the best age for reproduction" discourse. The contradictions are evident and many female PhD students are facing a dilemma.

Most of my participants plan to delay their marriage until after graduation. This frees up time for them to focus on their PhD studies. However, after completing the PhD, they have to build up their career and, simultaneously, find a boyfriend, marry, and give birth to child(ren) within the next five years. It is never simple, and the timetable is rather intense. Especially under the dual burden of the recent "up-or-out" system in higher education and the powerful requirement for eugenics and childcare, they will have

difficulties in balancing work-family conflicts. However, the "married with child" female PhDs seem to successfully fit in with the timetable, but in practice it is very hard to manage. The two interviewees who are mothers both chose a topic in the humanities and social science disciplines in the UK after the birth of their children. After the enforcement of the one-child policy in China, the family pattern transformed into child-centred families (Logan et al., 1998; Liu, 2007; Tsui and Rich, 2002) and the importance of parental care and education has been emphasised (Fong, 2002; Liu, 2007). Differently from the majority of PhD students, who focus primarily on research, taking care of their children is their first priority of time management, and time for their PhD studies is significantly squeezed. Providing their children with a better environment for growth and educational resources was their initial motive for doing a PhD in the UK. Importantly, the flexible and free working hours in humanities and social science disciplines are highly advantageous for looking after a child. In addition, their husbands and parents are very supportive, both financially and emotionally. All these advantageous factors contribute to negotiating the contradictions.

The contradictions can be also observed in the competing values of Chinese female PhD students. On the one hand, they have positive attributes, such as independence, ambition in education and career, and advocating gender equality. One the other hand, these women have internalised some of the prevailing traditional gender values, and are practising them in an alternative and adjustable way. The goals they are insisting on and pursuing meet and correspond to the social expectations of a good and successful woman in contemporary China. The motivation of Chinese female PhD students to do a PhD is an example that indicates the contradiction. As discussed in Chapter 5, women pursuing a doctorate may be motivated by multiple factors. Some students are typically knowledge seekers, institutional reward seekers, or acquiescent followers, while a majority of my participants are a combination of two of these categories. Yuanyuan (27, Arts and humanities, China) was motivated by her desire to be a scholar. The reasons are

twofold. On one hand, she was intrinsically interested in doing research on the topic of her choice and intended to continue with it. On the other hand, she enjoyed the lifestyle on a university campus. She is a complex knowledge seeker and institutional reward seeker. In addition, some "acquiescent followers" are also independent and strong-minded in other respects. I have introduced Lizhi (29, science, in a relationship), who was persuaded to do a PhD under the double pressure from her supervisor and her father. But when it came to her love story, she was firm and independent, and even went against her parents. Lizhi's boyfriend had a lower status in almost every respect. It is a love story between a highly educated woman from a privileged urban family and a poor man from a peasant family with only a high-school education. This relationship was not encouraged or agreed upon because her parents were very concerned about *mendanghudui* (homogamous marriage) (To, 2015). However, Lizhi firmly carried on with her relationship and believed in their romantic love. Four years later, her parents finally accepted her boyfriend and they were engaged when I interviewed her. She is quite independent and self-determined in love issues, while being acquiescent in her educational choice.

Another example is institutional reward seekers. In the current less stable and highly competitive job market, their desire to do a PhD is job oriented. Teaching in higher educational institutions is their ultimate goal, because it is seen as a secure and undemanding job, facilitating women in balancing their work, family and personal lives. In male-dominated academia, young women doing PhD research need to be very ambitious and assertive in their academic life and career, in order to challenge the gender framework. However, some of them chose a PhD in order to achieve the goal of finding an easy and secure job to better take care of their family and enjoy some leisure time. When they realised that university teachers are very busy, stressed and no longer enjoy a permanent position, many of them regretted their decision. They have internalised the view that a secure, stable and relaxed job is a good choice for women,

and improving their academic degrees was the means to achieve it. Doing a PhD serves for many of them as an approach to adjusting to the patriarchal framework and even to make the best use of gendered society. The traditional Chinese gender norms remain in their minds, and some modern views are also influential. As a result, the competing, and sometimes conflicting, views of both traditional and modern women are present.

In spite of some limitations, this thesis makes several contributions to the existing literature and relevant knowledge. In the first place, I have filled in some research gaps in the existing literature. I have conducted a systematic study of Chinese female PhD students. Existing studies mainly looking at just one aspect of Chinese female PhDs, such as social media image (Zhao, 2013; Zhao, 2011; Liu, 2016), love and marriage issues (Mo, 2005; Sun, 2007; Jin, 2019; Zhu, 2017; Wu and Liu, 2019), difficulties in job hunting (Ma et al., 2014; Li et al., 2012; Jin and Liu, 2011). In contrast, I explore multiple dimensions of Chinese female PhD students' experiences and values, including education, love and marriage, gender values, future expectations and attitudes towards social stereotypes and stigma. I have depicted their everyday activities and lifestyles; I have investigated their motivations for doing a PhD; I have discussed how they negotiate love/marriage. These issues have drawn little attention from scholars in academia, but I believe that they are worthwhile to research. Through the participants' own words, this research is important in terms of portraying vivid and three-dimensional Chinese female PhDs.

In addition, I have explored Chinese female PhDs from women's own perspective, which enables them to speak for themselves. As they are struggling under social stereotypes and stigma, I have tried to reveal their own understandings of their lives, research, marriage and gender in China. While avoiding taking for granted what social media delivers and what the public believes, I have discussed how Chinese female PhDs look at these socially stigmatised topics, using their experiences and values as evidence. I have

adopted a feminist approach to best achieve the aim of enabling female PhD students' voices to be heard.

Moreover, this thesis offers new insights into the debates on gender, education and Chinese society. In terms of gender equality in education, previous studies have examined the levels of pre-tertiary education, university education, and postgraduate education in general. They have revealed that the gender gap of educational acquisition has been narrowing in many respects and that gender equality in student enrolments has almost been achieved among the one-child generation (National Bureau of Statistics, 2010–2016, 2016; Tsui and Rich, 2002; Liang et al., 2013). However, I have focused on doctoral education only and have revealed that the gender gap and inequality still remain. Compared to male PhDs, the number of Chinese women with PhDs is not only fewer in number, but also features a more negative social image in the media and in some Chinese people's perceptions. These ideas highlight that gender equality in education still needs more improvement at doctoral level. In terms of motivations for pursuing a doctorate, I have provided a gender perspective. Very few studies have investigated gender differences in the decision-making around doing a PhD, while I have examined how female PhDs' decisions were influenced by their identity as a woman. This thesis offers a new approach to and explanations for the reasons why students choose to engage in a PhD programme. Disadvantages in labour market and career ambition are not the same as men. Women are perceived as unsuitable for some certain kind of occupations and gender pay gap has not disappeared. Men and women also have different future prospect. I suggest explanations for the continuation of gender gap and inequality.

This thesis provides insights into young women's negotiation of tradition and modernity. The continuity of traditional gender values and patriarchal norms coexists with the transmission of modern ideas, resulting in competing and at times conflicting

views and behaviours among Chinese female PhDs. Even though they have received the highest academic degree, they cannot escape from the prevailing Chinese gender system. Chinese female PhDs are constrained by their internalised values, partners, parents and supervisors, the government's agenda, wider society and culture.

Throughout the process of conducting this research and completing this thesis, I became aware of many interesting and meaningful topics in need of further research. As my participants are all full-time students, they seldom have work experience. Some themes related to the workplace and employment have not been discussed in this thesis. It would be worthwhile to explore the gender pay gap, gender discrimination in job-hunting and promotion and reproductive issues in the workplace among women with PhDs. Further studies could focus on women with a doctorate, and their experiences and values will contribute to the debates on career and work-family conflict.

In addition, inspired by the flood of the global "Me Too" movement, some female victims in China have spoken out on social media, and sexual harassment has attracted much attention from both the public and scholars (Lin and Yang, 2019; Bao, 2019). Sexual harassment in the university is a topic of great importance. In my study, I did not generate adequate data on this topic, so it was not fully discussed or developed. Further studies might work on this.

Moreover, financial status plays a fundamental and vital role in doing a PhD, and this topic may contribute to the discussion of the Chinese market economy, consumption practices and educational investment. Money is a necessity for supporting the 3–6 years of PhD study. But, as my participants are those who have succeeded in doing a PhD, they all have solved their financial problems, either supported by scholarships or family-funded. My participants seldom faced financial problems, so we did not talk about it very much. In practice, some Chinese female master's students want to do a PhD, but

they finally give up the idea because they fail to gain the necessary financial support. For instance, some parents disagree with their PhD plans and do not provide financial support; some students fail to apply for government or university funding and their parents cannot afford the tuition fees and living expenses. Further research could choose master's students as participants to explore the motivations for doing a PhD, which would enable a discussion of the financial factors impacting upon their decision-making.

Finally, many of the phenomena that I have discussed in this thesis are changing at present. For example, the number and percentage of female PhD students keeps increasing; more female PhDs are revealing details of their lives and sharing their knowledge and values on public media. Later marriage, more singlehood and lower fertility are appearing in China. My participants were mainly born between 1985 and 1990 (the post-85 generation), while newly enrolled PhD students are from the post-90 generation. The shifting phenomena and people may offer new insights into research on Chinese female PhDs.

Chinese female PhDs are a very small proportion of the population. They are different because of their academic accomplishments, independence and high career ambitions. However, they have internalised many traditional gender values. They are living with contraditions, but they are trying to fit in the Chinese social norms. In the immediate future, Chinese young women will still be carrying the dual burden and negotiating with the pressure of succeeding in studying and work, while taking care of the home as well. Doing a PhD serves for many of them as an approach to adjusting to the patriarchal framework and to achieve the balance between work and family. There is a long way to go for them to achieve a well-balanced, independent and successful self in modern society and the market economy alongside the traditional womanhood expected of them by family, the state and Chinese culture.

Appendix

Appendix 1: Thesis mind map

Chinese female PhD students

- Chapter1 Introduction
  - Research interest
  - Structure of thesis
- Chapter 2 Making sense of Chinese female PhDs in transforming Chinese society
  - Womanhood in contemporary China
    - Women and employment in post-Mao era
    - One-child policy and educational investment from parents
    - Femininity and masculinity
  - Women and higher education
  - Social stigma
  - Existing literature
    - Leftover women
    - Female PhDs
- Chapter 3 Researching lives and values
  - Pre-field
    - Research design
      - Choosing research method: qualitative interviews
      - research location
      - Participants
      - Interview questions
  - In the field
    - Finding participants
      - Five strategies to recruit participatns
      - Being rejected and some reflections
    - Contacting participants and preparing interviews
    - Conducting interviews
      - Creating rapport
      - Flexibility of interview structure
      - Interviewer and interviewee relationship
      - Emotional work
      - Ethics issues
      - Interviewing female PhD students
      - Interview location
    - After interviews
      - Taking notes
      - Hard to leave the field
  - Post-field
    - Transcription, data analysis, writing up
- Chapter 4 Exploring lives
  - Depicting Chinese female PhD students' rich lives
  - Differentiated everyday schedules of Chinese female PhD students
    - Research discipines
      - Science and engineering
      - Arts, humanities and social science
    - Love and marriage status
      - single
      - in a geographically close relationship (same city)
      - cohabitation
      - in a long-distance relationship/marriage
      - married with a child
    - Countries and doctoral training systems
      - UK
      - China
- Chapter 5 Motivations of PhD study and research
  - Motivation to pursue a doctorate
  - Typology of motivation to do a PhD
    - Knowledge seeker
      - Academic interest
      - desire to gain knowledge
    - Instrumental reward seeker
      - Better job opportunities
      - Teaching in higher education
      - Escaping from unsatisfied employment
    - Acquiescent followers
      - supervisor's suggestion
      - parents' hope
      - for the sake of partner and relationship
- Chapter 6 Love and marriage, and the negotiation of social stigma
  - Female PhDs' "marriage difficulty" against women pursing a PhD
  - Chinese female PhDs' love and marriage status
    - research data
    - women in a relationship before doing a PhD
    - Women who find a partner during PhD
    - Single women
  - Female PhD students' negotiation of love and marriage
    - Theoretical framework (homogamy/hypergamy)
    - Education
    - Economic capbility
    - Spiritual communication
    - Age
    - Beauty
- Chapter 7 Conclusion

Appendix 2: Interview guideline

Introduce my research topic

talk about ethic issues

Sign the consent form

Get to know the basic information of interviewee → Fill in a form → Name/age/university/subject/grade/hometown/relationship situation...

Warm-up questions
- How is everything going recently?
- What are you busy with now?
- What is your plan for this summer holiday?

Study/research

- **Study/research**
  - introduce your topic or research areas
    - How is it going?
  - Motivation of doing a PhD
    - When you made the decision, what motivated you most and what you worried about? Why this topic?
    - Why this country/university?
    - Why this topic?
    - Family attitude?
      - Family background/ parents' work/educational level
    - Other people's attitudes? (partner/partner's family/friends/supervisors)

- **Everyday study**
  - What do you do about your study everyday? (reading/experiment /data analysis/coding…)
  - What difficulties do you meet?
  - What you enjoy most
  - advantages and disadvantages of studying abroad? The differences?
  - Overall comments on your current study/research

- **Everyday life**
  - What do you always do during your free time?
  - Do you have some hobbies?
  - Do you participate in some campus or social activities?
  - Social circles/ friends

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Love/marriage — Heterosexual or homosexual? — What is your current situation of love/relationship/marriage?

In a relationship/marriage
- Talk about your partner
  - Age/occupation/family background/education/economic situation/personality…
- Talk about your love story
- Partner's attitudes towards your PhD degree/study
- conflictions between relationship/marriage and study? And how to balance it? (time/energy)
- Do you think your PhD can impact your relationship and how?

Single
- Do you worry about it?
- Do your parents worry about it?
- Do you have any plan for it?
  - Actively finding and dating
  - Let it happen naturally
  - matchmaking date
  - Do nothing (do not want to have a partner recently)
- How much it is related to your PhD? How to balance?

Love/marriage — Attitudes towards love/marriage

- Is marriage necessary in your life?
- What do you think of love/marriage/family?
  - Differences among love/marriage/family
- What are the requirements of (future) spouse?
  - Characters/family background/ education/economic situation…
  - What factors do you appreciate most in a relationship/marriage

Being a female PhD student: Self-identity & Social opinions (stigma)

When people know you are a female PhD, what's their first reaction/question?

- **Positive** — Clever/ excellent/study well? And why
- **Negative** — Astonished look/ can't understand… and why

Experiences

- Special treatment or interesting stories as a female PhD student
- Do you know some master classmates or friends, who intend to do a PhD but they gave up finally? and Why?

Do you know some negative public opinions (stigma) of female PHDs?

Stigma1：third gender; lack of femininity, not good-looking
Stigma2: Updateable/unmarriageable /*shengnu* **Stigma 3**: PhD is over-educated and useless for a young woman; marrying a good guy is better choice
Stigma4: female PhD students only focus on studying, unsocial, unsophisticated.
Stigma5: female PhD students are nerds, boring, abnormal.

- Do you think it is true? What about yourself and your PhD friends?
- Why do the public hold the opinions?
- What do you think of these? How to react?
- Do you think the situation is changing better?

Future expectation

- **Settle down**
  - UK student
    - Stay in the UK or go back China or somewhere else?
  - Home student
    - Study in China or go abroad?
- What is your future career plan?
  - Experiences of finding a job (if they have)
  - Expected or ideal work situation
- What is your expectation for future life? Ideal lifestyle?
- Image your life in 5 years

Overall comments/ questions

- Are you satisfied with your situation right now?
- What worries you most at present?
- How your PhD impacts your life?
- How do you think the experience of studying in the UK impact your life or change you?
- Do you have any questions for me?

Happy to talk to you and thank you for your cooperation.

Appendix 3: Five posters in interviews

污名一

女博士"第三性"

世界上有三种人：男人，女人，女博士。

女博士是"UFO": Ugly (丑)；Foolish (笨)；Old (老)。

Stigma1：

The third gender; lack of femininity; not good-looking

There are three genders in the world: male, female, female PhDs.

Female PhD students are called "UFO", which is short for ugly, foolish and old.

污名二：

女博士嫁不出去

白天愁论文，晚上愁嫁人

"剩女"

Stigma2:

Updateable/unmarriageable

Female PhD students worry about their thesis in the daytime and worry about marriage at night.

Shengnu/ Leftover women

污名三：

学得好不如嫁得好

女生读那么多书（博士）没用

Stigma 3:

PhD is over-educated and useless for a young woman.

Marrying a good guy is better choice

污名四：

女博士只会学习，

不会人际交往，情商低。

Stigma4:

Female PhDs only focus on studying,

Unsocial

Unsophisticated

污名五：

女博士性格不太正常

呆板，无趣，书呆子。

Stigma5:

Female PhD students are nerds, boring, abnormal.

Appendix 4: Post on the University BBS

发信人: needdream (need dream), 信区: NJUExpress. 本篇人气: 180
标　题: 女博士看过来！研究被采访者征集
发信站: 南京大学小百合站 (Tue Jul 14 11:34:06 2015)

全日制在读的女博士生们，真诚的邀请你们参加我的研究采访。

跟你们一样，我也是在读女博，我现在在英国读社科类博士，本科毕业于南京大学。我的博士论文是研究中国女博士群体。回母校来寻找我研究的被采访者，采访主要聊聊关于女博士的学业、生活、婚恋、观念、未来事业等方面，大概会占用一到两个小时，我会完全保证你的隐私，不会泄露任何你的个人信息，采访内容仅供我的研究使用。

如果你愿意分享读博的故事，如果你对我的研究或者采访感兴趣，或者你认识可能对此研究感兴趣的朋友，请不要犹豫来联系我，我还会为你提供更多更详细的研究内容和采访安排。此外，我还给各位参与者准备来自英伦的礼物，以表谢意。

联系方式：倪同学 18645011995 （短信、电话均可）nimeng_york@163.com

感谢您的关注！真诚欢迎您的参与与支持！
--

Translation:

Title: Attention! Female PhD students! Research participants recruited.

Dear full-time female PhD students, I am sincerely inviting you to participate in my research.

Sharing the same identity as you, I am also doing a PhD now. I am currently a PhD student in social science in the UK. I graduated from Nanjing University. My research topic is understanding Chinese female PhD students. I come back to my Alma Mater to find participants for my research. In the interview, we will talk about topics such as research and study, everyday life, love and marriage, values and future aspirations. It will take you one to two hours. I will certainly keep your information confidential. The interview accounts are used only for my research.

If you are willing to share your stories about doing a PhD, if you are interested in my research, or if you know some colleagues may be interested in it, please do not hesitate to contact me. I will provide you with further information and interview arrangement. In addition, I prepared some gifts from Britain to show my gratitude.
Contact information: Miss Ni 18645011995(messages & calls)
nimeng_york@163.com
Thank you for your attention! Sincerely welcome your participation and support.

Appendix 5: Interviewee information

Interviewee	City of University	Age	Grade	Subject	Hometown	Love/marriage status	Family background (parents' occupation)	Financial support
Qingqing	Nanjing	31	Post-doc	Science	Nanjing, Jiangsu	married	teacher	Government & University
Xianer	Nanjing	27	2	Art&Humanities	Hefei, Anhui	in a relationship	business/bank	Government & University
Chengzi	Nanjing	29	3	Art&Humanities	Hebei	in a relationship	doctor/nurse	Government & University
Yutong	Nanjing	27	1	Art&Humanities	Hefei, Anhui	single	civil servant	Government & University
Jiani	Nanjing	27	2	Art&Humanities	Tongliao, Neimenggu	in a relationship	business	Government & University
Siyi	Nanjing	28	4	Art&Humanities	Shenyang,	in a relationship	teacher/accountant	Government &

					Liaoning			University
Feifei	Nanjing	28	1	Art&Humanities	Congyang, Anhui (rural area)	single	farmer	Government & University
Xiaotian	Nanjing	25	3	Science	Chuzhou, Anhui	in a relationship	teacher/private business	Government & University
Lizhi	Nanjing	29	4	Science	Nanjing, Jiangsu	in a relationship	civil servant	Government & University
Yuanyuan	Nanjing	27	2	Art&Humanities	Xichang, Sichuan	in a relationship	researcher/civil servant	Government & University
Yang	Harbin	28	2	Science	Harbin, Heilongjiang	in a relationship	lawyers	Government & University
Mengqi	Harbin	26	1	Science	Yanji, Jilin	in a relationship	civil servant	Government & University
Hanke	Harbin	26	2	Science	Binzhou, Shandong (rural area)	single	farmers	Government & University

Nuan	Harbin	29	2	Science	Luohe, Henan (rural area)	in a relationship	farmers	Government & University
Beibei	Harbin	28	3	Science	Rizhao, Shandong	in a relationship	teacher/worker	Government & University
Leilei	Harbin	29	4	Science	Harbin, Heilongjiang	single	driver/sale	Government & University
Naihe	Harbin	26	2	Science	Harbin, Heilongjiang	single	teacher	Government & University
Jing	Harbin	24	1	Science	Harbin, Heilongjiang	single	worker/teacher	Government & University
Xin	Harbin	28	4	Engineering	Datong, Shanxi	in a relationship	researcher	Government & University
Chuntian	Harbin	27	2	Engineering	Harbin, Heilongjiang	single	professor/engineer	Government & University
Summer	York	27	1	Social science	Qinhuangdao, Hebei	single	businessman/teacher	self-funded

Maggie	York	26	1	Art&Humanities	Dongguan, Guangdong	in a relationship	engineer/teacher	self-funded
Cherry	Leeds	27	1	Social science	Taiyuan, Shanxi	in a relationship	scholar/government officer	self-funded
Sunny	York	26	1	Art&Humanities	Shanghai	married	businessmen	self-funded
May	York	25	1	Art&Humanities	Langfang, Hebei	single	IT engineer	self-funded
Jessica	York	37	2	Social science	Kunming, Yunnan	married	retired	self-funded
Kate	Leeds	26	1	Science&Engineering	Chengdu, Sichuan	in a relationship	cook	CSC
Vivian	Leeds	28	2	Science	Shijiazhuang, Hebei	single	policeman/policewoman	CSC
Tonia	Leeds	29	2	Art&Humanities	Wuhan, Hubei	single	teacher/doctor	CSC
Cindy	York	29	4	Social science	Yichang, Hubei	in a relationship	teachers	self-funded
Ada	York	29	2	Science&Social science	Changchun, Jilin	single	engineer	Project

Ruth	York	25	1	Science	Yangzhou, Jiangsu	married	enterprise manager/teacher	self-funded
Hebe	York	27	3	Social science	Liangshan County, Shandong	in a relationship	businessman	self-funded
Mia	York	25	1	Social science	Zhuhai, Guangdong	single	enterprise manager/ civil servant	self-funded
Luna	York	24	2	Social science	Shanghai	in a relationship	enterprise manager/technician	self-funded
Emma	Leeds	25	3	Science	Hangzhou, Zhejiang	single	engineer/private business	CSC
Lauren	Leeds	27	1	Art&Humanities	Binzhou, Shandong	single	civil servants	University (half)
Gloria	Leeds	27	2	Social science	Baoding, Hebei	single	teachers	CSC
Selina	York	25	3	Art&Humanities	Guangzhou, Guangdong	in a relationship	civil servant/teacher	University

| Nancy | York | 27 | 2 | Social science | Hegang, Heilongjiang | in a relationship | doctor | self-funded |

Appendix 6: Interview information

Interview	Interviewer	Intermedia1	Intermedia2	Interviewee	Relationship between interviewer and interviewee	Date	Time
Qingqing	Meng	friend	friend's boyfriend	his senior colleague ("Shijie")	stranger	25-Jun-15	46min
Xianer	Meng	friend		her senior colleague ("Shijie")	stranger	26-Jun-15	1h57min
Chengzi	Meng	professor	professor's colleague	his PhD student	stranger	26-Jun-15	1h52min
Yutong	Meng	professor		his PhD student	stranger	27-Jun-15	1h27min
Jiani	Meng	professor		his PhD student	stranger	28-Jun-15	2h29min
Siyi	Meng	social media (university BBS)			stranger	14-Jul-15	3h27min

Feifei	Meng	friend	friend's senior colleague ("Shijie")	her colleague	stranger	15-Jul-15	1h53min
Xiaotian	Meng	social media (university BBS)			stranger	16-Jul-15	3h35min
Lizhi	Meng	social media (university BBS)			stranger	16-Jul-15	1h58min
Yuanyuan	Meng	friend		his junior colleague("Shimei")	acquaintance	17-Jul-15	2h29min
Yang	Meng	parent	parent's friend	his PhD student	stranger	21-Jul-15	1h47min
Mengqi	Meng	parent	parent's friend	his PhD student	stranger	21-Jul-15	1h48min
Hanke	Meng	parent	parent's friend	his PhD student	stranger	21-Jul-15	1h16min
Nuan	Meng	parent	parent's friend	his PhD student	stranger	22-Jul-15	1h52min
Beibei	Meng	parent	parent's friend	her PhD student	stranger	24-Jul-15	2h15min
Leilei	Meng	parent	parent's friend	her PhD student	stranger	24-Jul-15	2h02min
Naihe	Meng	parent	parent's friend	her PhD student	stranger	24-Jul-15	2h20min

Jing	Meng	parent	parent's friend	her PhD student	stranger	27-Jul-15	2h03min
Xin	Meng	friend		her senior colleague ("Shijie")	stranger	30-Jul-15	1h33min
Chuntian	Meng			friend	friend	30-Jul-15	1h46min
Summer	Meng	met in class		friend	friend	30-Aug-15	2h03min
Maggie	Meng	met in a training			acquaintance	30-Aug-15	2h14min
Cherry	Meng	met in a conference			acquaintance	1-Sep-15	1h44min
Sunny	Meng	met in a conference		friend	friend	1-Sep-15	2h01min
May	Meng	met in campus			stranger	2-Sep-15	1h27min
Jessica	Meng	met in class		friend	friend	7-Sep-15	2h28min
Kate	Meng	friend (participant)		her schoolmate	stranger	8-Sep-15	2h05min

Vivian	Meng	friend (participant)		her schoolmate	stranger	9-Sep-15	1h33min
Tonia	Meng	friend		his friend	acquaintance	9-Sep-15	1h30min
Cindy	Meng	social media (wechat group)			acquaintance	16-Sep-15	2h45min
Ada	Meng	met in class		friend	friend	17-Sep-15	1h45min
Ruth	Meng	social media (Weibo)			stranger	19-Sep-15	1h53min
Hebe	Meng	friend		his colleage	stranger	23-Sep-15	2h29min
Mia	Meng	met in a conference			acquaintance	24-Sep-15	1h49min
Luna	Meng	social media (wechat group)			stranger	24-Sep-15	1h34min
Emma	Meng	friend (participant)		her schoolmate	stranger	25-Sep-15	3h06min
Lauren	Meng	friend	her friend	his colleage	stranger	25-Sep-15	

		(participant)					
Gloria	Meng	met in a conference			acquaintance	27-Sep-15	2h27min
Selina	Meng	friend		her senior colleague ("Shijie")	acquaintance	2-Oct-15	1h28min
Nancy	Meng	social media (wechat group)			stranger	5-Oct-15	around 2h (only 30min record)

Research Information sheet

What is the research title?

The stigma of "the third gender": understanding female Chinese PhD students in China and in the UK

Who is the researcher?

My name is Meng Ni. I am currently a PhD student at the Centre for Women's Studies at the University of York, UK. I am conducting this study to collect data for my PhD thesis.

What is this research about?

My PhD research aims to explore the experiences of and attitudes towards being a female Chinese PhD student in China and in the UK. I intend to look at all-round aspects of Chinese female PhD candidates' lives and aspirations. In addition, some comparative analysis will be done between Chinese female PhD candidates studying in Mainland China and in the UK.

Who is the researcher looking for?

The research aims to explore full-time Chinese female PhD students who are willing to share their experiences and attitudes towards being a female PhD candidate with me. Using interviews as the method, 30 participants are to be interviewed to collect data.

Do I have to take part?

It is totally up to you to decide whether or not to take part. If you decide to take

part you are still free to withdraw for any reason at any time up to 6 months after the interview.

What do I need to do if I take part?

I will interview you if you agree to be involved in the research. At the beginning of the interview, I will firstly ask you to fill in a consent form. In the interview I would like to ask you questions about your experiences of and attitudes towards being a Chinese female PhD students, covering your study, life, love/marriage, self-identity, values, aspirations for future and so on. If you have any questions you can ask me either before doing this or at any time during or after the interview.

What is the interview like?

Your participation is completely voluntary and you can withdraw from the research at any time before, during or within 6 months after the interview if you wish to do so. The interview will be informal and conversational. It will last one to two hours and I will make an audio record of our conversation with a voice recorder and smart phone. The place of interview will be quiet and comfortable to talk. You can decide the place most convenient, e.g. your office, your accommodation, common room, workplace, outdoor space, or café. The interview will be conducted in Chinese. If you prefer to speak English, however, I will talk to you in English without problems.

What will happen to the information?

The information you provide will be transcribed and analysed for my PhD thesis and related research publications. Everything that you tell me is confidential. To maintain anonymity, your name will be changed and information that can be used to identify you, such as the university and department, will be anonymised during the process of transcription. If you wish

to see the transcript of the interview or findings of the study, I can provide a copy.

I sincerely invite you to take part in my study on Chinese female PhD students. If you have any other questions you are free to ask me. My contact details are given below. Thank you for your cooperation.

Meng Ni

PhD student, Centre for Women's Studies

University of York, UK

Email: mn704@york.ac.uk

Postal address: Room C1/303, Flat 7, Block C1, Wentworth College, University of York, York, UK, YO10 5NG

Supervisor: Professor Stevi Jackson

Email: stevi.jackson@york.ac.uk

Chair of the Economic, Law, Management, Politics and Sociology Ethics Committee (ELMPS): Professor Celia Kitzinger

Email: celia.kitzinger@york.ac.uk

项目信息表

研究题目是什么？

"第三性别"的污名：中国女博士研究

谁做研究？

我是倪梦，英国约克大学女性研究中心在读博士生，我的这次研究是为博士论文提供材料和数据。

研究内容是什么？

我的博士论文旨在研究在国内和英国学习的中国女博士群体，她们的经历和态度观念。更准确的讲，我意图探讨中国女博士生的各个方面。此外，我还会对在国内与英国两地学习的女博士进行对比分析。

研究需要谁的参与？

此研究目标人群是全日制在读的中国女博士。如果你愿意与我分享你的读博经历和态度观点，你就是我要寻找的人。我会利用定性访谈为研究方法，计划采访 30 名女博士来收集材料。

我要参加吗？

是否参加此研究完全由你自己决定。即使你决定参加，你仍然可以在采访后六个月内决定退出此次研究。

如果参加我需要做什么？

如果你同意参与研究，我会采访你。在采访开始的时候，我首先会让你填写知情同意书。在采访中，我会问一些问题，会涉及到你的学业、日常生活、爱情婚姻、观念、未来计划等方面。如果你有任何问题，可以在任何时间向我咨询。

如何进行采访？

你的参与是完全自愿的，如果你想要退出采访，采访前、采访时、采访后的六个月内都可以。采访是非正式的，类似于对话交谈，会持续一至两小时，我会用录音笔和手机对采访全程录音。采访地点最好是安静方便说话的地方，你可以选择任何你觉得方便的地方进行采访，例如你的寝室、工作地点、公共休息室、户外、咖啡厅。采访会说中文，如果你更倾向用英文，我也可以很好的配合你。

怎么处理我信息呢？

你提供的信息会被转写成文字并进行分析，用于我的博士论文和其他学术研究的发表。为了保护你的个人隐私，在转写过程中会采取匿名，任何有关你的具体信息，例如学校名和专业名称，都会保密。如果你想看访谈的文字版或者研究结论，我都可以提供。

此项研究在 Stevi Jackson 教授的指导下进行，并且已经得到约克大学经济、管理、政治、法律、社会学学术伦理委员会（ELMPS）的审查和认可。我很真诚的邀请你参与我关于中国女博士的研究。如果你有任何问题，请随时联系我。我的个人信息和联系方式如下，非常感谢您的合作。

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Appendix 8: Consent form

Consent Forms for Research Participants

Research title: The stigma of "the third gender": understanding female Chinese PhD students in China and in the UK

This form is for you to state whether or not you agree to take part in the study. Please read and answer every question. If there is anything you do not understand, or if you want more information, please ask the researcher, Meng Ni.

Do you understand what the project is about and what is involved? Yes ☐   No☐

Have you had an opportunity to ask questions about the study?   Yes ☐   No☐

Do you understand that the information you provide will

be held in confidence by the researcher?   Yes ☐   No☐

Do you understand that the information you provide may

be used for PhD research and future publications?   Yes ☐   No☐

Do you agree to take part in the study?   Yes ☐   No ☐

If yes, do you agree to your interviews being recorded?   Yes ☐   No ☐

If yes, do you understand that you are free to withdraw from

the study within 6 months after the interview?   Yes ☐   No☐

Name of participant: ....

Signature of participant: ....

Name of researcher: ....

Signature of researcher: ....

Date of interview: ....

You will be provided with a copy of this consent form by post/email.

知情同意书

研究题目："第三性别"的污名：中国女博士研究

研究参与者请填写此表格来表达是否愿意参与研究，请认真阅读并回答下列问题。如果您有任何问题请询问研究者。

您了解此研究的内容吗？ 是□ 否□

您了解您有机会提问吗？ 是□ 否□

您了解您所提供的信息研究者将予以保密吗？ 是□ 否□

您了解您所提供的信息将用于研究者的博士论文和相关学术研究的发表吗？ 是□ 否□

您同意参与此研究吗？ 是□ 否□

如果同意接受采访，您同意此次采访全程录音吗？ 是□ 否□

如果同意接受采访，您了解您可以在采访结束六个月内随时退出此次研究吗？ 是□ 否□

参与者姓名：

参与者签名：

研究者姓名：

研究者签名：

采访日期：

Appendix 9: Personal information form

受访者个人信息表

Personal information form

姓名 Name		年龄 Age （出生年月）	
学校 University		年级 Year （入学时间）	
专业 Subject			
邮箱 Email		电话/微信 Contact information	
学历背景 Academic background	本科 undergraduate		
	硕士 master		
家庭情况 Family	出生地：Birth place		
	父亲工作：Father's occupation		
	母亲工作：Mother's occupation		
	Any sibling?		
婚恋情况 Love and marriage			
工作经历 Employment			

Appendix 10: Comparative interview structure between designed guideline and interview with Xianer

Designed interview guideline

Introduce research Talk about ethic issues

Sign the consent form

Get to know the basic information of interviewee — Fill in a form

Warm-up questions
- How is everything going recently?
- What are you busy with now?
- What is your plan for this summer holiday?

Interview with Xianer

Introduction Talk about ethic issues

Sign the consent form

Fill in personal information form

Warm-up conversation
- Plan for summer holiday
- Talk about life experiences in the UK (life, food, shopping, travelling)

Figure1: Comparative interview structure: starting interview

Designed interview guideline

Study/research
- introduce your topic or research areas
  - How is it going?
- Motivation of doing a PhD
  - What motivated you most and what you worried about?
  - Why this topic? Why this country/university?
  - Family attitude?
    - Family background/ parents' work/educational level
  - Other people's attitudes?
  - Financial support

Everyday study
- What do you do about your study everyday?
- What difficulties do you meet?
- What you enjoy most
- advantages and disadvantages of studying abroad? The differences?
- Overall comments on your current study/research

Interview with Xianer

Study/research
- research field/ thesis topic
  - Process of PhD study
  - Preparing for thesis
  - Ideas of thesis
- Overall comments on PhD life
- Motivation of doing a PhD
  - Self-motivation Doctore Entrance Examination
  - Family attitudes
    - Matchmaking date
    - family situation
  - financial support

Everyday study
- eEveryday study/ schedule
- Difficulties
- Relationship with supervisor and colleagues
- Compare Chinese and UK postgradue education

Figure 2: Comparative interview structure: Theme one

Designed interview guideline

Everyday life

What do you always do during your free time?

Do you have some hobbies?

Do you participate in some campus or social activities?

Social circles/ friends

Interview with Xianer

Everyday life

Things always do during spare time
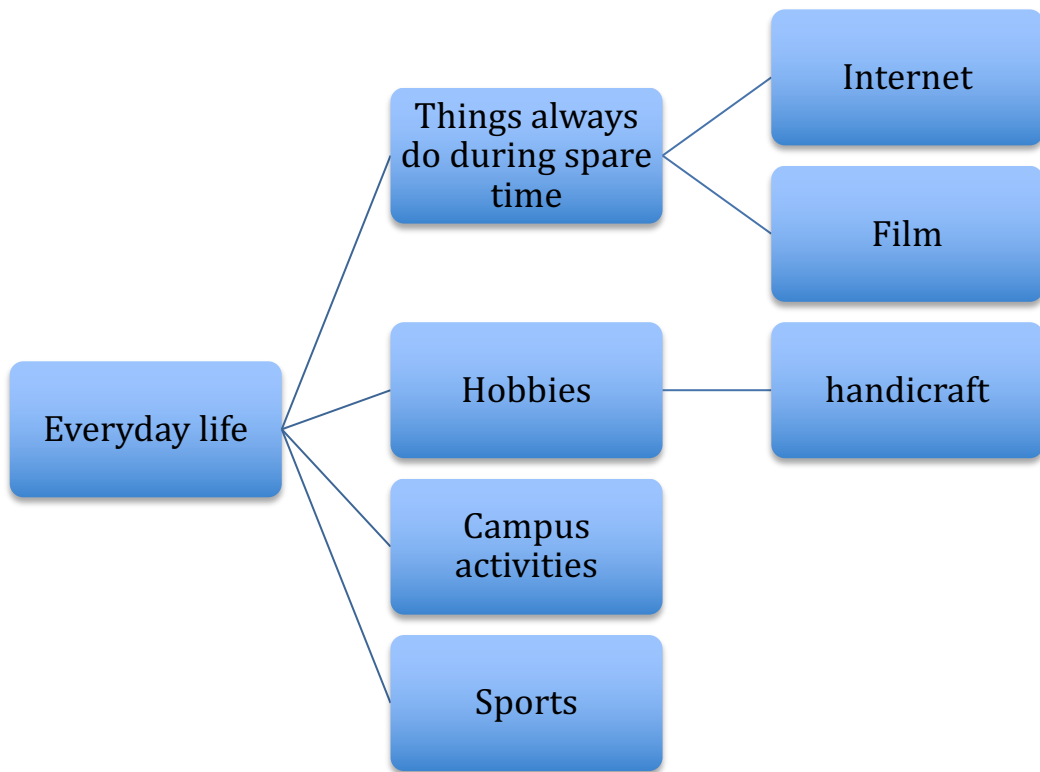
Internet

Film

Hobbies

handicraft

Campus activities

Sports
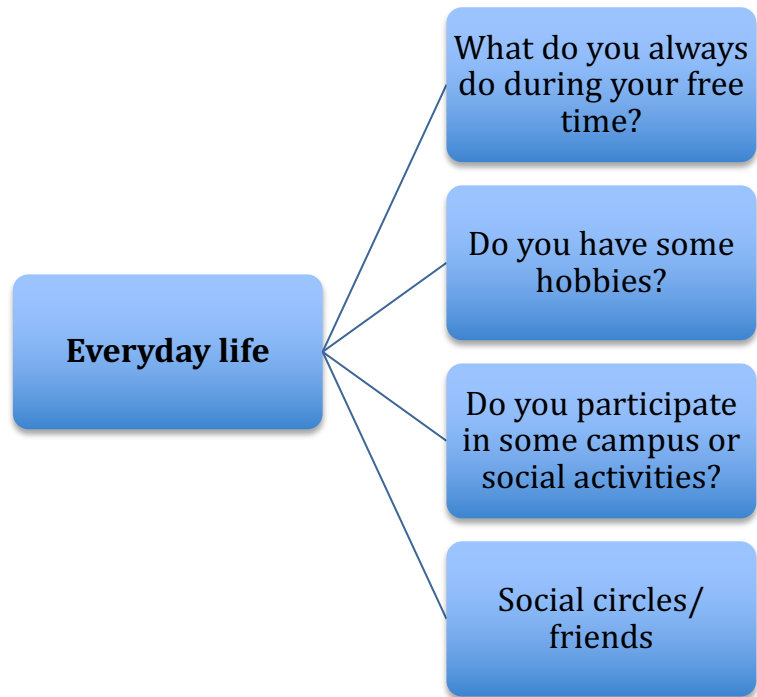
Figure 3: Comparative interview structure: Theme Two

Designed interview guideline

Love/ relationship/ marriage → Heterosexual or homosexual? → What is your current situation of love/relationship/ marriage?

In a relationship/marriage
- Talk about your partner → Age/occupation/family background/education/economic situation/personality...
- Talk about your love story
- Partner's attitudes towards your PhD degree/study
- conflictions between relationship/marriage and study? And how to balance it? (time/energy)
- Do you think your PhD can impact your relationship and how?

Single
- Do you worry about it?
- Do your parents worry about it?
- Do you have any plan for it?
  - Actively finding and dating
  - Let it happen naturally
  - matchmaking date
  - Do nothing (do not want to have a partner recently)
- How much it is related to your PhD? How to balance?

Interview with Xianer

Love/relationship/marriage
- Introduce her boyfriend
- Boyfriend and his family's attitudes towards her doing a PhD
- Love story
- Features of boyfriend she love
- Balance love/relationship and research/study
- Long-distance relationship
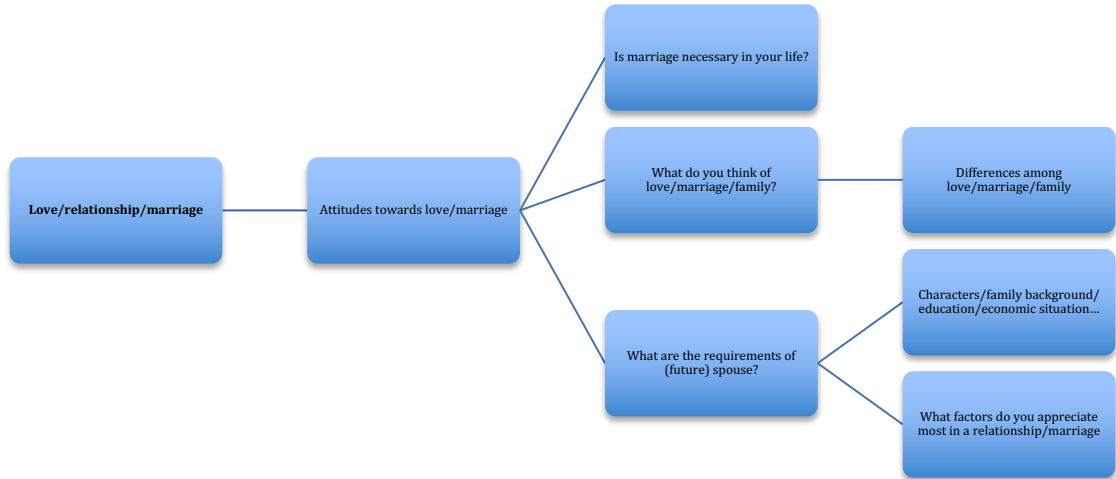- Interative impact of doing a PhD and love/marriage

Figure 4: Comparative interview structure: Theme Three (experiences)

Designed interview guideline

Interview with Xianer

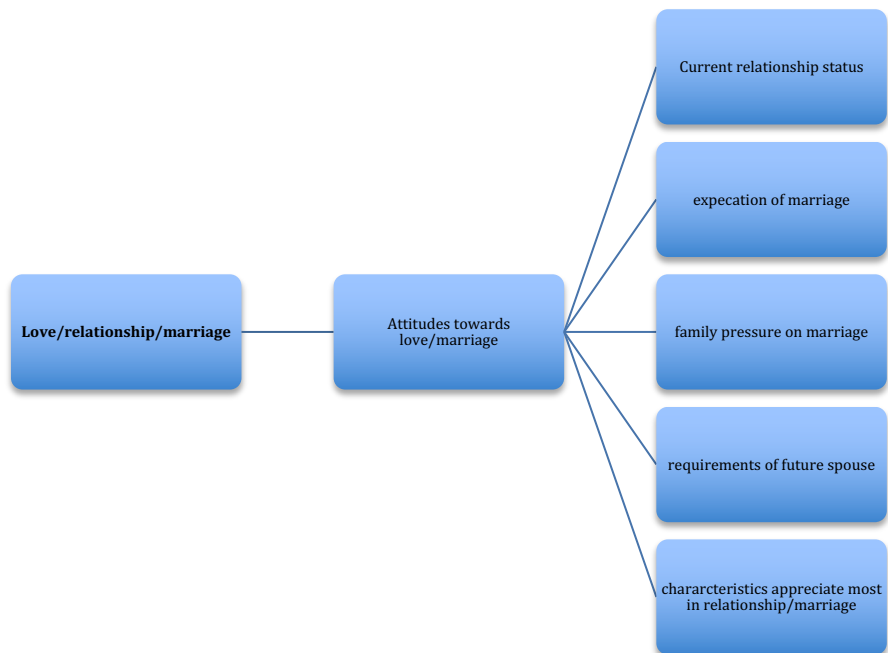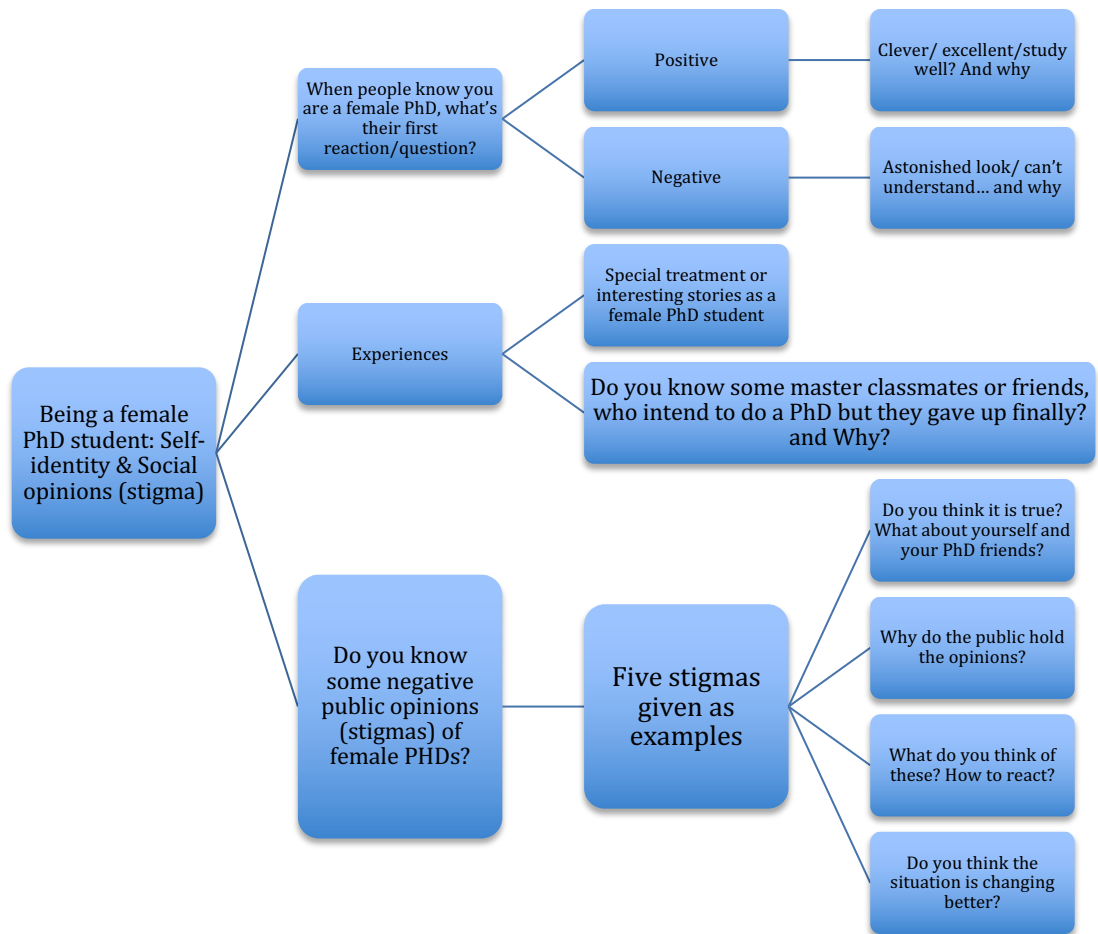Figure 5: Comparative interview structure: Theme Three (values)
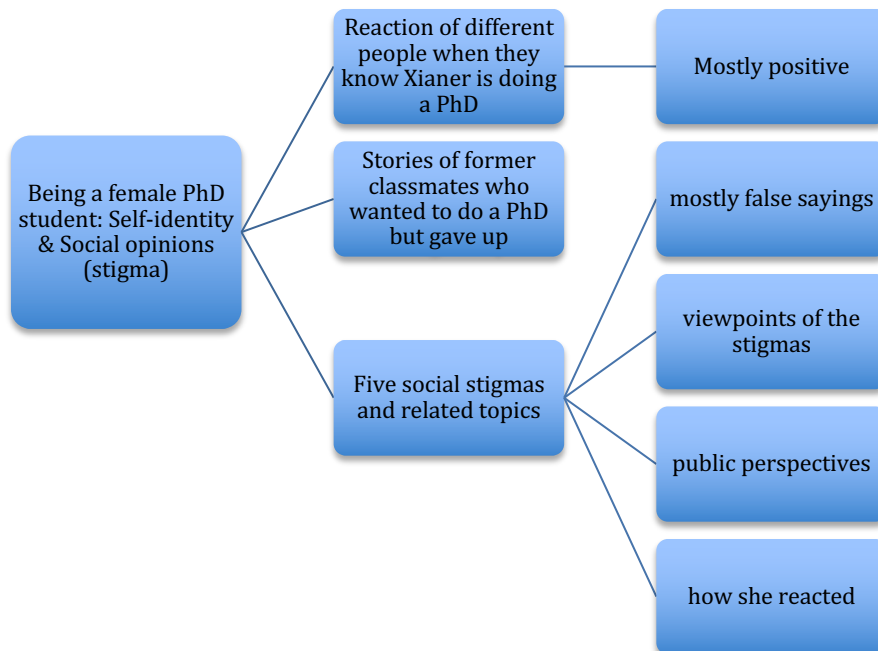
Designed interview guideline

When people know you are a female PhD, what's their first reaction/question?
- Positive → Clever/ excellent/study well? And why
- Negative → Astonished look/ can't understand... and why

Being a female PhD student: Self-identity & Social opinions (stigma)

Experiences
- Special treatment or interesting stories as a female PhD student
- Do you know some master classmates or friends, who intend to do a PhD but they gave up finally? and Why?

Do you know some negative public opinions (stigmas) of female PHDs? → Five stigmas given as examples
- Do you think it is true? What about yourself and your PhD friends?
- Why do the public hold the opinions?
- What do you think of these? How to react?
- Do you think the situation is changing better?

Interview with Xianer

Being a female PhD student: Self-identity & Social opinions (stigma)
- Reaction of different people when they know Xianer is doing a PhD → Mostly positive
- Stories of former classmates who wanted to do a PhD but gave up
- Five social stigmas and related topics
  - mostly false sayings
  - viewpoints of the stigmas
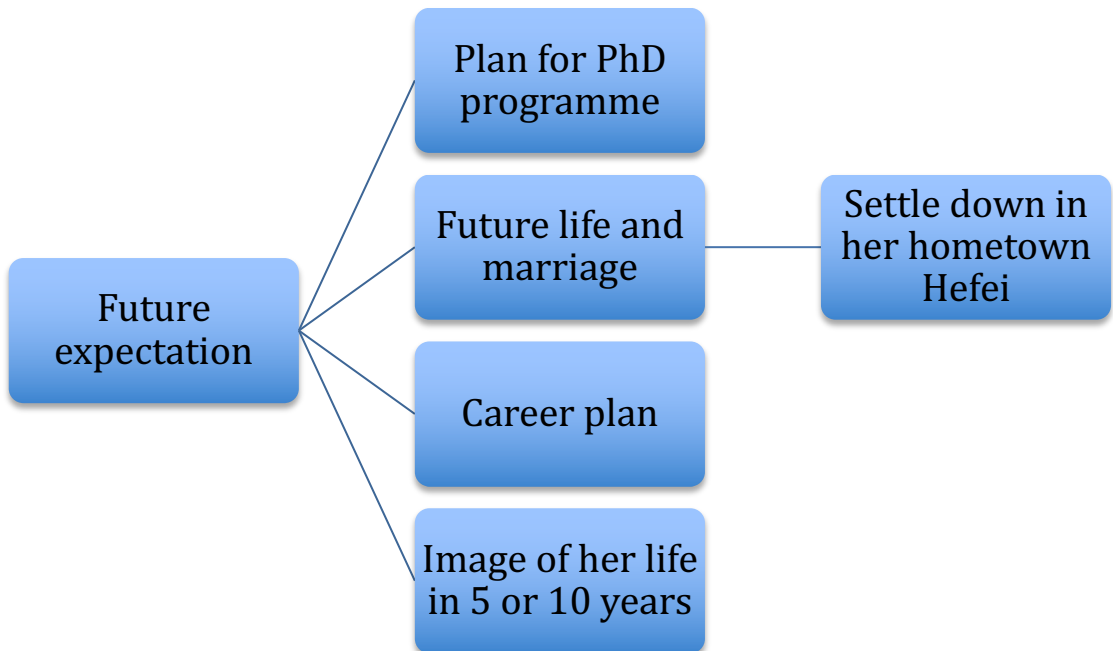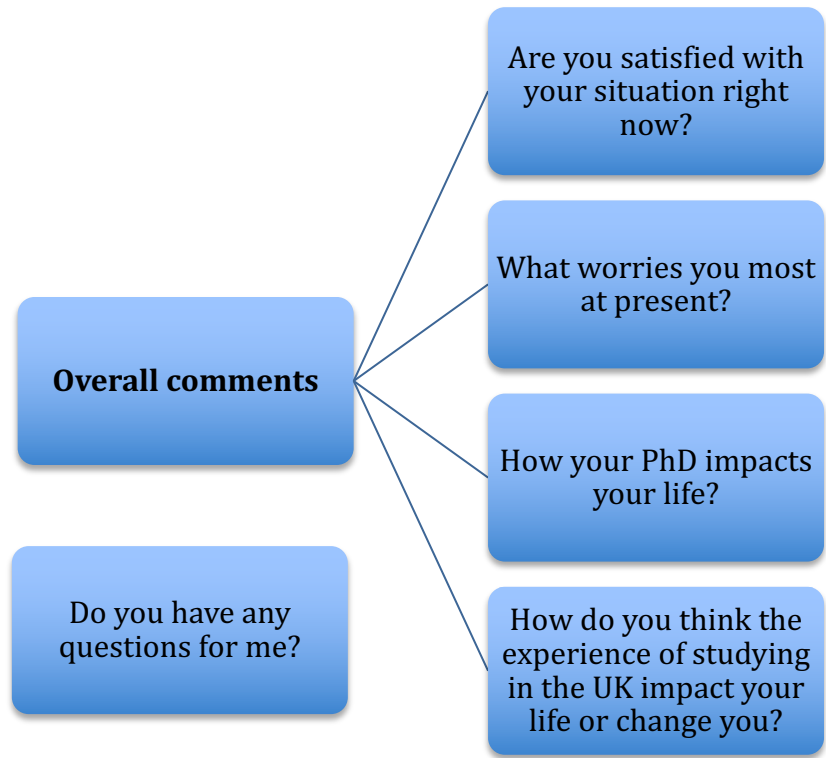 - public perspectives
  - how she reacted

Figure 6: Comparative interview structure: Theme Four

Designed interview guideline
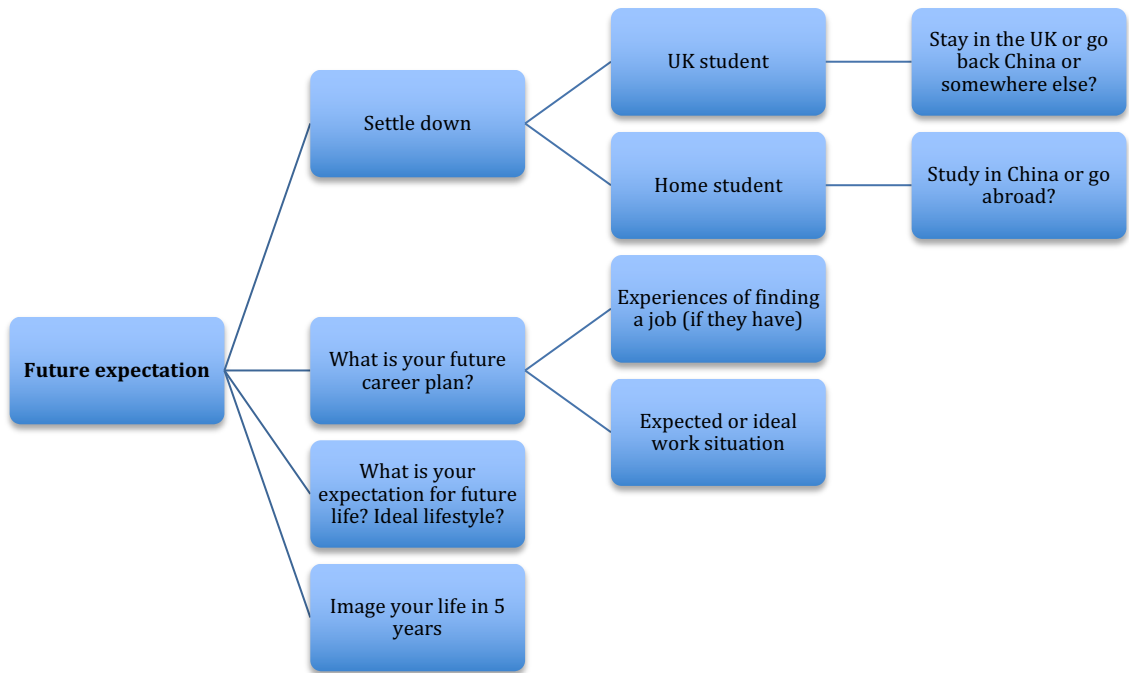
Interview with Xianer

Figure 7: Comparative interview structure: Theme Five
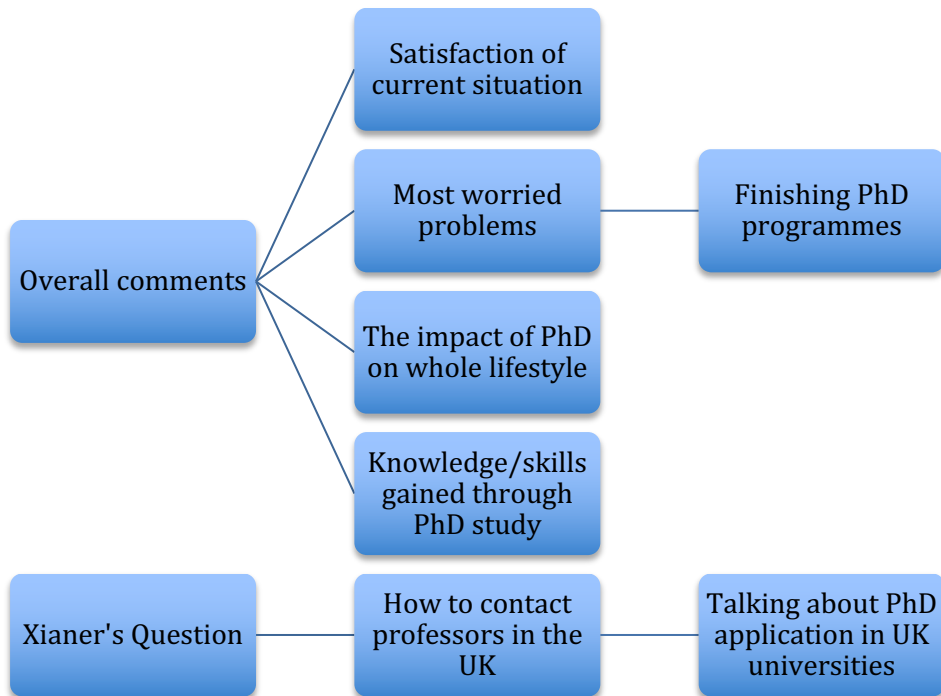
Designed interview guideline

Are you satisfied with your situation right now?

What worries you most at present?

Overall comments

How your PhD impacts your life?

Do you have any questions for me?

How do you think the experience of studying in the UK impact your life or change you?

Interview with Xianer

Satisfaction of current situation

Most worried problems — Finishing PhD programmes

Overall comments

The impact of PhD on whole lifestyle

Knowledge/skills gained through PhD study

Xianer's Question — How to contact professors in the UK — Talking about PhD application in UK universities

Figure 8: Comparative interview structure: Ending part

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