5-2013

A Comprehensive Study of Happiness Among Adults in China

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A COMPREHENSIVE STUDY OF HAPPINESS AMONG ADULTS IN CHINA

A Thesis
Presented to
the Graduate School of
Clemson University

In Partial Fulfillment
of the Requirements for the Degree
Master of Science
Applied Sociology

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by
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May 2013

Accepted by:
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ABSTRACT

This thesis examines determinants of people's happiness in China with a national sample of adults from the Chinese General Social Survey 2008 (CGSS). The thesis discusses the concept of happiness, introduces major theories of happiness and reviews happiness studies from both the West and China. This thesis addresses four main research questions: 1) Whether the possession of resources is an influential factor in people's happiness in China; 2) How subjective assessment of life events affects one's happiness in China; 3) Whether making comparisons (with one's past life and others) affects one's happiness in China; and 4) Whether subjective assessment of life events and comparisons mediate the effects of resources on happiness. The current study finds that self-assessment of life is the strongest predictor of happiness in China, and it mediates the effects of some resources on happiness. Having more resources or being in a more advantaged social status does not necessarily mean one will be happier. Social comparison is also a strong predictor of happiness, but it does not have much mediating effect on the influence of resources on happiness. Relevant discussion about expected and unexpected results, the limitations of current study, the possible improvement for future research, and the implications of this work are given.

ACKNOWLEDGEMENTS

First, I would like to thank my parents. Without their tremendous support in the past two years, I would never have been able to finish this thesis and complete my Master's program. This thesis is dedicated to them. I wish I have made them proud.

I would like to thank Dr. Ye Luo, my thesis advisor. She devoted a substantial amount of time and energy in helping me finish my thesis on time. She is not only a rigorous teacher, but also an inspiring mentor of my life.

I am very grateful to Dr. Ellen Granberg and Dr. William Haller, members of my thesis committee. During the past two years, they not only taught me a lot in class, but also provided me with valuable guidance on my thesis.

I thank Dr. William Wentworth and Dr. Catherine Mobley for the care and support they gave me when I was working on my thesis.

Big thanks to Lulu Nie. She is my friend, colleague, and more importantly, she is part of my family.

I would like to thank Nikki Dodd, a teacher and a friend of mine, for her amazing inspirations when I was contemplating my thesis topic at very beginning. I would like to thank Erin Shealy, Yue Chen and Adam Yates, my great peer colleagues who helped me a lot in my thesis writing.

Finally, a special thanks to Dr. Brenda Vander Mey, the Master's program coordinator, who helped me in every aspect she could for the past two years. My last special thanks are dedicated to her!

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INTRODUCTION

Happiness has long been a traditional philosophical topic, and within the past few decades, empirical study has started to focus on the area. In the perspective of ancient philosophers, Aristotle described happiness as the ultimate life goal of human beings in his volume *Ethics* (Urmson, 1988). Jeremy Bentham, the representative figure of Utilitarianism, thought that the purpose of social policies is to facilitate the greatest happiness for the greatest number of people (Bentham & Mill, 2004). Classical sociologists also proposed their perspectives about happiness. In the *Economic and Philosophic Manuscripts of 1844*, Marx argued that *alienation* (or the separation between workers and their labor) would make people unhappy because according to Marx, people would feel like they are losing meaning in their lives in the process of alienation, a process which is generated by the exploitation in the production mechanism of capitalist society (Marx, 2012). Similarly, Durkheim discovered in his work *Suicide: A Study in Sociology* that *anomie*, the state of lacking moral regulations or social orders, has negative effects on people's happiness (Durkheim, 1951).

With much academic exploration and development in the past decades, the study of happiness has evolved from an abstract and tentative philosophical topic to a tangible and meaningful research field. Norrish and Vella-Brodrick (2008) summarized several major reasons why happiness is important to study. First, on the individual level, happiness can help people maintain their physical health and overcome their psychological difficulties, such as stress (Seligman & Csikszentmihalyi, 2000;

Veenhoven, 2009). Second, on the group or community level, happiness can help promote a better relationship between people and community life (Diener & Seligman, 2004; Lyubomirsky et al., 2005). Third, on a more general social level, happiness can serve as an important indicator of the success of policy implementation (Diener & Seligman, 2004). In addition, studying happiness in China is particularly important. China has seen unprecedented economic growth along with declining levels of happiness among its population (Brockmann et al., 2009). Easterlin and his colleagues in a most recent study pointed out that, in the past two decades, China's remarkable economic growth (with a more than eight percent annual GDP growth) was followed by a decline in people's happiness (with a 0.76 decrease of life satisfaction from 1990 to 2001 according to the World Value Survey), and there is no evidence that the situation will become better (Easterlin et al., 2012). In order to understand such a baffling situation, a systematic study of the determinants of people's happiness is needed.

This thesis uses data from the 2008 Chinese General Social Survey (CGSS) to conduct a comprehensive study of the determinants of people's happiness in China. I am seeking to answer four research questions: 1) whether the possession of resources is an influential factor in people's happiness in China; 2) how subjective assessment of life events affects one's happiness in China; 3) whether making comparisons (with one's past life and others) affects one's happiness in China; and 4) Whether subjective assessment of life events and comparisons mediate the effects of resources on happiness. In spite of their large quantity, previous happiness studies conducted in China or focusing on China have several limitations. First, there is a disconnection between empirical studies in

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China and the theoretical development in Western societies. When previous happiness studies in China tried to incorporate the well-developed measuring instruments from the West to the local situation, they often failed to consider the original context in which those instruments were developed. As a result, research on happiness in China remains in an early stage (Chen & Davey, 2008). The current study will attempt to fill this gap by reviewing literature from Western societies and studies focusing on China and then introduce a new conceptual model.

Second, there is a lack of utilization of up-to-date and representative sample data in previous happiness studies in China. According to Chen and Davey (2008), one of the ubiquitous characteristics of previous happiness studies in China was the over use of samples from specific social groups. For instance, many studies focused on students (He, 2000; Tong, 2004; Wang & Ding, 2003; Yan et al., 2004; Yu et al., 2005; Zhang & Zheng, 2004; Zheng et al., 2003) and the elderly (Liu & Gong, 2000; Liu & Gong, 2001; Mei, 1999; Tang et al., 2006). This is probably due to the convenient availability of such samples. Although more recent studies on China have used national data, an update is still needed as China is experiencing rapid change. The current study will use a national representative sample of Chinese adults from the CGSS 2008, and thus the results can be generalized to the larger population.

Third, few previous happiness studies on China have developed and tested a systematic model of the determinants of happiness in China. Many previous studies focused on some specific factors, such as income (Brockmann et al., 2009; Chen, 2012; Oshio et al., 2011). The current study incorporates and tests a more comprehensive model,

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which includes possession of objective resources, self-assessment of life events and quality, and social comparison with the past and others.

LITERATURE REVIEW

The Concept of Happiness

There is a broad variation in how happiness is defined. According to Merriam-Webster dictionary, happiness is (1) a state of well-being and contentment or (2) a pleasurable or satisfying experience (Merriam-Webster, 1995). However, researchers in the field have no agreed-upon definition of happiness. For example, Veenhoven (1997) suggested that happiness is a situation of one's mind that relates to the assessment of one's whole life in total. Norrish and Vella-Brodrick (2008) posit that happiness is not only about the satisfaction about one's life in general, but it is also associated with one's psychological change of increasing positive aspects while decreasing negative aspects. Additionally, some scholars use happiness interchangeably with other words or phrases. For example, Easterlin (2003) substituted happiness with terms like utility, well-being or life satisfaction. Mroczek and Kolarz (1998) saw happiness as equal to well-being. At the same time, there were also some systematic explanations about happiness. For instance, when Diener et al. (1999) summarized the components of Subjective Well Being (SWB), they categorized happiness as "pleasure affects," one of the major components of Subjective Well Being. Based on a review of the literature, Shin and Johnson (1978) also suggested that happiness could mean (1) a pure feeling of people (e.g. feeling happy); (2) the expression or assessment about a situation (e.g. be happy with something) and (3) an

assessment of one's whole life (e.g. being happy). The definition of happiness has long been discussed in theoretical works and various empirical studies from various academic fields such as philosophy, psychology and sociology. Nonetheless, one can still find one or two popular conceptualizations in happiness studies in general such as "life satisfaction" and "positive affect."

Major Theories of Happiness

With the development of empirical studies of happiness in the past decades, several theories about happiness have emerged, which are distinguished from philosophical ideas. The theories of happiness study can be mainly categorized into two types: 1) theories which argue that happiness is a relatively stable situation and cannot be changed (e.g. set-point theory); 2) theories which argue that happiness is determined by some factors and can be changed in certain ways (e.g. livability theory, affective theory, and comparison theory). Those different theories arose from empirical research and have been discussed for a long time by scholars.

The *set-point theory* of happiness is one of the most influential but also controversial theories in the area. The set-point theory holds that people's happiness maintains a relatively stable state or equilibrium (which is the so-called set-point) and will not change significantly. This theory is based on the idea that people can adapt, meaning that people will acclimate to situations quickly when any changes come up and will recover to their previous happiness level. Additionally, the set-point theory posits that people's happiness can be predetermined by their personality, which tends to remain the same over time (Veenhoven, 2009). As proponents of this theory, Lykken and

Tellegen (1996) agree that happiness is a stable characteristic and any changes in happiness levels are due to chance and not necessarily attributed to any life events. Based on an empirical study featuring the influences of factors such as social status, education, and income on people's happiness, Lykken and Tellegen (1996) found that none of these contributed significantly to one's happiness. Headey (2008) asserted a more advanced version of this theory, which suggests that having a life-goal can, to some extent, influence long-term happiness. However, the set-point theory remains controversial due to the implication that it is useless to take any action to improve happiness levels (Diener et al., 2006; Easterlin, 2003). Many scholars criticized the set-point theory citing a large amount of empirical evidence showing that marital status (Lucas, 2005; Lucas et al., 2003; Zimmermann & Easterlin, 2006) and unemployment (Lucas et al., 2004) matter to happiness.

Contrary to the set-point theory, the *objective list theory* (Nussbaum, 1992; Seligman & Royzman, 2003) or *livability theory* (Veenhoven & Ehrhardt 1995) suggests that happiness is associated with a series of objective social factors, which are related to people's living conditions (e.g. income, education, health). This theory is the fundamental and essential idea of many empirical studies, particularly sociological studies, which examine the connection between an individual's happiness and other social factors, since it acknowledges the possibility that people's happiness can be assessed and improved by certain interventions.

While the objective list theory emphasizes the importance of objective resources, the *affective theory* (Magnus & Diener, 1991; Schwarz & Strack, 1991; Veenhoven, 2009)

or *hedonism theory* (Seligman & Royzman, 2003) holds that happiness is for the most part about subjective feelings, which depend on an individual's assessment his/her life in general. The major implication of this theory is that one's subjective feelings may exert a strong effect on happiness. Therefore, under this condition, people's subjective assessment of life in general or several specific life events serve as a mediating variable that partially explains why the objective social factors or events can influence people's happiness.

The *comparison theory* is another important theory of happiness. The essential idea of comparison theory is that happiness is not determined by the absolute factors (objective factors such as increases in income) but relative situation or comparison (Brickman et al., 1978; Michalos, 1985). Specifically, one's happiness is associated with two kinds of comparisons, the comparison between one's current and past states and the comparison between oneself and others. Under this circumstance, whether people will be happy depends on whether their personal standards have been met. Empirical studies such as Smith et al. (1989) and Machalos (1986) provide relevant evidence for this theory. For instance, Smith et al. (1989) points out that, under a positive context, people may feel more positive and happier with given events in the experiment. Further, comparison always serves as an alternative explanation for happiness against the set-point theory mentioned above and the economic perspectives about people's happiness, which suggests that the higher one's income, the happier one will be (Easterlin, 1995; Easterlin, 2003). However, the applicability of the theory in several extreme cases (e.g. suddenly winning a large amount of fortune not necessarily makes people happy) is questionable

(Brickman et al., 1978). Additionally, the implication of comparison theory that happiness will stay in a neutral state is uncertain (Veenhoven, 1991).

Although those four major happiness theories introduced above belong to two research directions in general (happiness is changeable versus happiness is unchangeable), they actually represent various academic fields. Specifically, set-point theory and livability theory are associated with sociology, affective theory is more psychological, and comparison theory is mainly discussed in economics related research. This study focuses on the idea that happiness can be changed, and also the relevant theories which acknowledge this notion. This study attempts to provide a more comprehensive understanding of these various explanations of happiness. In other words, if happiness can be changed, how do the determinants of happiness function together and influence happiness? In order to achieve this goal, it is necessary to synthesize these theories and build a more comprehensive model of happiness.

Comprehensive Model of Happiness

One primary purpose of this study is to build a comprehensive model for the determinants of happiness. Since current research is conducted in the context that happiness can be changed, it will concentrate on the theories attached to this research direction, which include livability theory, affective theory, and comparison theory. Each of these theories provides a pathway through which happiness is linked to certain factor or domain. Precisely, livability theory explains the relation between happiness and objective social factors while affective theory and comparison theory bring an insightful interpretation about how subjective domain affects happiness. Then, in order to construct

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a broader view of how happiness is determined, this study suggests a comprehensive conceptual model of happiness that amalgamates these three major theories.

Shin and Johnson (1978) reviewed previous theoretical and empirical studies of happiness and proposed a general theoretical model about the determinants of happiness. Although more recent studies have tested different elements in this model, it remains one of the most comprehensive models about happiness and it serves as the basis for the current study. Shin and Johnson (1978) asserted that people's happiness derives from the cooperative functioning of both their assessment about personal life situations and their social comparisons to their past and others' situations. Thus, their model combines the essences of comparison theory and affective theory. According to Shin and Johnson's (1978) study, the determinants of happiness can be categorized into four groups: (1) control of resources, including ascribed resources (e.g. sex, race), achieved resources (e.g. income, education), and social relations (e.g. marital status); (2) self-assessment of life conditions, such as satisfaction with health and standards of living; (3) participation of social life, such as actively participating in political life; and (4) social comparison, which includes making comparisons to one's own past and to others. Shin and Johnson (1978) found in a series of empirical analyses that self-assessment and social comparisons are the major determinants of happiness. Objective factors, or the resources, work on one's happiness through self-assessment and social comparisons, and they have a relatively weaker direct connection with happiness compared to the self-assessment and the social comparisons. Shin and Johnson (1978) explain that people's happiness primarily depends on how they assess their life situation and how they compare it with others, which are

affected by their own characteristics of and resources. For example, one's income level compared to other people may have effects on his or her happiness, and this income level in one's mind could be influenced by the amount of salary under his or her command. Additionally, since self-assessment and comparison both belong to subjective domain, they are correlated with each other. Participation, however, is not a significant determinant of happiness in Shin and John's assessment and is removed from the final comprehensive conceptual model of happiness. Many later studies found that participation of social activities or being active in the social networks is important to one's happiness (Bowling et al., 1991; Jang et al., 2004; Lim & Putman, 2010). For this study, due to the availability of the data, I do not discuss the role of participation. Based on the study of Shin and Johnson (1978) and the availability of data on China, the current study proposes a conceptual model of happiness shown in Figure 2.1.

Figure 2.1 Conceptual model of the relationship among possession of resources, self-assessment, social comparison and happiness.
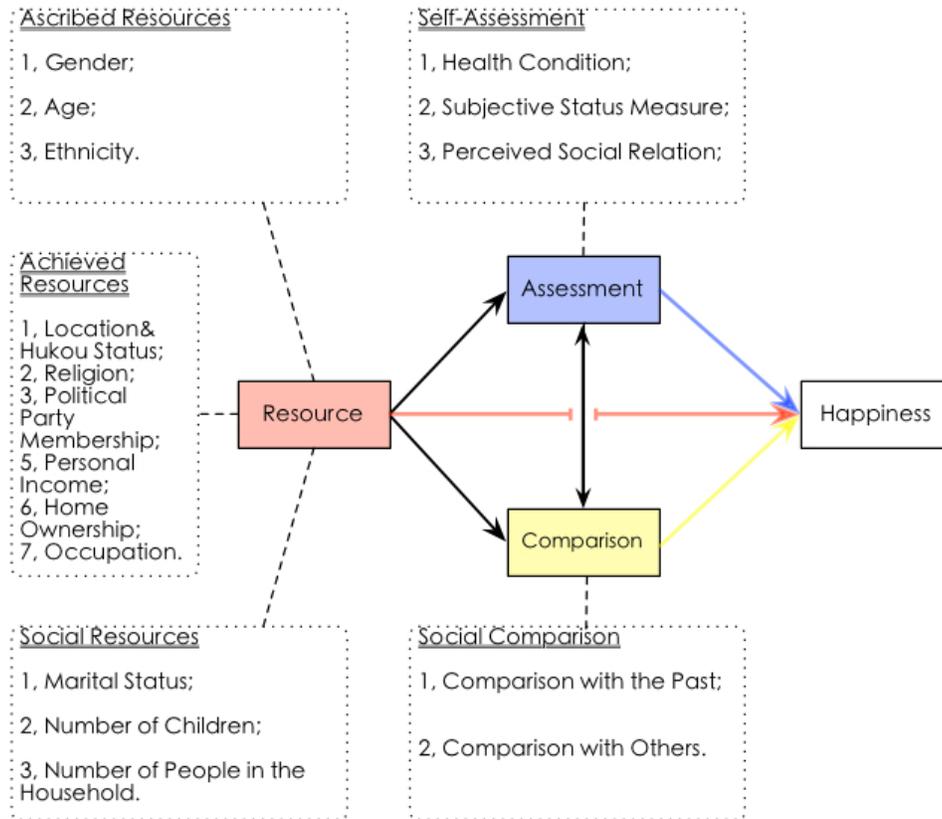
The model reflects the core ideas of three major happiness theories and the connections among them. The red path indicates how livability theory (or objective-list theory) explains happiness. It assumes that one's happiness state is associated with a series of social factors (or resources). The blue part of the model is derived from the affective theory, which implies that the assessment of life events is a kind of subjective feeling or opinion. Finally, the yellow section in the model is what comparison theory tries to describe: happiness is based on one's perception of his/her relative situation. It is worth mentioning that, after synthesizing these different element, the three theories are in

fact complementing each other. There are some possible connections among them. For instance, self-assessment and social comparison, both as subjective determinants, may mediate the relationship between resources and happiness. At the same time, self-assessment and social comparison could be correlated with each other.

Review of Western Happiness Studies

Resources and Happiness The relations between various objective resources and happiness have been widely studied by researchers. In fact, this has been the main focus in the past few decades. Based on the findings of connections between control of resources and happiness, scholars tried to explore different directions of happiness. Some of the studies were conducted to test certain theories and some were used to support policy decisions. Shin and Johnson (1978) categorized resources into three types: (1) ascribed resources (such as one's age, sex or race); (2) achieved resources (such as income and education) and (3) social relations (such as family connections). Researchers have found evidence to support the impact of each of these three types of resources on happiness.

Ascribed resources refer to an individual's demographic characteristics such as gender, age, race or ethnicity. Much previous research has found that there is no gender difference between men and women in terms of experiencing happiness (Diener et al., 1999). A few studies found that sometimes females tend to be much happier than males and researchers attribute this finding to women's willingness to show their emotions (Diener et al., 1999). That is, women are more likely than men to express both their happiness and sadness. Although some people believe that youth are happier than the

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elderly, the empirical evidence shows that there is no apparent tendency of decreasing happiness with increasing age (Stock et al., 1983). This is partially because of adaptation to life as people growing older (Diener et al., 1999). Other studies found that the level of happiness displays a U-shape curve through the life span, the bottom of which corresponds to the hard-working middle age. Race or ethnicity is also associated with happiness (Spiers & Walker, 2009). Many studies focusing on marital happiness in the United States showed that African Americans are less happy than Caucasians in their married life (Aldous & Ganey, 1999; Broman, 1993; Corra, 2009). The unhappiness of African Americans could reflect in either their family life satisfaction or job satisfaction, which is due to their less advantaged situation in the social hierarchy (Aldous & Ganey, 1999).

The achieved resources usually include the region of residency (e.g. urban or rural area), the education earned, the income level (e.g. personal or family income) and the state of employment (e.g. whether one is employed or not). Most of the happiness studies focusing on differences in residency compared urban and rural inhabitants. A general conclusion was that people who live in rural areas tend to be as happy as or even happier than people who live in urban areas (Davey et al., 2009; Knight & Gunatilaka, 2007; Lee & Lassey, 1980). However, when he tried to test the classical urban theory, which holds that modern urbanization generates isolation and unhappiness among people, Adam (1992) found that people living in rural places are not necessarily happier than people living in urban places. Moreover, Smyth and Qian (2008) pointed out that there is a

division of people's happiness within urban areas due to the increasing discrepancy in socioeconomic statuses.

According to the previous research, education brings significant, though not strong, positive influences on happiness (Campell et al., 1976; Diener et al., 1999). There are several explanations as to how education influences happiness. Education may affect happiness through increasing income, improving employment, enhancing life goal fulfillment or building life expectation. Income has been a traditionally controversial factor associated with happiness, since there is no firm evidence to prove a causal relation between income and happiness (Diener et al., 1999). Findings from various studies show mixed results: some studies found a significant but weak relation (Haring et al., 1984; Veenhoven, 1994), others found a non-significant relation (Clark & Oswald, 1994), and some scholars even discovered a negative relation (Thoits & Hannan, 1979) between income and happiness. Employment status has a positive correlation with happiness (Tait et al., 1989), and unemployment predictably is correlated with unhappiness (Clark, 1998). Further studies tried to uncover what kinds of occupations can affect happiness (Bretz & Judge, 1994; Mottaz, 1985). For instance, Benz and Frey (2004) and Benz and Frey (2008) show that the self-employed have higher levels of happiness than those employed by others. This is because self-employment represents a higher level of independence that can lead to higher levels of satisfaction in one's work. Meanwhile, being employed by others means little decision making power and being leashed by the salary and working hours that can have negative effects on one's satisfaction in the work (Benz & Frey, 2008).

Social relations or social life include factors such as religious participation, political affiliation, and family status (e.g. marital status, number of children). Various aspects of religious behavior have significant influences on happiness through the association with mental health (Diener et al., 1999; Ellison, 1991; Gartner et al., 1991). However, one of the limitations of happiness studies on religion is that many studies focus on Christianity, and whether or not the findings can be generalized to other religions remains unclear (Diener et al., 1999). Several studies have specifically focused on the connections between political ideology and happiness. Di Tella and MacCulloch (2005) found that people tend to be happier when the political party they support takes office. Additionally, marriage has long been a positive indicator of one's happiness (Glenn, 1975; Gove & Shin, 1989; White, 1992). This is because marriage or having a partner may bring more positive emotion, and divorce or being separate with the partner may bring more stress (Diener et al., 1999). These two aspects are both related to people's happiness. However, there is a debate about who benefits more from marriage, males or females (Diener et al., 1999). Interestingly, having children or living with one's own children exerts negative effects on happiness (Glenn & McLanahan, 1982).

This study sorts the resources into different types based on the design of conceptual model considering the convenience of analysis. Nevertheless, the categorization of various kinds of resources in this section is not the only way to group them. There are also some other ways to distinguish various kinds of resources in sociological study. For instance, according to Pierre Bourdieu's idea of capital forms, these resources can fundamentally fit into three types of capital: economic capital,

cultural capital, and social capital (Bourdieu, 1986). Under certain conditions, these different forms of capitals can be converted into each other and brings people various kinds of profit (e.g. pecuniary, social). Precisely, possessing large amount of economic capital (e.g. own lots of money) may help people build a better reputation or get into certain sorts of social club (social capital). Reversely, possessing cultural capital (e.g. in-depth knowledge of the fine arts, or classic literature) or social capital may help people make more money (economic capital). Therefore, this conversion from resources to profit may influence people's happiness. For the resources in the conceptual model, income and house ownership, for instance, are economic capital, education and employment are culture capital, and social relation is a kind of social capital.

Self-assessment, Social Comparison and Happiness In addition to the objective determinants of happiness, two subjective predictors of happiness are included in the conceptual model of happiness, which are self-assessment and subjective comparison. Self-assessment refers to how people assess their life events, patterns, or whether they feel satisfied with their lives. This satisfaction is associated with whether one's needs or expectations have been met. Subjective comparison is defined as how one perceives his life situation compared to his past and others. In other words, subjective comparison is more like a relative livability assessment as opposed to absolute satisfaction at any given point in time. According to Shin and Johnson (1978), self-assessment is a more significant and stronger predictor of happiness compared to other objective factors. And subjective comparison is also a significant domain connected with happiness. For instance, the regression analysis of Shin and Johnson (1978) indicated that comparison

with others is the strongest predictor in the model, explaining most of the variation in happiness.

Many empirical studies demonstrate the importance of using subjective self-assessment to predict happiness. Numerous previous studies focused on the relation between job satisfaction and happiness and pointed out that job satisfaction is significantly associated with happiness (Benin & Nienstedt, 1985; Benz & Frey, 2004; Benz & Frey, 2008; Weaver, 1978). Particularly, the circumstances of work and the benefits one acquires from a certain job may influence job satisfaction and happiness. This is because a job, for instance, could provide one with good salary, decent social status or fulfillment of a life long goal. Adams (1992) has pointed out that housing and neighborhood satisfaction are related to self-efficacy and happiness. What's more, Spiers and Walker (2008) mentioned that satisfaction with participation in leisure activities is crucial to happiness.

Much empirical research on the relationship between subjective comparison and happiness focuses on the relationship between income and happiness. It is widely argued that it is the relative income level rather than absolute income that affects happiness (Clark et al., 2008; Clark & Oswald, 1996; Easterlin, 2003; Hagerty, 2000; Stutzer, 2004). The relative income, specifically, could refer to three aspects: current income compared to the past, current income compared to aspirations and current income compared to others. The income comparison to the past means whether one is satisfied with the current income level compared to the past. For example, if one earns one thousand dollars per day while he or she earned two thousand previously, one may not be happy. The income

comparison to one's aspiration describes what "it is" versus what "it should be." For instance, if someone has unique capabilities, he or she would have an expectation about the level of wage he or she deserves. If this standard cannot be met, he or she may not be happy. Last, income comparison to others, or social comparison, refers to comparing one's income with the people around him or her. If one earns lower wages than others, even though the absolute amount is acceptable, he or she may not be happy. George C. Homans' concept of distributive justice sheds light on the further understanding of comparison theory. Distributive justice refers to the balance in social exchange that people gain fair reward for the cost they pay. Precisely, if the reward is fixed, one will not expect to pay more than what one can receive in return. This "cost-reward balance" seeking behavior is associated with people's subjective sentiment change that if something costs more than he or she has achieved, one may feel unfair and even angry (Homans, 1961). This perspective shares the common idea with comparison theory, which talks about people's subjective situation too, that this unfair sense in social comparison could lead to negative emotions and thus make people unhappy.

Mediating Effects of Subjective Factors Generally, in a systematic model of happiness that combines both objectives factors and subjective indicators, the subjective predictors such as one's satisfaction with life and comparison are the more proximate predictors that directly influence happiness, and objective factors (e.g. income, education, social relation) affect happiness through the subjective factors. Diener et al. (1999) suggested that future studies on happiness should focus on subjective assessments' intermediating role between the objective resources and happiness. Schneider (1975)

pointed out that the influence of objective factors on happiness are mainly through subjective factors. There are also empirical studies demonstrating that one's subjective perception depends on objective factors (Lindemann, 2007). To sum up, the mediating effects indeed exist in the model of happiness. Based on Shin and Johnson's (1978) analysis, there are two kinds of mediating effects among those different factors: (1) the influence of objective resources on happiness is partially explained by one's satisfaction and comparison and (2) one's self-assessment and comparison partially explains each other. In the first type of mediating effect, objective resources exert influences on happiness through other two subjective domains and show a relatively weak direct connection with happiness in the model. As to the second type of mediating effect, one's satisfaction and comparison depend on each other. One's assessment about or expectation of his or her leisure satisfaction, for example, could depend on the leisure lives of others or the leisure life one used to have. In contrast, one's comparison may also be built on one's subjective assessment of his/her own status.

Review of Research on Happiness of China

Research on happiness in China has experienced a tremendous expansion in the past decade, but it is still in its infancy. Chen and Davey conducted an important review in 2008 on the happiness studies in China. They pointed out that happiness studies have increasingly drawn people's attention in China despite their apparent limitations. According to Chen and Davey (2008), the most obvious evidence of the development of happiness studies in China is the explosion of literature on the topic: there was only one academic publication in 1999, and this number grew to over eight hundred as of 2008.

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However, Chen and Davey (2008) also identified several limitations of the happiness studies in China. First, the studies concentrated on the coastal provinces of China (e.g. Shandong and Guangdong), where the economy is more advanced. Few studies focusing on other parts of China could be found. Second, the representativeness of the sample used in previous studies is questionable, due to the overuse of student samples. Therefore, the methodologies of some happiness studies in China are to some extent unreliable. Also, there is a gap between the theoretical construction of happiness studies in Western societies and the application of those theories in China because researchers used existing measuring tools from Western happiness studies without critically justifying their applicability in China. The conjunction between the happiness study in China and Western society was neither well developed nor firm.

The present paper reviews research on happiness in China in order to update the literature. I searched two major journals reporting happiness studies: *Social Indicators Research* and *Journal of Happiness Studies* for publications focusing on China in the past five years. The major reason I choose these two journals is that my initial literature search identified a large number of high quality happiness studies published in these two journals. This made me believe that a systematic scrutiny on these two journals was warranted. Also, these two journals are leading journals in happiness study. Meanwhile, I have searched the general literature databases such as scholar.google.com and Web of Science's Social Science Citations Index and found that many studies have similar findings as those articles in those two journals. Unlike what Chen and Davey (2008) have done, this review does not focus on all the studies that were published within China, but

on the ones found in major happiness study journals. This part of the literature review introduces the current research trend and comments on the literature published since the review article of Chen and Davey (2008). A list of nineteen articles is shown in Appendix A.

Generally, there were several reoccurring themes in the reviewed studies. First, out of nineteen papers, the majority (around eighty percent, or fifteen papers) of them were empirical studies and the rest consisted of two theoretical studies (Ip, 2011; Zhang & Veenhoven, 2008) and two review articles (Chen & Davey, 2008; Davey & Rato, 2012). Second, the locations where these analyses were conducted have expanded into more distinctive areas. Researchers not only continued focusing on more developed areas such as Beijing (Nielsen et al., 2009), Shanghai (Yuan & Golpelwar, 2012) and Fujian province (Nielsen et al., 2009), but also started to look at rather remote areas like Tibet (Webb, 2009) and Yunnan (Turner & Turner, 2012), a southwestern province of China with a relatively poorer economic condition than the metropolis and coastal areas. Third, some of the research focused on specific social groups, such as the elderly (Chyi & Mao, 2012; Dai et al., 2012), off-farm migrants (Nielsen et al., 2009) and urban area taxi drivers (Nielsen et al., 2009). Fourth, through a broader lens, several studies made comparisons across countries, specifically between China and those countries culturally and geographically close to China, such as Korea and Japan (Chen, 2012; Liang et al., 2012; Oshio et al., 2011).

On the methodological side, there were also several noteworthy aspects of these studies. First, researchers have used nationwide samples, such as the Chinese General

Social Survey (CGSS) (Chen, 2012; Chyi & Mao, 2012; Hu, 2011; Oshio et al., 2011). This is undoubtedly an improvement compared to what Chen and Davey (2008) said about the overuse of restrictive samples. Second, a significant number of studies still utilized mature Western happiness measures, such as the Personal Wellbeing Index (PWI) (Davey & Rato, 2012; Nielsen et al., 2009; Nielsen et al., 2009; Webb, 2009) with Chinese samples. This observation echoes Chen and Davey's (2008). Researchers have used the PWI to test whether China's happiness levels correspond to international happiness averages. Third, for the empirical research examining the relationship between various social factors and happiness, this research covered a range of topics. On the one hand, many studies concentrated on the association between resources and happiness. The most frequently studied resources were income (Brockmann et al., 2009; Oshio et al., 2011; Turner & Turner, 2012), family relations (Chyi & Mao, 2012; Dai et al., 2012), health (Dai et al., 2012; Turner & Turner, 2012), education (Chen, 2012), homeownership (Hu, 2011) and purchasing behavior (Xiao & Li, 2011). Some of these studies focused on one or two specific factors while others focused on a series of resource factors (Dai et al., 2012; Turner & Turner, 2012; Yuan & Golpelwar, 2012). On the other hand, a few studies measured satisfaction with one's life (Cheung & Leung, 2007; Liang et al., 2012; Webb, 2009) and the comparison to others (Oshio et al., 2011).

Some results of these studies were consistent with existing findings from Western societies but some were not. Among those findings consistent with previous Western studies, health, for instance, is a significant positive indicator of happiness, which is consistent with findings from Western societies (Dai et al., 2012). Additionally, some

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findings implied that several factors significantly matter in China like in Western societies, such as family relationships (Dai et al., 2012) and homeownership (Hu, 2011). Homeownership, for example, is a considerable part of the cultural concept of the American dream in the United States, which also appears vital to people's happiness (Rohe et al., 2002). However, in China, this phenomenon can be explained by the unique cultural atmosphere of China, which has been spiritually driven by the Confucianism ideal of life and, of course, happiness for generations (Zhang & Veenhoven, 2008). Family and home have always been the most important factors for Chinese people according to Confucian philosophy. Therefore, one can easily tell why these two factors are influential to people's happiness in China.However, Among those findings not consistent with previous Western studies, the function of income on people's happiness in China is significant and positive, which is inconsistent with the findings from some Western studies and even with other Asian countries that share a common cultural background with China in many facets (Oshio et al., 2011). Specifically, Oshio et al. (2011) found that people care much about their personal income level in China and it is an important indicator of their happiness, while, in comparison, Japan and Korea have the opposite situation. The strong effects of income on Chinese people's happiness are not only displayed by its direct connection with happiness, but also by its intermediating role between other variables, such as education, and happiness (Chen, 2012).

Several observations can be made from the review above about making comparisons between Western findings and studies on China. First, the findings from previous studies conducted within China are inconsistent. Some research concluded that

in China, resources such as income matter more than in the Western society but some did not. To resolve such inconsistency and avoid the biases brought by the use of different samples and measures, it is necessary to focus on the updated national level data or sample. This will help to strengthen the representativeness and the reliability of the findings. Second, there is a lack of comprehensive study of happiness on China, and future studies should better integrate theoretical developments and empirical tests in the happiness study. Some of the studies reviewed above touched on a series of factors belonging to the same category (such as income, education and home ownership, which should all be categorized as the possession of resources). In terms of the relationship among bigger categories (such as between objective resources and subjective assessment), few studies did more than testing the intermediating effects among factors from the same category (such as the intermediating function of income between education and people's happiness). This suggests that a comprehensive study of different categories of the determinant of happiness in China is needed.

HYPOTHESES

Hypothesis one: in China, people who possess more resources tend to be happier. The objective list theory suggests that objective factors (e.g. income, education) relevant to people's living situation matter to happiness. The possession of more resources refers to controlling more objective resources (e.g. earn a higher income, received more education, own a house, etc.) or being at a more privilege social position (e.g. being male, with an older age, join the political party in power, etc.). The relation between objective factors and people's happiness has been widely studied by previous Western scholars. Some findings are consistent with the findings of studies on China. For example, research of both Western societies and China find that education has a positive effect on happiness. However, at the same time, there are some inconsistencies between findings from Western societies and China's happiness studies. One of them is that the possession of objective resources matters more to people's happiness in China (such as earning more income) than it does in Western societies. Therefore, it is reasonable to hypothesize that people will be happier in China if they own more resources.

Hypothesis two: in China, people who have more positive assessment of life events are happier. The affective theory emphasizes that happiness is mainly about people's subjective feeling, sensation or affection. Self-assessment of life events or situation is one of the subjective indicators in the conceptual model of happiness in present study. This subjective assessment reflects how people perceive and understand

their living standards. For instance, it includes how people assess their health condition or social-economic statuses. Previous literature indicates the importance of understanding people's happiness through exploring their opinions about their life, since both self-assessment and happiness are subjective and closely related to each other. Previous studies of Western societies find that self-assessment of life events significantly influences people's happiness, though we find few such specific studies on China. Therefore, the current study tests the hypothesis between self-assessment of life and happiness in China to see whether it is consistent with previous Western findings.

Following the comparison theory, *hypothesis three (a): if people perceive that they are better than others, they are happier; and, three: (b), if people's current conditions are better than the past, they are happier.* The essential idea of comparison theory is that happiness is primarily determined by comparison. Comparison is another subjective indicator of happiness besides self-assessment in the conceptual model of current study. Social comparison contains two types: (1) people compare their current situation with the past and (2) people contrast their circumstances with others'. In other words, social comparison is a relative measure of life events comparing to self-assessment, which focuses on one's personal feeling at a given point. Many previous studies on this topic point out that social comparison is to some extent a major determinant of one's happiness. Thus, I hypothesize that when people think their situation is better than their past and others, they will be happier.

Hypothesis four (a): self-assessment mediates the effects of resources on happiness; and, four: (b), social comparison mediates the effects of resources on

happiness. Previous studies implied that it is crucial to learn the associations between objective factors and happiness through understanding the intermediating functions of subjective factors between them. In my conceptual model, self-assessment and social comparison play a role of bridge linking objective factors and happiness. Objective factors work on happiness through their influence on subjective assessment and social comparison, which, in turn, affect happiness.

METHODOLOGY

Data

The current study uses data from the Chinese General Social Survey (CGSS) 2008, which is the newest wave of the CGSS. The CGSS is a nation-wide survey of adults in China conducted by the Department of Sociology of Renmin University of China and the Division of Social Science of the Hong Kong University of Science and Technology once every one or two years. From 2003 to 2008, CGSS has been conducted five times. The purpose of the CGSS is to capture the change of Chinese society in various aspects, such as economy, politics and culture. It is an important component of East Asian Social Survey along with Japanese General Social Survey and Korean General Social Survey. Every time, CGSS focused on different social issues and the CGSS 2008 contains survey questions on happiness and relevant factors.

The Chinese General Social Survey used a multi-stage stratified sampling design and divides the whole country into four sampling levels: city, street, community and household. The CGSS covers all thirty-one provinces in Mainland China, one hundred major cities (and five metropolitan areas), four hundred and eighty communities and twelve thousand households. If there was only one person aged 18 and above living in the household, the resident was the respondent. If there were two or more persons living in the household, those people who were eighteen years old or over and having lived in this

household more than one week were asked to provide their age, gender and relationship with the householder. Afterwards, the interviewers used their own sampling table to randomly select one respondent from them.

All surveys were conducted with in-person interviews and a paper questionnaire. For CGSS 2008, 6000 adults aged 18 and above were interviewed, of which 66% are urban respondents and 34% are rural respondents. 48% respondents are male and 52% are female. The average age of respondents is about 43. The response rate of CGSS 2008 is 54.32% (Wang, 2011). After the deletion of missing data on variables including respondents' education, occupation, perceived social relation and making comparison with others, the sample used in final analysis has sample size of 5,909.

Measurement

Happiness Happiness is the dependent variable of current study. Happiness is measured by a self-reported question: "In general, do you think you are happy?" Respondents are given five choices, which are: 1) Very happy, 2) Happy, 3) Neither happy nor unhappy, 4) Unhappy and 5) Very unhappy. I recode this variable reversely (1="Very Unhappy" and 5="Very Happy") so that larger values represent higher levels of happiness. Previous studies suggested that it is valid to use the self-reported question and scales to measure happiness in the survey. Brockmann et al. (2009) and Glatzer (2000) pointed out that this kind of self-report happiness measurement has been practiced in large number of previous studies and has good validity and reliability.

Resources This study selects fourteen variables to measure the objective resources. The variables can also be generally sorted into three categories: ascribed

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resources, achieved resources and social resources. Some of the variables are consistent with previous Western studies (like resident location, gender, age and education) and some variables are specifically chosen for China (like "*Hukou*"- the registered permanent residence). The ascribed resources refer to demographic characteristics of people, which are gender, age and ethnicity. The achieved resources represent the resources acquired in later life, which include: location, education, religion, political party membership, Hukou, personal income, home ownership and employment. The social resources represent people's social relations such as: marital status, number of children and number of people in the household.

Gender is measured by a dummy variable: male or female (recoded as 1="male" and 0="female"). The birth year is recorded in the survey and used to calculate the age. I recode birth year into a new variable and use 2008 (the year of survey) to minus the birth year to get the age of respondents. There is officially no racial concept in China and the major population of China comprises of fifty-six ethnicities. The categories of ethnicity question "what is your ethnicity" in the survey include: 1) Han (Major ethnicity in China), 2) Meng (Mongolian), 3) Man (Manchurian), 4) Hui (A China based Muslin division), 5) Zang (Tibetan), 6) Zhuang (A Southern China based ethnicity), 7) Wei (Uighur) and 8) Other. I recoded them into a dummy variable with 1="Han ethnicity" and 0="Other."

Location is measured by 1) in rural area or 2) in urban area (recoded as 1="Urban" and 0="Rural"). The "Hukou" (registered permanent residence) system is a unique Chinese characteristic that the initial purpose was to maintain the population stability. People's "Hukou" condition is directly associated with the policy and welfare that makes

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it an important factor to take into account in happiness study on China. Respondents answer the question "What is your current Hukou condition?" with eight choices, which are: 1) Hukou of urban area of municipalities, 2) Hukou of urban area of provincial capitals, 3) Hukou of urban area of prefectural-level cities, 4) Hukou of urban area of county-level cities, 5) Hukou of town, 6) rural Hukou, 7) military Hukou and 8) other. I also recode them into a dummy variable that 1="Urban (or Town) Hukou" and 0="Non-Urban Hukou." After running the bivariate analysis, location and Hukou status are highly correlated with each other (r=0.7). This is mainly because, in China, people are more likely to inhabit in places where their Hukou statuses are bonded. Therefore, in order to better distinguish respondents' characteristics, I have combined respondents' location and Hukou status into one variable with four categories: 1) people who live in urban area with urban Hukou; 2) people who live in urban area with rural Hukou; 3) people who live in rural area with urban Hukou and 4) people live in rural area with rural Hukou. It is obvious that people live in urban area with urban Hukou and people live in rural area with rural Hukou are urban and rural inhabitants respectively. However, it is more complicated to identify people who live in urban area with rural Hukou and people who live in rural area with urban Hukou. In the first situation, it is highly possible that respondents are migrant workers that migrate into an urban area from a rural place. But for the latter situation, it is more difficult to determine respondents' identity in general, and I will designate these respondents as rural visitors. In regression analysis, this location-Hukou combination will be recoded into three dummy variables, and people who live in urban areas with urban Hukou will be treated as reference group. The advantage of

combining these two variables is that it defines the identity of certain amount of respondents, which could be China specific, especially, the migrant workers. The migration of the migrant workers in China from rural area to urban area every year is the world's largest single migration. However, this special and important proportion of respondent was defined by neither location nor Hukou variable. After combining these two variables together, it helps us to define this part of respondents in China.

Education is measured in years by answers to the question "since elementary school, how many years of school education you have received in total?" I recode respondents' year of education as "0" if they have not received education above elementary school. The choices to the question "what is your religious belief?" contain: 1) Buddhism, 2) Taoism, 3) Folk Beliefs, 4) Islam, 5) Catholic, 6) Protestant, 7) Orthodox, 8) other Christianity, 9) Judaism, 10) Hindu, 11) No religious beliefs and 12) Other. Since this study is interested in the difference between having a religious belief and having no religious belief and most respondents have no religious belief, I recode these religions into a new dummy variable with 1="No Religious Belief" and 0="Other" and do not distinguish the types of religion. As mentioned in the literature review, previous study found that when the political party where one is in takes power, he or she would be happier (Di Tella & MacCulloch, 2005). Therefore, I select a variable to assess people's political status. For the political party membership, the respondents were asked: "What is your political status?" The answers include: 1) Communist Party of China (CPC) member, 2) Democratic parties member, 3) Communist Youth League member and 4) the Masses. I recoded them into a dummy variable that 1="CPC Member or Youth league" and

0="Other." This study uses personal income to measure the income level to keep consistency with measures of the personal income level assessment in the self-assessment category. Respondents reported their income for the question: "How much was your individual occupational income last year?" I assigned 0 to those who had never worked, and used mean substitution for those who were missing on personal income. A dummy variable was created to indicate missing personal income and it was included in the regression analyses. Personal income was converted to ¥1000. Housing is always an important issue in China for, on the one hand, the housing industry stimulates the growth of economy and, on the other hand, the unacceptable high real estate price in nowadays China prevents people from purchasing a house. Therefore, I select house ownership here as a variable. Respondents are asked: "What is the ownership of the house you currently live in?" Several choices are provided: 1) Rented from the working company, 2) Rented public housing, 3) Rented private housing, 4) Privately owned housing (inherited or built), 5) Bought housing (partial ownership), 6) Bought housing (full ownership), 7) Dormitory, 8) Borrowed from relatives or friends and 9) Other. I recode them into a dummy variable 1="Owned Housing" and 0="Other." Several media report and governmental announcement point out that employment is a serious problem Chinese society is facing currently. Different kinds of occupation may have various influences on happiness. Under this background, respondents were asked: "What type is the institution you currently work for?" The answers include: 1) Government, 2) Enterprise, 3) Institutional Organization, 4) Social Group, 5) Self-employment and 6) Other. Since this survey question skipped farmer, I categorize different occupations mainly into seven types: 1)

Government, 2) Enterprise, 3) Institutional Organization, 4) Social Group, 5) Self-employment 6) Farmer and 7) Other. A set of dummy variables were created with "Enterprise" as reference category.

The options available for question "what is your marital status?" are: 1) single, 2) cohabit, 3) first marriage (with partner), 4) remarried (with partner), 5) separated (has not divorced), 6) divorced and 7) widowed. Similarly, I recoded them into four groups: single, with partner, separated (or divorced) and widowed. Then I use "with partner" as the reference group and recode other three categories as dummy variables. Respondents report the total number of people they live with for the question: "How many family members do you live with together?" Also, the number of children (boys and girls respectively) of the respondents is recorded by the survey. I use the exact number reported by respondents for these two variables.

Assessment This study selects seven variables to measure people's self-assessment about life events. The variable selection in this study is not perfectly consistent with previous studies in Western societies due to data availability. The assessment variables have a strong connection with the objective resource variables in this study. The variables in this category include: the assessment of health condition, the perceived class, the perceived family economic status, the subjective social status, the perceived social relation, the assessment of income and the perspective of society.

The question of assessment of health condition is "How do you feel about your health condition?" The answers are: 1) Very Unhealthy, 2) Unhealthy, 3) Normal, 4) Healthy and 5) Very Healthy. I retain the original values of this variable. What should be

noticed here is that, due to the unavailability of objective health condition data of respondents, this study measures subjective assessment of health only. The question "Most people think that they belong to certain class, what is yours?" asks about perceived social class. The choices are: 1) Lower Class, 2) Working Class, 3) Middle to Lower Class, 4) Middle class, 5) Middle to Upper Class and 6) Upper class. Perceived family economic status is assessed by the question "Which economic level does your family belong to?" And the choices are: 1) Much lower than the average level, 2) lower than the average level, 3) Average level, 4) Higher than the average level and 5) Much higher than the average level. I keep the order of the value the same for the two variables above. For subjective social status, the respondents are asked how they score their social status with the scale within which one represents the top status of society and ten represents the bottom. I reversely code this variable. However, perceived social class, family SES and social status in the self-assessment category are another three highly correlated variables (r for social class/family SES=0.465, r for social class/subjective social status=0.437, r for family SES/subjective social status=0.452). Since these three variables are all about respondents' subjective estimation of their position in the social hierarchy, they are loaded on one factor in the factor analysis (Eigan value=1.898, Cronbach's reliability of 0.631). Factor scores are used in the analysis. I will name this factor as "subjective social status scale."

Respondents' subjective assessment of their social relation is recorded by the question: "Do you agree with the statement that 'I feel good about my relations with people around me'?" The options are: 1) Strongly Agree, 2) Agree, 3) Disagree, 4)

Strongly Disagree and 5) Cannot Choose. I reverse code the variable so that 1="Strongly Disagree," 4="Strongly Agree" and treat the "Cannot Choose" as missing variables.

Comparison This study selects two variables to measure social comparisons. The comparisons include two parts: (1) making comparison with the past and (2) making comparison with others. Respondents' comparison with the past is measured by the question: "Which level of social status do you think you belonged to ten years ago?" Respondents may grade through one to ten, for which one represents the highest level and ten represent the lowest. Then I use the value of respondents' current assessment of social status to minus the values of ten years ago and let the result to represent the gap of respondents' comparison with the past. The comparison with others is recorded by the question: "Do you agree with the following statement: in general, I'm doing as well as others." Respondents may choose among: 1) Strongly Agree, 2) Agree, 3) Disagree, 4) Strongly Disagree and 5) Cannot Choose. The validity of this question is affirmed in previous studies like Fowler and Christakis (2008). I recode the value of this variable reversely so that 1="Strongly Disagree" and 5="Strongly Agree." And I treat all other as missing variables.

Statistical Analysis

In order to test our six major hypotheses, this study will use a series of statistics techniques to examine each category of the conceptual model and discuss the association among these categories. First, this study will run descriptive analysis of all variables. This step helps us to have a basic idea about the information of the variables we chose, which is an important starting point of the multivariate analysis. Both weighted an un-weighted

descriptive information are reported. Second, I run bivariate analysis (zero-order correlation) of all variables. This step helps us to see how variables are associated with each other without controlling for other variables. And for those highly correlated variables, it may be necessary to combine them for further analysis to avoid collinearity issues in multivariate analysis. For instance, self-assessment and social comparison in the conceptual model are both subjective domains. Therefore, it is possible that several variables in these two categories are highly correlated with each other. In order to refine the conceptual model, this is an important step. The results from bivariate correlations are mainly used for diagnosis and thus are not reported in tables.

Third, I run a series of ordinal regression models to test the hypotheses and the results are weighted. Since happiness, the dependent variable, was measured on an ordinal scale (from very not happy to very happy), Ordinal Regression is the most appropriate choice. The first three models run Ordinal Regression for the variables in each of the three categories (resources, self-assessment and social comparison). Running the analysis respectively for these three categories is to figure out how each of them is related to happiness. The fourth model runs Ordinal Regression for resources and self-assessment of life events together, and the fifth model runs regression for resources and social comparison together. These two models allow us to see whether self-assessment of life events and social comparison respectively mediate the relationship between resources and happiness. The sixth model runs the Ordinal Regression for the resources, self-assessment and comparison together. This model examines whether resources have any direct effect after controlling for both self-assessment and social comparison.

Finally, the parallel lines assumption for ordinary regression is tested. If the data do not satisfy the parallel lines assumption for ordinal regression, I will rerun these models using ordinal least squares regression and the results from the two sets of regressions will be compared.

RESULTS

Descriptive Statistics

The results of descriptive statistics before and after weighting are presented in Table 1. In the results of descriptive statistics after weighting for variables, most respondents indicate that they are happy (42.0%), very happy (20.9%) and neither happy nor unhappy (24.1%) with 13% reported either unhappy or very unhappy. For variables of resource, less than half (49%) of respondents are male, the mean age of respondents is around 43, and the large majority of respondents (92%) are Han ethnicity. In terms of respondents' location and Hukou status, about one third of respondents (36.6%) are urban inhabitants, near half (30.3%) of respondents are rural inhabitants, about 11.4% of respondents are migrant workers, and only 3.9% are rural visitors. The mean number of years of education of respondents is 7.58 years, about one tenth of respondents (11%) have a certain religious belief, and less than one-fifth of respondents (16%) belong to the ruling political party. The mean income level of respondents is about ten thousand RMB, and the majority of respondents (88%) own or partially own house. In terms of the types of occupation, farmer consists the highest share (35.8%) among respondents, followed by enterprise employment (27.2%), self-employed (18.4%), institutional organization (8%) and other types of job or unemployed. Most respondents (86.9%) have a partner, the mean household member is 2.77, and the respondents have less than one son or daughter

in average. Under self-assessment category, the subjective status measure variable, which combines respondents' social class, family SES and subjective social status, has a mean of -0.1 and standard deviation of 1. In social comparison section, respondents show a slightly positive assessment about their current situation comparing to the past (M=0.6, out of range -9 to 9), and respondents consider their situation better than the people around them in general (M=3.07, out of range 1 to 4).

Table 5.1 Descriptive statistics of all variables before and after weighting.

Variables	Mean/Percentage		Std. Deviation	Number of Response
	Before Weighted	After Weighted		
Happiness (1-5)	3.71	3.68	0.975	5,909
Very Happy	21.0%	20.9%	-	1,244
Happy	43.0%	42.0%	-	2,550
Not Happy/Unhappy	24.4%	24.1%	-	1,432
Unhappy	9.3%	10.5%	-	546
Very Unhappy	2.3%	2.5%	-	137
Resources				
Ascribed resources				
Gender (Male)	48.2%	49%	0.5	5,909
Age (18-98)	43.21	43.47	14.092	5,909
Ethnicity (Han)	92.9%	92%	0.258	5,909
Achieved Resources				
Location & Hukou:	-	-	-	5,909
Urban Inhabitant	53.4%	36.6%	-	3,170
Migrant Worker	12.9%	11.4%	-	761
Rural Visitor	3.3%	3.9%	-	192
Rural Inhabitant	30.3%	48.2%	-	1,786
Education (0-24)	8.61	7.58	4.377	5,902
Have Religious Belief	9.5%	11%	0.293	5,909
CPC/Youth League	18.1%	16%	0.385	5,909
Personal Income (Unit: 1,000)	13.05	10.04	24.47	5,909
Home Ownership (Own)	81.1%	88%	0.392	5,909
Occupation:	-	-	-	5,909
Government	2.4%	2.5%	-	145
Enterprise	36.0%	27.2%	-	2,136
Institutional Organization	10.2%	8%	-	609
Social Group	1.2%	1%	-	69
Self-Employment	18.5%	18.4%	-	1,097
Farmer	18.7%	35.8%	-	1,415
Unemployed	11.5%	5.3%	-	347
Other	1.6%	1.6%	-	91
Social Relation				
Marital Status:	-	-	-	5,909
Single	11.4%	9.8%	-	673
With Partner	83.3%	86.9%	-	4,922
Separated/Divorced	2.1%	1%	-	119
Widowed	3.3%	2.2%	-	192
Household Members (0-13)	2.22	2.77	1.403	5,909
Children:	-	-	-	

Number of Sons (0-6)	0.82	0.93	0.829	5,909
Number of Daughters (0-8)	0.71	0.81	0.851	5,909
Self-Assessment				
Perceived Health (1-5)	3.68	3.6	1.044	5,909
Subjective Status Measure	0	-0.1	1	5,909
Social Relation (1-4)	3.16	3.19	0.591	5,909
Social Comparison				
With the Past ((-9)-9)	0.46	0.6	1.731	5,909
With Others (1-4)	3.06	3.07	0.538	5,909

For the un-weighted sample, there are several obvious differences of variable information compared to sample after weighting. The mean level of happiness increases from 3.68 to 3.71, while more people reported very happy (21%) or happy (43%), and less people reported unhappy (9.3%) or very unhappy (2.3%). There is a slightly less male respondent than weighted sample (48.2%), the mean age of respondents decreases a little bit to 43.21, and more of respondents belong to Han ethnicity (92.9%). For location and Hukou status, much more of respondents are urban inhabitants (53.4%), and much less of respondents are rural inhabitants (30.3%). The number migrant worker increases a little bit to 12.9%, and the number of rural visitor almost maintains the same (3.3%). There is an increase in mean year of education (8.61), ruling political party member (18.1%), and mean personal income level (around thirteen thousand RMB). Meanwhile, there is a decrease in the proportion of people who have religious belief (9.5%) and who own house (81.1%). Instead of farmer (18.7%), enterprise employees (36%) become the largest proportion in terms of the types of occupation. Most variables in subjective domain maintain almost the same level, and only for comparison with the past, people perceives an obvious worse current situation before weighting sample (0.46). The further analysis procedures will be conducted based on sample after weighting.

Models of Happiness

Results from Ordinal Regression models are presented in Table 2. The first model includes only resources. In Model 1, among all resource variables, being male, age, ethnicity, location and Hukou status, education, political party membership, income, home ownership, being farmer, marital status and number of household members are significant predictors of happiness without controlling any other subjective variables. Precisely, being male is 27% (p<0.001) less likely to be happier than being female. Since both age and age-square are significant (both p<0.001), the relationship between age and happiness displays a curve. In this U-shape relation, happiness will decrease while age increases, and after the turning point of age 41.5 (the hard working middle age), happiness will increase while age increases. Being Han ethnicity in China makes people 86.8% (p<0.001) more likely to be happier than other minority ethnicities. Different categories in location and Hukou status are all significant predictors of respondents' happiness. Migrant workers are 52.5% (p<0.001) more likely to be happier than the urban inhabitants. Rural visitors and rural inhabitants are 38.1% (p<0.05) and 19% (p<0.05) more likely to be happier than urban inhabitants respectively. Education is a significant positive predictor of happiness that with one year more of education, respondents are 9.1% (p<0.001) more likely to be happier. Being a CPC member is 24% (p<0.01) more likely to be happier than others. In China, income is a significant positive indicator of people's happiness that with 1,000 Yuan RMB increase in personal income, respondents are 0.6% (p<0.01) more likely to be happier. Home ownership is a strong predictor of happiness that people who own house are 48.4% (p<0.001) more likely to be happier than those

who do not. Being farmer is the only type of occupation that is significantly different from those with enterprise jobs in happiness, and being farmer is 19% (p<0.01) less likely to be happy than enterprise employees (reference group among occupations). The odds ratios for marital status dummies are significant. Specifically, being single, having no partner or being widowed are all less likely to be happy compared to those who have partner. Respondents who are single are 34.3% (p<0.001) less likely to be happier than those who have partner, respondents that have no partner are 55.9% (p<0.001) less likely to be happier than those who do, and respondents who are divorced are 54.8% (p<0.001) less likely to be happier than those who have partner. In addition, there is a negative association between the number of household member and happiness: with one more person live in household, people are 3.2% (p<0.05) less likely to be happier.

For Model 2 and Model 3, variables in self-assessment and social comparison category are all significant predictors for happiness respectively without controlling any variables in other categories. Precisely, in self-assessment category, people who perceive themselves one point higher on self-rated health are 38% (p<0.001) more likely to be happier. People who think that they are in a higher rank of social hierarchy are 104% (p<0.001) more likely to be happier. People who consider they have a better relation with others are 25% (p<0.001) more likely to be happier. In social comparison category, people who think that their current situation is one point better than before are about 18% (p<0.001) more likely to be happier, and people who think they are doing better than the people around are 29% (p<0.001) more likely to be happier.

Table 5.2 The odds ratios of variables in Ordinal Regression models.

Variables	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6
Resources						
Ascribed Resources						
Male	0.732***	-	-	0.779***	0.726***	0.772***
Age	0.917***	-	-	0.930***	0.919***	0.930***
Age Square	1.001***	-	-	1.001***	1.001***	1.001***
Ethnicity (Han)	1.868***	-	-	1.303**	1.737***	1.281**
Achieved Resources						
Location & Hukou (Ref.=Urban Resident):						
Migrant Worker	1.525***	-	-	1.276**	1.480***	1.274**
Rural Visitor	1.381*	-	-	1.190	1.283^{+}	1.164
Rural Inhabitant	1.190*	-	-	1.111	1.093	1.078
Education	1.091***	-	-	1.064***	1.093***	1.066***
Religion	1.066	-	-	1.016	1.049	1.015
CPC Membership	1.240**	-	-	1.009	1.242**	1.021
Income	1.006**	-	-	0.999	1.005	0.999
Income (Missing)	0.872^{+}	-	-	0.871^{+}	0.919	0.890
Home Ownership	1.484***	-	-	1.178*	1.409***	1.163^{+}
Occupation (Ref.=Enterprise):						
Government	1.135	-	-	1.148	1.121	1.146
Institutional	0.887	-	-	0.778*	0.862	0.775*
Social Group	1.562^{+}	-	-	1.536^{+}	1.533^{+}	1.531^{+}
Self-Employment	0.994	-	-	0.891	0.979	0.890
Farmer	0.810**	-	-	0.931	0.788**	0.917
Unemployed	1.149	-	-	0.994	1.119	0.991
Other	1.408^{+}	-	-	1.162	1.332	1.147
Social Relation						
Marital Status (Ref.=With Partner):						
Single	0.657***	-	-	0.704**	0.665***	0.704**
No Partner	0.441**	-	-	0.597*	0.493**	0.616*
Widowed	0.452***	-	-	0.577**	0.500***	0.599**
Household Members	0.968*	-	-	0.962*	0.974	0.965*
Number of Son	0.931^{+}	-	-	0.969	0.935^{+}	0.968
Number of Daughter	1.057^{+}	-	-	1.069*	1.054	1.066^{+}
Self Assessment						
Perceived Health	-	1.381***	-	1.405***	-	1.399***
Subjective Status	-	2.044***	-	1.908***	-	1.837***
Social Relation	-	1.250***	-	1.274***	-	1.234***
Social Comparison						
With the Past	-	-	1.175***	-	1.185***	1.078***
With Others	-	-	1.293***	-	1.259***	1.130*

| Pseudo R-square | 0.088 | 0.195 | 0.030 | 0.223 | 0.116 | 0.228 |

2, the pseudo R-square here is Naglekerke pseudo R-square.

In Model 4, which includes variables from resources and self-assessment category, gender, age, ethnicity, being a migrant worker, education, home ownership, working in institutional organization, marital status, number of member in household, number of daughter and all variables under self-assessment are significant predictors of happiness. Precisely, being male is 27.4% (p<0.001) less likely to be happier than being female after controlling for self-assessment, and the reduction in size is 4.7% compared to Model 1. The age maintains its "curve" relation with respondents' happiness, but the turning point changes from age 41.5 to age 35. Being a Han ethnicity is 30.3% (p<0.01) more likely to be happier than minority ethnicities after controlling for self-assessment, and the reduction in size is 56.5% compared to Model 1. Migrant workers are 27.6% (p<0.01) more likely to be happier than urban inhabitants after controlling for self-assessment, and the reduction in size is 24.9% compared to Model 1. With one year more education, respondents are 6.4% (p<0.001) more likely to be happier after controlling for self-assessment, and the reduction in size is 2.6%. Respondents who own the house are 17.8% (p<0.05) more likely to be happier than those who do not after controlling for self-assessment, and the reduction in size is 30.8% compared to Model 1. People who work in institutional organization are 22.2% (p<0.05) less likely to be happier than enterprise employees after controlling for self-assessment, and working in institutional organization was not a significant predictor of happiness in Model 1. Marital statuses are still significant in Model 4. People who are single are 29.6% (p<0.01) less likely to be happier

than those who have partner after controlling for self-assessment, the reduction in size is 4.7% compared to Model 1. People who have no partner are 41.3% (p<0.05) less likely to be happier than those who have partner after controlling for self-assessment, the reduction in size is 15.6% compared to Model 1. People who are widowed are 43.3% (p<0.01) less likely to be happier than those who have partner after controlling for self-assessment, the reduction in size is 12.5% compared to Model 1. With one more person living in the household, respondents are 3.8% (p<0.05) less likely to be happier after controlling for self-assessment, and the reduction in size is 0.6% compared to Model 1. Having one more daughter makes respondents 6.9% (p<0.05) more likely to be happier after controlling for self-assessment, and the number of daughter was not a significant predictor of happiness in Model 1. Variables in self-assessment are all significant in Model 4. People who perceive themselves one point higher on self-rated health are 40.5% (p<0.001) more likely to be happier, and the increase in size is 14.8% compared to Model 2. People who think that they are in a higher rank of social hierarchy are 90.8% (p<0.001) more likely to be happier, and the reduction in size is 13.3% compared to Model 2. People who consider they have a better relation with others are 27.4% (p<0.001) more likely to be happier, and the increase in size is 2.4% compared to Model 2. Besides, being a rural visitor, being a rural inhabitant, being a ruling political party member and personal income are no longer significant predictors of happiness in Model 4 compared to Model 1.

In Model 5, which includes variables from resources and social comparison category, gender, age, ethnicity, being a migrant worker, education, being a member of ruling political party, home ownership, being a farmer, marital status and all variables

under social comparison are significant predictors of happiness. Precisely, being male is 27.4% (p<0.001) less likely to be happier than being female after controlling for social comparison, and the reduction in size is 0.6% compared to Model 1. The age maintains its "curve" relation with respondents' happiness, but the turning point changes from age 41.5 to age 40.5. Being a Han ethnicity are 73.7% (p<0.001) more likely to be happier than minority ethnicities after controlling for social comparison, and the reduction in size is 13.1% compared to Model 1. Migrant workers are 48% (p<0.001) more likely to be happier than urban inhabitants after controlling for social comparison, and the reduction in size is 4.5% compared to Model 1. With one year more education, respondents are 9.3% (p<0.001) more likely to be happier after controlling for social comparison, and the increase in size is 0.2% compared to Model 1. Being the member of ruling political party makes people 24.2% (p<0.01) more like to be happier after controlling for social comparison, and the increase in size is 0.2% compared to Model 1. Respondents who own the house are 40.9% (p<0.001) more likely to be happier than those who do not after controlling for social comparison, and the reduction in size is 7.5% compared to Model 1. Farmers are 21.2% (p<0.01) less likely to be happier than enterprise employees after controlling for social comparison, and the reduction in size is 2.2% compared to Model 1. Marital statuses are all significant in Model 5. People who are single are 33.5% (p<0.001) less likely to be happier than those who have partner after controlling for social comparison, and the reduction in size is 0.8% compared to Model 1. People who have no partner are 50.7% (p<0.01) less likely to be happier than those who have partner after controlling for social comparison, and the reduction in size is 5.2% compared to Model 1.

People who are widowed are 50% (p<0.001) less likely to be happier than those who have partner after controlling for social comparison, and the reduction in size is 0.8% compared to Model 1. In social comparison category, people who think that their current situation is one point better than before are about 18.5% (p<0.001) more likely to be happier, and the increase in size is 1% compared to Model 3. People who think they are doing better than the people around are 25.9% (p<0.001) more likely to be happier, and the reduction in size is 3.4% compared to Model 3. Besides, being rural visitor, being rural inhabitant, personal income and number of household member are no longer significant in Model 5 compared to Model 1.

In Model 6, which includes all three categories, gender, age, ethnicity, being a migrant worker, education, working in institutional organization, marital status, number of member in household, all variables under self-assessment and all variables under social comparison section are significant predictors of happiness. After incorporating resources, self-assessment and social comparison into one model, the size of Odds Ratio and the significance level of significant variables in Model 6 are almost consistent with what in Model 4. Only home ownership and number of daughter are not as significant as they were in Model 4. Interestingly, comparison with others experienced an impressive reduction in both Odds Ratio size and significance level after controlling for both resources and self-assessment. In Model 6, people who think they are doing better than the people around are 13% (p<0.01, which was p<0.001) more likely to be happier, and the reduction in size is 12.9% (nearly 50% reduction) compared to Model 5.

However, our Ordinal Regression does not satisfy the Parallel Lines Assumption (the effects of various factors are all same on each level of happiness), so I rerun these models using Binary Logistic Regression (See Appendix B). The results of Binary Logistic Regression are consistent with the findings of Ordinal Regression above, and only a few differences appear. In Model 1, the significance of working for social group and the number sons increase, and being migrant workers, being ruling political party member and marital status are no longer as significant as they were in Ordinal Regression. In Model 2, the significance level of social relation is smaller. In Model 4, after controlling for self-assessment, marital status shows a larger change in significance. In Model 5, the significance level of being ruling political party member and marital status decrease more than in Ordinal Regression after controlling for social comparisons. In Model 6, with all categories included, the significance of making comparison with others totally disappears. In general, the Binary Logistic Regression model explains 21.2% variance of happiness, which is less than Ordinal Regression did.

DISCUSSION AND CONCLUSION

Based on a series of literature review, this study attempted to examine a comprehensive model of the determinants of happiness. The model includes three major categories, which are: resources (ascribed resources, achieved resource and social relation), self-assessment and social comparison. This study used several statistics techniques to test four key hypotheses: 1) in China, people who possess more resources tend to be happier; 2) in China, people who have more positive assessment of life events are happier; 3) *a*. if people perceive that they are better than others, they are happier and *b*. if people's current conditions are better than the past, they are happier; 4) *a*. self-assessment mediates the effects of resources on happiness and *b*. social comparison mediates the effects of resources on happiness. The results of data analysis have supported Hypothesis 2, Hypothesis 3, Hypothesis 4a, partially confirmed Hypothesis 1 and have not well supported Hypothesis 4b.

Precisely, some findings are consistent with Hypothesis 1, and some are not. In China, males have been traditionally treated better than females. However, the analytical results indicate that males are less happy than females. On the one hand, this result echoes some previous findings that women are more willing to show their emotions (Diener et al., 1999). On the other hand, this result could also be explained by the fact that, in China, males have to take more responsibilities than females in contemporary society, which brings more pressure to males, and this may have made males feel less

happy than females. As expected, the relation between age and happiness shows a U-shape, which resonates with the life span perspective of happiness (Diener et al. 1999; Blanchflower & Oswald, 2005). The first half of the curve may mainly due to the pressure of society that affects people's happiness when they are in younger age, and when it comes to the later stage of life, people may have adapted to their life situation and become less unhappy than their younger counterparts. Being Han means belonging to the advantaged majority in China, which makes it undoubtedly a positive predictor of happiness. This result is to some extent similar to the findings of those race-happiness relation studies conducted in the United States that Blacks or African Americans, as minority group, are less happy than Whites or Caucasians (Aldous & Ganey, 1999). Since there is a huge developmental imbalance between urban and rural area in China, and living in urban area has more advantages, it is surprising to see that migrant workers, rural visitors and rural inhabitants are all happier than urban inhabitants. For migrant workers, this is probably because a higher income and better access to social resources (e.g. public facilities) make those former farmers happier after they have settled in urban areas. For rural visitors and rural inhabitants, the result reflects some classic city theories. As Georg Simmel argued, the intensity and pressure brought by the life in big metropolis make those city dwellers rather isolated and, then, unhappier (Edles & Appelrouth, 2007). These are probably the reasons that the migrant workers, rural visitors and rural inhabitants perceive themselves in a better situation and are happier than urban inhabitants.

Unsurprisingly, the finding about education as a significant predictor of happiness is consistent with previous research (Diener et al. 1999). This is because a better education always brings people better job opportunity, higher income levels and higher social status, which are all positively related to happiness. Although previous Western research findings indicate that religion is a powerful predictor of happiness, it is unsurprising for me to find that it is not the case in China. This is because most people in China do not have a Western religious belief (e.g. Christianity). Instead, the Confucianism philosophy rules, and since Confucianism does not usually count as a "religion," there is a limitation of the measurement for respondents' religious belief. That being a member of the ruling political party positively influences happiness is another anticipated outcome. This result concurs the finding of Di Tella and MacCulloch (2005) that people who are the members of political party in power may consider themselves in a better state and thus are happier. Interestingly, personal income as a positive predictor of happiness supports several previous cross-cultural studies. Oshio et al. (2011) pointed out that, for people in China, personal income is an important standard of making comparison among people, which is related to people's happiness. The relation between occupation and happiness is another unexpected finding. Only farmers are significantly unhappier than the reference group (enterprise employees), which is possibly related to the income level, social status and etc. There is no significant evidence that civil servants working for government and those self-employed are happier, while working for government is treated as an advantageous occupation in China, and previous Western research found that self-employment has positive influence on happiness (Benz and Frey, 2004). As a

widely recognized research finding, (Diener et al., 1999), people in all other marital statuses are less happy than those who are married. The finding that living with more people in the same household makes people unhappier is understandable; it is possible that the crowdedness of living condition may decrease people's felling of happiness. No significant evidence indicates the relation between the number of children and happiness, while previous research showed that there is a negative relation between living with one's own child and his or her happiness level (Glenn & McLanahan, 1982).

The findings from Model 2 and Model 4 are consistent with Hypothesis 2 that in China, people who have more positive assessment of life events are happier. All variables in self-assessment category have significant and positive effects on people's happiness, and the self-assessment category explains the largest amount of variation of happiness (Pseudo R-square=0.195) without controlling for any other variables. This supports what Shin and Johnson (1978) has concluded that self-assessment is the strongest predictor of happiness. It echoes the core idea of affective theory that happiness is closely related to people's subjective assessment about their lives. Results from Model 3 and Model 5 support Hypothesis 3 that a. if people perceive that they are better than others, they are happier and b. if people's current conditions are better than the past, they are happier. Both two variables in social comparison section are significant, and the whole category explained 3% (less than half of variation explained by resources category) variation of happiness without controlling for any other variables. Since social comparison explains less of variation in happiness than assessment, this result seems to contradict Shin and Johnson's (1978) conclusion that social comparison explains one of largest amount of

variation of happiness. Also, there is lack of convincing evidence supporting what comparison theory has stated: people's happiness is not determined by absolute objective situation but the relative situation comparing with either their own past or other people around.

The result of Model 4 well support Hypothesis 4a that self-assessment mediates the effects of resources on happiness. In Model 4, after combining resources and self-assessment category together, several variables have experienced reduction in their significance level and Odds Ratio size, which include: ethnicity, being migrant worker, being rural visitor, being rural inhabitant, being member of ruling political party, personal income, being farmer and all kinds of marital status. This indicates that self-assessment mediates the influence of these resource variables on happiness. In other words, both advantageous and disadvantageous situations reflected by these resource variables are strongly associated with people's subjective assessment of life. Also, the variance of each model as indicated by pseudo R square demonstrates the intervening effects of self-assessment on the influence of resources on happiness. Specifically, the explained variance of Model 4 (resources and self-assessment) is 0.223, which is less than the sum of Model 1 (resources only) and Model 2 (self-assessment only), 0.283. This indicates that self-assessment intervenes the resources' influence on happiness. However, the result of Model 5 does not well confirm the Hypothesis 4b that social comparison mediates the effects of resources on happiness. Although the effects of some variables have decreased in significance and Odds Ratio size (e.g. being rural visitor, being rural inhabitant, personal income, have no partner, number of household member), the total variation

change does not indicate that it's a strong mediating effect. Precisely, the explained variance of Model 5, 0.116, is almost the same with the sum of Model 1 and Model 3 (social comparison only), 0.118. This means the effects of these two sets of variables do not overlap much, which suggests that social comparison does not mediate the influence of resources on happiness. The possible reason for this unexpected result could be that the original survey does not provide an accurate measure for making comparison with the past or others.

Lastly, in Model 6, which includes resources, self-assessment and social comparison, both the odds ratios and significance levels of making comparison with others have a considerable reduction. This confirms Shin and Johnson's (1978) finding that subjective categories mediate each other. To sum up, self-assessment explains the largest proportion of variance of happiness in our comprehensive conceptual model, then, followed by resources and social comparison. Most unexpectedly, social comparison explains less variance of happiness than resources. Our conceptual model explains approximately 22.8% variance of respondents' happiness in total.

In general, the results of this study have not only confirmed some universal findings of previous happiness studies, but also supported those China specific findings in terms of East versus West. Precisely, on one hand, through a universal perspective, happiness displays a U-shape through a lifespan; education is a positive predictor of happiness; marriage may bring people happiness; being a part of advantageous social group (e.g. of Han ethnicity in China) has positive effect on happiness; being a member of ruling political party (e.g. CPC member in China) has positive effect on happiness; and

life assessment and social comparison have significant effects on happiness and mediate the influences of other objective factors on happiness. These universal findings are all confirmed by this study with a Chinese sample. On the other hand, through an East versus West perspective, income matters to people's happiness in China especially in terms of making social comparison, which contradicts previous Western findings; religion and certain types of employment (e.g. self-employment) do not show significant effects on happiness among people in China, which are inconsistent with previous Western findings. These findings are to some extend more China specific.

Several limitations of this current study need to be addressed. First, the data utilized in this study is still inadequate enough. Since the data comes from CGSS 2008, it cannot actually reflect the "current" situation of the people in China since China has experienced a tremendous change since the world's economy downturn, and an update of data is needed. Second, the measures in the original survey do not perfectly match our analysis. For instance, the survey only measures happiness in general, and it does not tap multiple dimensions of happiness (e.g. family satisfaction, job satisfaction, marriage satisfaction). Also, the original survey missed some valuable aspects that are relevant to our model of happiness. As mentioned earlier, this study could not measure some important possible determinants of happiness (e.g. social activity participation) as several previous studies did due to unavailability of data. Third, the analysis has its limitations. Although the findings from this study support the perspective that happiness is changeable, it fails to test whether the set-point theory is correct, since cross-sectional data does not allow us to capture the dynamics of happiness change through time.

Moreover, the cross-sectional data do not allow us to establish causal directions. Some of the observed associations could go in both directions. For example, people's happiness may affect how they assess their life situation and make comparisons. Also, since this study is focusing on the conceptual model of determinants of happiness in general, it fails to test the interaction effects among different variables. For instance, some factors may have different influence on happiness between male and female, youth and elderly, or among different location and Hukou status.

There are several recommendations for future studies. First, an update of data is needed. It is undoubtedly that more national data for China like CGSS is on the way. With an update of data, one may be able to test the more completed version of conceptual model introduced in this study. And it will make a longitudinal study possible that better reflects the change of people's happiness in contemporary China. Second, a mixed research method can be beneficial. Since this study is purely quantitative, it does not allow a detailed analysis of the connections between happiness and its determinants. For instance, individuals' conception of happiness may vary tremendously across culture. Therefore, people may use different standards to assess how different factors are related to their happiness. Another example is in many original questions measured by scales, the answers are more clustered in the middle or a little bit positive, and there are few extreme responses. This reflects a common Chinese Confucian concept that advocates "being middle" and neither being beyond or insufficient. For instance, this situation especially appears frequently in those subjective domain questions (e.g. perceived family SES, social class and subjective status). The answers in the middle of scale always get highest

response rate, and the most of response are concentrated on the scale from middle to slightly positive. So, it is possible that a questionnaire like this could not reflect people's true feelings. Incorporating qualitative methods in future studies may to some extent solve this problem. Third, more of China's contexts need to be considered. Since China is different from Western societies in various aspects (e.g. cultural traditions and major social problems), future studies focusing on China need to take into account properly the larger social contexts of China. This is necessary for making research findings applicable to the society.

Happiness is important in various aspects, such as mental health at both individual and national levels, better community construction, and especially as a social policy indicator. The findings from this study suggest that objective resources, subjective assessment and social comparison all can have significant impact on happiness. With rapid economic development and growing inequality in China, more attention needs to be given to people's happiness; policy makers should focus on identifying certain individuals who may be particularly vulnerable to unhappiness. For instance, there is an widely ongoing commercial construction (e.g. real estate) and infrastructural construction (e.g. urban subway) cross country in China, and this massive construction is bringing notable social problems to people in China, such as unfair treat to migrant workers and heavy pollution tolerated by city dwellers. Therefore, pure economic indicators of development and people's living standard are no longer adequate, and this is why happiness as a policy indicator is especially important at this moment. For social workers in China, the conceptual model proposed in this study can serve as a systematic guide to

developing effective strategies to improve people's happiness in their family, community and social lives. It will be a promising facilitator that contributes to the development of current immature social working industry in China. To better understand people's subjective wellbeing in a contemporary context, it is important to adopt a comprehensive perspective, especially in the context of the fast developing China, a land that draws more attention from people around the world each day.

APPENDICES

Appendix A The Summary of Recent Studies of Happiness on China

Author	Year	Research Type	Sample Size (Relevant Information)	Main Findings
Bai et al.	2011	Empirical	4,795 (National)	Satisfaction with Life Scale (SWLS) is superior in terms of its internal consistency, etc.
Brockmann et al.	2009	Empirical	1000 (National, Longitudinal)	The relatively unequal increasing of income leads to a negative association between absolute income increasing and happiness.
Chen and Davey	2008	Review	N/A	Research in China are disproportionately located in more advanced area (e.g. costal provinces of China). The research field has grown really fast but is still in an immature stage.
Chen	2012	Empirical	2,942 (National)	The income level matters more between the positive connection of education and happiness in China than other Asian countries, which against the typical pattern that non-pecuniary factors are more important mediators.
Cheung and Leung	2007	Empirical	732 (Local)	Promoting governmental accountability improves people's happiness in various aspects of life (e.g. economic, cultural and political aspect).

Chyi and Mao	2012	Empirical	1,533 (National)	Living with one's grandchildren positively influences happiness of elderly and in contrast living with one's own children affects negatively on happiness of elderly.
Dai et al.	2012	Empirical	3,795 (National)	Resources (like health, economic status and family relation) significantly account for the happiness of elderly and activity serves as a partial intermediate variable within this association.
Davey and Rato	2012	Review	N/A	Studies in China indicate that happiness index of China is positive and consistent with the findings from Western societies.
Hu	2011	Empirical	6,013 (National)	Homeownership contributes significantly to people's happiness in urban area of China.
Ip	2011	Theoretical	N/A	Provides a critique of recent studies, and the author discussed the folk happiness concept in traditional Chinese culture.
Liang et al.	2012	Empirical	2,000 (National)	Leisure satisfaction does not positively affect people's happiness in China.
Nielsen et al.	2010	Empirical	525 (Local)	The happiness score of Personal Wellbeing Index

				(PWI) of Chinese hard-living off-farm migrants falls in a moderate range, which is due to their returning to the countryside in order to reduce the hardship encountered in cities.
Nielsen et al.	2010	Empirical	480 (Local)	The happiness score of Personal Wellbeing Index (PWI) of Beijing's hard-working taxi driver falls in a moderate range, which is maintained by the factors such as social networking.
Oshio et al.	2011	Empirical	2,767 (National)	Individual income is strongly associated with people's happiness in China in terms of making comparison with others' income, which contradicts the opposite tendency in other Asian countries like Korea and Japan.
Monk-Turner and Turner	2012	Empirical	3,641 (Local)	The authors extended a previous study on how various factors (e.g. income, health, marital status, etc.) influence people's happiness to a Southern province of China, Yunnan in terms of gender and regional differences.

Webb	2009	Empirical	102 (Local)	The study revealed the significant relationships between various factors (such as age, gender and education) and people's happiness in Tibet and the result was more consistent with the findings from Western societies than other Asian areas.
Xiao and Li	2011	Empirical	3,221 (National)	The sustainable or green purchasing intention and behavior are positively related to people's happiness.
Yuan and Golpelwar	2012	Empirical	1,128 (Local)	Four aspects of people's life (including economic security, social cohesion, social inclusion and social empowerment) have strong effects on people's happiness.
Zhang and Veenhoven	2008	Theoretical	N/A	The Confucianism idea is the most adaptable guidance for people's happiness in modern China compared with other two classic philosophical flows of China, the Taoism and the Buddhism.

Appendix B The Odds Ration of Variables in Binary Logistic Regression Models

Variables	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6
Resources						
Ascribed Resources						
Male	0.733***	-	-	0.790***	0.733***	0.785***
Age	0.919***	-	-	0.932***	0.922***	0.933***
Age Square	1.001***	-	-	1.001***	1.001***	1.001***
Ethnicity (Han)	1.757***	-	-	1.291*	1.641***	1.271*
Achieved Resources						
Location & Hukou (Ref.=Urban Residence):						
Migrant Worker	1.392**	-	-	1.174	1.334**	1.163
Rural Visitor	1.296	-	-	1.056	1.203	1.035
Rural Inhabitant	1.227*	-	-	1.153	1.132	1.122
Education	1.098***	-	-	1.074***	1.100***	1.076***
Religion	1.005	-	-	0.945	0.991	0.946
CPC Membership	1.219*	-	-	1.006	1.225*	1.019
Income	1.007**	-	-	0.999	1.006*	0.999
Income (Missing)	0.902	-	-	0.903	0.954	0.925
Home Ownership	1.558***	-	-	1.238*	1.481***	1.226*
Occupation (Ref.=Enterprise):						
Government	1.450+	-	-	1.410	1.421+	1.400
Institutional	0.961	-	-	0.842	0.939	0.839
Social Group	2.125*	-	-	2.163*	2.058*	2.146*
Self-Employment	1.021	-	-	0.914	0.999	0.912
Farmer	0.819*	-	-	0.915	0.794*	0.900
Unemployed	1.252	-	-	1.085	1.206	1.079
Other	1.684*	-	-	1.436	1.630+	1.420
Social Relation						
Marital Status (Ref.=With Partner):						
Single	0.738*	-	-	0.780+	0.744*	0.782+
No Partner	0.455**	-	-	0.593+	0.511*	0.613+
Widowed	0.488***	-	-	0.620*	0.544**	0.645*
Household Members	0.985	-	-	0.980	0.990	0.983
Number of Son	0.918*	-	-	0.941	0.923+	0.943
Number of Daughter	1.036	-	-	1.048	1.035	1.047
Self Assessment						
Perceived Health	-	1.323***	-	1.323***	-	1.319***

Subjective Status	-	1.998***	-	1.862***	-	1.794***
Social Relation	-	1.190**	-	1.211***	-	1.183**
Social Comparison						
With the Past	-	-	1.175***	-	1.181***	1.072***
With Others	-	-	1.237***	-	1.204***	1.105^{+}
R-square	**0.093**	**0.179**	**0.028**	**0.208**	**0.117**	**0.212**

Note: 1,"+": p<0.1, "*": p<0.05, "**": p<0.01, "***": p<0.001;

2, the pseudo R-square here is Naglekerke pseudo R-square.

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