

The Effect of Education on Residents' Subjective Well-Being

Chuan-Lu GE^a, Yan-Shu LI^{b,*}

School of Economics and Business Management, Beijing Normal University, Beijing, China

^ageclbnu@163.com, ^bmavisrock@163.com

*Corresponding author

Keywords: education, subjective well-being, influence mechanism

Abstract. Using the 2015 China Comprehensive Social Survey (CGSS) data and an ordered logit model, this article empirically tests the impact of education on residents' subjective well-being and analyzes its impact mechanism. Sample data show that education significantly improves residents' subjective well-being. It can affect residents' subjective well-being by affecting residents' perceptions of social justice, class mobility opportunities, social trust, and class cognition which are beneficial to subjective well-being. To be specific, education promotes people's improvement of social justice, social trust and class cognition, but reduces people's cognition of class mobility.

1. Introduction

The Third Plenary Session of the 18th Central Committee of the Communist Party of China referred to "promoting social fairness and improving the well-being of the people should be the starting point and end point of our Party "; the report of the 19th National Congress of the Communist Party of China also mentioned that the original intention and mission of the Communist Party of China is to serve People seek happiness and rejuvenate the Chinese nation. Improving residents' happiness is not only one of the important goals of the Party and government work, but also the main goal of residents' life (Chen and Li, 2012)^[1]. As a subjective feeling, residents' happiness can also have a significant impact on a series of residents' behaviors, including residents' employment, fertility, etc. (Li and Chen, 2015; Zhu and Yang, 2017)^[2, 3]. In addition, residents' happiness is also related to residents' attitudes to life, satisfaction with government administration, and social identity, etc., which has a direct or potential impact on social harmony and stability. The sense of well-being not only makes residents better themselves, but also promotes long-term peace and stability in society.

The Party and the government have continuously improved the development level of the entire society by increasing the income of residents, improving the social governance environment, maintaining social equity, and improving the education level of residents. The happiness of residents has significantly improved. Along with economic development, Chinese education scale, education level, and quality of education have also improved significantly. Statistics show that as of 2017, the number of ordinary college students in China increased from 856,000 in 1978 to 27.536 million in 2017, and the number of universities raised from 598 in 1978 to 2631 in 2017. Education has not only improved the residents' quality, knowledge and skills, but also improved the residents' cognitive ability, changed their knowledge and views on things which will affect their subjective evaluation of happiness. What kind of function education plays and what role it plays are worthy of attention, this article will analyze and discuss it. Compared with the existing research, the marginal contribution of this article may be mainly reflected in the mechanism examine. We use examine the impact of education on subjective well-being from the aspect of social justice, class mobility opportunities, perceptions of social trust, and class cognition.

2. Literature Review and Theoretical Assumptions

Although subjective well-being is a subjective feeling, it is not completely independent of the external environment, but is affected by external factors. At a macro level, the level of economic development (Alexandre, 2013)^[4], government quality (Chen and Li, 2012)^[1], public policy (Sun

and Xiao, 2011)^[5], social employment (Wang and Guo, 2015)^[6], ethnicity and religion (Bian et al., 2015)^[7] have been found to have a significant impact on residents' subjective well-being. On a micro level, income, gender, age, marital status, education level, and social capital and some other micro-characteristics also have a more significant effect on happiness.

The impact on residents' subjective well-being is the focus of academic attention. Researches show that income expectations have a positive and significant impact on personal well-being. Personal well-being increases with the increase of personal income, but decrease with the average income of the community or neighborhood income increase (Liu and Shang, 2012; Alexandre, 2013)^[4, 8]. Here, the relationship between average income (neighborhood income) and personal income is likely to relative income, and relative income is related to income fairness. Studies have found that, on average, Americans are happier in years with higher income equality (Oishi et al., 2011)^[9]. Other studies also suggest that income inequality and redistribution preferences have a significant negative impact on subjective well-being (Chen and Li, 2016)^[10], Income inequality has a greater impact on Chinese national happiness than relative income and absolute income (Yang and Zhang, 2016)^[11]. In addition, Li et al. (2015) also found that family assets have a significant positive impact on happiness, relative assets have a positive "demonstration effect" on happiness, and relative income has a negative "comparison effect" on happiness; liabilities increasing will significantly reduce happiness, but debt does not have the above-mentioned effect mechanism^[12].

From the existing literature, there are two main analytical perspectives on the impact of education on residents' subjective well-being (Huang, 2013)^[13]: from the perspective of philosophy and psychology, education can exercise people's communication and thinking, so that people can better handle various social relationships and obtain emotional support; from a socioeconomic perspective, education has changed human knowledge skills, improve people's ability to obtain labor remuneration, change social status, and make people feel happier by changing objective living conditions. However, the conclusions of related literature are not consistent, mainly including positive relationships, Negative relationships and non-linear relationships, etc. In different time and space dimensions, the social backgrounds of different countries and regions are very different, so it is also possible to understand why conclusions are different. As for China, especially since the resumption of the college entrance examination, education has become an important way to achieve social class mobility and improve the living standards of residents. Therefore, from the perspective of social life, education may improve the happiness of residents, but while improving residents' knowledge and skills and social cognition, education is also changing people's values. Social comparative theory believes that people have the tendency to compare with others. Education broadens people's horizons, and also allows people to have more objects that can be compared, so it may not be conducive to improving the happiness of residents. Both situations all exist in real life, and an empirical test is needed to figure out which effect is dominated.

3. Data Sources

The data used in this article are all from the 2015 Chinese General Social Survey (CGSS) funded by the Renmin University of China 985 Fund and the Renmin University of China Scientific Research Fund. Residents' measurement of happiness is a subjective behavior. The 2015 Social Survey (CGSS) questionnaire quantified the happiness of residents in an orderly manner, using the Likert five-scale scale method to assign residents' evaluations of happiness from small to large. The question measuring the subjective happiness is "Do you generally feel happy in life?". Among them, "1 = very unhappy "" 2 = relatively unhappy "" 3 = not happy or unhappy "" 4 = relatively happy "" 5 = very happy ". Resident education options include "1 = never received any education" "2 = private education, literacy education, private education" "3 = primary school" "4 = junior high school" "5 = vocational high school" "6 = ordinary high school "" 7 = technical secondary school "" 8 = technical school "" 9 = college (adult higher education) "" 10 = college (formal higher education) "" 11 = university undergraduate (adult higher education) "" 12 = university undergraduate (formal higher education) "" 13 = graduate and above "" 14 = Other ". We delete" 14

= Other ", and the remaining options are sorted by education level as a whole. According to the setting of variables, some samples with missing variables were deleted, and 9672 copies of data were retained.

4. Research Methods and Variable Selection

4.1 Model Selection

As the dependent variable "subject's subjective evaluation of happiness" is an ordered variable, this paper uses a ranking model (ordered probit / ordered logit model) to analyze the impact of related factors on the happiness of willing residents. There is no explicit deterministic theory for choosing which sorting model, and the choice of models mostly depends on the preferences of the researchers. Besides, the random variables in the data satisfy the hypothesis of the logical probability distribution of the ordered logit model. And in practice, the logit model is relatively widely used, so the ordered model logit is chosen.

4.2 Model Construction

In the ordered logit model, the dependent variable Y represents the happiness of the residents in this article. It is a subjective variable, so we introduce a latent variable that cannot be directly observed y_i^* . The expression of the regression equation is:

$$y_i^* = \alpha_0 + \alpha_1 x_1 + \alpha_2 x_2 + \alpha_3 x_3 + \dots + \alpha_i x_i = X\alpha + \varepsilon_i (i = 1, 2, 3, \dots, n). \quad (1)$$

Where α is the parametric variable to be estimated. The actual observed residents' happiness is evaluated as y, and its value is five ordered discrete variables. Then y and latent variables y_i^* . The corresponding relationship is as follows:

$$y = \begin{cases} 1, \text{if } y_i^* \leq \beta_1 \\ 2, \text{if } \beta_1 < y_i^* \leq \beta_2 \\ 3, \text{if } \beta_2 < y_i^* \leq \beta_3 \\ 4, \text{if } \beta_3 < y_i^* \leq \beta_4 \\ 5, \text{if } y_i^* > \beta_4 \end{cases} \quad (2)$$

Where $\beta_1 < \beta_2 < \beta_3 < \beta_4$ is the parameter to be estimated, called the cut-point. So the regression equation can be set as follows:

$$\ln p(y \leq j) / p(y \geq j) = \sum_{i=1}^n \delta_i x_i + \varphi Education + \gamma_j. \quad (3)$$

In the formula(3), j = 1, 2, 3, 4, and 5 which represent the happiness evaluation of residents; education is the core explanatory variable; regression coefficient corresponding to education, expressed as the direction of the impact of education on residents' happiness, if φ is significant, it means that education has a significant impact on personal subjective well-being; x_i is a control variable indicator; δ_i is regression coefficient on x_i , which indicates the influence direction of explanatory variables on residents' happiness; γ_j is the intercept parameter of the model. It should be noted that the control variables in this paper include variables of individual characteristics and family characteristics; at the same time, in order to eliminate the impact of socioeconomic conditions between urban and rural areas and different provinces on the respondents' happiness, this article also controls urban and rural and provincial variables.

4.3 Variable Selection

Subjective well-being. The evaluation of residents' well-being is an orderly variable, which is specifically defined as shown above. At the same time, we also set subjective well-being as dummy variables, as another indicator of subjective well-being. Specifically, this article selects the "4 = comparative happiness" and "5 = very happy" two sample values as 1, and select the other options

as 0^①.

Education level. The core explanatory variable of this article is the education level of residents, and the specific determination method is as shown above.

Control variables. Studies have found that the subjective well-being of women and the elderly is higher than that of men and young people (Bian et al. (2015)^[7]; Married people have higher subjective well-being than those who are single, divorced, separated or widowed (Conceicao and Bandura, 2012)^[14]; Changes in income have a significant positive impact on the subjective well-being of Chinese residents, and this effect has significant urban-rural differences (Ying, 2012)^[15]. Based on these studies empirical judgments, gender, age, age squared terms, family income, number of children, political appearance, marital status, health status, urban, rural, and regional variables are selected as control variables. Specific variable settings and variable statistics descriptions are shown in Tables 2 and 3.

Table 2. Variable description

Variable name	Variable description
Happiness1	Compare happiness and very happiness to 1 and other to 0
Happiness2	Very unhappy = 1, relatively unhappy = 2, not happy or unhappy=3, relatively happy=4, very happy=5
Education	Not educated as a postgraduate or above, 1-13
Gender	Respondent's gender, male = 1, female = 0
Age	Respondents' age
Age2	Log of age squared
F_income	Log of total household income for the full year 2014
Child	Total number of sons and daughters (including stepchildren, adoptive daughters, etc.)
Party	Party members = 1, others = 0
Health	Very unhealthy = 1, less healthy = 2, average = 3, relatively healthy = 4, very healthy = 5
Marriage	Cohabitation, first marriage with a spouse, remarriage with a spouse is considered 1 and others are considered 0
Urban	City = 1, country = 0
Pr	Dummy variables for respondents' provinces

Table 3. Variable descriptive statistics

Variable name	N	mean	sd	min	max
Happiness1	9672	0.7856	0.4104	0	1
Happiness2	9672	3.8827	0.8059	1	5
Education	9672	4.9033	3.0936	1	13
Gender	9672	0.4775	0.4995	0	1
Age	9672	50.2205	16.6285	18	94
Age2	9672	7.708	0.7365	5.7807	9.0866
F_income	9672	10.5174	1.1393	5.3033	16.1181
Child	9672	1.7003	1.3602	0	11
Party	9672	0.1069	0.309	0	1
Health	9672	3.6229	1.0976	1	5
Marriage	9672	0.794	0.4045	0	1

①Using the dummy variable indicator of subjective well-being, this article also uses logit model for regression as a robustness test.

5. Measurement Results and Analysis

5.1 Data Result

Table 4 reports the ordered logit regression of the effect of education on residents' subjective well-being(using happiness2) coefficients and marginal effects^②. on the whole, each variable basically has a significant impact on the subjective well-being of the respondents. In the ordered logit regression, education is significantly positive at a significance level of 1%, indicating that education is indeed positive. Negative and positive affects the subjective well-being of the respondents. From other variables, there is a significant difference in the impact of male and females on subjective well-being. Relatively speaking, women's happiness may be higher than men's; age has a non-linear effect on residents' happiness perception; family income, number of children, whether party members, health status, marital status, urban and rural, etc. all have a positive impact on the subject's subjective utility level.

Given that in the non-linear model, the individual behavior at the sample mean is not equal to the average behavior of the individual, we use the average marginal effect to study the changes in the values of different categories of residents' happiness under the influence of independent variables. From the ordered logit model marginal effect estimate results, it can be seen that the probability of respondents being "very unhappy" decreased by 0.045%, and the probability of "less happy" and "not happy and unhappy" decreased by 0.21% and 0.376% respectively. At the same time, the probability that residents think they are "relatively happy" and "very happy" has increased by about 0.08% and 0.55% respectively. This further proves that education has significantly increased residents' subjective happiness.

Table 4. Ordered logit regression coefficients and marginal effects

	Ologit	Very unhappy	Relatively unhappy	Not happy or unhappy	Relatively happy	Very happy
Education	0.0365*** (4.03)	-0.000454*** (-4.22)	-0.00210*** (-4.47)	-0.00376*** (-4.54)	0.000787*** (3.56)	0.00552*** (4.56)
Gender	-0.229*** (-5.44)	0.00265*** (5.04)	0.0122*** (5.55)	0.0219*** (5.58)	-0.00459*** (-4.20)	-0.0322*** (-5.60)
Age	0.0949*** (12.77)	-0.00103*** (-8.14)	-0.00475*** (-11.20)	-0.00853*** (-12.29)	0.00178*** (5.51)	0.0125*** (12.24)
Age2	-1.794*** (-10.89)	0.0197*** (7.59)	0.0911*** (9.89)	0.163*** (10.59)	-0.0342*** (-5.34)	-0.240*** (-10.55)
F_income	0.266*** (11.16)	-0.00286*** (-7.70)	-0.0132*** (-10.21)	-0.0237*** (-11.22)	0.00496*** (5.31)	0.0348*** (11.19)
Child	0.0803*** (3.79)	-0.000941*** (-3.76)	-0.00434*** (-3.97)	-0.00780*** (-3.97)	0.00163*** (3.34)	0.0115*** (3.98)
Party	0.220*** (3.15)	-0.00258*** (-3.18)	-0.0119*** (-3.31)	-0.0214*** (-3.31)	0.00447*** (2.86)	0.0314*** (3.33)
Health	0.466*** (17.95)	-0.00535*** (-9.12)	-0.0247*** (-15.04)	-0.0443*** (-19.29)	0.00927*** (5.79)	0.0651*** (18.76)
Marriage	0.463*** (7.48)	-0.00539*** (-6.22)	-0.0249*** (-7.48)	-0.0446*** (-7.75)	0.00934*** (4.80)	0.0655*** (7.74)
Urban	-0.196*** (-3.83)	0.00305*** (5.05)	0.0141*** (5.44)	0.0253*** (5.56)	-0.00529*** (-4.07)	-0.0371*** (-5.59)
N	9626	9626	9626	9626	9626	9626

t statistics in parentheses * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

② The maximum value of the variance expansion factor of the independent variables (excluding the square terms of the province and age) is 1.83, less than 10, the average value is 1.39, and less than 2, which indicates that the model does not have multicollinearity problems. Link test, the p value of hatsq It is 0.16, and the assumption that the hatsq coefficient is 0 is not rejected, so the model setting does not miss important explanatory variables.

5.2 Robustness Test

This article also uses logit model and OLS regression to perform a robustness test on the above results. In the logit model, happiness1 is used as the dependent variable, and in OLS regression, happiness2 is used as the dependent variable. The sign and significance of the regression results are basically the same. Due to the length of the article, no further reporting here.

6. Analysis of Mechanism

Education has a significant negative impact on residents' subjective well-being, so what is its mechanism of action? With reference to the existing literature, this article analyzes the mechanism from four aspects: social fairness perception, class mobility, social trust, and class perception. Due to the proxy variable of the four respect is ordered variable, we use order logit model to analyze them.

Table 5. Analysis of the effect of education on happiness

	Justice	Mobility	Trust	Stratum
Education	0.0257*** (3.10)	-0.0594*** (-6.99)	0.0572*** (6.59)	0.0925*** (11.32)
Gender	0.0280 (0.72)	-0.0182 (-0.46)	0.0617 (1.52)	-0.251** (-6.71)
Age	0.0602*** (8.97)	0.0129* (1.92)	0.0214*** (3.12)	0.0457*** (7.22)
Age2	-0.932*** (-6.23)	-0.302** (-2.01)	-0.0220 (-0.14)	-0.713*** (-5.01)
F_income	0.0163 (0.80)	0.00501 (0.25)	-0.0126 (-0.60)	0.401*** (20.32)
Child	0.0324* (1.78)	0.0264 (1.47)	0.0310* (1.69)	0.0627*** (3.57)
Party	0.0799 (1.17)	0.0259 (0.38)	0.155** (2.15)	0.331*** (5.02)
Health	0.152*** (7.84)	0.0302 (1.55)	0.145*** (7.26)	0.234*** (12.44)
Marriage	-0.0135 (-0.25)	0.0940* (1.69)	0.0770 (1.35)	0.324*** (6.11)
Urban	-0.431*** (-9.56)	-0.209*** (-4.57)	-0.424*** (-9.07)	-0.157*** (-3.66)
N	9626	9626	9626	9626

t statistics in parentheses * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

6.1 Social Justice

Empathy theory states that people have the ability to understand the emotions of others and to directly feel the psychological state of others. When facing some unfair phenomena or other people's unfair experiences, people may have an unfair feeling on society. Unfair feelings often produce negative emotions, including depression, resentment, and anger (Schweitzer and Gibson, 2008)^[16], and then affect subjective well-being. Education can change people's perceptions and cognitions of some things, allowing people to take a more comprehensive and objective view of some things, and will not simply summarize some things and individual social phenomena into social injustices. Therefore, it is possible to improve people's perception of social fairness. This article uses the question in the questionnaire-"Generally, do you think that society is unfair today?" As an indicator to measure the social justice of the respondents. The answer options are "1 = complete Unfair ", " 2 = more unfair ", " 3 = not fair or unfair ", " 4 = more fair ", " 5 = fully fair ". Ordered logit with education as the key explanatory variable Regression, the results are shown in Table 5. The lack of education has a positive impact on the perception of social equity.

6.2 Class Mobility Opportunities

Studies found that American society is highly mobile and European society is relatively low. Compared to poor Europeans, poor Americans believe that they can better improve their income and therefore have a higher sense of happiness (Alesina et al., 2004)^[17]. This reflects that people's happiness depends not only on their current income status, but also on their expectations of changing the status quo. The fairer the opportunity for social mobility, the higher the subjective well-being of individuals. Education in the class mobility plays an important role and is an important way for class mobility. The process of receiving education is also a process of pursuing opportunities for class mobility. However, due to the uneven distribution of educational resources in China, everyone's opportunities to enjoy high-quality education resources and receive higher-level education are not Equality, which may have an adverse effect on the perception of class mobility. Therefore, we examine the effect of education on perceptions of class mobility. Here, this article uses questions from the questionnaire-"In our society, the descendants of workers, farmers and other ordinary peoples have the same opportunities to become rich and have status. "as a measure of the possibility of class mobility, the options are" 1 = strongly agree "," 2 = agree "," 3 = indifferent ", "4 = disagree" and "5 = very disagree". The regression results (see Table 5) show that education has a significant negative impact on the opportunity for class mobility, significantly reducing people's expectation of the possibility of class mobility.

6.3 Social Trust

Social trust is an important aspect of social capital. Studies have shown that social capital has a positive impact on subjective well-being, and happiness can increase with greater trust in others and institutions (Bian et al. (2015)^[7]. How will education affect people's social trust? We select the question in the questionnaire-"Generally, do you agree that in this society, the vast majority of people can be trusted?" to test it. Options 1-5 indicate that they strongly disagree to strongly agree. The results (see Table 5) show that education does have a positive impact on people's perception of social trust. So it may mean that education can improve subjective well-being by affecting the social trust level of respondents.

6.4 Class Identification

Different social strata is formed by groups due to differences in their own development. Groups in the upper levels of society have more or less advantages in certain aspects, these advantages make them have a certain sense of psychological superiority and increase the level of individual spiritual pleasure. Therefore, the individual's happiness is improved. Education is a way to achieve class mobility and improve the human capital advantage of individuals. Generally speaking, the higher the level of education, the greater the possibility of obtaining higher income and higher social status. This article uses "What level do you think you are in?" as a test. The choice of the question is from the lowest level 1 to the highest level 10. As can be seen from Table 5, education can significantly help improve people's self-respect for themselves and awareness of the class they belong to, which can improve their sense of well-being.

7. Conclusions

This article uses the data from the China Comprehensive Social Survey (CGSS) in 2015 to empirically test the relationship between education and subjective well-being. The study found that education significantly enhanced residents' subjective well-being. Further research on its impact mechanism found that through improving respondents' perceptions of social equity, social trust, and class identification, education maybe enhance residents' subjective well-being. However, the level of education has a negative impact on class mobility opportunities, which may reduce the subjective well-being of residents to a certain extent. It is a fact that the children of farmers, workers and other ordinary people mainly achieve class mobility through education. However, due to the uneven distribution of educational resources, many groups that live at the bottom of society cannot receive

higher-level education. Therefore, it is possible to improve the perception of social equity, the social trust level, and prevent class solidification, which plays an important role in improving happiness of the society, by improving the distribution of educational resources and realizing the equality of educational development opportunities.

Acknowledgment

This research was financially supported by National Nature Science Foundation Grant: Behavioral and Neuro Economic Study on Asset Bubbles NO.71803037.

References

- [1]Chen Gang, Li Shu. How can the government make people happy? —— An empirical study on the quality of government affecting the happiness of residents [J]. *Management World*, 2012, (08): 55-67
- [2]Li Shu, Chen Gang. Employment Effect of Happiness——An Empirical Study on Happiness, Employment and Recessive Employment [J]. *Economic Research*, 2015, 50 (03): 62-74
- [3]Zhu Mingbao, Yang Yunyan. Happiness and Reproductive Will of Residents——An Empirical Study Based on CGSS2013 Data [J]. *Economic Trends*, 2017, (03): 52-61
- [4]Gori-Maia A. Relative Income, Inequality and Subjective Wellbeing: Evidence for Brazil [J]. *Social Indicators Research*, 2013, 113(3): 1193-1204.
- [5]Sun F, Xiao J J. Perceived Social Policy Fairness and Subjective Wellbeing: Evidence from China [J]. *Social Indicators Research*, 2011, 107(1): 171-186.
- [6]Wang Haicheng, Guo Min. The Impact of Informal Employment on Subjective Well-being——The Rationality of Labor Market Formalization Policy [J]. *Economic Trends*, 2015, (05): 50-59
- [7]Bian Y J, Zhang L, Yang J K, et al. Subjective Wellbeing of Chinese People: A Multifaceted View [J]. *Social Indicators Research*, 2015, 121(1): 75-92.
- [8]Liu Z Q, Shang Q Y. Individual Well-Being in Urban China: The Role of Income Expectations [J]. *China Economic Review*, 2012, 23(4): 833-849.
- [9]Oishi S, Kesebir S, Diener E. Income Inequality and Happiness [J]. *Psychological Science*, 2011, 22(9): 1095-1100.
- [10]Chen Chibo, Li Chenghao. Research on Income Inequality, Redistribution Preference and Residents' Subjective Well-being [J]. *Financial Research*, 2016, (12): 64-77
- [11]Yang Yinan, Zhang Shangfeng. Inequality of Income, Social Insurance and Chinese National Happiness [J]. *Financial Research*, 2016, (08): 34-50
- [12]Li Jiangyi, Li Han, Gan Li. Family Assets-Liabilities and Happiness: An Explanation of the "Happiness-Income" Mystery [J]. *Nankai Economic Research*, 2015, (05): 3-23
- [13]Huang Jiawen. An empirical analysis based on cgss2005 on education level, income level and happiness of Chinese urban residents [J]. *Society*, 2013, 33 (5): 181-203
- [14]Pedro Conceicao, Romina Bandero, Lu Yanhua. Literature review on subjective well-being [J]. *Foreign Theoretical Trends*, 2013, (07): 10-23
- [15]Wu Bingjin. Income, Social Class Identity, and Subjective Well-being [J]. *Statistical Research*, 2012, 29 (10): 64-72
- [16]Gibson MESDE. Fairness, Feelings, and Ethical Decision-Making: Consequences of Violating Community Standards of Fairness [J]. *Journal of Business Ethics*, 2008, 77(3): 287-301.
- [17]Alesina A, Di Tella R, Macculloch R. Inequality and Happiness: Are Europeans and Americans Different? [J]. *Journal of Public Economics*, 2004, 88(9-10): 2009-2042.