



GLOBAL JOURNAL OF ADVANCED RESEARCH
(Scholarly Peer Review Publishing System)

IMPACT OF INCOME ON SUBJECTIVE WELL-BEING: DUAL INTERMEDIARY MECHANISM FOR FAMILY ECONOMIC SATISFACTION AND SENSE OF LIFE CONTROL

Weijie Wan

Beijing Key Laboratory of Applied Experimental Psychology,
National Demonstration Center for Experimental Psychology Education (Beijing Normal University),
Faculty of Psychology, Beijing Normal University, Beijing,
China

ABSTRACT

Present study explores the impact of income on the two dimensions of subjective well-being (happiness and life satisfaction) and how that impact has changed over time in Chinese and American culture. In addition, it also explores the mediation mechanism of family economic satisfaction and sense of life control in the impact of income on subjective well-being. The results show that: (1) The dual intermediary model is stable across countries and across time; and the impact of income on sense of control can be fully explained by family economic satisfaction. (2) In the same country, the higher the income is, the higher happiness and life satisfaction will be. (3) America's happiness and life satisfaction are significantly higher than those of China. (4) In Chinese culture at different times, although income can significantly predict happiness and life satisfaction, the predicted effect of income on the life satisfaction and happiness in 2012 is smaller than that in 2007.

KEY WORDS: income; subjective well-being; family economy satisfaction; sense of life control

1. INTRODUCTION

Subjective well-being can be defined as a positive assessment of life and a good feeling (Pinquart & Sörensen, 2000). Subjective well-being can be measured in many ways, including life satisfaction and happiness. They represent a cognitive assessment of their own state of life and an overall assessment of their own emotions (Kozma, Stones, & McNeil, 1991). Studies have shown that life satisfaction



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is a long-term, steady subjective well-being, while pleasure is short-term which is changing with the situation (George, 1979).

Family economic income as an important indicator of people's living standards has an important impact on life satisfaction. Previous studies have found that in the same country, high-income people are happier than low-income people, while developed countries are significantly more happy than developing countries (Deiner, Suh, Lucas, & Smith, 1999; Easterlin, 1995). And for some countries, their life satisfaction is to some extent stable (Ed Diener, Oishi, & Lucas, 2003). However, higher incomes can enhance the sense of well-being of the poor, but it only have a very limited increase in the well-being of the rich. In the past, people usually held the views that increasing their income could improve their subjective well-being. However, studies have found that the increase of income rather than absolute income can bring people a sense of subjective well-being (Dorn, Fischer, Kichgässner, & Sousa-Poza, 2007; Ferrer-i-Carbonell, 2005; Luttmer, 2004). In addition, a high level of income expectations for residents will have a negative predictive effect on subjective well-being (Stutzer, 2004).

Financial Satisfaction can be defined as a state of mind that is free of anxiety and freedom from material conditions such as family economic well-being, family well-being and non-material (economic security) (Davis & Helmick, 1985; Williams, 1983). Joo and Grable (2004) summarize factors that may affect financial satisfaction include demographics and social factors (eg. gender, age, marital status, educational level, etc.), economic pressures (eg. economic pressure from legal disputes, disability, maternity, etc.), economic activities (eg. savings, credit card debt, etc.), economic solvency, economic attitudes (eg. economic status compared with others, risk tolerance, etc.), and economic knowledge. To sum up, it can be seen that the factors that affect financial satisfaction are not limited to the income itself, but also relate to the individual's personality and environment.

Previous studies have proposed many theoretical models about the impact of income on well-being. Veenhoven and Ehrhardt (1995) proposed Livability Theory. The theory is that income growth will only improve people's subjective well-being by meeting people's basic needs (such as, clothes and goods) to a certain extent. Therefore, the impact of income growth on well-being is higher in developing countries than in developed countries. Later researchers expanded the theory of survival based on the hierarchy of Needs Theory (Maslow, Frager, Fadiman, McReynolds, & Cox, 1970). The Expanded Theory holds that for those who earn more than their basic needs, increased income can only increase happiness when doing things can be self-fulfilling (Edward Diener & Oishi, 2000).

In addition, Social Comparative Theory can also explain the impact of income on happiness. Easterlin (1974) argues that whether their income can satisfy themselves depends on the comparison with others. If a middle-class is compared with rich people, they are more likely to be dissatisfied with their own life; if the middle class is compared with poor people, they are more inclined to be more satisfied with their own life. And people tend to compare the incomes of those around them in their own country, rather than comparing the earnings of others in other countries.

Range-Frequency Theory holds that people's response to current events is based on their past experiences (Parducci, 1995). Therefore, if the individual's current income is higher than the past income, then he will have the happiness enhancement.

Culture Approach explains the differences in the impact of income on subjective well-being among different countries. The view is that income partly depends on subjective well-being in terms of values specific to culture, whether income is seen as an important value in



that culture (Edward Diener & Oishi, 2000).

People have many common needs, such as food, clothing, medicine, education. Having enough money means that people have the freedom to choose. Free choice is an important part of a sense of control and a foundation of well-being (Inglehart, Foa, Peterson, & Welzel, 2008; Markus & Schwartz, 2010). In many societies, people view life-control as equally important as economic security, and freedom is more crucial in an economy that grows socially (Sen, 2001).

Based on the above literature, we can find that relative income compared to absolute income can better predict subjective well-being. From the perspective of Social Comparative Theory, we are always compared with those in the same country; and according to Maslow's Survival Theory, we have five levels of needs: physical, security, affection, belonging, respect, self-fulfilling. Money can not only provide us with food, but also bring medical protection to us. It can also help us to fulfill ourselves, such as study abroad. This means that money can meet our needs at multiple levels. However, people's needs are different. Some needs can be obtained with money, while other needs can not be obtained with money. Regardless of the level of an individual's income, he / she will have better family financial satisfaction if his / her income meets needs. And only when people are satisfied with their family economy, they can more calmly and freely face life choices, that is, have a higher sense of control of life. Family satisfaction with life satisfaction and life control can predict happiness. Therefore, we propose to double the subjective well-being income income model, the model diagram shown in Figure 1, Figure 2. However, since the family financial satisfaction and life control are all cognitive factors, their predictability of life satisfaction (cognitive subjective well-being) will be better than happiness (emotional subjective well-being). In addition, we predict that the model is cross-temporal and cross-country coherent. Under the American culture, the model is also valid at different times. However, the United States has a higher subjective well-being than China because its family income is higher than that of China. In China's rapid economic development in recent years, according to the National Bureau of Statistics (<http://data.stats.gov.cn>), China's per capita disposable income of urban residents in 2012 was 24,564.7 yuan higher than in 2007 Per capita disposable income of residents is 13785.8 yuan. So we predict 2012 subjective well-being is higher than in 2007 subjective well-being in China.

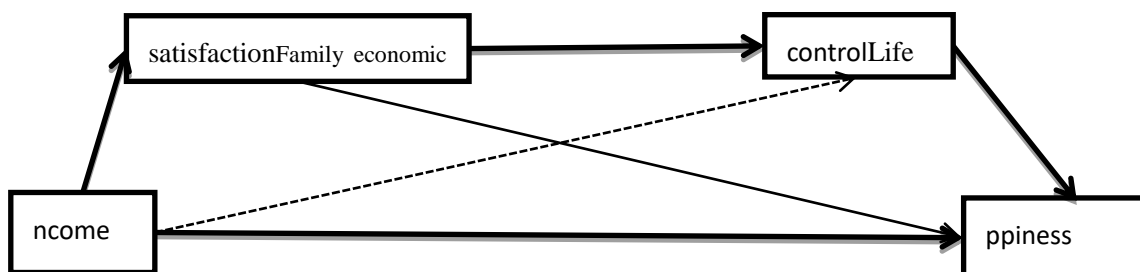


Fig.1 Double mediation model with the result of happiness as the result

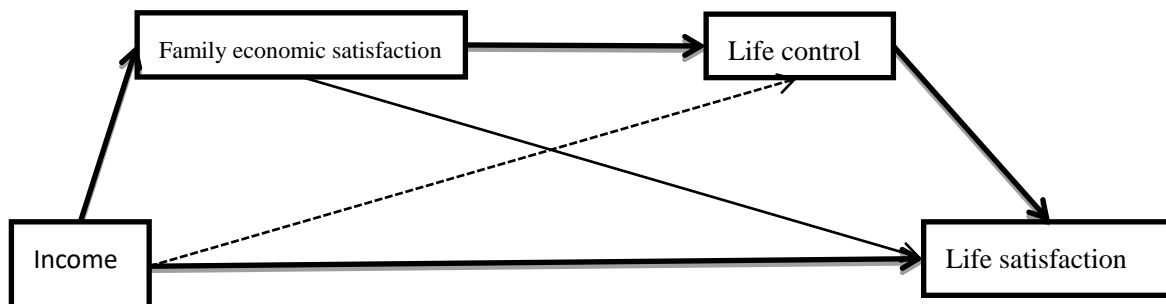


Fig.2 Double mediation model with the result of life satisfaction as the result

2. METHODS

2.1 Participants and processes

Over the past few decades, more than 1,000 papers have been published based on data from the World Values Survey. From 1981 to 2014, the World Values Survey conducted a total of six values worldwide survey. The 6th World Values Survey covers 57 countries in the world with more than 85,000 research participants. For more publications, presentations and discoveries related to the World Values Survey click on <http://www.worldvaluessurvey.org/>.

This study focuses on the results of the 5th and 6th survey data from China and the United States. Among them, the two surveys in China were conducted in 2007 and 2012 respectively, while the two surveys in the United States were conducted in 2006 and 2011 respectively. In the 5th survey of China, the number of subjects was 1991, with an average age of 44.72 years (SD = 13.314; 18-70 years), of which 908 were males and 1083 were females. The number of participants in the 6th survey in China was 2300, with a mean age of 43.92 years (SD = 14.947; 18-75 years), including 1126 males and 1174 females; and the United States of America's 5th survey of 1249 subjects with an average age of 47.96 years (SD = 17.025; 18-91 years old), of whom 625 were males and 624 were females; the number of subjects surveyed in the 6th survey in the United States was 2232, with an average age of 48.91 years (SD = 16.906; 18-93 years), including 1084 males and 1148 females.

2.2 Research tools

The measurement of subjective well-being can be divided into two sub-scales of happiness and life satisfaction. One of the happiness is the 4-point scale ("Think all things right now, are you currently living a happy life?" happy (1) to very unpleasant (4)), 10 points for life satisfaction (" Taking into account, in general, are you satisfied with your current life? "very dissatisfied (1) to very satisfied (10)). Family Financial Satisfaction ("Are you satisfied with your family's financial situation?" 10 points, very dissatisfied (1) to very satisfied (10)). Sense of life control ("Do you think how far you can choose and master your life?" 10 points, means no control at all (1) to mean to complete control (10)). Income ("If the average household income of people across the country divide into ten equal parts, 1 represents the lowest family income, 10 represents the highest family income, please select a number on the scale to indicate your family's family income level. ").



3. RESULTS

3.1 Descriptive Analysis

Table 1 shows the mean and standard deviation of the observed variables in China and the United States. Results show that in the two surveys, the average value of the United States in terms of pleasure, life satisfaction, family income satisfaction, income and life control is higher than that of China. For China, 2012 national pleasure, life satisfaction, family economic satisfaction, average income were higher than in 2007. As for the sense of control, the average for 2012 is lower than that of 2007. Table 2 shows the correlation matrix for all observed variables in this study.

Table 1 Mean and standard deviation of observed variables at different times in China and the United States

	China				The United States			
	2007 (the 5 th time)		2012 (the 6 th time)		2006 (the 5 th time)		2011 (the 6 th time)	
	M	SD	M	SD	M	SD	M	SD
1.Happiness	2.94	0.75	3.01	0.59	3.28	0.60	3.26	0.64
2.Life satisfaction	6.76	2.40	6.86	1.99	7.26	1.77	7.44	1.86
3.Family economic satisfaction	5.92	2.57	6.22	2.00	5.98	2.32	6.30	2.40
4.Income	3.96	1.86	4.42	1.85	5.04	1.86	5.17	1.91
5.Sense of life control	7.23	2.34	7.14	2.01	7.69	1.74	7.76	1.78

Table 2 Correlation matrix of all observed variables in this study

	1	2	3	4	5
1.Pleasures					
2.Life satisfaction	0.550**				
3.Family economic satisfaction	0.399**	0.557**			
4.Income	0.257**	0.300**	0.428**		
5.Sense of life control	0.349**	0.464**	0.374**	0.215**	

Note : p<0.01, ** ; p<0.001, ***



3.2. Double intermediary model test

3.2.1 Income on the happiness

This study uses M-plus software to test the intermediary role of family economic satisfaction and sense of life control based on the data of China in 2012 with the result of happiness as the outcome variable. The model of Figure 1 is evaluated. First, we use income to directly measure the happiness and get $\beta = 0.198$, $t = 8.616$, $p < 0.001$, $\eta^2 = 0.039$, indicating that income can positively predict happiness. Subsequently, taking happiness as the dependent variable, income as the independent variable, joining the family economic satisfaction and life control as intermediary variables, using M-plus to analyze the dual intermediary model, the income can significantly positively predict the family economic satisfaction ($\beta = 0.380$, $t = 18.044$, $p < 0.001$, $\eta^2 = 0.144$), the family economic satisfaction could significantly predict the sense of life control ($\beta = 0.436$, $t = 15.345$, $p < 0.001$, $\eta^2 = 0.197$). Family economic satisfaction positively predicted happiness ($\beta = 0.325$, $t = 11.875$, $p < 0.001$, $\eta^2 = 0.086$), while income did not have a significant predictive effect on sense of life control ($\beta = 0.020$, $t = 0.840$, $p = 0.401$, $\eta^2 = 0.000$). At this point, the predicted effect of income on happiness was no longer significant ($\beta = 0.041$, $t = 1.880$, $p = 0.060$, $\eta^2 = 0.002$). Model diagram is shown in Figure 3:

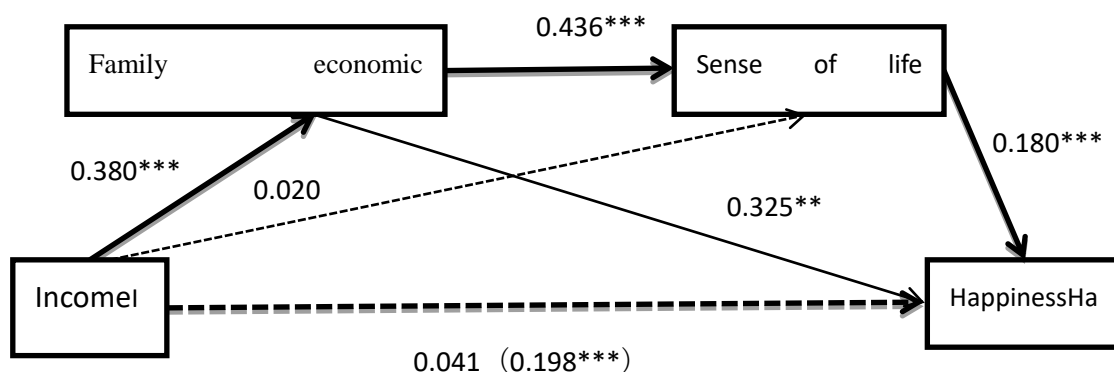


Figure 3 Double mediation model with happiness as result variable (China 2012)

The samples are randomly sampled 1000 times using the Bootstrap method. Based on this, the intermediary role of household economic satisfaction and sense of life control is tested (Wenzhong Lin and Ye Bajuan, 2014). The results shows that the bootstrap interval of dual intermediary of family economic satisfaction and sense of life control is [0.021,0.039], and the mediation effect range of family economic satisfaction is [0.101,0.146].

3.2.2 Income satisfaction with life

In this study, M-plus software is used to test the intermediary role of family economic satisfaction and sense of life control based on the data of China in 2012. The life satisfaction as the outcome variable to evaluate the model shows in Figure 2. Similarly, direct regression of life satisfaction with income gives $\beta = 0.248$, $t = 11.265$, $p < 0.001$, $\eta^2 = 0.061$, indicating that income can positively predict life satisfaction. Subsequently, taking life satisfaction as dependent variable, income as independent variable, joining family economic



satisfaction and life control as intermediary variables, using M-plus for dual intermediary model analysis, income can significantly predict family economic satisfaction ($\beta = 0.377, t = 17.350, p < 0.001, \eta^2 = 0.142$). Family economic satisfaction could significantly predict the sense of life control ($\beta = 0.432, t = 14.735, p < 0.001, \eta^2 = 0.192$). Family economic satisfaction significantly positively predicts life satisfaction ($\beta = 0.248, t = 9.828, p < 0.001, \eta^2 = 0.078$). Family economic satisfaction significantly positively predicts life satisfaction ($\beta = 0.488, t = 19.214, p < 0.001, \eta^2 = 0.227$), while income does not predict the lifestyle control significantly ($\beta = 0.015, t = 0.627, p = 0.531, \eta^2 = 0.000$). At this point, the effect of income on life satisfaction is no longer significant ($\beta = 0.020, t = 1.053, p = 0.292, \eta^2 = 0.001$). The model is shown in Figure 4:

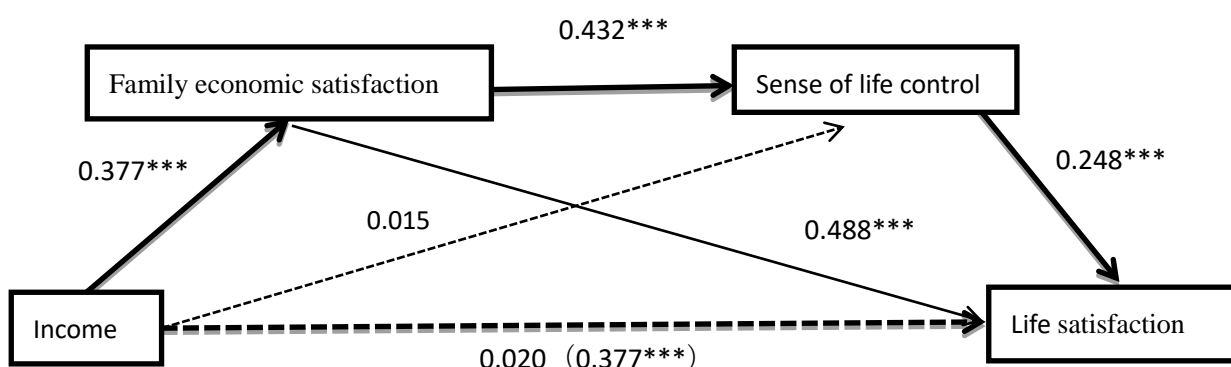


Fig.4 Double mediation model with life satisfaction as the outcome variable (China 2012)

The Bootstrap method is used to randomly sample the samples 1000 times. The results show that the bootstrap interval of [0.030,0.051] and the intermediary effect range of family economic satisfaction [0.157,0.211].

3.3 China and the United States comparison

3.3.1 Happiness as a result of regression Analysis

With income as the independent variable and happiness as the dependent variable, the regression analysis is carried out by the countries as the regulatory variables. The main effect of income is significant ($\beta = 0.198, t = 9.549, p < 0.001, \eta^2 = 0.021$) and the main effect of the country is significant ($\beta = -0.170, t = -11.248, p < 0.001, \eta^2 = 0.029$), The interaction between the two is not significant ($\beta = -0.015, t = -0.728, p = 0.466, \eta^2 = 0.000$). The result finds that China and the United States differed across multiple models of the model. So we needed to re-use the model for the American participants Analyze.

3.3.2 Simple effect test (US Model)

This study uses the M-plus software to test the intermediary role of the family economic satisfaction and sense of life control, which is based on the data of the United States in 2011 with the result of happiness as the outcome variable. The model of Figure 1 is evaluated. First, using income to directly measure the pleasure, we get $\beta = 0.065, t = 9.149, p < 0.001, \eta^2 = 0.037$, indicating that income can positively predict happiness. Subsequently, taking happiness as the dependent variable, income as the independent variable, joining the



family economic satisfaction and sense of life control as intermediary variables, using M-plus to analyze the dual intermediary model. The income can significantly positively predict the family economic satisfaction ($\beta = 0.504, t = 24.675, p < 0.001, \eta^2 = 0.254$). Family economic satisfaction could significantly predict the sense of life control ($\beta = 0.371, t = 14.122, p < 0.001, \eta^2 = 0.148$). Family economic satisfaction is significantly positively predictive of happiness ($\beta = 0.310, t = 12.860, p < 0.001, \eta^2 = 0.297, t = 12.174, p < 0.001, \eta^2 = 0.078$), while income does not have a significant predictive effect on sense of life control ($\beta = 0.028, t = 1.128, p = 0.259, \eta^2 = 0.001$). At this point, the predicted effect of income on happiness is no longer significant ($\beta = 0.028, t = 1.229, p = 0.219, \eta^2 = 0.001$). Model diagram is shown in Figure 5:

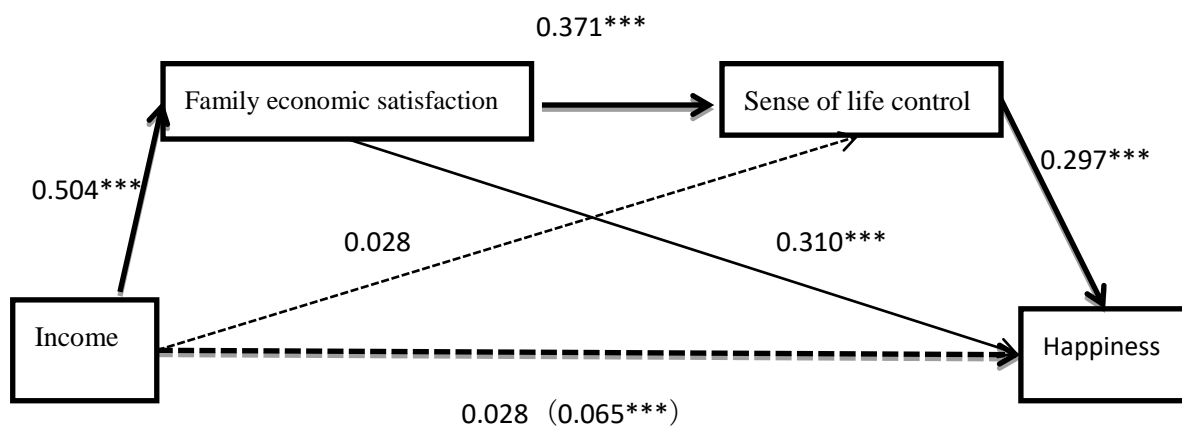


Figure 5 Double mediation model with happiness as result variable (USA 2011)

The Bootstrap method is used to randomly sample 1000 times. The results shows that the bootstrap interval of [0.043,0.068] and the intermediate effect range of family economic satisfaction [0.131,0.181].

3.3.3 Life satisfaction as the outcome of the regression analysis

Regression analysis is conducted with income as the independent variable, life satisfaction as the dependent variable, and the country as the regulatory variable. The main effect of income is significant ($\beta = -0.234, t = 14.294, p < 0.001, \eta^2 = 0.047$), the main effect of the country is significant ($\beta = -0.103, t = -6.876, p < 0.001, \eta^2 = 0.011$) and the interaction is significant ($\beta = -0.038, t = -1.867, p = 0.062, \eta^2 = 0.001$). In the same , we have listed the U.S. model because of the state's regulatory role found in multiple paths to the model.

3.3.4 Simple effect test (US Model)

In this study, M-plus software is used to test the intermediary role of family economic satisfaction and sense of life control based on the data of the United States in 2011 and the life satisfaction as the outcome variable. The model of Figure 2 is evaluated. First, direct regression of life satisfaction with income gives $\beta = 0.296, t = 14.901, p < 0.001, \eta^2 = 0.093$, indicating that income can positively predict life satisfaction. Subsequently, taking life satisfaction as dependent variable, income as independent variable, joining family economic satisfaction and life control as intermediary variables, using M-plus for dual intermediary model analysis. The result shows that income



can significantly predict household economic satisfaction ($\beta = 0.504, t = 24.203, p < 0.001, \eta^2 = 0.254$). Family economic satisfaction could significantly predict the sense of life control ($\beta = 0.371, t = 14.919, p < 0.001, \eta^2 = 0.148$). Family economic satisfaction significantly positively predicts life satisfaction ($\beta = 0.389, t = 17.442, p < 0.001, \eta^2 = 0.177$). Family economic satisfaction significantly positively predicts life satisfaction ($\beta = 0.349, t = 14.590, p < 0.001, \eta^2 = 0.119$), while income has no significant predictive effect on life control ($\beta = 0.029, t = 1.167, p = 0.243, \eta^2 = 0.001$). At this point, income significantly positively predicts life satisfaction ($\beta = 0.045, t = 2.207, p = 0.027, \eta^2 = 0.003$). Model diagram is shown in Figure 6:

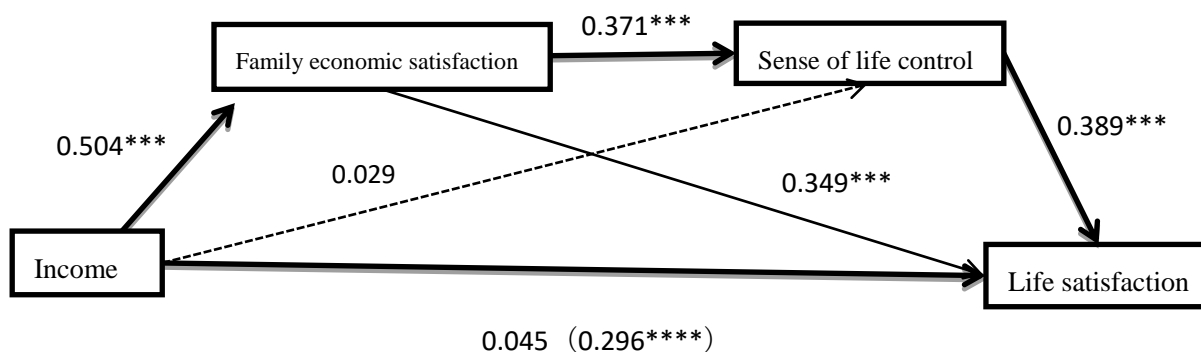


Figure 6 Double mediation model with life satisfaction as outcome variable (USA 2011)

The Bootstrap method is used to randomly sample 1000 times. The results shows that Bootstrap interval of [0.059,0.086] and intermediary effect range of family economic satisfaction is[0.148,0.203].

3.4 China's comparison between 2012 and 2007

3.4.1 Happiness as a result of regression analysis

Regression analysis is conducted with income as an independent variable, happiness as dependent variables, time as a regulatory variable. The main effect of income is significant ($\beta = 0.338, t = 13.781, p < 0.001, \eta^2 = 0.050$) and the main effect of time is not significant ($\beta = 0.016, t = 0.975, p = 0.329, \eta^2 = 0.000$). Interaction between the income and time is significant ($\beta = -0.131, t = -5.364, p < 0.001, \eta^2 = 0.008$). The simple slope test shows that in 2007, income can significantly predict happiness ($\beta = 0.305, t = 11.998, p < 0.001, \eta^2 = 0.093$); in 2012, income can also predict happiness ($\beta = 0.198, t = 8.616, p < 0.001, \eta^2 = 0.039$). Therefore, we can find that the income forecast for happiness in 2012 is less than that in 2007. In addition, because of the temporal regulation found on multiple paths to the original model, we list the 2007 China model.

3.4.2 China model in 2007

In this study, M-plus software is used to test the intermediary role of family-based economy and lifestyle control based on the data of China in 2007 with the result of happiness as the outcome variable. The model of Figure 1 is evaluated. First, using income to directly measure the happiness, we get $\beta = 0.119, t = 12.295, p < 0.001, \eta^2 = 0.088$, indicating that income can positively predict happiness.



Subsequently, taking happiness as the dependent variable, income as the independent variable, joining the family economic satisfaction and sense of life control as intermediary variables, using M-plus to analyze the dual intermediary model. Results show that the income can significantly positively predict the family economic satisfaction ($\beta = 0.400$, $t = 16.249$, $p < 0.001$, $\eta^2 = 0.160$). The family economic satisfaction could significantly predict the sense of life control ($\beta = 0.336$, $t = 10.940$, $p < 0.001$, $\eta^2 = 0.124$). Family economic satisfaction is significantly positively predictive of happiness ($\beta = 0.313$, $t = 10.842$, $p < 0.001$, $\eta^2 = 0.088$), while income has no significant predictive effect on sense of life control ($\beta = 0.044$, $t = 1.550$, $p = 0.121$, $\eta^2 = 0.002$). At this point, income can significantly predict happiness ($\beta = 0.151$, $t = 6.059$, $p < 0.001$, $\eta^2 = 0.024$). Model diagram is shown in Figure 7:

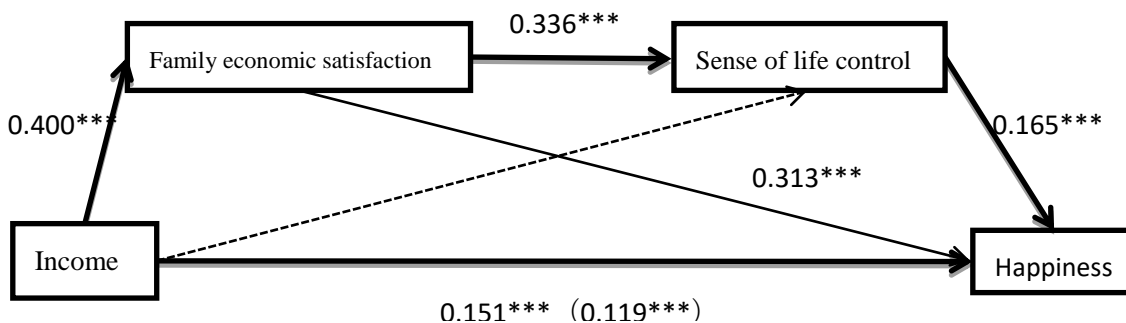


Figure 7 Double mediation model with happiness as result variable (China 2007)

The Bootstrap method is used to randomly sample 1000 times. The results show that the bootstrap interval of [0.013,0.032] and the intermediary effect range of family economic satisfaction [0.099,0.151].

3.4.3 Life satisfaction as the outcome of the regression analysis

Regression analysis was conducted with income as independent variable and life satisfaction as dependent variable, time (0 in 2004-2009 and 1 in 2010-2014). The main effect of income was notable ($\beta = -0.014$, $t = -0.869$, $p = 0.385$, $\eta^2 = 0.000$) with significant effect of income ($\beta = 0.341$, $t = 13.896$, $p < 0.001$, $\eta^2 =$), The interaction between the two was significant ($\beta = -0.100$, $t = -4.107$, $p < 0.001$, $\eta^2 = 0.005$). Simple slope tests show that in 2007 income was significantly predictive of life satisfaction ($\beta = 0.317$, $t = 12.295$, $p < 0.001$, $\eta^2 = 0.100$); in 2012, income also predicted life satisfaction ($\beta = 0.248$, $t = 11.265$, $p < 0.001$, $\eta^2 = 0.061$). Therefore, we can also find that the predicted effect of income on life satisfaction is diminished in 2012 compared with 2007. Because of the temporal regulation found on multiple paths to the original model, we list the 2007 China model.

3.4.4 2007 China model

In this study, M-plus software is used to test the intermediary role of family economic satisfaction and sense of life control based on the data of China in 2007, and the life satisfaction as the outcome variable. The model of Figure 2 is evaluated. First, direct regression of life satisfaction with income gives $\beta = 0.395$, $t = 12.681$, $p < 0.001$, $\eta^2 = 0.093$, indicating that income can positively predict life satisfaction. Subsequently, taking life satisfaction as dependent variable, income as independent variable, joining family economic satisfaction and



life control as intermediary variables, using M-plus for dual intermediary model analysis, income can significantly predict family economic satisfaction ($\beta = 0.401, t = 16.940, p < 0.001, \eta^2 = 0.161$). The family economic satisfaction could significantly predict the lifestyle control ($\beta = 0.340, t = 12.299, p < 0.001, \eta^2 = 0.128$). Family economic satisfaction significantly positively predicts life satisfaction ($\beta = 0.218, t = 7.779, p < 0.001, \eta^2 = 0.064$) and family economic satisfaction significantly positively predicted life satisfaction ($\beta = 0.476, t = 16.792, p < 0.001, \eta^2 = 0.221$), while income has no significant predictive effect on life control ($\beta = 0.045, t = 1.636, p = 0.102, \eta^2 = 0.002$). At this point, income significantly positively predicts life satisfaction ($\beta = 0.087, t = 3.916, p < 0.001, \eta^2 = 0.010$). Model diagram is shown in Figure 8:

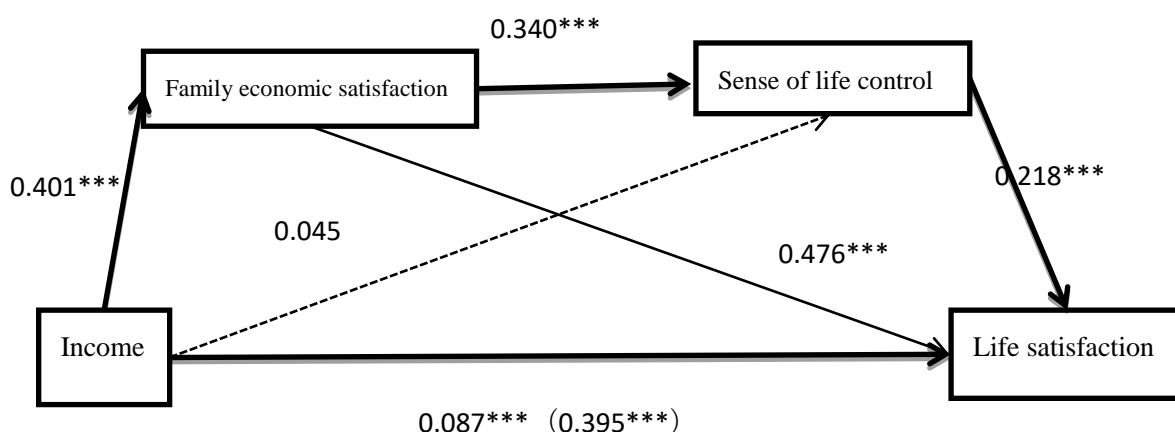


Figure 8 Double mediation model with life satisfaction as the outcome variable (China 2007)

The Bootstrap method is used to randomly sample 1000 times. The results show that the bootstrap interval of [0.020,0.039] and the intermediary effect range of family economic satisfaction is [0.161,0.221].

4. DISCUSSION

This study explores the impact of income on subjective well-being at different times and from different countries, and the intermediary role of family economic satisfaction and sense of life control. By analyzing the data of China and the United States at different times, the study finds that the dual intermediary model is stable and that the impact of income on sense of life control can be completely explained by family economic satisfaction.

The impact of income on happiness and life satisfaction is rather complicated: for China in the 6th survey, family economic satisfaction and lifestyle control fully mediated the impact of income on pleasure or income on life satisfaction. In China, In the five surveys, family economic satisfaction and lifestyle control partially mediated the impact of income on happiness or income on life satisfaction. As national disposable income grows, the direct effect of money on people disappears. Because economic growth has a greater impact on the poor (Ed Diener et al., 2003). In addition, this study finds that in the 6th survey of the United States, family economic satisfaction and sense of life control completely mediated the impact of income on happiness, but only some of the intermediary income on life



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satisfaction. This may be because income as an objective factor is associated with cognitive well-being (life satisfaction).

In addition, this study also finds that both in China and the United States, the higher the income, the higher the sense of happiness and life satisfaction. That is, higher incomes and higher levels of well-being in the same country. This result is consistent with the findings of Helliwell, Layard and Sachs (2013). In addition, previous studies have found that life satisfaction in rich countries is higher than in poorer countries (Edward Diener & Oishi, 2000), while the United States, as a developed country, has a higher level of economic development than China. This just supports the findings of present study that the United States has significantly higher levels of happiness and life satisfaction than China. The result is also likely to be that Chinese people rate subjective well-being even lower because of the less self-serving bias of East Asians compared to Westerners (Heine, Takata, & Lehman, 2000).

Finally, this study also finds that while incomes significantly predict happiness and life satisfaction at different time-scales in China. However, the effect of income on happiness and life satisfaction is less in 2012 than in 2007. Kahneman and Deaton (2010) found that when the family income exceeds a certain level (the United States is \$ 75,000), the impact of increased income on the emotional well-being of individuals will be affected by the individual's personality and the environment. This may be because as China's economy grows, per capita incomes have been raised, and the impact of the economy on happiness has lessened.

This study uses the United States and China as an example to compare the impact of income on subjective well-being in developed and developing countries. Because of the sampling specification, the sample size is large and the result has strong credibility. In addition, the study shows for the first time that there is an intermediary role between family income satisfaction and life control in income and subjective well-being, which helps psychologists and economists to understand the impact of income on subjective well-being.

5. CONCLUSION

This study has the following conclusions: (1) Family income satisfaction and sense of life control have an intermediary role between income and subjective well-being. (2) The subjective well-being of the United States is significantly higher than that of China. (3) Subjective well-being of Chinese residents in 2012 increased significantly from 2007.

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