

DISCUSSION PAPER SERIES

IZA DP No. 15315

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## ABSTRACT

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# Influence of Freedom of Choice on Happiness

The literature on happiness shows that there are many factors that influence a person's happiness. Extending previous studies, we investigate the role of the freedom of choice as a key contributing construct in influencing a person's happiness. We define two hypothetical sub-constructs for the freedom of choice to fully develop a model of happiness. We name those hypothetical sub-constructs (latent variables) as volitional and non-volitional choices, each of which is measured by a variety of indicators (observed variables). The selected indicators are mainly from the social dimensions of happiness within working and living environments, which affect the quality-of-life people enjoy. We use the structural equation modeling approach to test our model. We restrict our empirical studies to four East Asian countries, which are South Korea, Japan, Taiwan, and China. The obtained results of this study, confirm that happiness tends to be closely related to interpersonal connectedness and individuals' experiences within shared relationships in certain countries. Our findings open new insights on how happiness can be considered as an emerging outcome of the interplay between personal characteristics and societal interactions. Findings of this study can be applied in empowering the cognitive dimension of social capital within an organization.

**JEL Classification:** C50, D71, E24, J24, O34

**Keywords:** hedonic and eudemonic approaches, freedom of choice, happiness, structural equation modelling, East Asia region, cognitive social capital

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## 1. Introduction

Happiness is perhaps the oldest dream of mankind and it is one of the most fundamental questions of philosophy (Guignon 1999, Russell 2006, Russell 2013). Happiness can mean many different things for different people in different cultures, and at different times in history.

The concept of happiness cannot be measured directly, as one could consider it to be affected by variety of factors. Some people think, it is having money, some think it is having pleasure, some think it relates to having some kind of virtue, for some it is the welfare or health of a person, and some think it is the result of personal fulfillment in achieving one's goals. At the same time, people are frequently mistaken about the things that they think will make them happy, because it requires to make correct predictions about the future. As happiness is a philosophical question, this question may never have an answer.

Consequently, there is no one definition of happiness. However, happiness can be considered as a mental or emotional state of well-being. Well-being is a complex concept that describes a state of optimal experience and functioning (Ryan and Deci 2001). Current research on well-being has been derived from two general perspectives, which are of great theoretical and practical importance: the hedonic approach (e.g., the experience of pleasure) (Kahneman, Diener et al., 1999, Ryan and Deci 2001) and the eudaimonic approach (e.g., the experience of meaning). There is a substantial amount of disagreement as to whether we should describe happiness in eudaimonic or hedonistic terms (McMahan and Estes 2011a, McMahan and Estes 2011b). The hedonic approach focuses on happiness and defines well-being in terms of pleasure attainment and pain avoidance. For instance, some people associate happiness with having lots of wealth and spending as much time as they can socializing with friends. The eudaimonic approach focuses on the pursuit of personal fulfillment and a realizing of man's potentials (Ryff and Keyes 1995), meaning and self-realization (Ryff 1989). Volunteering to help others, for example, would improve well-being because it is contributing to one's own community. Likewise, the pursuit of knowledge is also eudaimonic because it makes a person more capable and well-informed. Existing empirical research indicates the fact that the eudaimonic approach may be more important than the hedonic approach (McMahan and Estes 2011b). As it has been shown in some empirical studies (Steger et al., 2008), daily eudaimonic activities were found to be more robustly associated with well-being than behaviors aimed at experiencing pleasure or obtaining material goods. Ryff and Keyes (1995) presented a multidimensional approach to the measurement of psychological well-being that considers six distinct aspects of human actualization which are autonomy, personal growth, self-acceptance, life purpose, mastery, and positive relatedness.

The literature on happiness and wellbeing considers that there is some degree of overlapping between the hedonic and the eudaimonic paradigm. Classical conceptions of well-being or happiness describe both hedonic and eudaimonic aspects (King and Napa 1998). Several studies show that well-being is probably best conceived as a multidimensional phenomenon. For example, in one study the relation among 18 indicators of well-being and mental health was investigated and the results showed that the two identified factors (i.e., subjective well-being (the hedonic approach) and psychological well-being or personal growth (the eudaimonic approach)) were moderately correlated (Compton et al., 1996). Diener and Biswas-Diener (2011) outlined five indicators that contribute to happiness: social relationships, temperament/adaptation, money, society and culture, and positive thinking styles.

Ideally, for a matter of sensitivity analysis we should pursue multiple approaches to measure well-being. When such approaches are complementary to each other, they produce effective research interventions. Furthermore, the ways in which people seek happiness differ across cultures. Therefore, further cross-cultural studies are needed to provide the important evidence on the selection of right indicators of happiness.

Extending previous studies, in this study, we investigate the role of the freedom of choice as a key contributing construct in influencing a person's happiness. The argument here is that our experiences in life can make us happy or miserable. Furthermore, our experiences are determined, for the most part, by choices that we make for ourselves (volitional), or by the choices others make (non-volitional) that affect our lives. Individuals are allowed to make their own choices and decisions about their life and this way they gain experience and learn how to make the choices that are necessary to make them happy. However, most of our life experiences involve other individuals. It is based on the wish of others to help and support us in our daily lives.

In terms of volitional choice, we aim to show that the more individuals become aware of their level of social tolerance towards others, the more they experience happiness. This is of particular importance in social structures that preserve unequal power relationships among individuals (Haller and Hadler, 2006). Organizations, for example, have hierarchies (i.e., divisions, units, teams) to govern action within the organization. This in turn forms a hierarchical structure of power in which key positions are possessed only by leaders. Workers may also express decreased job satisfaction and be more likely to quit if they must tolerate managers that do not have the capacity to handle interpersonal relationships judiciously and empathetically (Sy, Tram and O'Hara, 2006). Other scholars suggested that changing management practices to increase employee satisfaction leads to improved business outcomes such as profit and customer satisfaction (Harter, Schmidt, and Hayes 2002). Therefore, our explicit focus will be on the importance of the social tolerance of individuals and its impact on their happiness. This is a significant issue which has been left unexplored in the literature.

Based on the presented line of arguments our main research questions are formulated as follows. What are the best indicators for measuring volitional choices and non-volitional choices? Can a model be defined that incorporates both aspects? Can it be demonstrated that volitional choices and non-volitional choices impact the level of happiness?

This study is the first to develop an integrated model (i.e., volitional, and non-volitional) that explicitly accounts for the influence of the social tolerance on the happiness of individuals in a society. In this study, we consider *freedom of choice* as the main hypothetical construct which has its own observed measurement indicators. We draw existing indicators from previous studies as well as new indicators for the construction of our latent variables for our hypothetical construct (i.e., *freedom of choice*) that is used for the prediction of happiness. The indicators are linked through our model, describing happiness of our experiences as being caused by things we have chosen for ourselves (e.g., social tolerance) and by the things that others have chosen for us (e.g., Supports which are given to us within our social circles). These indicators are then divided into the categories of volitional or non-volitional. The volitional choices group embodies the indicators or factors that a person has a significant amount of influence over. On the other hand, the non-volitional choices group contains indicators on which a person lacks a significant amount of influence.

We apply our model to empirical data that we collected from East Asian Social Survey (EASS) only for the year 2012. The data was available for four East Asian countries of South Korea, Japan, Taiwan, and China. We test our model and the results have been presented separately for each country.

Significance of volitional and non-volitional choices on happiness is clearly observed in this study. Analysis of the results show that in the case of China, Japan, and Taiwan, as social tolerance of people towards others is reduced, their level of happiness decreases. Another interesting finding is that in the case of China and Japan, as receiving social support from others decreases, people's level of happiness also is reduced, which is the opposite of our findings for the people of Korea and Taiwan.

The obtained results of this study, confirm that happiness tends to be closely related to interpersonal connectedness and individuals' experiences within shared relationships in certain countries. Our findings open new insights on how happiness can be considered as an emerging outcome of the interplay between personal characteristics and societal interactions.

The remainder of this paper is organized as follows. In section 2, we discuss related works and theoretical background on the topic. In section 3, we detail the model and its parameters. Model estimation and experimental results are presented in section 4. Finally, we present our conclusion and discuss the future work in section 5 and 6.

## **2. Theoretical Background**

Happiness may commonly be described as well-being, quality of life, health, the good life, or a state of optimal psychological flourishing. Traditionally, there are two primary approaches to studying well-being. The first one can be labeled hedonism, a view that maintains happiness is a matter of having pleasures or satisfying one's appetites. The second view is eudaemonism, and this view maintains that happiness is a matter of actualizing one's human potentials or one's true nature.

The study of happiness is not new. The question of having happiness has been studied from the time of Socrates until the modern day, and it has since undergone considerable advancement and revision. Measures of human well-being assess both how we feel and how we think about life on a day-to-day basis or in an overall sense. We can also consider the potential drivers of happiness such as educational attainment, wealth and access to healthcare have been continuously under study and have been shown to be correlated with human happiness.

Further research in this area asks about the role those various indicators have on influencing one's happiness. These indicators include things like, personality (Richard and Diener 2009, Cloninger and Zohar 2011), physical health (Gerdtham and Johannesson 2001, Graham 2008), education (Hartog and Oosterbeek 1998), personal relationships (Lu and Gilmour 2004, Fowler and Christakis 2008), wealth (Hagerty and Veenhoven 2003, Quidbach, Dunn et al., 2010), spirituality (Caras 2003, Kaldor, Hughes et al., 2004, Steiner, Leinert et al., 2010), goal attainment (Holahan 1985, Sheldon and Houser-Marko 2001), and social status (Kahneman, Diener and Schwarz, 1999). The following section will address such indicators briefly.

To what extent does a person's personality influence their happiness? Research suggests that happiness can be determined to a significant degree by genetics, and that a person's sense of happiness is relatively stable over the course of their lives, but why? Costa and McCrae (1992)

identified 5 personality traits associated with affect. In their study, for example, extraversion was associated with positive affect, while neuroticism was associated with negative affect. Other indicators such as conscientiousness, agreeableness, and openness to experience were said to be dependent on rewards in the environment, meaning indicators such as extraversion and neuroticism were more a function of genetic factors.

One's health seems to obviously be influential to their happiness (Gerdtham and Johannesson 2001, Graham 2008). Sickness causes pain, and limits opportunities, both of which can directly result in negative affect. However, health does not seem to be sufficient for happiness, since there are some with no signs of illness reporting low levels of happiness, and others having low health reporting a high level of happiness.

Another common question is whether or not social class, or wealth is a significant cause of happiness (Hagerty and Veenhoven 2003, Quoidbach, Dunn et al., 2010, Kahneman, Diener and Schwarz, 1999). Wealth seems to bring freedoms to one's life that poverty cannot afford. A certain amount of wealth is needed to maintain food, shelter, and other physical needs. Further, a basic amount of wealth seems necessary to maintain relationships, pursue interests or hobbies, to have certain experiences, and to achieve certain goals. Valuing money itself as a goal, however, can be detrimental to one's personal fulfillment and wellbeing since it can be a distraction from satisfying our psychological needs and personal fulfillment. Focusing on materialistic goals requires significant non autonomous activity, and it may lower one's sense of authenticity. It seems that we do need wealth for basic needs, and to pursue our personal fulfillment, but over valuing wealth, can cause an imbalance in one's life satisfaction causing a decrease in one's happiness.

There is a lot of evidence that having valuable personal relationships is a major contributing factor to one's happiness, and for some it may even be considered a basic human need (Lu and Gilmour 2004, Fowler and Christakis 2008). Research on personal relationships shows that people with secure and high-quality relationships obtain well-being and positive effects. Conversely, loneliness is consistently related with lowered life satisfaction and positive affect. There is also evidence that meaningful relationships increase oxytocin, increases lifespan, and improves the cardiovascular, endocrine, and autoimmune systems.

Achieving life goals has also been shown to be associated with increased positive affect and well-being (Holahan 1985, Sheldon and Houser-Marko 2001). Achieving one's goals give a feeling of competence and confidence. It seems, however, that the challenge of the goal is also important. For example, failing to achieve a goal that is too difficult, or succeeding to achieve a goal that is too easy can lead to negative affect. Further research describes goals as approach or avoidance motivation systems. Success, and even failure, in proceeding towards approach goals has been linked positively with well-being. However, both success and failure to progress under an avoidance system has been correlated with lower well-being (Carver and Scheier 1999). Other research distinguishes autonomous goals from heteronomous goals and argues that self-endorsed goals enhance well-being since they fulfill the intrinsic motivations and needs of a person's fulfillment, while extrinsic or imposed goals are unrelated or indirectly related to one's personal development, or their happiness and well-being. A variety of indices have been developed to measure happiness. For instance, Gross National Happiness<sup>1</sup> (GNH) with its 9 domains represents different components of wellbeing such as psychological wellbeing, health, education,

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<sup>1</sup> [www.grossnationalhappiness.com](http://www.grossnationalhappiness.com)

time use, cultural diversity and resilience, good governance, community vitality, ecological diversity, and resilience, and living standards. This paper cannot resolve the debate between eudaemonism and hedonism, and research indicates that well-being is probably best investigated by including aspects of both approaches.

### **3. Model and its Specification**

We develop a model for the prediction of happiness which is supported by the social capital theory. According to the social capital theory, social relationships and group membership make a specific set of valuable resources available to individuals (Lin, 2001). Social capital is the theory of structure and action and combination of its three dimensions (i.e., structural dimension (Burt, 2000, Granovetter, 1985), relational dimension (Bjørnskov, 2003), cognitive dimension (Knack and Keefer, 1997, Narayan, 2001, Putnam, 2001)) shape the range of benefits potentially available to individuals which may influence their happiness. The proposed model is an integrated model (i.e., volitional and non-volitional) that explicitly accounts for the influence of the social tolerance on the happiness of individuals in a society. We consider freedom of choice as the main hypothetical construct which has its own observed measurement indicators.

In our model, the concept of *freedom of choice* cannot be measured directly. Instead, we collected some indicators in our dataset (measurement instruments) to measure it. These are in the literature recognized as indicators of happiness. According to our hypothesis *freedom of choice* impacts people's happiness and it is divided into two groups: volitional choices and non-volitional choices, each of which is measured by variety of observed indicators. The volitional choices group embodies the indicators or indicators that a person has a significant amount of influence over. On the other hand, the non-volitional choices group contains indicators on which a person lacks a significant amount of influence. We utilized structural equation modelling (SEM) approach because of its potential in capturing the relationships between unobserved constructs from observable variables. With SEM, volitional choices and non-volitional choices are the latent variables. Our model also tests whether volitional choices and non-volitional choices are correlated with each other or not. The indicators forming the two constructs are expected to be highly correlated within each construct, but not between the two constructs. We also investigate their role in the prediction of happiness.

#### **3.1 Model Specification**

Our model (depicted in Figure 1) has eight items on the latent variable f1 (volitional choices), and another eight items on the latent variable f2 (non-volitional choices). In Figure 1, the undirected relationship (c1, shown as a double-headed arrow) represents the covariances among exogenous variables (predictors) in our model. Directed paths have coefficients values which are partial regression coefficients. Our model is a model with two latent variables which represents a mix of path analysis and confirmatory factor analysis. At first, we estimate the measurement model. In the second step, the correlations or covariance matrix between latent indicators are used as the inputs for the estimation of the structural coefficients between constructs or latent variables. While running a multiple-group confirmatory factor analysis (CFA), Amos solution adds the labels for each parameter shown in Figure 1 (such as c1 for the covariance between f1 and f2). To run the multiple groups analysis, the data for the four groups (country samples) can

be held in four separate data files. In this paper we plan to address the followings. First, we test the confirmatory factor analysis model separately in each group. Second, we conduct the simultaneous test of equal form (identical factor structure). Third we test the equality of factor loadings. Each of the hypothetical sub-constructs are measured by eight observed variables. Therefore, we assume that we have those 16 observed variables: i1 through i8 are associated with determination of the latent variable f1 (volitional choices), and i9 through i18 with the latent variable f2 (non-volitional choices). The indicators (selected observed variables) that depend on us and those which do not, are briefly discussed in the following subsections.

### **3.1.1 Volitional Choices**

Voluntary actions (i1): Active participation in occupational or professional trade association can be thought of as a voluntary action since these activities are optional to a person. Such activities can impact a person's feeling of belonging, confidence, and community in their work environment. In this subject, Smith (1994) investigated how volunteering is an enabling factor which promotes social interaction in groups, feelings of well-being, health, and greater occupational achievement.

Socializations (i2): Frequency of eating out with non-kin others can be influenced by a person's acceptance of invitations, or by a person offering invitations themselves when there is an opportunity to do so. Eating with others is significant because it shows a person's involvement with others when it is not necessary. According to Oh, Chung and Labianca (2004) informal socializing ties help promoting the optimal configurations of social relationships within an organization that promotes the effectiveness of groups.

Social tolerance (i3, i4, i5): A person's social tolerance towards those who have equal, greater, or lesser social status is their attitude about their position in a society in relationship to the position of others. In various ways this shows what a person has chosen to think they are owed in various societal roles, and it can significantly affect a person's emotions about the way others behave. According to (Chen, Fu, and Wang, 2009), social tolerance allows cooperation to prevail in an adaptive system. This study is the first to capture the influence of social tolerance on the happiness of individuals in a society.

Trust in work colleagues (i6): Trust in work colleagues, or the lack of trust in work colleagues is something a person decides to have based on their experience and knowledge about a person. It is significant because being able to trust one's colleagues can greatly impact the way a person feels during their work hours. There have been theoretical models that show the important role that trust plays in group processes within cooperative systems (Lewicki and Bunker, 1996, Rempel, Holmes and Zanna, 1985, Butler, 1995, Converse, Cannon-Bowers, and Salas, 1993, Tjosvold, 1984).

Trust in strangers (i7): is an attitude a person chooses to have towards people they do not know. A person who is more trusting might form such trust by forming amiable relationships, despite a possible risk that a person should not be trusted. Zak and Fakhar (2006), identified a positive relationship between self-reported happiness and trust. Febo et al., (2005) also suggested that there are bidirectional feedbacks between happiness and trust.

Social contacts (i8): The number of people we interact with in an ordinary day (other than family members), is a significant factor since it can open the door to new relationships and social

opportunities, and it can be under our influence on a significant degree because a person can choose when to be isolated or when to be open to social involvement. Scholars such as Acock and Hurlbert (1993) and Zhu, X., et al., (2013) investigated how social networks affect well-being of individuals through the provision of instrumental aid.

### **3.1.2 Non-volitional Choices**

Voluntary actions of others (i9): Job search network is described as the number of people that help one get their current or prior form of employment. Knowing the right people can help individuals find information and guidance, as well as aid in securing employment opportunities (de Janasz and Forret, 2008). Lin (2001) argued that having access to social contacts who are occupying higher positions within a network is equivalent to possessing more valuable information and resources, which are beneficial for finding a job. The people we have in our job search network seems to depend on chance encounters, and can be considered significant in our professional pursuits, yet it is not significantly within our control exactly who we meet, or whether they reciprocate interest in being part of one's professional network.

Voluntary actions of others (i10, i14, i15, i16): Having a person to ask for help, with respect to a health problem, a financial problem, or with an emotional or psychological problem, or even during an emergency seems to be a highly significant factor in one's happiness and well-being when they are needed. There are interesting studies in the literature which show the impact of perceived social support on subjective wellbeing and physical health (Pinquart and Sorensen, 2000, Cohen, 2004, Thoits, 1983, Cohen and Janicki-Deverts, 2009). Having such a person, however, is not always something a person can choose to have and there are many examples of this.

Voluntary actions of others (i11): The number of neighbors available to ask for a favor can be a highly helpful and can give a person a sense of comfort and security in the place they live. Though we can choose where to live, we do not have a significant amount of influence over who lives around us, so this seems to be something we do not control. Frequency of engaging with neighbors is predictive of feeling sense of community. Such a sense of community was found to be an important factor in mediating the relationship between neighborhood stability and reports of well-being (Farrell, Aubry, and Coulombe, 2004).

Mutually concerned for each other (i12) willing to aid (i13): The aspect of a neighborhood environment where neighbors are mutually concerned for each other, or the aspect of a neighborhood environment where others are willing to aid, can contribute to a person's sense of belonging and community in their lives (Farrell, Aubry, and Coulombe, 2004). Yet, we do not really control the amount of concern one person has for another, or how much assistance they are willing to provide, and both seem to be by chance.

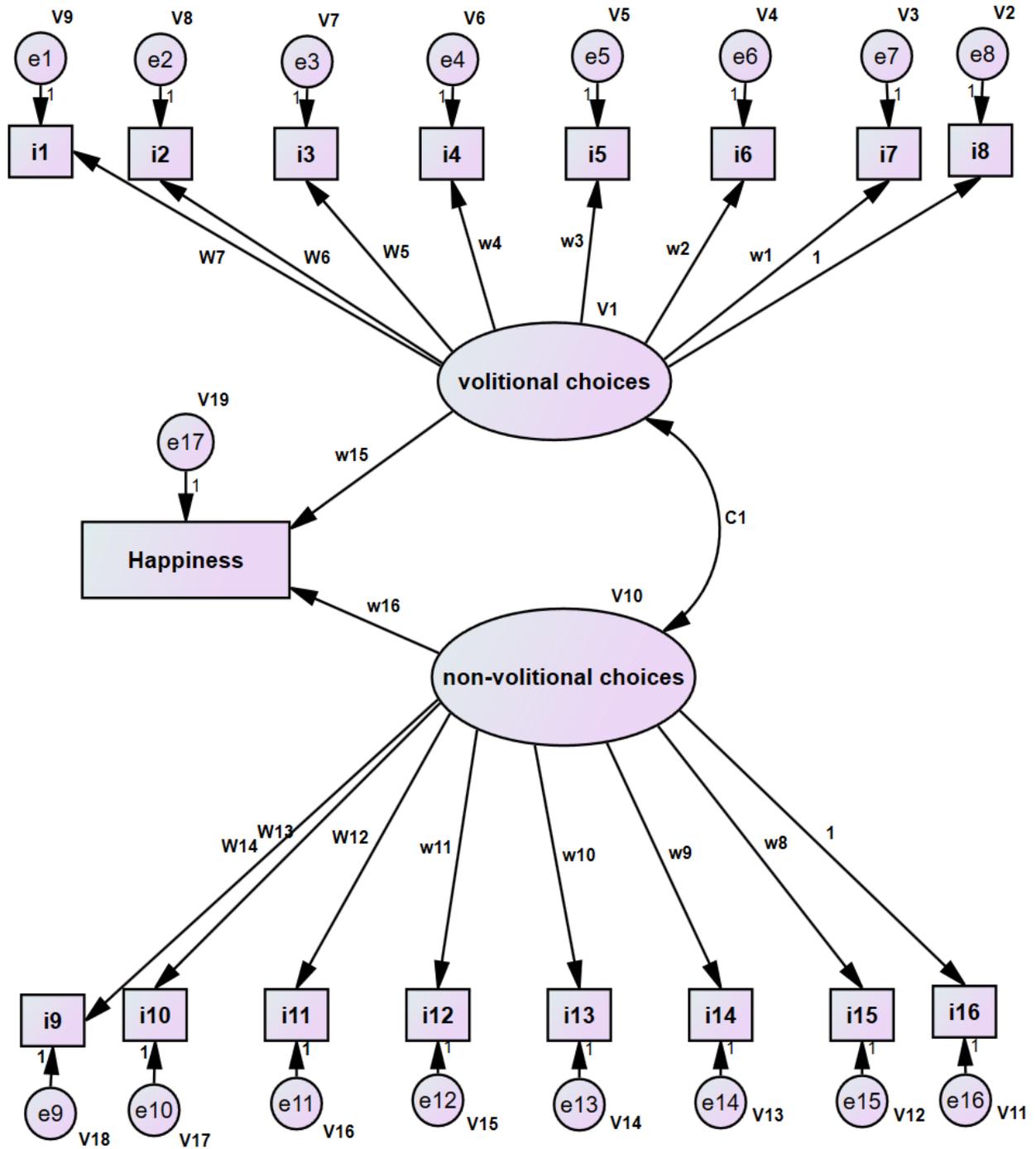


Figure 1. A depiction of our structural equation model, including three measurement parts the structural part. Latent variables are drawn as circles. Measured variables are shown as squares. Glossary of variables: e (error term), v (variance), i (factors or observed variables), w (regression weight), c (covariance).

Summary statistics of the variables used in this paper for the four sample countries is presented in Table 2. Correlations among observed variables are also presented in Table 3.A to 3.D. We are interested to test whether our two latent variables are correlated with each other or not. Similarly, we aim to test the correlations between our two introduced latent variables by analyzing the mean and the covariance matrix of those observable indicators of the latent variables. Ideally, the indicators of the constructs should be highly correlated, but the two constructs are not correlated.

## **4. Model Estimation and Analysis of the Results**

### **4.1 Structural Equations Modelling Approach**

Using multiple group confirmatory factor analysis (CFA), we plan to examine the equivalence of our measurement and structural model across multiple groups and populations. Multiple-group confirmatory factor analysis compares groups within the latent variable measurement model by adjusting the measurement errors, correlated residuals, and other parameters. Amos Solution by placing equality constraints on parameters in the groups can test the equivalence or invariance of measurements. We need to mention that equality constraints require parts of the model to be equivalent across different groups. Using raw data for each group, simultaneous CFAs across groups can be conducted by Amos solution.

### **4.2 Data**

The data set used in our analysis is collected from East Asian Social Survey (EASS) only for the year 2012. Our dataset includes many attributes related to working and living environments within 4 East Asian countries which are South Korea, Japan, Taiwan, and China. In total we have 11,684 observations in our dataset (5,819 observations for China, 1,396 observations for Korea, 2,335 observations for Japan and 2,134 observations for Taiwan). The dataset includes attributes related to social dimensions of working and living environments within which interviewees were living. We selected 16 attributes (variables) out of the existing ones in our model. According to our data, we first identify key determinants of social networking among interviewees within their working and living environments. Then, we develop a hypothesis of predicting happiness based on the idea of freedom of choice.

### **4.3 Model Testing**

The results of our initial analysis in the case of China and with respect to the volitional choices, show that the three social tolerance indicators (i3, i4 and i5) have the highest load on the latent variable f1 while the fourth and fifth ranks goes to the non-kin socializations indicators (i6, i8, i2). The standardized regression weights for the other two indicators (i1, i7) are near to 0.1. Their standardized regression weights of the indicators of volitional choices (i3, i4, i5, i6, i8, i2, i1) are 0.77, 0.61, 0.77, -0.18, 0.11, 0.09 and 0.20, respectively. Additionally volitional choices explain about 59% of the variance in i3, 37% in i4, and 59% in i5. The other indicators have the  $R^2$  of almost 0 to 0.03.

With respect to non-volitional choices (case of China), it is evident that the two indicators i12 and i13 have the highest load on the latent variable f2 while the third rank goes to the factor i11. The standardized regression weights for the other five indicators are near to 0.1. That is to say,

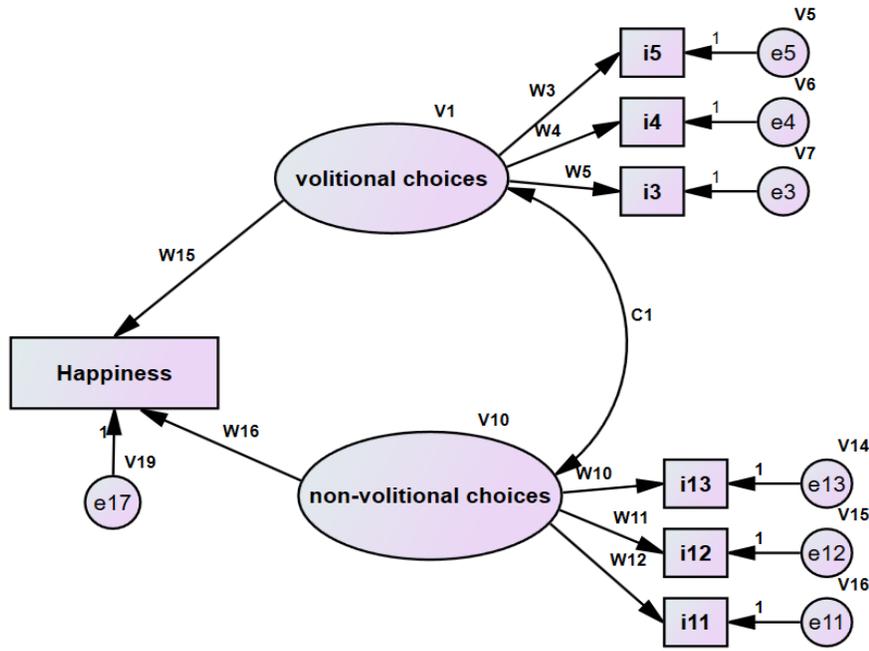


Figure 2. Revised model in Amos graphic

voluntary actions of others (i11), mutual concerns for others (i12) and willingness to provide assistance (i13) appear to be the best indicators of non-volitional choices (the latent variable f2). Their standardized regression weights are, respectively, -0.3, 0.74 and 0.93. Additionally non-volitional choices explain about 8% ( $R^2$ ) of the variance in i11, 55% in i12, and 86% in i13. The factor i16 is the poorest among the indicators of non-volitional choices, with an  $R^2$  of near to zero and a standardized regression weight of 0.05.

Analysis of the measurement weights of other countries (case of South Korea, Japan, and Taiwan) followed a similar trend, therefore, we revised our model by ignoring the poorest indicators. The modified model is presented in Figure 2. Results from the testing of this re-specified model following the exclusion of poorest indicators are presented in the following section related to different country cases.

The results of fit measures also have been presented separately in each section. The chi-square ( $\chi^2$ ) test is an absolute test of model fit, based on which if the probability value (p) is below 0.05, the model is rejected. The other measures of fit such as root mean square error of approximation (RMSEA) (values below 0.06) or Tucker-Lewis Index (TLI) (values of 0.95 or higher) are descriptive measures of fit of the models specified.

## 4.4 Analysis of the Results

### 4.4.1 Case of China

Table 1A to 1D presents the unstandardized path coefficients associated with the regressions, which can be used in examining the possible linkage between statistical variables. The unstandardized coefficients are obtained from a multiple regression. The significance tests associated with regression are tests of the unstandardized parameters. The standardized parameters are presented in Table 1\_1A to Table 1\_1D and are derived from the unstandardized

coefficients. Unstandardized parameters are calculated based on the original units of the explanatory and dependent variables.

With respect to Figure 2, the standardized regression weights of voluntary actions of others (i11), mutual concerns for others (i12) and willingness to aid (i13) are, respectively, 0.44, -0.78 and -0.97. Additionally non-volitional choices explain about 19% of the variance in i11, 61% in i12, and 94% in i13. The standardized regression weights of the best indicators of volitional choices (i3, i4, i5) are, respectively, 0.77, 0.61, and 0.82. Additionally volitional choices explain about 59% of the variance in i3, 37% in i4, and 67% in i5. According to our results the correlation coefficient of non-volitional choices and volitional choices in the case of China is 0.37.

Overall, the unconstrained model has  $\chi^2=2972.449$  and  $df=14$  (degrees of freedom), returning a probability value of 0.000. If the probability value (p) is below 0.05, the model is rejected. So, the model is rejected in the case of China. The RMSEA for this model is 0.191 and the TLI value is 0.481, therefore, the model does not fit well according to the descriptive measures of fit. We also tried to improve the model fit by calculating the ‘modification indices’. Modification indices indicate how much the chi-square value of a model would drop if the parameter were free instead of constrained. We consider only high values as serious evidence of misfit in this part of our analysis. Examination of modification indices suggested that we should revise the model presented in Figure 2 like the one shown in Figure 3 to improve the model fit. We selected the largest modification index values in our analysis (i.e., regressions and covariance). For example, according to our analysis results the covariance of e11 with e17 is expected to be correlated and if we re-specify the model with that covariance added then it improves the model fit.

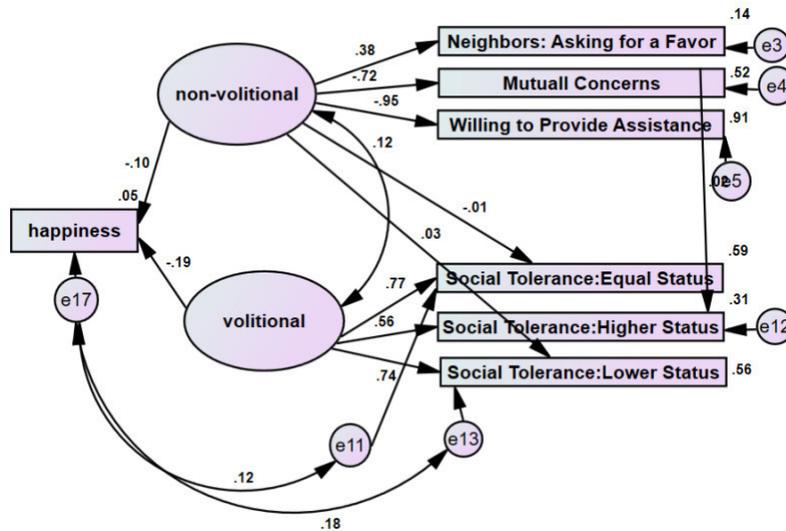


Figure 3. Revised model in Amos graphic (China)

The revised model has the following fit indices:  $\chi^2=13.46$  and  $df=7$  with a probability value of 0.061, the RMSEA value is 0.013, and the TLI values is 0.998. Therefore, the model fits reasonably well. For the full description of those results and their comparison please refer to Table 1A and Table 1\_1A. The estimate column in this table shows the unstandardized regression coefficients, while the probability value associated with the null hypothesis that the test is zero is displayed under the Prob. column. Those estimates with statistical significance are

presented with “\*\*\*”, “\*\*” and “\*” in this table. Notice that all estimates in Table 1A to Table 1D have statistical significance but since several the paths in Figure 1 are fixed to a value of 1.00, we don’t have any p values for them. In Amos solution, such paths are present to ensure proper model identification. The S. E. column also in this table refers to the standard error of the unstandardized coefficients.

Table.1A. Regression Weights: (China, 5,819 obs)					
Indicators		Constructs	Estimate	S.E.	Prob.
i12	<---	non-volitional choices	-1.328	0.048	***
i11	<---	non-volitional choices	1		
i13	<---	non-volitional choices	-1.984	0.086	***
i3	<---	volitional choices	1		
i4	<---	volitional choices	0.937	0.028	***
i5	<---	volitional choices	1.059	0.031	***
happiness	<---	non-volitional choices	-0.165	0.024	***
happiness	<---	volitional choices	-0.297	0.037	***
i4	<---	i12	0.016	0.016	0.316
i3	<---	non-volitional choices	-0.014	0.035	0.695
i5	<---	non-volitional choices	0.044	0.037	0.233
***. Significant at the 0.001 level.					
**. Significant at the 0.01 level.					
*. Significant at the 0.05 level.					

Table. 1_1A. Standardized Regression Weights: (China, 5,819 obs)				
Indicators		Constructs	Estimate	
i12	<---	non-volitional choices	-0.72	
i11	<---	non-volitional choices	0.38	
i13	<---	non-volitional choices	-0.95	
i3	<---	volitional choices	0.77	
i4	<---	volitional choices	0.56	
i5	<---	volitional choices	0.74	
happiness	<---	non-volitional choices	-0.10	
happiness	<---	volitional choices	-0.19	
i4	<---	i12	0.02	
i3	<---	non-volitional choices	-0.01	
i5	<---	non-volitional choices	0.03	

#### 4.4.2 Case of South Korea

Analysis of the results with respect to Figure 2, shows that the standardized regression weights of voluntary actions of others (i11), mutual concerns for others (i12) and willingness to aid (i13) are, respectively, 0.51, -0.77 and -0.86. Additionally non-volitional choices explain about 26% of the variance in i11, 60% in i12, and 74% in i13. The standardized regression weights of the best

indicators of volitional choices (i3, i4, i5) are, respectively, 0.77, 0.53, and 0.73. Additionally volitional choices explain about 59% of the variance in i3, 28% in i4, and 53% in i5. According to our results the correlation coefficient of non-volitional choices and volitional choices in the case of Korea is 0.04. Overall, the unconstrained model has  $\chi^2=23.327$  and  $df=12$ , returning a probability value of 0.025. If the probability value is below 0.05, the model is rejected. So, the model is rejected in case of South Korea. However, the RMSEA for this model is 0.026 and the TLI value is 0.99. Therefore, the model does fit well according to the descriptive measures of fit. Examination of modification indices suggested that we should revise the model presented in Figure 2 like the one shown in Figure 4 to improve the model fit.

The revised model has the following fit indices:  $\chi^2=8.96$  and  $df=11$  with a probability value of 0.626, RMSEA=0.000, and TLI=1.002. Therefore, the model fits reasonably well. For the full description of those results and their comparison please refer to Table 1B and Table 1\_1B.

Table.1B. Regression Weights: (Korea, 1,396 obs)				
Indicators	Constructs	Estimate	S.E.	Prob.
i11	<--- non-volitional choices	-0.505	0.031	***
i13	<--- non-volitional choices	1		
i3	<--- volitional choices	1		
i4	<--- volitional choices	0.803	0.052	***
i5	<--- volitional choices	0.966	0.06	***

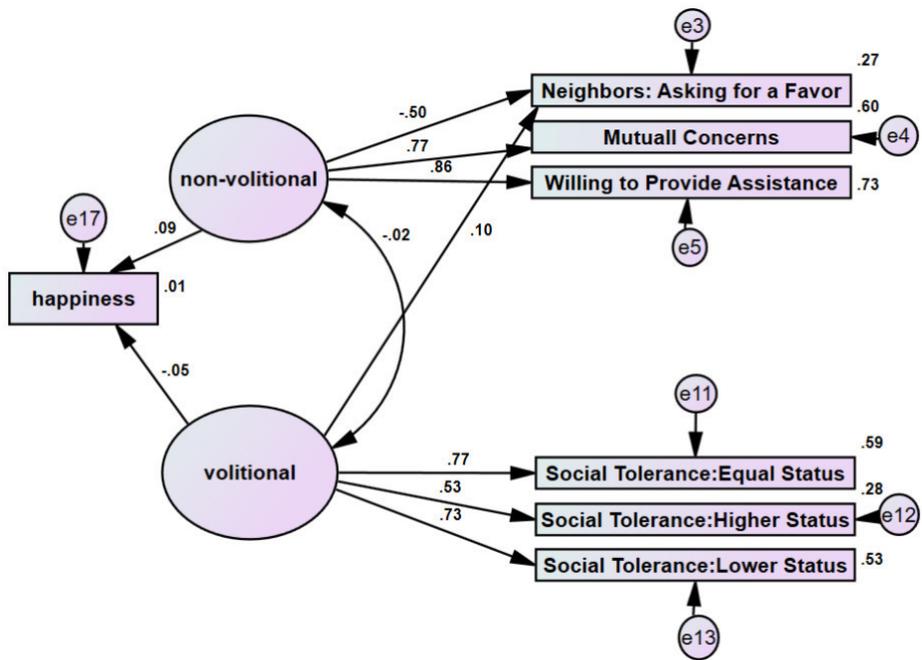


Figure 4. Revised model in Amos graphic (Korea)

happiness	<---	volitional choices	-0.094	0.055	0.086
happiness	<---	non-volitional choices	0.069	0.023	**
i11	<---	volitional choices	0.239	0.064	***
i12	<---	non-volitional choices	0.912	0.048	***
***. Significant at the 0.001 level.					
**. Significant at the 0.01 level.					

Indicators		Constructs	Estimate
i11	<---	non-volitional choices	-0.50
i13	<---	non-volitional choices	0.86
i3	<---	volitional choices	0.77
i4	<---	volitional choices	0.53
i5	<---	volitional choices	0.73
happiness	<---	volitional choices	-0.05
happiness	<---	non-volitional choices	0.09
i11	<---	volitional choices	0.10
i12	<---	non-volitional choices	0.77

#### 4.4.3 Case of Japan

We also tested our model for the case of Japan. In the case of Japan, the standardized regression weights of voluntary actions of others (i11), mutual concerns for others (i12) and willingness to aid (i13) are, respectively, 0.36, -0.84 and -0.87. Additionally non-volitional choices explain about 13% of the variance in i11, 70% in i12 and 75% in i13. The standardized regression weights of the best indicators of volitional choices (i3, i4, i5) are, respectively, 0.78, 0.81, and 0.90. Additionally volitional choices explain about 60% of the variance in i3, 65% in i4 and 80% in i5. According to our results the correlation coefficient of non-volitional choices and volitional choices in the case of Japan is 0.18.

Overall, the unconstrained model has  $\chi^2=25.410$  and  $df=12$ , returning a probability value of 0.013. If the probability value is below 0.05, the model is rejected. So, the model is rejected in case of Japan. The RMSEA and TLI values are 0.022 and 0.996, suggesting the model does fit well according to the descriptive measures of fit. Examination of modification indices suggested that we should revise the model presented in Figure 2 like the one shown in Figure 5 to improve the model fit. We selected the largest modification index values in our analysis. For example, according to our results the covariance of e13 with e17 is expected to be correlated and if we re-specify the model with that covariance added then it improves the model fit. The revised model

has the fit indices:  $\chi^2=5.23$  and  $df=9$  with a probability value of 0.81, RMSEA=0.000, and TLI=1.002. Therefore, the model fits reasonably well. For the full description of the obtained results out of the revised model and their comparison please refer to Table 1C and Table 1\_1C.

Table.1C. Regression Weights: (Japan, 2,335 obs)					
Indicators		Constructs	Estimate	S.E.	Prob.
i12	<---	non-volitional choices	-3.222	0.204	***
i11	<---	non-volitional choices	1		
i13	<---	non-volitional choices	-3.447	0.223	***
i3	<---	volitional choices	1		
i4	<---	volitional choices	1.213	0.031	***
i5	<---	volitional choices	1.274	0.032	***
happiness	<---	non-volitional choices	-0.486	0.073	***
happiness	<---	volitional choices	-0.222	0.044	***
i3	<---	i12	-0.024	0.009	**

\*\*\*. Significant at the 0.001 level.  
 \*\*. Significant at the 0.01 level.

Table. 1_1C. Standardized Regression Weights: (Japan, 2,335 obs)			
Indicators		Constructs	Estimate
i12	<---	non-volitional choices	-0.84
i11	<---	non-volitional choices	0.36
i13	<---	non-volitional choices	-0.87
i3	<---	volitional choices	0.77
i4	<---	volitional choices	0.80
i5	<---	volitional choices	0.90
happiness	<---	non-volitional choices	-0.16
happiness	<---	volitional choices	-0.14
i3	<---	i12	-0.04

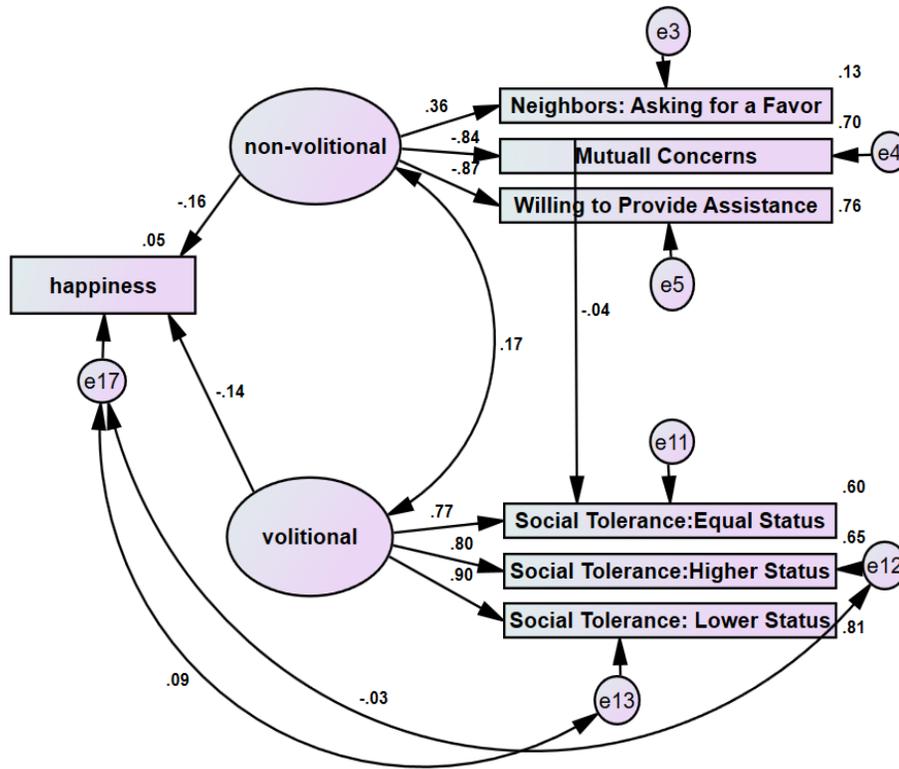


Figure 5. Revised model in Amos graphic (Japan)

#### 4.4.4 Case of Taiwan

Analysis of the results with respect to Figure 2 and case of Taiwan shows that the standardized regression weights of voluntary actions of others (i11), mutual concerns for others (i12) and willingness to aid (i13) are, respectively, 0.41, -0.79 and -0.87. Additionally non-volitional choices explain about 17% of the variance in i11, 62% in i12 and 76% in i13. The standardized regression weights of the best indicators of volitional choices (i3, i4, i5) are, respectively, 0.74, 0.64, and 0.68. Additionally volitional choices explain about 55% of the variance in i3, 41% in i4 and 46% in i5. According to our results the correlation coefficient of non-volitional choices and volitional choices in the case of Taiwan is 0.17.

Overall, the unconstrained model has  $\chi^2=24.060$  and  $df=12$ , returning a probability value of 0.020. The probability value is below 0.05, so the model is rejected in case of Taiwan. However, the RMSEA for this model is 0.022 and the TLI value is 0.991, therefore, the model does fit well according to the descriptive measures of fit. Examination of modification indices suggested that we should revise the model presented in Figure 2 like the one shown in Figure 6 to improve the model fit. The revised model has the fit indices:  $\chi^2=16.5$  and  $df=11$  with a probability value of 0.124, RMSEA=0.015, and TLI=0.997. Therefore, the model fits reasonably well. For the full description of those results and their comparison please refer to Table 1D and Table 1\_1D. The Estimate column in this table shows the standardized regression coefficients.

Table.1D. Regression Weights: (Taiwan, 2,134 obs)					
Indicators		Constructs	Estimate	S.E.	P
i11	<---	non-volitional choices	-0.544	.034	***
i12	<---	non-volitional choices	0.964	.046	***
i13	<---	non-volitional choices	1		
i3	<---	volitional choices	1		
i4	<---	volitional choices	1.076	.052	***
i5	<---	volitional choices	1.054	.050	***
happiness	<---	non-volitional choices	0.103	.025	***
happiness	<---	volitional choices	-0.136	.045	**
happiness	<---	i11	-0.046	.017	**

\*\*\*. Significant at the 0.001 level.  
 \*\*. Significant at the 0.01 level.

Table. 1_1D. Standardized Regression Weights: (Taiwan, 2,134 obs)				
Indicators		Constructs		Estimate
i11	<---	non-volitional choices		-0.41
i12	<---	non-volitional choices		0.78
i13	<---	non-volitional choices		0.87
i3	<---	volitional choices		0.74
i4	<---	volitional choices		0.64
i5	<---	volitional choices		0.68
happiness	<---	non-volitional choices		0.11
happiness	<---	volitional choices		-0.08
happiness	<---	i11		-0.07

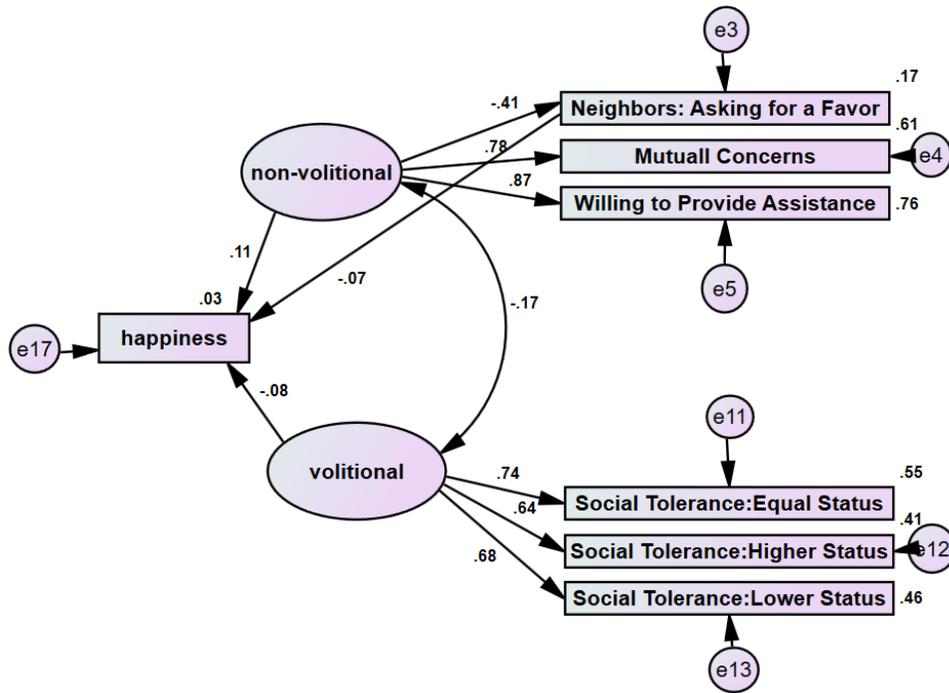


Figure 6. Revised model in Amos graphic (Taiwan)

#### 4.5. Regression result comparison

We also compared the significance of the effects of the introduced indicators and hypothetical sub-constructs on happiness across countries. The results of our analysis are presented in Table 4 and 5. The numbers in these tables show the regression weights for that specific indicator.

As it is shown in Table 4, all indicators have a valid and significant effect, and they are the strongest among the indicators of non-volitional and volitional choices. Analysis of the results in this table shows the negative impact of voluntary actions of others (i11) with respect to the case of Korea, Japan and Taiwan, while its impact is positive in the case of China. Similarly, the results also show the positive impact of mutual concerns for others (i12) in the cases of Korea, Japan, and Taiwan, while its impact is negative in the case of China. According to the obtained results the impact of willingness to aid (i13) is positive in the case of Korea and Taiwan while the impact is negative for other two countries. With respect to volitional choices the results show that the impact of indicators of volitional choices (i3, i4, i5) are positive across the countries. According to our results the correlation coefficient of non-volitional choices and volitional choices was not high (i.e., after revising our model in the case of Taiwan it is -0.17, in case of Japan it is 0.17, in case of Korea it is -0.02 and in the case of China it is 0.12).

Construct	Indicator	China 5,819 obs	Korea 1,396 obs	Japan 2,335 obs	Taiwan 2,134 obs
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Non-volitional choices	<b>i11</b>	0.38***	-0.50***	-0.84***	-0.41***
	<b>i12</b>	-0.72***	0.77***	0.36***	0.78***
	<b>i13</b>	-0.95***	0.86***	-0.87***	0.87***
Volitional choices	<b>i3</b>	0.77***	0.77***	0.77***	0.74***
	<b>i4</b>	0.56***	0.53***	0.80***	0.64***
	<b>i5</b>	0.74***	0.73***	0.90***	0.68***
***. Significant at the 0.001 level.					

As it is shown in Table 5, the significance of non-volitional choices on happiness is clearly observed in all four countries. In the case of Japan and China the impact follows a positive pattern while the relationship is negative in the cases of Korea and Taiwan. That is to say in case of China and Japan, as receiving social support from others decreases, people’s level of happiness also declines which is the opposite case for peoples of Korea and Taiwan. The magnitude of influence is higher in Japan comparing to other countries.

With respect to the effect of volitional choices on happiness, our results show that, in the cases of China, Japan, and Taiwan, the pattern is positive, and the magnitude of influence is not large (i.e., it is higher in case of China). The result is interpreted that, as social tolerance of people towards others declines, their level of happiness decreases. We also could not find any evidence on the significance of this hypothetical sub-construct on happiness in case of Korea.

Table 5. Comparison of the Significance of Introduced Hypothetical Sub-constructs on Happiness across Countries				
Construct	China 5,819 obs	Korea 1,396 obs	Japan 2,335 obs	Taiwan 2,134 obs
Volitional choices	*** -0.19	-	*** -0.14	** -0.08
Non-volitional choices	*** -0.10	** 0.09	*** -0.16	*** 0.11
***. Significant at the 0.001 level. **. Significant at the 0.01 level.				

#### 4.6 Implications

In a recent study, White (2017) advocated a relational wellbeing approach that views relationality as logically prior to individuals. The author argues that following a relational wellbeing approach is critical to societal change and leads to a socially inclusive political vision. While this approach challenges the dominant ideologies of the self, we argue in this research that individuals need to take action to promote their own happiness as well. High level of social tolerance helps the individuals in being socially integrated. It can help them in prioritizing their goals, influence others more effectively and survive in their political struggles. Therefore,

happiness can be considered as an emerging outcome of the interplay between personal characteristics (Nussbaum and Sen, 1993, Haller and Hadler, 2006) and societal interactions (Prilleltensky, 2005, Greenfield and Marks, 2006) in ways that are both reinforcing and in tension (White, 2017).

One practical implication of our obtained results is that it is important for the management to consider the social tolerance of employees and how it contributes to having an effective work environment. Since engagement of the workers are essential in achieving the organizational goals, and overall happiness of the employees depends on their social tolerance towards others, management should focus more on improving the employees' social and psychological skills (Tsai, 2011). Once the workplace becomes understood in terms of group psychology, facilitating employees' relations with one another will become a primary goal for improving their happiness. This also leads to the creation of an appropriate organizational environment where conflict over roles and personalities can be resolved and addressed properly (Watson et al., 2005). By building effective teams, members may less become critical of the leaders and of each other which creates a sense of community and bonding between members (Tuckman, 1965).

## **5. Conclusion**

The result of our analysis extends previous empirical studies by showing that happiness can be defined in terms of the choices of self (volitional choices) and choices of others (non-volitional choices). Mostly, the indicators used in this paper are social in nature. In cases of China and Japan, results show that as receiving social support from others decreases, people's level of happiness also is reduced. Furthermore, our experimental results show that in the case of China, Japan, and Taiwan, as social tolerance of people towards others is reduced, their level of happiness decreases.

For this paper, data was collected from the East Asian countries of South Korea, Japan, Taiwan, and China. We targeted those countries because they have a strong hierarchical structure within their societies. Socialization among individuals in those countries is an important part of life, so individuals attribute that to their own success and preferences. This empirical study provides new information about what causes peoples in South Korea, Japan, Taiwan, and China to be happy or unhappy, by measuring the influence of certain volitional or non-volitional indicators. The result of the paper shows that voluntary actions of others, mutual concern for others, and willingness to aid are the best indicators of non-volitional choices, and a person's social tolerance is the best indicator of volitional choices. Therefore, all indicators have a valid and significant effect on happiness, and they are the strongest among the indicators of non-volitional and volitional choices.

Furthermore, our experimental results show that in the case of China, Japan, and Taiwan, as social tolerance of people towards others is reduced, their level of happiness decreases. Another interesting finding is that in the cases of China and Japan, as receiving social support from others decreases, people's level of happiness also is reduced, which is the opposite of our findings for the people of Korea and Taiwan. This difference may be due to cultural differences in social norms and in social support seeking. At the first glance, asking for help or for any social support from people around us might seem easy. However, some people prefer to think that they can do things on their own, and the idea of self-reliance may make them feel independent and happier. Therefore, it can be so helpful if we take a step back and find evidence if receiving social

supports is socially acceptable in day-to-day situations. Finding an answer for the observed difference in individuals' attitude between countries requires further investigation with respect to those countries' specific cultures and individuals' characteristics.

In the extension of current study, we plan to create a composite index of happiness and measure how different determinants from other dimensions affect the level of happiness across countries. We are mainly interested in identifying key determinants of happiness in our dataset. We can utilize the composed index to rank countries by their level of happiness and using underlying components and indicators to suggest policy recommendations to increase the level and equality in happiness of citizens.

## **6. Discussion**

There are many factors that influence a person's happiness. The results of our analysis show that happiness is caused by our experiences, and our experiences are in turn caused both by things that are either within our control, or things that are beyond our control. Though it may be argued that our control over these issues, or our lack of control is never absolute. For the purpose of this model, we use the word control in the sense that it means a person has a significant amount of influence on a respective factor, or that they lack a significant amount of influence on factors determining happiness. The results also confirm that happiness tends to be related to interpersonal connectedness and individuals' experiences within shared relationships in certain countries.

Empirical research on happiness with their focus on individual happiness and its association with cultural variations provide some evidence that the result of receiving social support is not always positive. The negative effect is the possibility that a person can form dependence on such support and may not function independently of it. Further, it may lead to low self-esteem in individuals and, consequently, reduce their level of happiness (Fisher, Nadler et al., 1982, Seidman, Shrout et al., 2006, Bolger and Amarel 2007, Uchida and Oishi 2016).

In a European-American cultural environment, such support has the potential to increase happiness, but only to the extent that it does not interfere with a recipient's sense of self-worth (Uchida, Kitayama et al., 2008, Uchida and Oishi 2016). Therefore, invisible support is preferable in such an environment. On the other hand, within East Asian cultures, happiness is commonly described as having a connection between oneself and others (Uchida and Ogiwara 2012). Therefore, interpersonal indicators, such as adapting to social norms, following relational obligations, and pursuing interpersonal goals over personal goals tend to relate to happiness.

The observed difference in our findings with respect to receiving social support from others, may be due to cultural differences in social norms and in social support seeking among different countries. Social tolerance of individuals also can be seen as a value produced by individuals within any given society, indicating their positive or negative attitudes toward particular social groups. Social tolerance of individuals is likely to have been developed and caused by their experiences while interacting with others (i.e., positive experience or deep disappointment due to increased indifference), where a change of attitudes improves the status of happiness.

Finally, understanding individuals as part of a group, and not primarily as individuals, can help us to see the importance of social skills like tolerance. Having greater social tolerance helps individuals to integrate and work well with others, to obtain influence with others, and to

succeed in political struggles. Perhaps a substantial part of happiness itself can be understood as the result of individuals expressing themselves and interacting within a community of others, due to the reinforcement and challenge it can offer.

Our findings can be applied in the management of organizations. Managers must make social tolerance a priority to create an effective work environment for their employees. They must promote social tolerance in the workplace, and they must have it themselves. Understanding the group psychology of a work environment can reduce tension and conflict, while at the same time it can benefit social relationships between employees, it can also improve their job satisfaction, their happiness, and their performance. In such an environment, effective teams will be composed of members that can address and resolve conflicts properly and effectively. Furthermore, such teams will work well with their leaders, and they will have a greater sense of understanding and community between their members. This can be an important step in empowering the cognitive dimension of social capital within an organization where social tolerance can be understood as a cognitive element that allows for communication to occur easily between employees at all levels.

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Table 2. Summary Statistics of the Variables

Code	Variable definition	China 5,819 obs		Korea 1,396 obs		Japan 2,335 obs		Taiwan 2,134 obs		Minimum	Maximum
		Mean	Std Dev	Mean	Std Dev	Mean	Std Dev	Mean	Std Dev		
i1	Active Participation in Occupational/Professional/Trade Association	2.957	0.275	2.821	0.517	2.882	0.405	2.918	0.319	1.000	3.000
i8	Number of People You Interact in an Ordinary Day: Other than Family Members and Relatives	2.844	1.537	3.158	1.389	3.934	1.735	4.288	1.775	1.000	8.000
i9	Job Search Network: Number of People Helped Getting Current/Last Job	0.673	1.304	1.447	1.837	2.152	1.980	0.917	1.418	0.000	6.000
i2	Frequency of Eating Out with Non-kin Others	1.978	1.028	2.771	1.075	2.510	0.853	2.405	1.027	1.000	5.000
i15	Person to Ask for Help: Emotional/Psychological Problems	3.095	2.390	3.391	2.230	2.924	2.219	3.516	2.192	1.000	9.000
i10	Person to Ask for Help: Health Problems	3.148	2.409	2.525	2.185	2.148	1.947	3.200	2.295	1.000	9.000
i14	Person to Ask for Help: Financial Problems	2.330	1.932	2.506	2.235	2.531	2.012	2.703	1.947	1.000	9.000
i16	Person to Ask for Help: At Emergency or Natural Disaster	2.647	1.892	2.790	2.172	2.432	1.934	2.446	1.811	1.000	9.000
i11	Number of Neighbors: Asking for a Favor	2.928	1.392	2.567	1.239	1.562	0.820	2.821	1.344	1.000	9.000
i3	Social Tolerance: Those Who Have Equal Social Status	3.561	0.708	2.992	0.707	3.104	0.686	3.281	0.720	1.000	4.000
i4	Social Tolerance: Those Who Have Higher Social Status	2.854	0.909	2.319	0.818	2.711	0.797	2.839	0.902	1.000	4.000
i5	Social Tolerance: Those Who Have Lower Social Status	3.370	3.370	2.914	2.914	2.890	2.890	3.024	3.024	1.000	4.000
i12	Neighborhood Environment: Mutually Concerned for Each Other	2.083	0.974	3.238	1.456	3.317	1.125	2.377	1.254	1.000	7.000
i13	Neighborhood Environment: Willing to Aid	2.263	1.097	3.170	1.443	3.508	1.157	2.349	1.168	1.000	7.000
i6	Trust in Work Colleagues	2.093	0.586	2.211	0.778	2.250	0.722	2.144	0.572	1.000	4.000
i7	Trust in Strangers	3.292	0.601	3.374	0.699	3.193	0.670	3.474	0.621	1.000	4.000
happiness	General happiness	2.176	0.843	2.245	0.961	2.259	0.865	2.229	0.943	1.000	5.000

Table 3.A Correlations among Observed Variables (China, 5,819 obs)

Variable Definition	Variable name	i3	i4	i5	happiness	i11	i12	i13
Social Tolerance: Those Who Have Equal Social Status	<b>i3</b>	1						
Social Tolerance: Those Who Have Higher Social Status	<b>i4</b>	.428** .000	1					
Social Tolerance: Those Who Have Equal Social Status	<b>i5</b>	.571** 0.000	.416** .000	1				
General happiness	<b>happiness</b>	-.079** .000	-.112** .000	-.038** .004	1			
Number of Neighbors: Asking for a Favor	<b>i11</b>	.027* .040	.038** .004	.063** .000	-.062** .000	1		
Neighborhood Environment: Mutually Concerned for Each Other	<b>i12</b>	-.053** .000	-.031* .018	-.091** .000	.103** .000	-.264** .000	1	
Neighborhood Environment: Willing to Aid	<b>i13</b>	-.075** .000	-.049** .000	-.109** .000	.117** .000	-.362** .000	.685** .000	1

Table 3.B Correlations among Observed Variables (Korea, 1,396 obs)

Variable Definition	Variable name	i3	i4	i5	happiness	i11	i12	i13
Social Tolerance: Those Who Have Equal Social Status	<b>i3</b>	1						
Social Tolerance: Those Who Have Higher Social Status	<b>i4</b>	.411** .000	1					
Social Tolerance: Those Who Have Equal Social Status	<b>i5</b>	.562** .000	.386** .000	1				
General happiness	<b>happiness</b>	-.029 .282	-.065* .016	-.039 .146	1			
Number of Neighbors: Asking for a Favor	<b>i11</b>	.072** .007	.075** .005	.098** .000	-.056* .036	1		
Neighborhood Environment: Mutually Concerned for Each Other	<b>i12</b>	.016 .539	.007 .802	-.026 .327	.065* .015	-.391** .000	1	
Neighborhood Environment: Willing to Provide Assistance	<b>i13</b>	.001 .961	-.017 .528	-.045 .091	.078** .004	-.434** .000	.663** .000	1

Table 3.C Correlations among Observed Variables (Japan, 2,335 obs)

Variable Definition	Variable name	i3	i4	i5	happiness	i11	i12	i13
Social Tolerance: Those Who Have Equal Social Status	<b>i3</b>	1						
Social Tolerance: Those Who Have Higher Social Status	<b>i4</b>	.623** .000	1					
Social Tolerance: Those Who Have Equal Social Status	<b>i5</b>	.698** 0.000	.724** 0.000	1				
General happiness	<b>happiness</b>	-.131** .000	-.147** .000	-.110** .000	1			
Number of Neighbors: Asking for a Favor	<b>i11</b>	.076** .000	.084** .000	.078** .000	-.068** .001	1		
Neighborhood Environment: Mutually Concerned for Each Other	<b>i12</b>	-.152** .000	-.121** .000	-.130** .000	.153** .000	-.297** .000	1	
Neighborhood Environment: Willing to Aid	<b>i13</b>	-.140** .000	-.110** .000	-.130** .000	.165** .000	-.309** .000	.727** .000	1

Table 3.D Correlations among Observed Variables (Taiwan, 2,134 obs)

Variable Definition	Variable name	i3	i4	i5	happiness	i11	i12	i13
Social Tolerance: Those Who Have Equal Social Status	<b>i3</b>	1						
Social Tolerance: Those Who Have Higher Social Status	<b>i4</b>	.471** .000	1					
Social Tolerance: Those Who Have Equal Social Status	<b>i5</b>	.503** .000	.428** .000	1				
General happiness	<b>happiness</b>	-.072** .001	-.093** .000	-.050* .020	1			
Number of Neighbors: Asking for a Favor	<b>i11</b>	.060** .006	.088** .000	.052* .016	-.118** .000	1		
Neighborhood Environment: Mutually Concerned for Each Other	<b>i12</b>	-.094** .000	-.086** .000	-.120** .000	.122** .000	-.318** .000	1	
Neighborhood Environment: Willing to Aid	<b>i13</b>	-.096** .000	-.105** .000	-.097** .000	.130** .000	-.362** .000	.684** .000	1