Investigating Contextual Determinants of Happiness among Seoul Residents*

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Abstract: This study investigated contextual determinants of happiness such as spatial, socio-economic, and socio-political factors, as well as individual determinants. Using samples from the Seoul Survey, the study applied multi-level analyses separately to the whole sample, a cohort of the upper class, and a cohort of the lower class. It demonstrated that spatial, socio-economic, and socio-political contexts have an impact on individual happiness; however, negative externalities caused by social comparison exist only in people in the lower social class, while those in the upper class feel happier with a higher degree of economic prosperity. Natural amenities such as green spaces and political participation (measured by voter turnout) have a positive impact on the level of happiness regardless of social status. In order to raise the general level of happiness, public policy should focus more on these contextual determinants, especially non-material determinants.

Keywords: happiness, negative externalities, environmental amenities, political participation

INTRODUCTION

Korea, once a recipient of development assistance from the Organization for Economic Cooperation and Development, has successfully transformed itself into a

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major donor country. Its market economy ranks 15th in the world by gross domestic product (GDP), making it one of the G-20 major economies. Experiencing such a huge leap in development, Koreans should enjoy higher level of happiness than others.

However, various surveys report that Koreans are less happy than others. The New Economic Foundation's Happy Planet Index placed Korea at 102 among 178 countries (Marks et al., 2006). Recently, Korea ranked 27th of 36 OECD countries (OECD, 2013). Thus, despite the country's tremendous economic growth, Koreans are relatively unhappy. This demonstrates that a higher level of economic development might not automatically trigger a rise in the level of happiness.

This study investigates contextual (spatial, socio-economic, and socio-political) determinants of happiness. Happiness is usually considered a very personal trait, but it would be naive to think that individuals are not affected by their physical, social, economic, and political environment. These contextual factors differ across countries, regions, and economic, social, and political institutions. The reason that Korean people appear less happy may lie in these contextual determinants, given the fact that Koreans score particularly low on happiness relative to other countries with similar economic power.

This study investigated contextual determinants while controlling for individual determinants that have been found to be significant by earlier studies. Specifically, it sought to identify (1) how socio-economic factors such as economic prosperity and inequality affect the happiness of individuals, (2) whether environmental amenities, particularly green spaces, promote life satisfaction, and (3) the effects of political participation (represented by voter turnout) on happiness. It did so by comparing areas of Seoul, Korea, to explore whether neighborhood works as a reference point for an individual's level of happiness, and whether the impacts of social comparison or aspirations vary depending on individuals' social status. Based on the findings, this article also suggests policy implications and directions for public policies that may support happiness throughout the population.

CONCEPTS OF HAPPINESS

Happiness is an overriding goal in most peoples' lives, and accordingly, a major topic for academics. Great human minds, outstanding philosophers, and many others have sought to define and measure happiness. Nonetheless, the concept of happiness remains complex and elusive. Most current research on happiness and human well-being falls into two categories: the hedonic approach, which defines happiness in terms of pleasure attainment and pain avoidance, and the eudaemonic approach, which

defines well-being in terms of the degree to which a person is fully functioning, maintaining that not all desires would yield genuine well-being (Ryan & Deci, 2001).

The hedonic approach defines happiness or subjective well-being as an emotional aspect consisting of independent positive affect and negative affect components (see Diener et al., 1985) and as "a high ratio of positive to negative feelings" (Myers, 2004, p. 522). Most economists adopt the hedonic approach, defining happiness as simply "feeling good—enjoying life and wanting the feeling to be maintained" (Layard, 2005, p. 12), although they tend not to define happiness but to measure it empirically on the basis of the answers to questionnaires (Bruni, Comim, & Pugno, 2008). Easterlin (2001, p. 465) says, "I use the terms happiness, subjective well-being, satisfaction, utility, well-being, and welfare interchangeably."

On the other hand, most philosophers criticize the hedonic concept of happiness, supporting the concept of happiness as a rough synonym for well-being. In this view, a theory of happiness is a theory of value, ultimately benefiting a person (Haybron, 2008). Clearly, some pleasures produce outcomes that are not good for people, and there are good pains, as is shown by Wordsworth's "happy warrior," who experiences little pleasure and a good deal of pain, yet is still happy (see Nusbaum, 2008). Happiness in this sense involves a person's cognitive judgment on life satisfaction rather than his or her affective state.

Admittedly, happiness is an affective or emotional state, although the term is sometimes used to indicate certain behaviors or attitudes (see Chekola, 2007). Happiness may deserve to be endowed with a broader meaning of human well-being than being considered just a pleasure or mood. Humans as animals are assumed to have the ability to evaluate their lives by feeling good or bad about particular things and their overall adaptation (see Veenhoven, 2010). It might be fair to say that happiness typically presupposes well-being and forms a major part of well-being. "Knowing that someone is happy normally licenses an inference that the person is well-off" (Haybron, 2008, p. 139).

To summarize, happiness consists not just of hedonic feeling or subjective mood, but also of an individual's deep or robust affective state; furthermore, it conceivably includes cognitive judgment about one's life. Happiness data may carry information about the fit between human nature and different natural, cultural, and institutional environments. Both hedonic and eudaemonic aspects of happiness should be examined to obtain a more complete understanding of human happiness and well-being (Ong, 2009).

Following the definition by Veenhoven (2010), this article regards happiness as "the overall enjoyment of one's life-as-a-whole." Veenhoven (2010) distinguishes four types of satisfaction based on two dimensions—scope, involving satisfaction with

Table 1. Four Kinds of Satisfaction

	Passing	Enduring
Part of life	Pleasure	Partial satisfaction
Life-as-a-whole	Peak experience	Life satisfaction

Source: Veenhoven (2010).

parts of life or with life as a whole, and time, involving passing or enduring satisfaction (table 1). Among the four resulting kinds of satisfaction, life satisfaction is construed as happiness as it is concerned with life as a whole and is enduring.

Although, strictly speaking, happiness may be distinct from well-being, the concept of happiness encompasses a broad range of human well-being. Most studies of happiness use the term "happiness" interchangeably with "life satisfaction" and sometimes with "subjective well-being." Asking people questions related to happiness can measure both "affective appraisal," evaluating their own lives based on an overall feeling, and "cognitively guided evaluation," judging their lives based on reflection (Veenhoven, 2010). With all the complexity and difficulty in defining happiness, there appears to be a growing consensus among scholars dealing with human well-being and happiness that individual welfare can be measured with some accuracy (Dutt & Radcliff, 2009).[1]

DETERMINANTS OF HAPPINESS

Happiness studies have identified a number of personal, demographic, and individual covariates of happiness, which explain observed happiness patterns. Layard (2005) has summarized the "Big Seven" determinants that affect happiness: family relationships, financial situation, work, community and friends, health, personal freedom, and personal values. Of these, freedom may be seen as a contextual determinant explaining interna-

1. A large body of literature has reported that responses to those questions show a degree of validity and reliability. Researchers have provided an array of evidence that happiness data are correlated with physical reactions that are associated with true happiness. Kahneman and Krueger (2006) have found that frequent smiling, sociability and extraversion, and ratings of one's happiness made by friends are correlates of high life satisfaction and happiness. Shedler, Mayman and Manis (1993) show that happiness data are negatively correlated with heart rate and blood pressure measures of responses to stress. Consistency tests reveal that happy people smile more often during social interactions and are less likely to commit suicide (Frey & Stutzer, 2009). A test-retest correlation of 0.77 over four weeks (Lucas, Diener & Suh, 1996) has been reported, which may be reliable (Kahneman & Krueger, 2006).

Table 2. Studies on the Determinants of Happiness

Determinant	Studies
Family relations	Helliwell (2003), Frey (2008)
Income/finances	Clark & Oswald (1994), Chu (2004), Kim & Kim (2008), Lee (2009), Ferrer-i-Carbonell (2005)
Work/employment	Martikainen (2009), Clark & Oswald (1994), Jang (2011)
Community/social capital	Putnam (2000), Helliwell & Putnam (2004)
Health	Marks & Shah (2005)
Personal values	Layard (2005), Frey & Stutzer (2002)
Gender	Helliwell et al. (2012), Kim et al. (2003)
Age	Blanchflower & Oswald (2004), Koo & Suh (2011), Rho & Son (2010), Kim & Kim (2008)
Education	Helliwell et al. (2012)

tional differences. Major individual determinants and related studies are summarized in table 2.

Income or general financial situation is found to be positively correlated with happiness in most of the studies. Yet, at the same time, many studies on happiness, life satisfaction, and well-being show that income does not bring more happiness at the society level, as was first reported by Easterlin (1974). Many studies have attempted to explain the so-called happiness paradox—the failure of happiness to rise with income.

One of the theoretical explanations is that it is highly probable that happiness depends on social comparison (Clark & Oswald, 1996), which will be discussed in detail later in this article. Angeles (2011) argues that a mere 3.6 percent of the variation in happiness scores can be explained by income. The small effect of income on happiness implies that income gains can be easily overcome by other factors, and that there may be more important determinants of individual happiness. Some studies have reached the opposite conclusion (Lee, 2009), family income has a positive relationship with happiness, as emphasized in most of the research on Korea (Chu, 2004; Kim & Kim, 2008). Yet, the results also showed that the effects of income are mitigated by other determinants. Income has noticeably less impact on happiness than social status, implying that relative income is more important than absolute income. A similar finding is suggested by Koo and Suh (2011), who found that economic level reported subjectively by respondents is more significant than family income.

Family relationship is often pointed out as the most critical determinant of happiness, followed by income (Layard, 2005). Most studies have found that all things being equal, married people are happier than those who are divorced, separated, or widowed,

or have never been married (Helliwell, 2003; Frey, 2008). People who are employed with a secure job are happier than those who are unemployed or have an insecure job, and occupational status and satisfaction with working conditions affect general life satisfaction (Martikainen, 2009). In general, unemployment strongly reduces happiness (Clark & Oswald, 1994); yet, in Korea, some studies failed to find statistically significant effects of work status on happiness (see Jang, 2011).

People are happier if they feel that people in their community can be trusted, and there is a significant relationship between social capital and happiness (Putnam, 2000; Helliwell & Putnam, 2005). Studies consistently show a strong relationship between happiness and health, whether measured subjectively or objectively (Marks & Shah, 2005). Although women are found to be generally happier than men by many studies, studies on Korea have found that men are consistently happier than women (Kim, Kim, Han, & Lim, 2003). Young and old people often report being happier than middle-aged people (Blanchflower & Oswald, 2004); yet in Korea, older people tend to show lower happiness (Koo & Suh, 2011; Rho & Son, 2010; Kim & Kim, 2008), suggesting a lower level of welfare for older people in Korea. Evidence on the direct effect of education is mixed and varies among countries; generally, level of education has no clear direct impact on happiness, although it is indirectly related to happiness through its effects on income (Helliwell, Layrd, & Sach, 2012).

Furthermore, happiness studies find that the economic, social, political, and spatial contexts in which individuals exist matter to their level of happiness. Important societal-level contextual determinants include spatial determinants (such as degree of urbanization and environmental amenities), socio-economic determinants (such as income or economic growth, unemployment rate, inflation rate, and inequality), and socio-political determinants (such as political freedom, democracy, the rule of law, and political participation) (see Frey & Stutzer, 2002; Welsch 2009).

The most remarkable phenomenon that happiness researchers have found in conjunction with socio-economic determinants like income and economic growth is social comparison. It is highly probable that individuals seek a relative rather than absolute level of income. People compare themselves to others; the higher the income of others, the less satisfied people are. This struggle for relative position makes people less happy at the individual and community levels, producing negative externalities to overall happiness. Negative externalities are defined as "indirect effects of consumption or production activity, that is, effects on agents other than the originator of such activity which do not work through the price system" (Laffont, 2008).

On the other hand, people can experience benefit from others' higher incomes if they consider them to be indicative of their own future income. Especially in uncertain and adverse situations, people often interpret positive signals that they observe around

them to predict an impending upturn in their own situation—the "tunnel effect" or "signal effect" (see Senik, 2004; Hirschman & Rothschild 1973). Moreover, wealthier people may feel happier simply because of their ability to enjoy higher levels of income than the poor (the "greed effect" Graham & Felton, 2009), or the mere perception of prestigious status.

To summarize, aspiration or social comparison induces negative externalities, which reduce happiness; on the other hand, positive effects on happiness can be derived from amenities, prestige, and expectation of income increase in the near future. Various studies have been conducted on the negative externalities and positive effects of neighborhood income (see Clark & Oswald, 1996; Blanchflower & Oswald, 2004; Luttmer, 2005; Ferrer-i-Carbonell, 2005; Hagerty 2000; Firebaugh & Schroeder, 2009).

Findings on the impact of income inequality on happiness are also mixed. Alesina, Di Tella, and MacCulloch (2004) found that inequality has a large and statistically significant negative effect on happiness in Europe, but not in the United States. This may mean that Europeans have a stronger aversion to inequality than Americans have, or that upward social mobility is perceived to be greater in the United States than in Europe (Frey & Stutzer, 2002). Although the effect of income inequality is likely to vary depending on how the inequality is interpreted,[2] there is plentiful evidence that inequality harms happiness. Using data from the World Values Survey, Fahey and Smyth (2004) found that inequality reduces life satisfaction, and Hagerty (2000) presents a negative relationship between inequality and subjective well-being.

There is also a growing recognition that natural environments can benefit the health of urban populations and that nature can help relieve stress and attentional fatigue. This may be particularly beneficial in urban areas where stress is a common aspect of daily living. Research in rural communities in New York shows that nature in the residential environment may serve as a buffer for the impact of stressful events in daily routines on rural children's psychological well-being (Wells & Evans, 2003). Kuo and Sullivan (2001) show that residents living in greener surroundings report lower levels of fear, fewer incivilities, and less aggressive and violent behavior.

Participating in the political life of their community can also lead individuals to perceive themselves as freer and more autonomous. Frey (2008) uses the term "proce-

2. In our evolutionary past, men who were not able to achieve a high position in society must have been afraid of loss of access to assets or marriage due to the relative success of other men, which may be considered a rivalry factor. On the other hand, evolutionary selection has given men concerns about others in order to give them an "incentive to gather useful information about potentially profitable activities," which may be called an information factor (Hopkins, 2008).

dural utility" to describe their finding that individuals are happier when participating in democracy because they develop a "sense of self." People care about how they perceive themselves and how others perceive them. Procedural utility exists "because procedures provide important feedback information to the self" and address the "innate psychological needs of self determination differently" (Frey, 2008, p. 109).

FRAMEWORK OF ANALYSIS AND HYPOTHESES

There are different elements of happiness, some of which are individually driven and others determined by contextual variables. According to psychologist Lyumbormirsky (2005), traits with which each person is born determine only 50 percent of happiness, while circumstances and activities account for the remaining 50 percent. It is also apparent that major changes in conditions in a country affect the average happiness of its citizens. Veenhoven (1994) asserts that happiness is not a fixed 'trait' but a variable 'state' at both the individual and collective levels. Differences in average happiness among regions and countries indicate that improvement or deterioration of a situation or condition might lead to changes in people's appreciation of life at the collective level.

Thus, in order to understand what makes people happy and to enhance the level of happiness across different contexts, investigations beyond individual characteristics are needed. Consideration of the interplay of individual characteristics and the social context can be helpful. Often relevant hypotheses on well-being or happiness can be tested only by simultaneously examining variables at the individual and aggregate level (Helliwell & Putnam, 2004).

The advent of multi-level modeling has allowed researchers to ask more sophisticated questions about happiness. Some argue that multi-level analysis is the only valid approach (Ono & Lee, 2010). Instead of merely asking an individual how happy or satisfied he or she is with life as a whole, researchers can now conduct exciting research on the relations between varied contextual factors, and go beyond the focus on individual differences to examine theories on happiness emphasizing the importance of social comparison and aspiration. For example, to assess whether relative income matters for an individual's happiness, both individual-level and community-level measures of income should be included in the analysis. Blanchflower and Oswald (2004) have reported that levels of happiness do not increase in line with income levels due to negative correlation between happiness and comparison, considering diverse variables such as age, race, or sex. They also report a negative correlation between subjective well-being and comparison. McBride (2001) also finds a negative correlation between

happiness and relative income after testing for the effect of own income, past financial situation and relative income on self-reported happiness.

This study addressed the risks involved in single-level regression analysis by applying multi-level analysis. A considerable number of studies exploring the association between individual-level characteristics and contextual or spatial-level effects have incorporated context or space in the analysis using single-level econometric models. They typically include a dummy variable for area, such as region, country, or state. Some studies, though, due to the lack of data, have relied on data aggregated beyond the unit of analysis, which are often prone to criticisms associated with the ecological fallacy.

There are additional benefits to using multi-level analysis. First, the nested structure of the Seoul Survey needs to be taken into account, which is possible only through multi-level modeling. As individuals are clustered within households, which in turn are clustered in houses, neighborhoods, cities, and regions, the happiness levels of individuals may not be independent of one another, thereby causing standard errors of regression coefficients to be underestimated. Applying ordinary least squares regression may overestimate the parameters, as it disregards the correlations among the individuals within the same region, treating the individuals in different regions independently.

Second, multi-level analysis can estimate the magnitude of variances at different levels and how these variances relate to explanatory variables. In the current study, happiness, the dependent variable, is modeled as a function of individual-level variables like respondents' socio-demographic features (level 1) and contextual variables like physical, economic, and social features (level 2). With multi-level analysis, the dependent variable is tested to estimate the simultaneous contribution of individual and contextual determinants.

In addition, this study investigated the moderator effects of social status by separately investigating the whole sample, a lower social-status group, and a higher social-status group.[3] One reason for this is that different reference groups matter to different cohorts, especially for happiness. Happiness studies so far have found that an individual's happiness is affected by aspiration or social comparison and that people care about status and income relative to others rather than absolute income (Layard, 2005).

This study aimed to determine, first, how the happiness of an individual is affected by social comparison or aspiration, identifying relative features of happiness with regard to socio-economic determinants such as economic prosperity, inequality, and property prices; second, if natural amenities like green spaces have robust positive

3. In the Seoul survey, responses to questions about social status were made on a six-point scale, and respondents were asked an open-ended question about their level of income.

effects on life satisfaction; and third, if the procedural utility of high voter turnout in the community affects people's happiness positively.

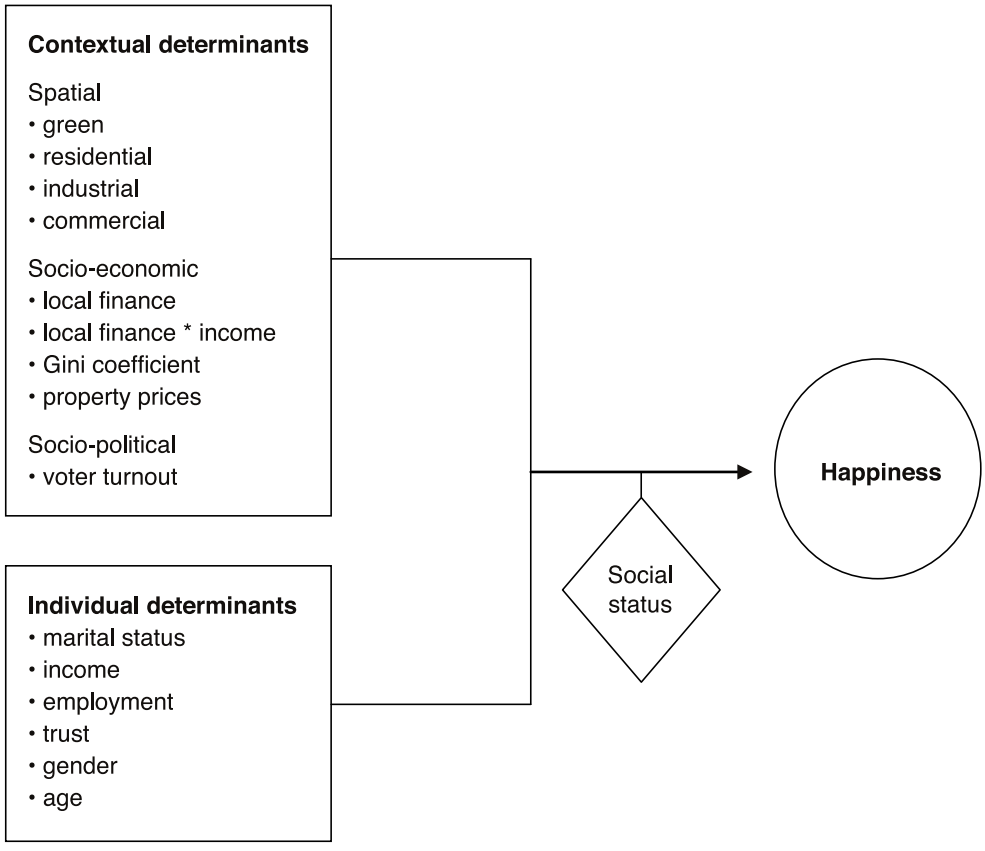
This article explores the positional characteristics of happiness with regard to socio-economic factors. As mentioned above, many studies have found that happiness "depends partly on comparisons (against for instance, what one has relative to some reference level)" (Clark & Oswald, 2002, p. 1140). Thus the study investigated whether an individual's happiness is affected by his or her aspirations or comparisons to others.

The study used neighborhoods as the references of social comparison, based on the assumption that individuals are most likely to compare themselves to others whom they can directly observe (see Luttmer, 2005). Based on existing theory on comparison, the study hypothesized that negative externalities apply in general, that is, as social comparison with others becomes more intense and the level of aspiration rises, people feel less happy. It explored how the effects of socio-economic determinants of happiness vary according to people's social status, by investigating separately the whole sample, a lower social-status group, and a higher social-status group; the effect of local finance, the interaction of local finance and income, and inequality measured by Gini coefficients, controlled for the effects of property prices and other individual covariates.

The study also sought to determine how physical, natural, or built environments, particularly green spaces, affect the happiness of residents. Green areas as natural amenities are assumed to function as "natural tranquillizers" and have "buffering effects" (Wells & Evans, 2003), and to have positive effects on people regardless of their social status. Specifically, it investigated whether green areas, measured by square kilometers per person, had a positive or negative effect on people's satisfaction while controlling for other spatial variables like residential, industrial, or commercial area, and for individual determinants such as family, financial situation, work, gender, and age. In addition, it examined whether the results differed depending on self-reported social status.

The study also explored the effects of political participation, as measured by local voter turnout, on residents' overall level of happiness. Although voting is an inherently private activity, voter turnout is deemed to be a community-level variable, as voting, by itself, may imply greater costs than benefits to individuals. As previously noted, individuals report feeling happier when they perceive that they are part of the democratic process. Voting allows people to voice their opinions on important policy issues, thereby giving them a sense of fulfillment that by voting, they have contributed to the realization of virtues for the common good. This study attempted to find contextual-level correlations between happiness and voter turnout, again analyzing the whole sample first and then the two groups based on social status, controlled for other individual covariates.

Figure 1. Framework of Analysis



The framework of analysis for this study is presented in figure 1. A causal model was generated, to test the theorized relationships by examining the effects of spatial variables on happiness, after adjusting for the effects of individual determinants and other contextual covariates (like residential, industrial, and commercial spaces, and property price), with social status as a moderator variable. Contextual predictor variables include green area, local finance, inequality, and voter turnout.

The following hypotheses were established.

> **Hypothesis 1:** One's neighborhood works as a basis for social comparison; as the intensity of comparison or the level of aspiration rises, people feel less happy in more affluent places.
> **Hypothesis 2:** Inequality among residents in a region reduces their happiness, regardless of their social status.

Hypothesis 3: Among the amenities derived from physical, built, or natural environments, the natural amenities of green spaces have positive effects on the happiness of people, regardless of their social status.
Hypothesis 4: Voter turnout, represented as a procedural utility, raises the happiness of residents in a region, regardless of their social status.

The first and second hypotheses refer to socio-economic determinants, the third to spatial determinants, and the fourth to a socio-political determinant. The previously reviewed literature is generally supportive of this framework.

MEASURES

Data and Sample

The Seoul Survey, developed to evaluate urban policy, is composed of administrative data research, household surveys, business surveys, and surveys of foreigners in Korea. This study used data from the 2010 household survey. The survey, implemented every year since 2003, examines economics, balanced development, culture, tourism, welfare, family, environment, transportation, participation, and trust. It has separate questionnaires for heads of household and household members, totaling 85 questions, with a target population of all Seoul household members aged 15 or over. From this target population, 20,000 households and 47,010 individuals are sampled by the multi-stage area probability sampling method. The first stratum is composed of 25 districts; the second, 424 "dong" areas[4]; and the third, types of household residence. Structured, face-to-face, in-depth interviews were conducted by trained interviewers during October 2010.

Outcome Variables

Although some skeptics express doubts on the validity and reliability of these measures of happiness, happiness or subjective well-being, as measured directly from the survey, is found to "have a high scientific standard in terms of internal consistency, reliability, and validity" (Diener & Suh, 1999, p. 438). Happiness measures provide valid and reliable information on how well people, as well as societies as a whole, are

4. Special metropolitan city has an administrative structure composed of autonomous district, "gu," which includes lower tier entitiles of "dong."

doing (van Hoorn, 2007).

Some surveys include a "general happiness" measure that asks people to report, for example on a 5- or 10-point scale, how happy or satisfied they are with their lives. The Seoul Survey calculates general life satisfaction by averaging satisfaction in five areas—family, finance, health, friends, and social relations—on a 10-point scale.[5]

Individual Predictor Variables

Socio-demographic variables assessed by the Seoul Survey—such as age, gender, employment, marital status, social status, and family income—were considered in the analysis. As discussed earlier, many studies have found socio-demographic variables to be highly related to happiness; omitting them from the statistical analysis can produce misleading results.

Being married or living with a partner is associated with the highest level of subjective well-being, and being separated is related to the lowest level of happiness. People who are employed with secure jobs are assumed to be happier than those who are unemployed; employment status was considered to include the self-employed. Trust is measured by asking people to answer the following question on a 5-point scale: "Generally speaking, would you say that most people can be trusted or that you cannot be too careful in dealing with people?"

As subjective health and strength of religious faith are not included in the Seoul Surveys, this study did not consider those issues. It also did not take into account the level of education, as education has no clear direct impact on happiness according to the literature reviewed above. However, gender and age were taken into consideration.

Social status is classified by a 6-point scale in the Seoul Survey; the study divided the six classifications into two larger categories, i.e., between one to three, and four to six. Of the 47,010 Seoul Survey respondents, 34,557 belong to the lower economic class and 12,453 to the higher class.

Contextual Predictor Variables

Contextual predictor variables included presence of green space, prosperity of the local district, inequality, property prices, and voter turnout.

The measure of green space used in this study was square kilometers per person,

5. Responses to a general happiness question, made on different scales, have been amalgamated to a single scale in multi-level studies of mental health in the United Kingdom. Propper et al. (2005) and Hauck and Rice (2004) both used this as a continuous variable in their studies.

calculated using the National Urban Planning Database, which collects information from cities, districts, and counties, under the supervision of the Ministry of Land, Transport and Maritime Affairs. It is available at City Portal (MOLIT, 2013) along with data on the other covariates, the area of commercial space in square kilometers per person, the area of industrial space per person, and the area of residential space per person.

Local economic prosperity was measured based on the financial capacity of each of the 25 local governments, that is, the self-reliance ratio of local finance. This ratio is often used to represent the level of local economic prosperity and has a negative relationship with poverty (Baek, 2007; Kim & Rho, 2011). Local financial capacity is closely related with the numbers of jobs, large stores, doctors, private institutions, sports facilities, light vehicles, and parking areas, as well as electricity and gas usage. Therefore, it is appropriate as a proxy for local economic levels. Local financial capacity as a measure matches well with the economic prosperity of the areas and may well represent the level of aspiration and social comparison of people residing in the locality.

The self-reliance ratio of local finance can be obtained from Ministry of Security and Public Administration (MOSPA, 2013) and is calculated as follows:

> self-reliance ratio of local finance = (local tax + non-tax revenue) / general accounts * 100

Correlation of local financial capacity with various indicators of economic level is found to be high; local financial capacity is, therefore, deemed to be a good fit as a proxy for economic prosperity.

To measure inequality, Gini coefficients were calculated from the samples. The Gini coefficient is commonly used as a measure of inequality of income or wealth, defined mathematically as the ratio of the area that lies between the line of equality and the Lorenz curve. Given that no other official statistics are available and the samples of Seoul Survey amount to 20,000 households and 47,010 individuals, calculating Gini coefficients from the survey data may be justifiable.

Property prices were considered as a control variable, because housing prices are "probably the most important component of local prices" (Luttmer, 2005, p. 979). A change in housing price index for the last three years was obtained from Kookmin Bank's property index (Kookmin Bank, 2013), which is recognized by the Ministry of Land, Transport and Maritime Affairs.

Finally, data on voter turnouts in the 25 districts were obtained from the National Election Commission (NEC, 2013). In 2010, the year of the survey, local elections were held on June 2. Overall voter turnout was 54.5 percent, or 21,166,886 of

38,851,159 registered voters, which was the second highest in the history of Korean local elections.[6]

ANALYSIS

Seoul Survey data are organized by area of residence (district). Differences among the sites are random, or due to the sampling; characteristics of places and urban environments are crucial to understanding determinants associated with happiness. Individuals residing in the same place share many common, spatially relevant experiences that affect their happiness. The data sets are multi-level, composed of data from individuals sampled by the multi-stage area probability sampling method and nested within the regions. Applying ordinary least squares regression may overestimate the parameters, as it disregards the correlations among the individuals within the same region, treating the individuals in different regions independently.

Multi-level models or linear mixed models have had a long history of successfully analyzing data with inherent hierarchical structures (Raudenbush & Bryk, 2002). A key feature of multi-level analysis is that it can yield a decomposition of the total variance into a between-people, within-district component and a between-district component. Moreover, it can estimate the magnitude of variances at different levels and how these variances relate to explanatory variables (Rice & Jones 1997).

In this study, happiness as a dependent variable was modeled as a function of individual variables such as demographic features of respondents in level 1, and contextual variables such as spatial, socio-economic, and socio-political variables in level 2. The dependent variable, level of happiness, was tested to estimate the contribution of individual variables at level 1 and contextual variables at level 2 to happiness outcomes. Random intercept and slope models were built to estimate the relationships.

Professional multi-level software MLwiN (version 2.22) was used for the analysis.

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6. The highest turnout was 68.4 percent in the first local elections in 1995; turnout was 52.3 percent in 1998, 48.8 percent in 2002, and 51.6 percent in 2006. Regionally, the highest voter turnout was in Jeju-do, and Seoul city ranked 10th, at 53.8 percent. At issue during the heated and attention-grabbing local elections in June 2010 was the public welfare, especially universal access to welfare, which might be one of the main reasons why voter turnout was so high. Particularly controversial was the school lunch program, which was supported by the Democratic Party but criticized by the Grand National Party for giving in to what it considered leftist populism. A notable new trend, campaigning to mobilize young voters using social media tools such as Twitter and Facebook, might also have contributed to the high voter turnout.

The study first analyzed individual, demographic characteristics, and subsequently other variables were entered and analyzed, together with variables previously put into the model. MLwiN can evaluate how the variability of the model changes after including predictors at the contextual level, by calculating the deviances (-2log likelihood ratio) between them.

Subsequently, model 0 yielded a decomposition of the total variance into within and between spatial components (25 districts). In model 1, the individual determinants from the survey data were entered and analyzed. In model 2, spatial variables related to physical, natural, or built environments were introduced. Model 3 considered socio-economic determinants, and in model 4, voter turnout was analyzed with all the other individual and contextual-level variables controlled for. In these models, multi-level analysis was carried out first on the whole sample, controlled for other individual predictors, and then on the split samples (upper class and lower class).

Multicollinearity can be a problem, especially for multi-level analysis; therefore, collinearity diagnostics were performed before the multi-level analysis with variance inflation factors and tolerance; the final variables included in the model had variance inflation factors of less than 4. In addition, because "centering is used as a way to make coefficients more readily interpretable and as a very effective means of minimizing the consequences of multicollinearity when cross-level interactions are included" (Bickel, 2007, p xvii), all the variables in level 1 were standardized for each of the three (one whole and two split) samples. Finally, as many studies have shown that estimates of the determinants of happiness or life satisfaction are virtually unchanged whether one models the ordinal nature of the variable (as implied by the use of ordered probit) or treats the responses as cardinal (implied by the use of ordinary least squares) (Ferrer-i-Carbonell & Frijters, 2004), this study applied linear models.

RESULTS

First, the samples were examined for whether they were fit for multi-level analysis, that is, whether their between-group variances and the null model were statistically significant. Subsequently, analysis began with the null model of the whole sample, with neither level 1 nor level 2 predictors. The ratio of between-groups to total variance, that is, ICC (intra-class correlation), was calculated as 5.7 percent, with random effects of 0.081 (standard error of 0.023), and total variance of 1.331 (standard error of 0.009), both of which are statistically significant (table 3).

Next, investigating whether the other two cohorts were also fit for applying multi-level analysis, separate models were run for split cohorts. As shown in table 4, both of

Table 3. Variance and Components of Happiness, Seoul Survey Respondents

	Whole estimates (SE)	Lower status estimates (SE)	Higher status estimates (SE)
Total variance	1.331 (0.009)	1.321 (0.010)	1.213 (0.015)
Variance between districts	0.081 (0.023)	0.100 (0.028)	0.087 (0.025)
Intra-class correlation	5.7%	7.6%	7.17%
Deviance	145,426.412	106,637.359	37,473.603

them had statistically significant between-group variances in happiness. The lower-class group produced an ICC of 7.6 percent, and the higher class group an ICC of 7.17 percent, indicating that the between-group effect of the lower-class respondents in proportion to total variances is a little larger than that of the higher-class respondents.

In model 1, representing all the respondents, major predictors of happiness included marital status, absolute family income, employment status, trust, gender, and age. As shown in table 4, the results appear to be almost as expected, as outlined in the previous literature. Married people, especially if employed, were found to be happier with higher incomes and higher trust levels. Men were found to be happier than women. This result is not consistent with most of the existing studies, which were conducted in Western developed societies, but other studies on Korea have yielded similar outcomes. Kim et al. (2003) found that men are happier than women, and Koo and Suh (2011) found no significant relations between gender and happiness. In addition, older people show lower levels of happiness in some studies (Koo & Suh, 2011; Rho & Son, 2010), for which the main reason is suggested to be related to the decreasing level of welfare for older people (Kim & Kim, 2008). With respect to age, unlike the U-shaped pattern reported in most countries, people in Korea tend to become less happy as they age.

In model 2, contextual-level variables were introduced, starting with spatial determinants—physical, built, or natural environment variables classified as green, residential, industrial, and commercial area by the law of land planning and utilization. Next, the study included socio-economic variables—the self-reliance ratio of local finance, Gini coefficients, and changes in the housing price index for the last three years. Finally, in model 4, a socio-political variable, voter turnout, was introduced.

As table 4 shows, the results, controlled for other variables, indicate that an increase in green areas raises the happiness of the residents. Better local financial capacity, or the higher level of prosperity of each district, does not necessarily lead to a higher level of happiness among residents. Yet, the interaction term of local financial capacity and income was significantly positively correlated with happiness, which indicates that the income slope is steeper for respondents from more prosperous districts.

Table 4. Coefficients, Variances and Components of Happiness, Seoul Survey Respondents

	Model 1	Model 2	Model 3	Model 4
Coefficient of Individual determinants				
Marital status	0.091***	0.091***	0.091***	0.091***
Income	0.257***	0.257***	0.257***	0.257***
Employment	0.106***	0.106***	0.106***	0.106***
Trust	0.064***	0.064***	0.064***	0.065***
Gender	-0.048***	-0.049***	-0.049***	-0.049***
Age	-0.222***	-0.222***	-0.222***	-0.222***
Coefficient of Contextual determinants				
Spatial: green		0.006***	0.008***	0.009***
Spatial: residential		0.003	0.003	0.006
Spatial: industrial		0.015*	0.019**	0.019**
Spatial: commercial		-0.010	-0.008	-0.011
Local finance				-0.034
Local finance * income			0.022	0.020**
Gini coefficient			0.020**	-1.716†
Property prices			-2.352**	-0.052
Voter turnout			-0.027	0.050**
Random effect variance	0.074	0.048	0.042	0.043
Deviance	816.281	825.016	833.186	836.352
Intra-class correlation	6.19%	4.10%	3.61%	3.69%

Note: standardized coefficient estimates are presented for individual-level variables.
† $p < 0.10$, * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

The result did not confirm the hypothesis of negative externalities in general; that is, the hypothesis that people feel less happy when their level of social comparison or aspiration is higher. As mentioned before, more intense comparison with neighbors or peers or aspiration is generally assumed to have negative externalities, reducing the level of happiness. Yet the effect may be offset by positive effects, as individuals feel that they have prestige when there are better and more amenities around them.

However, higher income inequality in a district, measured as Gini coefficients, compromises the happiness of people living there. People do not feel less happy when they live in more affluent districts, although the level of aspiration is raised; however, the level of happiness decreases as inequality increases. Rising property prices do not contribute to an increase in the level of happiness of residents, with statistically weak significance.

On the other hand, green areas, as predicted by the hypothesis, were found to significantly enhance the level of happiness from model 2 through model 4, with the

presence of other residential, industrial, and commercial areas controlled for. Voter turnout was statistically strongly correlated with happiness in model 4, supporting the hypothesis that procedural utility raises an individual's happiness.

The ICC of the null model, which was previously 5.7 percent as shown in table 3, was reduced to 3.69 percent in the final model, indicating that the model explains sufficiently well the original variances between groups. The change in the -2log-likelihood value or in the deviance was statistically significant, tested with chi-squared distribution. The changes in deviance between the random coefficient model (model 1—that is, the model with no level-2 variable) and the final model, model 4, were also statistically significant, confirming the better fit of the more elaborate model with spatial-level variables to the data.

In summary, if the other conditions are controlled, the level of happiness may be higher when people are married or live with partners. The research finding that men and younger people are happier runs counter to most studies in advanced societies. Being employed or self-employed has a positive correlation with happiness, as does trust in other people and income. However, living in a district with high economic prosperity does not induce higher levels of happiness. Yet, when people live in districts with low inequality, they feel happier. Living in districts with more green areas and higher voter turnout has a strong association with happiness.

Next, this study separately investigated lower and higher social-status groups, regarding social status as a moderator. It found that the individual-level variables have almost the same statistically significant effects on happiness of the respondents who have self-reported that they belong to the lower class. A married young man with higher income and higher trust is more likely to be happier than an unmarried and older woman with lower income and lower trust in other people.

Although the interaction terms of local financial capacity and income appear to be positively correlated with happiness, a higher level of economic prosperity in a district does not necessarily lead to a higher level of happiness among individuals living there. Rather, it reduces the happiness of people with lower status, producing negative correlates with a significance of 0.1.

It appears that lower-class people feel less happy because of the negative externalities they experience; in other words, they are less happy because they are more concerned with social comparison. When they are in affluent places, the positive effect of the better amenities that come with living in the affluent neighborhood are superseded by the negative effect of their own lower status. Comparison matters more than the amenities they can enjoy.

Gini coefficients also have a negative correlation with happiness, while property prices do not show any significant correlation. In addition, a strong correlation was

found between green areas and happiness in the lower-class group, which continued throughout models 3 and 4. Voter turnout, considered in model 4, showed a strong positive relationship with happiness, and Gini coefficients, although lessened a bit, still sustained validity with a statistical significance of 0.1. Property prices did not show any significant effect.

To summarize, when other conditions are controlled, the level of happiness of people with lower social status may be higher when they are married or live with partners. Males and the young tend to feel happier than females and older people. Employed or self-employed people feel happier, and trust in other people and family income have a strong positive correlation with happiness. Living in a district with a higher level of prosperity reduces the level of happiness (although the interaction term indicates that the income effect will be greater for respondents in districts with high levels of prosperity). They feel happier when they live in districts with lower inequality, more green areas, and higher voter turnout.

Among higher-class respondents, in contrast, local financial capacity showed a positive correlation with happiness, which remained valid until model 4. Higher aspiration may lead to a higher level of happiness in people with higher social status, as the affluent place of residence confirms that they have a prestigious status. The negative effect will be offset by the positive effect of better amenities they can enjoy, or their self-confirmed perception of prestige.

Gini coefficients were negatively correlated with happiness, as in the lower-class group, while property price still did not have any statistical significance. Natural amenities or green areas as well as high voter turnout showed a strong positive correlation with happiness for this group, too.

In sum, if the other conditions are controlled, in the cohort with higher social status, people who were younger, employed or self-employed, had stronger trust in others, and had greater family incomes appeared happier. Unlike in the lower social class cohort, marital status and gender produced no significant results. Living in a district with a higher level of economic prosperity induced a higher level of happiness (with the interaction term not statistically significant). However, living in a district with higher inequality reduced happiness. When people live in a district with more green areas or higher voter turnout, they are more likely to be happier.

DISCUSSION

The variance that was not explained by individual-level variables in the random coefficient model was reduced from 6.19 percent to 3.69 percent by factoring in con-

textual variables such as physical or natural environmental variables (green, residential, industrial, and commercial areas) and economic and socio-political variables (Gini coefficient and voter turnout).

Some might argue that the overall effects of these contextual variables are much lower than those of individual-level variables like income. Yet, while some contextual variables—local financial capacity and property prices—had little or no effect, the above-mentioned contextual variables showed consistent effects on the happiness of individuals, regardless of their social status.

Of the hypotheses presented before, three—hypothesis 2, that inequality reduces happiness, hypothesis 3, that green spaces have positive effects on happiness, and hypothesis 4, that voter turnout is positively correlated with happiness—were confirmed, regardless of social status, while hypothesis 1, that people are less happy in more affluent places, was not. This suggests the following conclusions.

First, although neighborhood seems to work as a reference point for comparison, negative externalities caused by social comparison were found only among people with lower social status; people of the higher class feel happier when they live in more affluent districts. Thus, hypothesis 1 cannot be corroborated.

This result shows that there exists a large discrepancy between rich and poor, maybe because poor people are not able to enjoy a higher level of economic prosperity, especially regarding agency and capabilities. On the other hand, with regard to the hypothesis 2, inequality within a districts reduces the level of happiness of people in general, regardless of their social status.

Second, the observation that natural amenities (green spaces) and procedural utility (political participation) have positive effects on people's happiness, regardless of their socio-economic status, shows that these factors may be exceptions to the adaptation,[7] producing positive externalities to the happiness of people in general. On the other hand, although people tend to believe that material factors (like living in more affluent and modernized districts) are closely related to happiness, they actually produce negative externalities for some people, especially for the poor. Rising property prices do not increase happiness, even for people in the higher class. These results are in line with the findings of earlier happiness studies.

According to theories of happiness, economic growth does not inevitably lead to greater happiness. Living in affluent communities raises aspirations or positional

7. Adaptation may occur in most things, whether they are good or bad (Graham, 2011). Yet, it varies across different situations and contexts. Green spaces and political participation may well be rendered as exceptions to adaptation, in the sense that they help enhance the level of happiness regardless of the individual's social poison.

competition, generating negative externalities. In addition, growth entails social and environmental degradation as it generates extensive negative externalities, so that the importance of the role of these non-material factors in individuals' happiness grows. Many happiness studies have found that material factors like higher income and economic prosperity have only temporary effects on individuals' happiness because people gradually adapt to the new circumstances, while environmental amenities, relational goods, companionship, friendship, and a good family are market externalities (see Lane, 2000), and may be construed as exceptions to adaptation as they continue to be important even after the economic growth or prosperity.

Slightly at variance with these theories is this study's finding of negative externalities only in the cohort with lower social status, not in the higher social class or in the sample as a whole. Most happiness studies performed in developed Western countries have focused on negative externalities, showing that neighborhood income reduces the level of happiness. Unlike them, this study found that living in a more affluent community does not affect the level of happiness for the whole cohort, and even enhanced it for the higher-class cohort, suggesting a "greed effect" rather than a "comparison effect."

It might be interpreted that people in general may adjust fairly well to social comparison as the negative effect did not occur for the whole sample. Yet, as the negative effect was only found among people with lower social status, this interpretation is not likely to fit to the situation of Korea. This may be because the amenities provided by a prosperous area asymmetrically benefit people of the higher class, and may disadvantage those belonging to the lower class. Even if they live in affluent communities, people with low social status may not be able to access those assets, due to a lack of agency and capabilities (see Graham, 2011). On the other hand, for the people who belong to the higher class, the negative effect caused by social comparison is offset by the positive effect of better amenities and the self-confirmation that they belong to a prestigious group.

CONCLUSION

The results suggest a rather large discrepancy of capabilities between higher- and lower-class people and the frustration of people who belong to the lower class, which may explain why the level of happiness of people in Korea is relatively low compared to other developed countries. In addition, the fact that inequality measured by Gini coefficients consistently lowers happiness, not only in the whole sample but also in the lower- and higher-class groups, implies the severity of the gap between those with capability and those without.

Green spaces raise happiness in all three groups. Similarly, higher political participation promotes happiness regardless of social class. The results of this study are congruent with earlier studies that suggested that these non-material factors are more important determinants of happiness than material factors like higher income and economic prosperity.

The policy implications of this study are as follows. First, reducing the discrepancy between social statuses may raise the overall level of happiness. The city of Seoul is growing increasingly polarized, with some citizens able to access numerous services while many others are marginalized.[8] Decreasing the affluence gap between districts by supporting the sub-centers' role may be one way of reducing the polarization among the districts and simultaneously raising the happiness of Seoul residents.

Study results suggest that inequality spoils happiness regardless of socio-economic class, and thus a more effective policy of redistribution among individuals and among regions may raise the happiness of people in general. To prevent conspicuous consumption and negative externalities, especially for the poor, and to increase everybody's happiness regardless of social position, the introduction of consumption taxes (Frank, 1999), along with more redistributive policies, can be a feasible alternative.

Second, because non-material determinants such as environmental amenities and political participation raise the happiness of the people in general, public policy should focus more on providing those public goods rather than material and private goods. For example, local government should invest more effort in making the locality greener rather than building large government office buildings and artificially supporting property prices.

There might be also possibilities for local government to promote political participation, for example by focusing on issues and policies more closely related to citizens' everyday lives and by facilitating communication. Proposals by Haidt, Seder, and Kesebir (2010) that local governments encourage local festivals and dances, and make it easier for beneficial festivities to be held, suggest one possible approach.

Happiness has been a universally understood and desired goal since the beginning of human history, and undoubtedly will continue to be in the future. The Korean constitution recognizes the pursuit of happiness as an inalienable right in encompassing all the other rights not specified in the constitution (Kwon, 1994, p. 335). In one way or another, what governments should do is to establish, pursue, and implement policies whether they be purposive actions or inactions. Given that nations pursue policies that

8. Mapo-gu, Seodaemun-gu, Dongdaemun-gu, and Yongsan-gu had fewer large firms and financial services companies, compared to the Kangnam area, although the former four districts are sub-centers of a metropolis (Lee & Lee, 2007).

work toward the interest of the country as a whole, they also ought to pursue policies that promote the genuine well-being of the people, which might be measured as happiness.

The Korean government has set different policy goals in each time period, mobilizing scarce resources and concentrating on different priorities at the appropriate time, thereby greatly contributing to meeting citizens' needs as well as human development needs such as poverty alleviation, economic growth, and education (Im & Park, 2010). Korea's current president, Park Geun-hye, presented happiness of the people along with economic revival and flourishing culture as key goals for her five-year term.

Happiness studies and survey data could be one of the criteria with which government would encourage the choice for better and long-lasting life satisfaction. The "soft paternalism" or "libertarian paternalism" suggested by Thaler and Sunstein (2008) could help avoid the conflicts between happiness and other important values. For instance, people appear to be less happy in societies where collectivist values, such as submission to authority and identification with a clan, are endorsed (Maryanski & Turner, 1992). Without hampering the freedom of choice, policy might frame choices in a way that options can be made available and defaults can be set, on condition that people must be able to opt out easily from new policies. A high rate of opting out should be taken as a rejection of a policy (see Thaler & Sunstein, 2003; with regard to the possibilities and limitations of public policies pursuing happiness, see Woo, 2013).

Although for simplicity this article focuses on causes or determinants of happiness, some methodological cautions need to be emphasized, such as the possibility of selection effects, spuriousness, and reverse causation. The direction of causation underlying this correlation remains somewhat controversial. In particular, contextual variables are vulnerable to the criticism that the correlations might reflect the effects rather than the causes of happiness. Ultimately, longitudinal data and quasi-experimental methods will be necessary to resolve those uncertainties (see Helliwell & Putnam, 2004).

Happiness is a nascent research topic, particularly in Korea. Admittedly, it is a complex concept, perhaps more complicated than other issues such as GDP, consumption, or distribution. Although this study contributes to understanding the happiness of people living in Seoul by investigating contextual determinants of happiness, more research in other settings should be implemented to further test these findings. Due to the intrinsic limitations of statistical modeling—for example, the limited number of degrees of freedom—the study cannot include all the variables presumably associated with happiness. Future studies on the relationship between happiness and contextual determinants could benefit from using different variables than those considered in this article. Additionally, longitudinal analysis of those variables might yield different pictures of the relationship.

APPENDIX

Data in the Seoul Survey were provided by 47,010 individuals living in the metropolitan city of Seoul. Table A1 presents the characteristics of the sample population.

Table A1. Descriptive Characteristics of the Seoul Survey Sample

Variable	Measure	Number of individuals (%)
Gender	Male	23,371 (49.7)
	Female	23,639 (50.3)
	Total	47,010 (100.0)
Age	10-20	3,511 (7.5)
	20-30	8,146 (17.3)
	30-40	9,730 (20.7)
	40-50	9,058 (19.3)
	50-60	7,940 (16.9)
	60+	8,626 (18.4)
	Total	17,010 (100.0)
District	Jongno-gu	770 (1.6)
	Jung-gu	513 (1.1)
	Yongsan-gu	1,071 (2.3)
	Seongdong-gu	1,451 (3.1)
	Gwagjin-gu	1,863 (4.0)
	Dongdaemun-gu	1,762 (3.7)
	Junganang-gu	2,123 (4.5)
	Seongbuk-gu	2,120 (4.5)
	Gangbuk-gu	1,696 (3.6)
	Dobong-gu	1,750 (3.7)
	Nowon-gu	2,808 (6.0)
	Eunpyeong-gu	2,179 (4.6)
	Seodaemun-gu	1,509 (3.2)
	Mapo-gu	1,707 (3.6)
	Yangcheon-gu	2,199 (4.7)
	Gangseo-gu	2,518 (5.4)
	Guro-gu	1,924 (4.1)
	Geumcheon-gu	1,120 (2.4)
	Yeongdeungpo-gu	1,830 (3.9)
	Dongjak-gu	1,937 (4.1)
	Gwanak-gu	2,525 (5.4)
	Seocho-gu	1,936 (4.1)
	Gangnam-gu	2,587 (5.5)
	Songpa-gu	3,051 (6.5)
	Gangdong-gu	2,060 (4.4)
	Total	47,010 (100.0)

Variable	Measure	Number of individuals (%)
Family income (won)	< 1,000,000	1,869 (4.0)
	1,000,000-2,000,000	5,068 (10.8)
	2,000,000-3,000,000	8,645 (18.4)
	3,000,000-4,000,000	11,345 (24.1)
	4,000,000-5,000,000	8,558 (18.2)
	> 5,000,000	11,125 (23.7)
	No answer	400 (0.9)
	Total	47,010 (100.0)
Happiness	< 2 (very unhappy)	165 (0.4)
	2-4	1,534 (3.3)
	4-6	10,150 (21.6)
	6-8	29,712 (63.2)
	> 8 (very happy)	5,430 (11.6)
	No answer	19 (0.0)
	Total	47,010 (100.0)
Happiness domain: health	< 2 (very unhappy)	207 (0.4)
	2-4	1,686 (3.6)
	4-6	7,259 (15.4)
	6-8	19,093 (40.6)
	> 8 (very happy)	18,760 (39.9)
	No answer	5 (.0)
	Total	47,010 (100.0)
Happiness domain: finance	< 2 (very unhappy)	902 (1.9)
	2-4	3,362 (7.2)
	4-6	13,861 (29.5)
	6-8	21,116 (44.9)
	> 8 (very happy)	7,760 (16.5)
	No answer	9 (0.0)
	Total	47,010 (100.0)
Happiness domain: friends	< 2 (very unhappy)	159 (0.3)
	2-4	1,238 (2.6)
	4-6	7,825 (16.6)
	6-8	22,099 (47.0)
	> 8 (very happy)	15,677 (33.3)
	No answer	112 (0.0)
	Total	47,010 (100.0)
Happiness domain: family	< 2 (very unhappy)	236 (0.5)
	2-4	1,166 (2.5)
	4-6	7,655 (16.3)
	6-8	21,511 (45.8)
	> 8 (very happy)	16,427 (34.9)
	No answer	15 (0.0)
	Total	47,010 (100.0)

Variable	Measure	Number of individuals (%)
Happiness domain: community	< 2 (very unhappy)	427 (0.9)
	2-4	1,441 (3.1)
	4-6	8,557 (18.2)
	6-8	22,119 (47.1)
	> 8 (very happy)	14,451 (30.7)
	No answer	16 (0.0)
	Total	47,010 (100.0)

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