

**Satisfaction in life conditions
and well-being**

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L'European Values Study (EVS) est une enquête réalisée au Luxembourg en 2008 auprès d'un échantillon représentatif de la population résidente composé de 1610 individus âgés de 18 ans ou plus.

Au niveau national, cette enquête fait partie du projet de recherche VALCOS (Valeurs et Cohésion sociale), cofinancé par le FNR dans le cadre du programme VIVRE. Au niveau international, elle est partie intégrante d'une enquête réalisée dans 45 pays européens qui a pour objectif d'identifier et d'expliquer en Europe les dynamiques de changements de valeurs, et d'explorer les valeurs morales et sociales qui sous-tendent les institutions sociales et politiques européennes (www.europeanvaluesstudy.eu).

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Satisfaction in life conditions and well-being*

Paul Dickes & Carlo Klein

Abstract

In this note we focus on the relations between analytical life satisfaction measures and a general well-being indicator, measured by the two general subjective well-being (SWB) questions. A global SWB factor, measured by the single happiness and by the general life satisfaction questions, is explained through regression of first order factors on the questionnaire of satisfaction in the life domains.

The research is based on the 2008 wave of the European Value Study (EVS) for Luxembourg.

The validity of the personal living conditions as a measure of general well-being has been assessed by a MIMIC-model. Therefore, satisfaction in personal affairs indicators can constitute an enrichment of general well-being measures.

Keywords: subjective well-being, Mimic-model, EVS wave 2008 Luxembourg

JEL classification: C0, D6

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1. Introduction

Economists show an increasing interest in subjective well-being data since the theoretical debate on utility has shifted from an objective approach based on the concept of decision utility to the acceptance of a subjective approach. In this context, economists consider that subjective well-being (SWB) can be used as a proxy for measuring subjective utility (Veenhoven, 1993) as people are supposed to be “the best judges of the overall quality of their lives” (Frey and Stutzer 2002a p.405).

As different concepts of utility are defined in the literature (decision utility, experienced utility, and procedural utility), the use of a subjective concept of happiness presents two advantages highlighted by Frey and Stutzer (2002a, p. 405):

- “subjective well-being is a much broader concept than decision utility; it includes experienced utility as well as procedural utility, and is for many people an ultimate goal;
- the concept of subjective happiness allows us to capture human well-being directly”.

Empirical studies rely on different methods to collect data on SWB. In general, researchers use surveys or organize laboratory experiments (Kahneman and Krueger, 2006; Frey, 2008) to capture people’s appreciation of their own well-being. Our interest in this note focuses on the first type of measurements of SWB. The information on SWB is very often collected by one or two general single questions: “All things considered, how satisfied are you with your life as a whole these days?” or/and ”Taking all things together, would you say you are very happy, quite happy, not very happy, not at all happy?”. Well-being questions can be found in surveys like General Social Surveys (GSS), World Values Surveys (WVS), European Values Surveys (EVS), Euro-barometer Surveys or the Satisfaction with Life Scale. (Frey, 2008).

In this note we focus on the relations between analytical life satisfaction measures and a general well-being indicator, measured by the two above mentioned general SWB questions. Levy and Guttman (1975) presented a overall theoretical frame for conceptualizing satisfaction in the life domains. Based on this theory Dickes (1989) proposed a questionnaire where the following facets of living conditions were retained: satisfaction with one’s close

personal living conditions, satisfaction with one's social status and finally satisfaction with one's residence and neighbourhood conditions. A global SWB factor, measured by the single happiness and by the general life satisfaction questions, is explained through regression of first order factors of the questionnaire of satisfaction in the life domains. The test of the relations will be performed by a structural equation MIMIC-model (*Multiple Indicators and Multiple Causes*) (Jöreskog and Goldberger, 1975). We expect relationships between satisfaction in the life domains and SWB. The structure of this relationships is unknown and will be assessed.

Our research is based on the 2008 wave of the European Value Study (EVS) for Luxembourg. We added the questions of Dickes (1989) in the questionnaire in order to measure satisfaction in life domains. The two general SWB-questions belong to the common EVS 2008 questionnaire. So specifically with Luxembourg data our application of the model is feasible.

Data

The file consists of 1610 respondents belonging to the EVS' 2008 Luxembourg sample of the European Value Study, corrected with appropriate weights. The age ranged from 18 to 88 years and 50.9% of the sample are men.

Two questions of the 1999 EVS' European files will measure subjective well-being and are included in the 2008 Luxembourg questionnaire. 1) The first question asks the respondent to give his feeling about happiness and the response's categories are: very happy, quite happy, not very happy, and not at all happy. 2) The second question asks the respondent to rate the satisfaction with his life on a graded scale of 10 points ranging from 1 (dissatisfied) to 10 (satisfied).

Nine questions about satisfaction with the living conditions are included in the 2008 Luxembourg's questionnaire. A graded scale ranging from 1 (very dissatisfied) to 7 (very satisfied) will register the answer of the respondent on each item. The 9 questions are presented in table 1 with expected living conditions and rescaling of response categories and imputation of missing values with optimal scaling procedure.

Table 1. Items of satisfaction with living conditions: expected dimensions, % of missing values, recoding and missing values imputation

| Item | living conditions | missing | recoding ^a | missing imputation ^a |
|---|-------------------|---------|-----------------------|---------------------------------|
| satis1: Are you satisfied how you will spend your leisure time? | close personal | | (1 – 4=1)(5,6=2)(7=3) | mode |
| satis2: Are you satisfied with your family life? | close personal | .6 | (1 – 5=1)(6=2)(7=3) | mode |
| satis3: Are you satisfied with your health at this moment? | close personal | .5 | (1 – 4=1)(5,6=2)(7=3) | mode |
| satis4: Are you satisfied with your income? | social status | .4 | (1 – 4=1)(5,6=2)(7=3) | 2 |
| satis5: Are you satisfied with your school level? | social status | .4 | (1 – 4=1)(5,6=2)(7=3) | mode |
| satis6: Are you satisfied with your job? | social status | 4.7 | (1 – 4=1)(5,6=2)(7=3) | 3 |
| satis7: Are you satisfied with your residence? | residence | .4 | (1 – 4=1)(5,6=2)(7=3) | mode |
| satis8: Are you satisfied with your neighbourhood? | residence | .9 | (1 – 4=1)(5,6=2)(7=3) | mode |
| satis9: Are you satisfied with the town (village) where you live? | residence | .4 | (1 – 4=1)(5,6=2)(7=3) | mode |

^a with optimal scaling (under the condition of normal constraints)

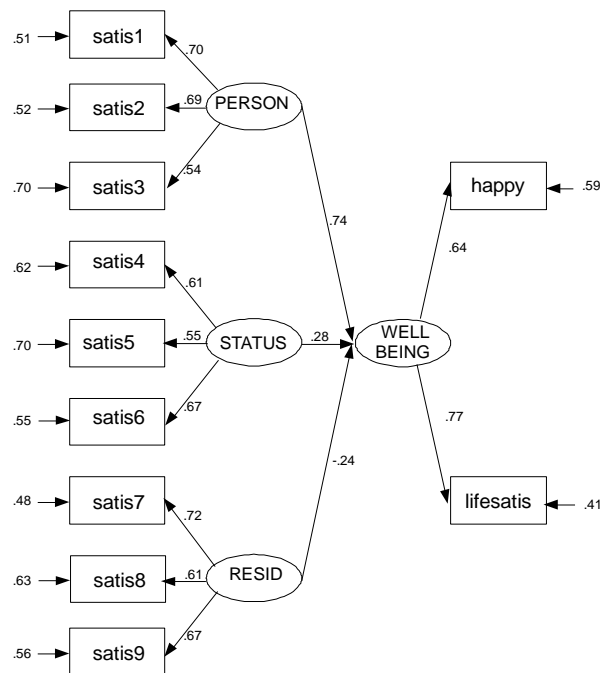
Source: EVS-2008 Luxembourg

The response categories about happiness of the two well-being questions are reversed so that a high score is interpretable in terms of well-being. The low percentage of missing values on each of the two questions (0.1%) leads to impute the missing values by the mode. Optimal scaling of the two items suggests the regrouping of the categories of life satisfaction (under normal constraints) into five categories (1 thru 4=1)(5,6=2)(7=3)(8,9=4)(10=5).

MIMIC model

A MIMIC model is applied on the two groups of wellbeing items. Input data is the variance-covariance matrix and the asymptotic covariance matrix of the 11 items. This choice is able to produce robust maximum likelihood estimations. The model consists of three parts: 1) One endogenous latent variable, called WELL BEING, is measured by both the happiness (happy) and the life satisfaction (lifesatis) items; 2) Three exogenous correlated latent variables are presumed to measure the 9 life conditions items. The close personal living conditions (perso) are operationalized by satisfaction in leisure time, family life and health, the satisfaction in social status and resources (status) by income, education and job conditions and the satisfaction in conditions where the respondent is living (resid) by satisfaction in residence, neighbourhood and town/village. 3) The three correlated exogenous factors will be regressed on the endogenous latent variable.

Figure 1. MIMIC model (standardized coefficients) between the two well-being items and the nine items of satisfaction in the living conditions (N=1610)



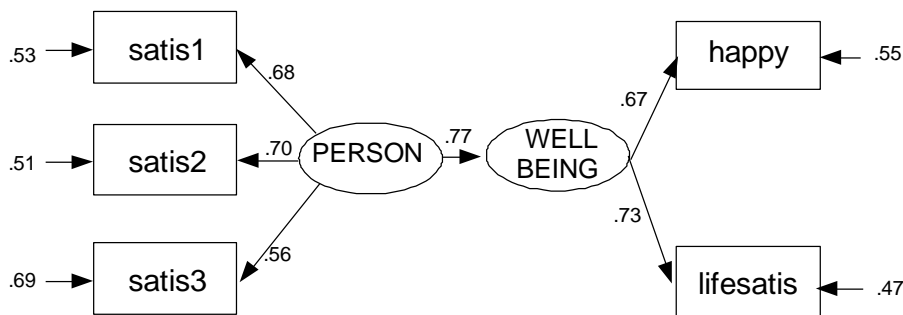
Chi-square=186.21; P-Value<0.001; RMSEA=0.049; CFI=0.98

In figure 1 we see that the close fit conditions are met for the model. The RMSEA index is less than 0.05, and the CFI index equals 0.96, but the significance of the Chi-square is indicative that exact fit conditions are not fulfilled. Also the asymmetry of the correlations between the three exogenous latent variables on the endogenous WELL BEING variable shows that only the PERSON variable will matter in the prediction of WELL BEING, but not STATUS and RESIDENCE living conditions. The multiple correlation between the three exogenous latent variables and WELL BEING is 0.78. Very

little supplementary variance can be allowed for STATUS and RESID for predicting WELL BEING. This interpretation is reinforced if one considers the negative correlation between residence conditions and general well-being.

In figure 2, we present the reduced MIMIC model, where only the personal living conditions are kept for predicting the dependent variable. Close and exact fit conditions are met. 60% of the variance of well being is explained by personal living conditions, like leisure, family and health.

Figure 2. MIMIC model (standardized coefficients) between the two well-being items and the three items of satisfaction in the personal living conditions (N=1610)



Chi-square=6.37; P-Value=0.173; RMSEA=0.019; CFI=1.00

Conclusion

The relation between satisfaction in social status and resources (status) and general subjective well-being is too weak to be considered as a significant component. The relation between satisfaction in conditions where the respondent is living (residence and neighbourhood) and general well-being is weak and also negative. These two indicators of satisfaction in specific life domains cannot be considered as valid indicators.

Only the relationship between satisfaction in personal living conditions (leisure, family life and health) and general well-being is high enough to assess the validity of the of personal living conditions as a measure of general well-being. The MIMIC-model including only this three constructs and relating them on the general well-being is validated. Satisfaction in personal affairs can constitute an enrichment of general well being measures.

The results of this research are limited to the specific sample. Further research could generalize the results to other countries;

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