

Comparative results and psychometric proprieties of the Personal Wellbeing Index – Romania (old and new versions) with an adolescent sample

- a preliminary analysis -

Discussion document 2006

Sergiu Băltătescu
University of Oradea
www.sergiubaltatescu.info

A. Context

Among the European countries, Romania is one of the most religious. Even if is a secular state, only 0.1% of the citizens declare themselves to be of no religion and/or atheist (data based on the 2002 census). Almost all of the citizens are Christians, affiliated with the Romanian Orthodox Church (86.7%), Roman Catholicism (4.7%), Protestantism (3.7%), Pentecostal denominations (1.5%) and the Romanian Greek-Catholic Church (0.9%).

The school system is secular; however, following the religious revival after the fall of the communism, optional religious courses were introduced. The young are even more religious than the average Romanian. Church attendance is high for this group, as the next table shows:

Table 1. Church attendance in the last month of the urban school children (8th-12th classes).

	%
Never	42,6
once or twice	25,0
three times or more	32,4

The main research question here is: how relevant is the insertion of a new question about satisfaction with religion/spirituality?

B. Method

The questions discussed here are part of the “Adolescents – future citizens. A longitudinal study of the process of social exclusion and integration of the school adolescents” financed by CNCSIS (research grant A 497/2006). The questionnaire also includes various measures of psychological and subjective well-being, social exclusion and victimization from the peer group, social competency and leadership, school climate, civic and political involvement and attitudes.

A representative sample 3509 school adolescents (from 8th to 12th classes, 97% of them between 14 and 18 years old) participated in the survey. The respondents (boys 45.2%, girls 54.8%) filed the questionnaire in the classes, under the supervision of a trained

research assistant. Full confidentiality was guaranteed for the respondents. The research was completed between November 2006 and February 2007.

C. Values

Overall, the respondents show high levels of subjective well/being.

Table 2. Average values for PWI (old and new versions) and life as a whole.

Class	8 th	9 th	10 th	11 th	12 th	TOTAL
Personal wellbeing Index (old version)	82,1	80,3	79,0	77,0	75,7	79,9
Personal wellbeing Index (new version)	82,7	81,2	79,3	77,1	75,6	80,3
Life as a whole	80,0	76,6	76,6	73,7	72,9	77,2

As we can see, the ratings computed with the second version are slightly improved. As in other surveys from Romania, the satisfaction with life as a whole is lower than PWI.

All subjective wellbeing measures decrease with the class (that is, with age), and this suggest an interpretation of the fact that the average SWB levels in Romania are rather low: these low scores are the results of the adverse life conditions that accumulate in the adulthood.

Table 3. Scores on PWI items.

	8 th	9 th	10 th	11 th	12 th	TOTAL
1. Standard of living	8,3	8,1	7,7	7,5	7,2	7,9
2. Health	8,5	8,3	8,2	8,0	7,9	8,3
3. Achievements in life	8,1	7,8	7,8	7,6	7,6	7,9
4. Personal relationships	8,3	8,2	8,0	7,8	7,7	8,1
5. How safe you feel	8,5	8,3	8,2	8,1	7,8	8,3
6. Community connectedness	8,3	8,1	7,9	7,7	7,7	8,1
7. Future security	8,3	8,0	8,0	7,6	7,5	8,0
8. Religion of spiritual fulfilment	8,3	8,4	8,0	7,8	7,5	8,1

As we can see from the above table, the decreasing of the ratings with age is similar for all indicators.

C. External validity

Both versions of the indexes are almost perfectly correlated.

Table 4. Bivariate correlations between different SWB measures

		Personal Wellbeing Index (old)	Personal Wellbeing Index (new)	Happiness (1-4 scale)
Life as a whole	Life as a whole	1	0,61	0,45
Personal Wellbeing Index (old)		0,60	1	0,40

Personal Wellbeing Index (new)	1	0,40
Happiness (1-4 scale)		1

However, the correlations of the PWI with life as a whole and happiness are rather moderate.

D. Realibility

1. Factorial structure of both indexes

Both indexes variables were introduced together in a Principal Component Analysis. Results were rotated using Varimax method with Kaiser Normalization. A single factor emerged in both cases, explaining over 54% of the total variance. The loadings for both indexes are shown in the next table.

Table 5. Single factor loadings of the PWI items and life as a whole

	Personal WB (old version)	Personal WB (new version)
Life as a whole	0,71	0,70
Standard of living	0,71	0,70
Health	0,68	0,68
Achievements in life	0,78	0,77
Personal relationships	0,77	0,77
Personal safety	0,80	0,80
Community connectedness	0,79	0,79
Future security	0,77	0,77
Religion or spirituality	-	0,61
Total variance explained	56,7%	54,0%

A single factor solution emerged. The loading of the religion/spirituality item is significantly lower than that of the other items and the insertion of this item slightly decreases the communality of the single factor.

2. Unique contribution of domains to life as a whole: Multiple regression

I regressed life as a whole against the PWI items, in order to compare the unique contribution of the domain satisfactions to the global subjective well-being indicator. The overall fit is moderate. The variations of PWI items explain 41% of the variation of the dependent variable.

Table 6. Independent standardized contributions of the PWI items to the life as a whole and the overall fit of the models with the old and the new PWI items as predictors and Life as a whole as a dependent variable. ** signifies that the beta coefficient is significant at the 0.01 level.

	Personal WB (old version)	Personal WB (new version)
Standard of living	0,28**	0,28**
Health	0,05**	0,04**
Achievements in life	0,20**	0,20**
Personal relationships	0,09**	0,08**
Personal safety	0,01	0,01
Community connectedness	0,11**	0,11**
Future security	0,07**	0,06**
Religion or spirituality		0,05**
Adj. r. square	41,0%	41,0%

As we can see, the newly introduced item has a low positive contribution to the life as a whole. On the other hand, it doesn't improve the overall fit of the model. It only steals little variation from there items (Health, Personal relationships, Future security) that also have low contributions to the variation of the life as a whole.

Satisfaction with the standard of living, with $\beta = 0.28$ has the largest contribution to the prediction of life as a whole. Other domains that also predict the dependent variable are personal achievements ($\beta=.20$), community connectedness ($\beta=.11$), personal relationships ($\beta=.09$), and future security ($\beta=.07$). Health ($\beta=.05$) is significant only because of the high sample, and personal safety has no independent contribution.

E. Conclusions and limitations

Both versions of the indexes have good psychometric proprieties for the studied group. All subjective wellbeing measures show that this variable is decreasing with age. As in other low income countries, satisfaction with the standard of living is the best predictor for satisfaction with the life as a whole. However, achievements and relationship items are also significant.

Overall, the insertion of the spirituality/religion item changes very little in the index:

- the overall value of the index increases with only 0.5 percent
- the fit of the regression model with PWI items as independent variable and life as a whole as dependent variable does not increase.
- the small contribution of the item to the variation of the life as a whole is significant only because of the high sample.
- the item “steals” explained variance from other low predictors of the life as a whole.

However, previous studies show that the contribution of the PWI items to the explanation of the variance of the life as a whole seems to be different in adulthood

compare with that of the adolescents. Therefore, the new PWI should be tested also with an adult sample.