

Equivalence of Subjective Wellbeing Measures across Modes of Data Collection

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Previous research shows that mode of data collection impacts on widely used measures of subjective wellbeing - such as happiness- and the relationship between them, pointing towards the idea that such measures may not be equivalent across modes. This study shows that personal subjective wellbeing (SWB) and social wellbeing have a high level of measurement equivalence across Web, mail and telephone.

1. Introduction & Background

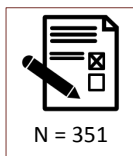
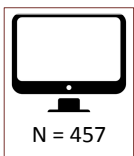
- Increasing number of studies that involve data from more than one mode of data collection:
 - From mixed-mode surveys (e.g. combining telephone and mail)
 - From different data-bases to make comparisons (e.g. across countries)
- Different modes attract different respondents (e.g. Swiss in telephone mode)
- Same type of respondent gives different answers to different modes (e.g. different interpretation)
- Different mode, different SWB score → same construct?**

2. Research question

Are SWB measures comparable across modes?

3. Data

- LIVES & FORS mixed-mode experiment
- 25 minute questionnaire on wellbeing
- Parallel and sequential mixed-mode
- French speaking part of Switzerland
- Three modes: web, mail and telephone
- Response mode = allocated mode



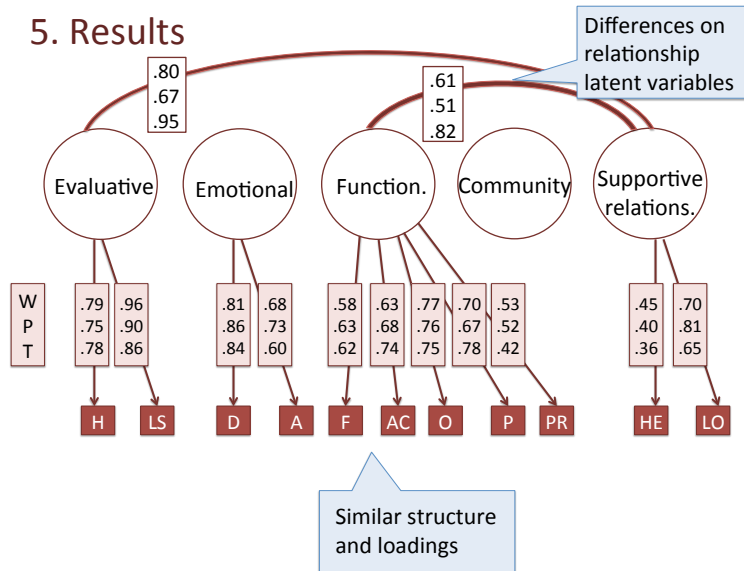
4. Analytical approach

- Multiple-group confirmatory factor analysis
 - Personal subjective wellbeing and social wellbeing
 - European Social Survey model
- Are the SWB measures equivalent?
 - Measurement invariance test
 - Are covariance and correlation matrices different for mail, web and telephone?

SWB items:

H: Happiness
LS: Life satisfaction
D: Depression
A: Anxiety
F: Freedom
A: Accomplishment
P: Positive
PR: Overcome problems
HE: Gets help
LO: Loneliness

5. Results



Model fit is adequate and similar for the three modes

| Model | X ² (df) | RMSEA | CFI |
|-----------|---------------------|-------|-------|
| All modes | 234.458(45) | 0.061 | 0.964 |
| Web | 137.857(45) | 0.068 | 0.955 |
| Paper | 123.429(45) | 0.071 | 0.951 |
| Telephone | 83.105(45) | 0.049 | 0.980 |

| Invariance | X ² (df) | RMSEA | CFI | Change |
|------------|---------------------|-------|-------|--------|
| Configural | 299.17(147) | 0.052 | 0.958 | - |
| Metric | 314.41(163) | 0.049 | 0.959 | <0.01 |
| Scalar | 331.61(179) | 0.047 | 0.958 | <0.01 |
| Strict | 390.61(201)* | 0.047 | 0.957 | <0.01 |

No significant change in CFI= invariance

Significant difference in chi-square: not enough for strict invariance

6. Conclusions

- SWB measure is the same for Web, mail and paper: very similar structure
- The measure is comparable if there are more than two SWB measures available (multivariate analysis)
- Sum scores and mean comparisons may be misleading

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