

## 8th LCSR International Workshop «Quantitative Research of Social Changes Across the World»

### **Session: Cross-sectional surveys and the challenges of comparability**

#### **“Measurement equivalence: approaches and methods to assess invariance”**

*Vera Lomazzi (GESIS – Leibniz Institute for the Social Sciences)*

In comparative studies, we assume that things are comparable, but is this the case when comparing attitudes and values of people living in different societies?

This contribution provides a review of the most common perspectives on measurement invariance, which rely on different assumptions and techniques. The frequentist perspective relies on the concept of exact equivalence, and the most commonly used technique is the multigroup confirmatory factor analysis (MGCFA). Although the concept of invariance is fundamental in allowing meaningful mean comparisons, some studies have recently claimed that the classical “exact” approach to equivalence presents some problems, mainly related to its strictness and to the issue of partial invariance. The concept of approximate equivalence, which allows slight differences, has been introduced and employed in the Bayesian framework. Furthermore, new procedures such as the alignment optimization, have been developed.

The study focuses on two techniques belonging to the frequentist approach, and compares the commonly used MGCFA and the alignment method, a promising procedure still rarely used. To illustrate these techniques, we will assess the measurement invariance of the gender role attitudes scale included in the last wave of the World Values Survey, in 59 countries, identifying the most invariant model for the largest number of groups possible.

Using the first technique, partial scalar invariance was achieved for 27 countries. By employing the frequentist alignment optimization, an acceptable degree of non-invariance was achieved for 35 countries. Thus, the study confirmed the frequentist alignment procedure as a viable alternative to the MGCFA, particularly when assessing a large, multi-group sample.

### **“The European Values Study from 1981 to 2026: methodological developments”**

*Ruud Luijkx (Tilburg University)*

The European Values Study (EVS) is a large-scale, cross-national, repeated cross-sectional survey research programme on human values which collects data every nine years since 1981. It provides insights into the beliefs, attitudes, values and opinions of citizens all over Europe on topics as family, work, environment, perceptions of life, politics and society, religion and morality, national identity. The compatibility with the World Values Survey (WVS) is massive, yielding global comparative studies. In the 2017 wave, EVS and WVS



cooperate for the data collection in Europe. The goal of this contribution is to enlighten the main features of this survey programme with a specific focus on the methodological development.

Wave after wave, the program made many efforts to improve the quality of the data and their suitability for comparative analysis. In the current wave, most of these efforts are in the direction of increasing the centralization and the harmonization of the fieldwork procedures, concerning the translation process, fieldwork monitoring, mode of data collection, sampling design, etc.

Several threats to measurement equivalence have been considered in the preparation of the EVS2017 in order to minimize biases, for example by using the most recent insights from the methodological literature as well as running ad-hoc tests. Also, a mixed-mode (face-to-face and websurvey) has been implemented in 6 countries. Most of the recent innovations of EVS have been developed in the context of SERISS (<https://seriss.eu/>), a forward-looking project that suggests the future of the cross-national surveys is in strengthening cooperation.