

# Reviews

## **Juraj Schenk – Anna Hrabovská: To Build a Scale: The Basics of One-Dimensional Methods**

Comenius University, Bratislava, 2010, 214 pages.

This textbook is of methodical and methodological character. It focuses on basic one-dimensional scaling methods set in the context of a sociological research. Authors perceive scaling as a relatively independent issue, which can be and should be singled out of the frame of sociological research. It should be highlighted that authors strictly follow this weighty idea throughout the entire work..

In the first step, J. Schenk is systematically and thoroughly devoted to the term of scaling. Scaling is a tool used for uncovering quantitative qualities of social facts. Scale serves as a tool for measuring, since matching a concrete empirical evidence with a scale (continuum) variant means its factual promotion to a variable variant. Scaling is a procedure used for acquiring primary data. Scale is a (standardized) model representing internal structure of a phenomenon so that particular variants of the researched phenomenon correspond to particular scale variants. These are roughly the basic (general) theses on scaling applied by the author in the text. In addition, three general conditions and circumstances are mentioned, which are necessary to take into account while constructing the scale as a model of researched phenomenon:

1. There is no such thing as a universal scale (model). Therefore, in order to measure individual social phenomena separate scales (scaling methods) are necessary. A precise and efficient tool must always fit to specific characteristics of the researched phenomenon.

In this sense, it is necessary to distinguish between a fact, which lies outside the individual and a fact, which illustrates certain individual feature or individual's position (such as opinion, attitude, anticipation etc.). While in the case of the former, we talk of measuring stimuli, in case of the latter of measuring a person. However, there are approaches measuring both stimuli and person at the same time.

2. There are many suitable ways for assigning empirical variants of researched phenomenon to numbers on the scale and thus also a variety of scaling methods. Therefore, it is necessary to select them with wisdom.

3. Construction of the scale must always accord with research intention (pp. 12-13)

Since scaling has become a richly structured complex of methods, author is right to have highlighted the need to sort and categorize these methods on the first place. This he also did with great precision and as a result reader can better understand the whole matter as rational and structural process.

The necessity to distinguish between scale and scaling method is of prime importance. On the one hand, author clarifies the difference between basic kinds (types, classes) of scales and on the other hand between basic kinds (types) of scaling methods.

Author employed several aspects in order to categorize the basic scaling methods (the subject of interest). The aspect of dimensionality was highlighted (what author understands under dimensionality is not only (although primarily) the dimensionality of the underlying continuum, but also (derived from this) dimensionality of the method of its research). The basic structuring of the text is based on this aspect. The first, longer

part focuses on one-dimensional scaling, while the second part serves as an introduction into multidimensional scaling.

There are three major subgroups within one-dimensional scaling: a) assessment (judgement), b) Likert's method, and c) combined:

The first subgroup includes methods that serve mainly for measuring stimuli, or facts outside the respondent. These are called assessment (judgement) methods and include mainly paired comparisons method, the method of equal-appearing intervals and a method of successive intervals (and their modifications)...

The second subgroup includes methods that serve mainly for measuring a person, or facts that characterise the respondents themselves (e.g. their opinions, attitudes, anticipations etc). These are called Likert or summative methods and include also its various modified versions...

The third subgroup includes methods that can be characterised as combined such as scalogram analysis (known also as Guttman scaling) and a method known as semantic differential. They hold a special status and function in one-dimensional scaling and this from two specific perspectives. (pp. 18-19).

Added to the mentioned basic subgroups is the so called unfolding method.

Category of multidimensional methods includes (so the authors) latent structure and class analysis, multidimensional unfolding method and a complex of multidimensional scaling methods (metric methods, non-metric methods and individual difference scaling).

J. Schenk openly gives several key reasons for writing the handbook. The first reason is that scaling methods are of substantive importance for sociological research. The second reason given by the author is that „despite essential acknowledgment of the importance of scaling methods and almost permanent call for the improvement of theoretical and methodological quality of surveys, in reality, a number of very efficient scaling methods have only rarely been applied in our surveys“. (p. 5) Author employed probably the most efficient way to fulfil the aim, namely a very precise elaboration of methodical problems of every single given scaling method including examples (from author's own research work). I can only confirm author's statement that „(sociological) methodological work in a form of handbook or a coursebook, that would deal with the issue in an appropriate and sufficient manner has not been published here for a long time“.

Text proofs authors' rich research and methodological skills and experience, and provides a picture of rich, relevant Slovak and world literary outputs. The book has managed to draw a closer picture of the conditions in this particular area of sociology abroad.

Obviously, what authors had on their minds throughout the whole writing process is that „it is mostly the students, who have to learn the basic scaling methods and how to use them in an appropriate and efficient way“. Nevertheless, the handbook is not only useful to students, but also to general research milieu.

I very much appreciate the way the issue was dealt with. Every selected scaling method has firstly been introduced from conceptual (methodological) viewpoint. This is then followed by a very clear and systemic description of the whole methodical process (accompanied by actual examples). As a result, the reader finds the text very pleasant to read.

Healthy development of every scientific discipline is dependent on a dutiful scientific work in methodology area. From my point of view, the submitted book is of that sort.

Intention of the authors has been fulfilled and so, my evaluation of the work is very positive. As is usually the case with J. Schenk, text represents an erudite, systematic and from scientific point of view thorough product fulfilling at the same time didactic and pedagogical criteria on a very high level. It fills the existing gap in field of methodology literature on scaling. I believe this is a text very much hoped for by students as well as by general research public.

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