

Book Review

Ruscio, J., Haslam, N. and Ruscio, A.M. (2006).
Introduction to the Taxometric Method: A Practical Guide.
London: Erlbaum.

Taxometric methods address one of the most exciting and yet challenging statistical questions faced by psychologists: How to distinguish between a dimensional construct and a categorical one? For those not familiar with this family of techniques, taxometrics encompass a range of procedures to investigate the latent structure of a construct in an unsupervised learning context. They constitute the sole instruments currently available for this task alongside cluster, latent class and mixture analysis.

Albeit relatively old (Meehl, 1973), taxometric methods have only recently come to the fore in a wide range of settings. They have been applied to an array of psychiatric disorders such as schizophrenia-related constructs (e.g. schizotypy, Blanchard et al., 2000), but also to more theoretical psychological constructs, such as Jungian personality types (see Arnau et al., 2003).

This book addresses a wide audience, and is intended as a practical guide as its subtitle suggests. In the Meehl's tradition, Ruscio and colleagues first lay down the philosophical foundations of taxometrics. They provide a light introduction to the subject matter and thereafter plunge into the more technical aspects of their subject. The third chapter in particular contains a very good treatment of the classification problem. The authors are also presenting very well the inferential frameworks for taxometrics, and whether to use a null hypothesis or simply to compare two models of reality. This revealed to be especially valuable given the present day's confusion in the literature.

A lot of attention is also given to the data requirements for conducting taxometrics, which is again welcomed since taxometrics vary substantially from other statistical procedures in this respect. Such guidelines are particularly precious as some of the sampling decisions are enveloped with controversies. The authors, however, never use any arguments of authority but rather highlight the need for further research on specific methodological aspects.

This emphasis on the latest developments in the methodology underlying taxometrics will also make this handbook attractive to the more mathematically-minded researchers. Albeit the exposition of the different taxometric methods is essentially heuristical, Ruscio and co-authors nonetheless have filled the pages with a plethora of ideas for Monte Carlo simulations. Furthermore, the three appendixes on the new bootstrapped comparison index recently developed by the authors and a detailed description of the estimation procedures for the MAXCOV (maximum covariance) and MAXEIG (maximum eigenvalues) procedures, will, without doubt, satisfy the thirst of the readers more interested in the details of the methodology.

In addition, the volume covers interpretational issues with a good review of the possible confounds and biases regularly encountered in taxometric analysis. The authors also take the opportunity to present and test their new model fit procedure, which can be used to identify whether a sequence of results is favoring a taxonic or a dimensional solution, and is due to appear in *Multivariate Behavioral Research* (Ruscio et al., In press).

Finally, the last two chapters focus on a short but rigorous overview of past applications of taxometric methods, with some light shed on the methodological decisions made by previous researchers; and the ultimate chapter deals with the future of the methods. This again provides a wealth of ideas for any research methods expert in need of honing his/her teeth in a new field, and furthering the current methods.

This book also contains a cd with R scripts written by the authors providing the necessary toolbox to get started with the methods and even simulating taxonic and dimensional datasets if one wishes to. This complementary material alongside a taxometric checklist, where all the main methodological questions that one ought to ask before using such procedures are answered, make this publication a self-contained introduction to the field. There is little doubt that it will help to popularize the methods.

‘Introduction to the taxometric method’ therefore positions itself as a beacon of guidance in some murky methodological waters. It was a much needed handbook in this field, where only the quite technical monograph by Waller and Meehl (1998), and the non-exhaustive publication by Schmidt et al. (2004) existed. It is only regrettable that the book has not been produced by a more notorious publisher, as the typesetting is not always first-standard, although this does not affect one’s understanding of the content.

The publication of this introduction is therefore the sign that taxometric method is coming of age. I recommend this comprehensive volume to any researchers or graduate students seriously interested in nosological research.

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