Analysis of Multivariate Social Science Data, Second Edition
David J. Bartholomew, Fiona Steele, Irini Moustaki, Jane Galbraith
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Table of contents

1. Setting the scene
2. Cluster analysis
3. Multidimensional scaling
4. Correspondence analysis
5. Principal components analysis
6. Regression analysis
7. Factor analysis
8. Factor analysis for binary data
9. Factor analysis for ordered categorical variables
10. Latent class analysis for binary data
11. Confirmatory factor analysis and structural equation models
12. Multilevel modelling

Readership: Graduate social science students and researchers.

This is the second edition of The Analysis and Interpretation of Multivariate Data for Social Scientists. The major difference is the extension from methods in which all the variables had the same status, to include asymmetric situations such as regression (with predictor and response variables), confirmatory factor analysis, structural equation models, and multilevel models. Given that Bartholomew is one of the leading thinkers in the area of latent variable models, it will come as no surprise to learn that this book emphasises them – in particular noting the links between latent variable models which are normally treated quite separately.

I am pleased that the authors emphasise that the book is in no sense a cookbook. Attempts at cookbooks in statistics fail to convey the integrated whole of the discipline, and how superficially distinct methods may in fact be closely related. However, one consequence of this is that the book is not really to be dipped into (it is based on a course, taught and developed over 20 years) but is best read in order.

It assumes a knowledge of basic statistical modelling and inference up to and including the analysis of contingency tables, analysis of variance, and regression. However, the presentation is well-matched to its intended audience, relying on only the minimal necessary mathematics and driving the development with examples, figures, and verbal descriptions.

There is an associated website giving the data sets and software. Each chapter concludes with a section of ‘additional examples and further work’, along with references through which the reader can pursue deeper studies.

This is the sort of book from which I would have liked to have learnt multivariate statistics.

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