

He, Ype H. Poortinga

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METHODS AND DATA ANALYSIS FOR CROSS-CULTURAL RESEARCH

This book gives an up-to-date overview of methodological and data-analytical issues of cross-cultural studies. Written by leading experts in the field, it presents the most important tools for doing cross-cultural research and outlines design considerations, methods, and analytical techniques that can improve ecological validity and help researchers to avoid pitfalls in cross-cultural psychology. By focusing on the relevant research questions that can be tackled with particular methods, it provides practical guidance on how to translate conceptual questions into decisions on study design and statistical techniques. Featuring examples from cognitive and educational assessment, personality, health, and intercultural communication and management, and illustrating key techniques in feature boxes, this concise and accessible guide is essential reading for researchers, graduate students, and professionals who work with culture-comparative data.

FONS J. R. VAN DE VIJVER (1952–2019) studied psychology at Tilburg University, the Netherlands, where he received his PhD in 1991. He held a chair in cross-cultural psychology at Tilburg University. He held extraordinary chairs at North-West University, South Africa, and the University of Queensland, Australia, as well as a position of senior researcher at the Higher School of Economics in Moscow, Russia. He was vice-dean for research and vice-dean for education of his faculty at Tilburg University, and vice-director of Babylon, the interdisciplinary research center for studies of multicultural societies at Tilburg University.

He has authored more than 500 publications, mainly in the domain of cross-cultural psychology. His main research topics included bias and equivalence, psychological acculturation and multiculturalism, similarities and differences in the cognitive domain, response styles, translations and adaptations, and personality. His books, published together with colleagues, include *Cross-Cultural Survey Methods* (2003), *Families Across Cultures: A 30-Nation Psychological Study* (2006), *Multilevel Analysis of Individuals and Cultures* (2008), *Cross-Cultural Research Methods in Psychology*

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(2011), *Fundamental Questions in Cross-Cultural Psychology* (2011), and *Behavior-Based Assessment in Psychology: Going Beyond Self-Report in the Personality, Affective, Motivation, and Social Domains* (2015).

He supervised more than forty PhD studies and ten postdoctoral studies. He taught subjects in cross-cultural psychology, methods, and statistics. He presented keynotes and invited lectures at various conferences and workshops around the world. He is one of the most frequently cited cross-cultural psychologists.

He was editor of the *Journal of Cross-Cultural Psychology* and served on the editorial board of various other journals, including *Parenting*, *Child Development*, *Psychology and Developing Societies*, *Survey Research Methods*, and the *European Journal of Psychological Assessment*. He served as an ad hoc reviewer for more than 150 journals.

He was president of the International Association for Cross-Cultural Psychology, the European Association of Psychological Assessment, and Division 2 (Assessment and Evaluation) of the International Association of Applied Psychology.

He was an active member of a number of professional organizations: the International Association for Cross-Cultural Psychology, the International Association of Applied Psychology, the European Association of Psychological Assessment, the International Academy for Intercultural Research, the International Test Commission, and the World Association for Personality Psychology. He was also a member of the Social Science Council of the Royal Dutch Academy of Sciences.

He was the recipient of the International Award of the American Psychological Association (for contributions to international cooperation and to the advancement of knowledge of psychology) in 2013, and of the IAAP Fellows Award of the International Association of Applied Psychology (for contributions to applied psychology) and the Sindbad Award of the Dutch Psychological Association (for contributions to intercultural psychology) in 2014.

KWOK LEUNG (1958–2015) received his bachelor's degree in biology from the Chinese University of Hong Kong in 1981 and his PhD in psychology from the University of Illinois at Urbana-Champaign, USA, in 1985. He held chairs consecutively at the Chinese University of Hong Kong and the City University of Hong Kong. He served as head of the Department of Management at the City University of Hong Kong and was Choh-Ming Li Professor of Management at the Chinese University of Hong Kong.

He has authored more than 200 publications and mentored at least 12 doctoral students. He delivered keynote speeches and chaired symposia at many international conferences. He presented invited colloquia at major universities around the world.

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His main areas of research included justice and conflict, creativity, international management and business, negotiation, harmony maintenance, social axioms, and cross-cultural research methods. He also made contributions to the literature on e-commerce, innovation, quality of life, and unemployment. His books, published with collaborators, include *Cross-Cultural Management: Foundations and Future* (2003), *Handbook of Asian Management* (2004), and *Psychological Aspects of Social Axioms: Understanding Global Belief Systems* (2008).

He was a key founding member of the Asian Association of Social Psychology in 1995. He served as its president and organized summer and winter schools for doctoral students. He served as the principal of the schools held in Kota Kinabalu, Malaysia (2007) and New Delhi, India (2009). He was involved in setting up the Asian Journal of Social Psychology and served as its editor.

He was a deputy editor of the *Journal of International Business Studies and Management and Organization Review*, and an associate editor of the *Journal of Cross-Cultural Psychology* and *Asia Pacific Journal of Management*. He was on the editorial board of various journals, including the *Journal of Management and Organizational Behavior* and *Human Decision Processes*.

He was president of the International Association of Cross-Cultural Psychology and chair of the Research Methods Division of the Academy of Management.

He received the Highly Commended Award by Emerald Publishing for a paper published in the *International Journal of Conflict Management*, and the Misumi Award by the Asian Association of Social Psychology for a paper published in the *Asian Journal of Social Psychology*.

He was a fellow of the Academy of International Business, Association for Psychological Science, International Academy of Intercultural Research, and Hong Kong Psychological Society.

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METHODS AND DATA ANALYSIS FOR CROSS-CULTURAL RESEARCH

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This book is dedicated to colleague and friend, Kwok Leung. His early death made it impossible to complete the second version of the book together. Still, his ideas can be found in many chapters, illustrating his profound influence on our field.

Fons van de Vijver

May 2019

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Preface

The first edition of this book, published in 1997, became a landmark on how to collect and analyze data in culture-comparative research. The authors planned a revision for several years. These plans were interrupted when the second author, Kwok Leung, passed away in May 2015. The first author, Fons J. R. van de Vijver, completed much of the planning and writing of the second edition after his retirement. He dedicated the book to the memory of Kwok Leung. Fons van de Vijver passed away suddenly in June 2019, when about two-thirds of the new manuscript had been updated.

By that time the first edition had been cited more than 3,000 times according to Google Scholar, a great number for a text on methods in a specific field of research. The importance of the book derives from the fact that cross-cultural research is prone to erroneous interpretation of cultural group differences. The overall framework of bias and equivalence provided in this book and the subsequent considerations of the design and availability of analysis tools can help scholars to avoid pitfalls in this field of study and to enhance the ecological validity of their research. The book provides concise, easily accessible guidelines to conduct culture-comparative research.

In view of the evident relevance of the book, several colleagues and former PhD students of Fons van de Vijver decided to pursue completion of the revision. Lona Goudswaard, married to Fons van de Vijver, and Yumi Inoue, married to Kwok Leung, agreed to this plan and Cambridge University Press adapted the publication contract. Velichko Fetvadjiev was asked to chair an editorial committee including Jia He and Johnny Fontaine to prepare the final text.

In comparison to the first edition, the second edition adds recent literature and describes several new developments in the field. These updates include a further integration of design and analysis; discussions of emic and etic perspectives and mixed-methods approaches; an expanded treatment of sampling and of various approaches to validity enhancement, notably instrument adaptations in multilingual studies; and a dedicated

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section on dealing with response styles. Finally, the book presents various novel statistical techniques, such as flexible tools for bias detection and analysis of equivalence, and offers updated introductions to several techniques, such as multidimensional scaling and multilevel analysis.

The editorial committee made minor corrections and updates throughout the manuscript. A few sections were updated extensively or newly written. Our changes were based primarily on draft comments and materials of Fons van de Vijver. We also made some of our own editorial changes on which the committee agreed that they would serve to better reflect the current state of the literature. Below is a summary of the main changes we made:

- We made changes throughout the text to bring it in line with the new terminology on the eight types of cross-cultural studies introduced in Section 2.4. Specifically, we elaborated the text in this section and replaced some of the examples; we restructured and updated the text of Chapter 5 in line with the new typology; we expanded Table 5.1.
- We replaced “construct equivalence” with “structural equivalence” when referring to the equivalence of the structure of an instrument across groups (e.g., in factor analysis), in line with the use of these terms in recent literature.
- We changed the title of Section 3.2.3 from “Dealing with Response Biases” to “Dealing with Response Styles” to reflect the much more frequent use of the latter term in the text.
- We expanded and reorganized the text of Chapter 4. We identified item bias analysis as a standalone topic (rather than part of preliminary analyses) and introduced the distinction between internal structure and causal relationships (in Section 4.3, Structure-Oriented Techniques) and between analyses without and with context variables (in Section 4.4, Level-Oriented Techniques).
- We substantially updated and added new text in the following sections: 2.1.1, Levels of Equivalence (text on construct inequivalence and structural equivalence); 4.2, Item Bias Analysis (multiple-indicators, multiple-causes models; concluding section on qualitative and mixed-methods approaches); 4.3.1, Internal Structure (confirmatory factor analysis; exploratory structural equation modeling; multidimensional scaling); 4.3.2, Causal Relationships (multiple-indicators, multiple-causes models); 4.6, Multilevel Analysis; 4.7, Combinations of Level and Structure Orientations (text on multilevel analysis).
- We added the following new sections: 4.3.1, Internal Structure (sections Partial Invariance; Bayesian Structural Equation Modeling and

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Approximate Invariance; Alignment); 4.5, Mediation and Moderation Analysis (entire section).

- We reordered the presentation of sources of item bias in Section 2.2.2. We edited some of the text in Sections 3.2.1, Validity Enhancement in Multilingual Studies (introductory paragraphs), and 3.2.2, Validity Enhancement of Cross-Cultural Assessment: Measurement Procedures (text on design adaptations).
- We reworked Boxes 4.3, 4.4, 4.8, 4.10, and 4.11; Tables 4.4, 4.5, and 5.1; and Figures 4.2 and 4.3. We thank Bernd van Veldhoven for his help with Figure 4.2.
- We provided updated or additional examples at a few points in the text.
- We edited the text for consistency and made further minor textual changes.

We opted not to edit the concluding section of the book, 6.2, Future Outlook, because we had no clear indication on the content of a planned update. In our view, the general message of this brief section is still highly relevant. The themes that Fons van de Vijver and Kwok Leung have discussed in reflections on future perspectives in their more recent publications include the diversification of sources of evidence and the inclusion of novel cultural variables (Leung & Van de Vijver, 2008); the integration of methods and theory and of qualitative and quantitative methods; the value of a pragmatic approach to study design; the need to increase the sophistication of models and measurement of cultural variation (Van de Vijver, 2015); the challenges of multiple-country assessment and the potential of emic–etic integration (Van de Vijver, 2018b); and the importance of combining substantive and statistical considerations and expertise (Van de Vijver, 2018a). These broad topics are represented in the book.

We are grateful to Ype Poortinga for his insightful comments and suggestions. We thank Emily Watton, Ilaria Tassistro, Janka Romero, Jessica Norman, and the editorial team at Cambridge University Press for making this publication possible under unusual circumstances.

We hope that this second edition will form an accessible source of information on method and assessment for the ever-increasing number of scholars and practitioners engaged in cross-cultural or cultural psychology. We hope that the book will find many readers and will preserve for the future the important contributions made by the two original authors.

Velichko Fetvadjev, Jia He, and Johnny Fontaine

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