

Katya Drozdova and Kurt Taylor Gaubatz. (2017). *Quantifying the Qualitative: Information Theory for Comparative Case Analysis*. Thousand Oaks, CA: Sage. 161 pages. ISBN 978-1-4833-9247-9.

Reviewed by Sandra Sellick

One might well ask why this book has been reviewed for the *Canadian Journal of Program Evaluation (CJPE)*. Evaluators are not included in the list of professionals for whom the book was written. No entries based on the words “evaluate,” “program,” or “value” appear in the index, the list of chapters, or the profiles of the coauthors. Not a single one of the 80 sources cited on the reference list includes any mention of the word “evaluate” or a derivative of evaluate in its title, nor is any one of the sources a publication of the Canadian Evaluation Society, the American Evaluation Association, or any other evaluation organization, globally.

The reason for the review is simply to bring *Quantifying the Qualitative* to the attention of *Canadian Journal of Program Evaluation* readers. It is a book to encourage thinking about how evaluations involving small numbers of cases (that is, less than 30) are analyzed and how their impacts can be interpreted in a structured, focused way. It is also a book that will challenge many practising evaluators to think differently about the conclusions they draw about the relative impact of variables based on results in multi-case evaluations. By mastering the truth table and information theory techniques presented in the book, evaluators may improve the quality of evaluations involving small numbers of cases for which traditional parametric techniques based on probability distributions would likely lose validity. The non-parametric techniques in this book include descriptive and inferential statistics that are not based on probability distributions. The techniques may also aid the evaluator in planning for better data collection in anticipation of new ways of analysis.

In this book, the authors claim to be sharing novel analytic tools and a new, systematic approach to comparative case analysis (p. xix). Their thesis is that

information theory complements qualitative analysis. It disciplines the analysis and its presentation without diminishing the benefits that arise from the more nuanced and detailed understandings that small-n comparative case studies can provide. It is the right metric for quantifying qualitative analysis in the Information Age and beyond. (p. 138)

As such, their book has the potential to contribute to the development of the Canadian Evaluation Society’s dimension of technical practice competencies

Corresponding author: Dr. Sandra Sellick, sandra@sellick.org

for evaluators, one of the dimensions recognized for the Canadian professional designation of a credentialed evaluator. These competencies were adapted from the work of King and colleagues (2001). Specific competencies that could be developed by mastering the techniques described in this book include technical practice competencies 13 through 15: assessing trustworthiness of data; analyzing and interpreting data; and drawing conclusions and making recommendations (Canadian Evaluation Society, 2016). These potential outcomes are very exciting.

Drozdova and Gaubatz's book was designed as a reference for policy-makers and practitioners and as a textbook for graduate and undergraduate students studying policy development, research methods, and statistics. At 161 pages, it is a slim volume including eight chapters liberally illustrated with tables and figures. The chapters begin with information theory and the method of structured-focused comparison and are followed by chapters on the information revolution, case selection, the information method, three case examples of information metrics at work, and sensitivity analysis. A chapter on qualitative case analysis, which the authors describe as "a popular and powerful approach to understanding and visualizing the patterns of co-occurrence among variables in a small-n study" (p. 115) precedes the concluding chapter. If this sounds intriguing, it is. Evaluators with a preference for qualitative methods will definitely find this book an enlightening read with implications for their praxis.

An added feature of this book is access to two online resources: an Excel workbook with formulas and explanatory notes and R code with a data set. For users with an interest in R code and/or Excel for calculating statistics, these links may be quite useful, but some prior training or study in the use of R code and Excel for inferential statistics would be a valuable prerequisite.

The authors of *Quantifying the Qualitative* are both academics. Katya Drozdova is an assistant professor of political science in the School of Business, Government, and Economics at Seattle Pacific University. Her research interests include national and international security, countering terrorist networks, and improving success rates in complex and hostile environments. Kurt Gaubatz, is an associate professor in the graduate program in international studies at Old Dominion University, where he teaches courses in international relations, international law, research methods, and advanced statistics. Gaubatz (2015) is also the author of *A Survivor's Guide to R*.

The case studies Drozdova and Gaubatz have chosen as examples for this book reflect compelling environments in which the measurement of uncertainty between independent and dependent variables contributes to operational strategies and policy-making. When they present an example of their analysis techniques using binary data on dependent and independent variables in seven cases of coercive diplomacy or eight regions of tropical forest cover in Ecuador, the evaluator/reader should see the potential for applying the same techniques to his or her own projects whether they involve five villages, 10 schools, or 16 restorative justice cases.

Future printings of this book will likely contain the correction of a small typographical error on page 120 in the first printing. However, this is a minor note and should not affect the reader's understanding. In fact, recognizing the error will reassure some readers that they are actually following the equation in the example under discussion. In conclusion, this book was not written specifically for evaluators, but it is one that many evaluators will find extremely thought-provoking, especially those who lean toward a qualitative approach and who prefer to stay in the safe harbour of descriptive statistics rather than venture into the choppy waters of inferential statistics. The authors claim that if you "if you can count, you can do it" and that their techniques are so straightforward, users of their methodology can be up and running with projects very quickly (xxi–xxii). I think the authors may be projecting a little bias with respect to the rate of mastery. However, most evaluators should be able to follow the logic of Drozdova and Gaubatz's approach and be excited about advancing their skills to a higher level by drawing measured conclusions about the relative levels of uncertainty in the impact of variables on outcomes. As the authors have written,

despite the ongoing revolution in big data, comparative case analysis remains a critical methodology across a broad range of fields. Our purpose in this book is to introduce a simple systematic, and replicable metric for analyzing the impact of different explanatory variables on some outcomes of interest. (p. 16)

In my opinion, one of those fields in the broad range is evaluation, and evaluators who seek to discover innovative methods for interpreting data will find this book engaging.

REFERENCES

- Canadian Evaluation Society. (2016). *Competencies for Canadian Evaluators*. Canadian Evaluation Society. <http://evaluationcanada.ca/competencies-canadian-evaluators>.
- Gaubatz, K.T. (2015). *A Survivor's Guide to R*. Thousand Oaks, CA: Sage.
- King, J.A., L. Stevahn, G. Ghore, & J. Minnema. (2001). Toward a Taxonomy of Essential Evaluator Competencies. *American Journal of Evaluation* 22(2): 229–247. <http://dx.doi.org/10.1177/109821400102200206>