

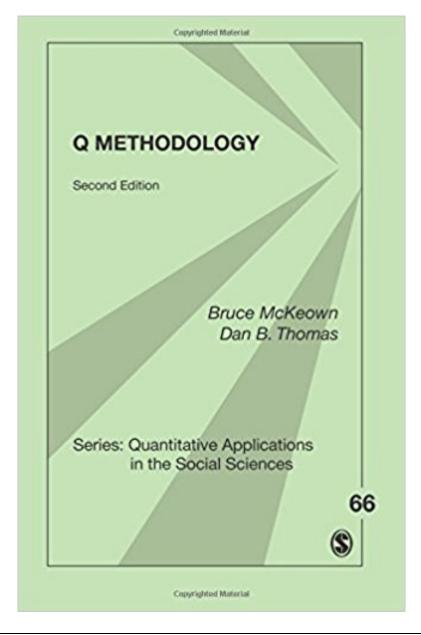
Q-methodology

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Invented by British physicist-psychologist, William Stephenson, at the University College London in the 1930s, Qmethodology combines the strength of quantitative and qualitative research and provides a methodological bridge between the two (Stephenson, 1935a). Stephenson was a student and last assistant to the psychologist, Charles E. Spearman, known as the pioneer of a factor analysis (Brown, 1993; Watts, & Stenner, 2012; Webler, Danielson, & Tuler, 2009). This methodology is increasingly used today in a wide variety of disciplines (Watts, & Stenner, 2012); however, there few books are currently available in the market. Sage's monograph, *Q-methodology*, which was written by McKeown and Thomas in 1988, is one of the most widely cited sources and a second edition was released in 2013 due to its popularity. This text is one of the series of Sage's *Quantitative Applications in the Social Sciences* (QASS). To date, Sage has published 176 "little" green books of *QASS* volumes and demonstrated invaluable advanced quantitative topics based on a wide range of interests.

In this book, Professors McKeown and Thomas describe Q-methodology as "a distinctive set of psychometric and operational principles that, conjoined with statistical applications of correlational and factor-analytic techniques, provides researchers with a systematic and rigorously quantitative procedure for examining the subjective components of human behavior" (p. ix). They assert that Q offers a scientific method for studying human subjectivity while still retaining diversity and individuality. According to Stephenson (1935b, p.18-19), "Whereas previously a large number of people were given a small number of tests, now we give a small number of people a large number of tests or test-items, or require a large number of responses from them", the value of Q-methodology lies in discovering clusters of opinions among participants, who inject statements with their own understanding. Based on the premise that subjectivity is communicable and advanced from self-reference, the primary concern of Q-methodology is to ensure that self-reference is preserved and not compromised by an external investigation. While William Stephenson also held a doctorate in Physics, McKeown and Thomas ascribe the parallels between Q-methodology, quantum theory, and relativity theory in the book. The authors arm readers with great explanations to liberate their thinking and expand their imagination in exciting and novel ways.

The authors' background and experiences may have influenced their style of writing the book. Bruce McKeown is a retired professor of political science, and his ongoing research is centered in Q-methodological studies of American civil religion and popular culture. The other author, Dan B. Thomas, is a professor of political science at Wartburg College in Waverly, Iowa, whose work has appeared in a wide array of social science journals. He is also a former editor of Operant Subjectivity: The International Journal of Q-Methodology. Although the background of both the authors is political science, this book tries to cover a variety of disciplines for readers in diverse fields, such as psychology, sociology, education and political science. The text does not only address the question, "What is Q-methodology?", but also illustrates "why" and "how" this methodology is applied by describing the necessary operations step-by-step with greater definition and extensive examples to illustrate their application.

In terms of the structure of the book, it contains just 120 pages and the entire contents are strongly oriented toward the sequence of conducting Q-methodological studies, statistical techniques, the interpretation of Q factor results, and strategies for conducting small-sample behavioral research. It consists of five chapters beginning with an introductory chapter in which the appropriate philosophical foundations of subjective communicability (viz. the various principles and the sequence of conducting Q-methodology) are outlined. The focus of Chapter 2 is data collection techniques, which include the definition and development of concourses, selection and design principles of Q samples, instruction of Q-sorting, and the sorting procedure. The whole process of selecting Q samples is clearly elucidated in this chapter. Chapter 3 contains a very detailed procedure of selecting P samples (i.e. person samples or P-sets).

Issues related to statistical analyses are highlighted in Chapter 4. (e.g. correlation, factor analysis, judgmental rotation, and factor scoring). The last chapter of the book contains a subjective-science postscript. As a matter of fact, the results of Q methodological studies have sometimes been criticized for their validity and reliability, but the concepts of validity and reliability were well documented in Chapters 3, 4, and 5. One of the most refreshing features is that the text ends with a concluding chapter in which the primary differences between Q methodology and R methodology (i.e. generalization of Pearson's r) are defined. In this book, McKeown and Thomas clearly explain why Stephenson wanted to make a factor study of a *few* individuals and bring the correlation and factor analysis methods into the laboratory (Stephenson, 1935b).

From a readership perspective, the language used in both versions is succinct and easy to understand. The increased volume of case citations and the number of updated cases are also a plus. The cases studies and examples in this book help the reader to better absorb the book's contents. Although this book was originally designed as a primer for novice and experienced researchers, novices may need to establish the foundations and become familiar with Spearman or other factor analyses, as well as the foundations of research methodology, before navigating this text. It seems that this publication was intended to be written for advanced audiences. Hence, it could serve as a major textbook in an advanced elective research methodology course.

While the debate on "the proper way to conduct a Q-study" is still ongoing (Brown, 1983), the authors' explanation of Q methodology is primarily aligned with that of the method's founder, William Stephenson.

Therefore, the continuity of Stephenson's approach is demonstrated throughout the book. Another advantage is that the book provides links to resources of Q-methodology, such as listserv, Q-Methodology electronic discussion group (Q-Method@listserv.kent.edu). The authors encourage readers to participate in a mentoring community of Q scholars for the exchange of up-to-date information. On the other hand, another edition is anticipated and it would be particularly useful to see some great coverage on how best to use the PQmethod (i.e. a free download software) or PCQ for Windows software with annotated screenshots of output profiles at each stage of the Q-methodology. It would have been more helpful if the usage of Q-methodology software had been introduced more specifically in the appendix of this book, as well as in the body. We sincerely hope that there will be a Chinese version of this book, since more than 37 books of the SAGE's QASS series have been published in a simplified Chinese version, such as John Fox's A Mathematical Primer for Social Statistics, Jae-On Kim and Charles W. Mueller's Factor Analysis: Statistical Methods and Practical Issues, and James Jaccard's Interaction Effects in Logistic Regression.

Overall, it is a pity that Q-methodology has not yet become a mainstream of scholarly research, since it deserves a much higher profile. This volume has the potential to be of benefit to researchers to reveal the form and structure of operant subjectivity. This book is meant to encourage investigators, especially those who are interested in a phenomenological approach (Combes, Hardy, & Buchan, 2004), to utilize this 'alternative' tool in the context of mathematics, science, technology, and medical education.

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