W. E. Saris and I. N. Gallhofer, Eds., *Sociometric Research VI: Data Collection and Scaling*, New York: St. Martin's Press, 1988, pp. 246.

This book contains a series of 14 separate but related reports on research in the area of survey analysis. It is not a comprehensive overview of the area, nor do any of the chapters contain reviews of any particular subarea. Rather, the chapters in this book are drawn from those papers presented at the International Sociological Association's first international methodology conference. New research is presented, but there is little effort to integrate the various research strands or individual papers. Nevertheless, a few meta-comments are possible. This book reflects the growing tendency to employ non-classical non-parametric statistical procedures, the growing dissatisfaction with binary choice survey questions, the growing necessity of utilizing simulation and specialized software in order to analyze particular models and data, and a resurgent interest in extracting respondent's mental models but in a quantified form. In many cases, associated software is available by contacting the author. This speaks to the growing need for a mechanism for facilitating the exchange of software between researchers in different countries, as given the physical length of many programs publication of the code is an untenable solution. Researchers employing survey or interviews for data collection, particularly if they intend to employ content analysis, rank ordering, or paired choices, will find this volume of particular interest, but generally on a chapter by chapter basis. Further remarks will be addressed to the individual chapters.

The first chapter, by 't Hart and Vorst, is a partial replication and extension of the 1981 study on attitude surveys by Schuman and Presser . The authors find that when asking questions about social opinion, including a middle position such as "there are as many supporters as opponents" increases the discriminatory ability of question and that forced choice did not result in individuals ascribing their own personal opinion to others.

Dijkstra and van der Zouwen (Chapter 2) present a very general coding scheme for measuring inadequate interviewer behavior (such as hinting at the answer) which could be advantageously employed by other researchers interested in empirically determining the impact of different forms of

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interviewer behavior on respondent behavior. They assume, however, that inadequate interviewer behavior produces information distortion. This assumption should be empirically tested and their coding scheme provides an instrument for doing so. This is a particularly important error to test since they found that inadequate interviewer behavior occurred in 38% of question-answer sequences (assuming types of error are additive).

Bronner (Chapter 3) highlights the special considerations necessary when surveying ethnic minorities. Bronner concludes that, among other things, surveying minorities might entail the use of different questions, different question orders, and different interview lengths; but leaves open the question will minority and non-minority surveys, given these differences, still be comparable.

Gallhofer and Saris (Chapter 4) discuss a procedure for coding texts about decisions as decision trees. Their approach forces the coder to interpret the text as a decision tree. Research on decision making, however, leads to the conclusion that decision makers do not think in such a systematic fashion, nor do they act as proper statisticians (Tversky and Kahneman 1971; Tversky and Kahneman 1974); but instead employ satisficing techniques (Simon 1947; March 1958; March and Olsen 1975) and often act in a symbolic fashion (Feldman and March 1981). As such, coding these texts as decision trees may introduce bias and certainly forces the respondent's mental model of the decision into a decision tree framework. A comparison of this framework and more naturalistic frameworks employing semantic networks (Axelrod 1976; Carley 1986) would be useful. As a secondary point, the idea of team coding is a valuable, although a costly solution, to the difficult problem of coding decision texts. Despite these points, anyone interested in analyzing decisions on the basis of texts should attend to Gallhofer's and Saris's research.

Splichal and Ferligoj (Chapter 5) in a rather unique methodological approach to the study of propaganda, combine cluster analysis and content analysis to conclude that subjects and symbols in radio broadcasts are unchangeable overtime. In this research they are not looking at connectors between symbols and subjects. Consequently, what they have shown is that over time radio stations, such as the BBC and Voice of America, continue to use the same words but not that these words still have the same meaning.

In chapter 6, Popping, provides a good review and cross comparison of agreement indices. As noted by the author, such indices are particularly important for researchers who utilize multiple coders and hence need to assess inter-coder reliability.

Chapter 7 by Eggen and van der Linden extend methods for analyzing comparisons when the questions have middle positions (such as paired comparisons where the respondents are asked if they prefer a to b, b to a, or are

indifferent. This is one point where connections could have been made between the chapters; for Chapter 1 informs us of the importance of middle positions in questions and Chapter 7 provides analysis techniques.

The next two chapters (8 and 9), by van Blockland-Vogelesang and van Schuur respectively, extend Coombs (1964) model for unfolding rank orders first for complete orderings (Chapter 8) and then for partial orderings (Chapter 9). These techniques are based on the assumption that each pair of neighbors in the rank order are equally likely to be interchanged. While this assumption is fairly common in the literature, it is a fairly limiting assumption especially if one has prior expectations that the respondent has strong positive and negative attitudes, but is fairly indeterminate about the middle of the range in a ranking situation.

Sijtsma (Chapter 10) presents non-parametric methods for assessing the reliability of psychological measures based on Mokken's (1971) item response model and shows that they are less stable, but also less biased, than classical methods.

Researcher's interested in assessing preferences when there are complex tradeoffs, such as in buying a house, will find Veldhuisen's, Chapter 11, of particular interest. Veldhuisen provides experimental support for the argument that in a multi-attribute decision task attributes are non-additive overall; but, once the subject has segregated the task into subtasks (such as decide among these 3 acceptable options) attributes may become additive. This is another point where links between the chapters could have been made as Veldhuisen's work suggests that Gallhofer and Saris's decision tree approach might be most fruitfully applied only to subtasks, rather than the entire decision task.

Saris (Chapter 12) combines techniques from psychophysics with survey methodology in order to suggest empirically that much of the variance in question response is due to the way respondents express their preference and not to true differences in perception or opinion. As Saris notes, if this conclusion is correct it is quite important as it may explain over half of the measurement error variance. Thus, empirical repetitions and extensions are in order.

Bruinsma and Saris (Chapter 13) provide evidence from a study of Dutch steel workers that people tend to overestimate their qualifications, particularly if they think they are being judged. This is in the same vein as other self-bias findings in the decision making literature such as the finding that most people think they are doing better than average. Bruinsma and Saris also found, however, that higher status workers, unless they think they are being judged, are less likely to overestimate. This brings up the question as to whether lower status worker are really trying to present themselves as better than they are, or because they do not have the experience needed to make correct estimations. In other words, is this a "presentation effect" or an

effect due to people's insensitivity to sample size (Tversky and Kahneman 1971).

Chapter 14 by van Doorn and van Praag can be read as yet more confirming evidence that, for an individual, there is a systematic relationship between verbal and numerical scales As such, it is poorly tied to recent experimental literature in this area. On the other hand, this chapter can be read as a quantitative technique for making explicit implicit norms in survey data. As such, it is an intersting first step that one might seek to generalize beyond income norms.

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