CHAPTER 1. INTRODUCTION

In response to an idea proposed by Paul F. Lazarsfeld, Peter H. Rossi introduced the factorial survey (FS) method in his 1951 dissertation. In that document, Rossi applied the FS method to measure household social status (e.g., Rossi, 1979). Respondents were asked to judge the status of hypothetical households on a 9-point rating scale (Rossi, Sampson, Bose, Jasso, & Passel, 1974). The households were defined as comprising husbands and wives with different occupations and levels of educational attainment. The values of these characteristics varied systematically across the single descriptions, enabling an estimation of the impact of the experimental variations on the respondents' status ratings. With this design, Rossi and his colleagues also assessed the extent to which the respondents agreed or disagreed about the importance of the single dimensions in the status ratings (Rossi et al., 1974). The researchers reached conclusions regarding the extent to which perceptions of social status and stratification were uniform or diverged among social groups, for example, among people of different ages or educational levels.

Rossi's approach initiated the more general idea of developing a technique to assess the judgment principles that underlie social norms, attitudes, and definitions. Normative judgments and definitions (such as status ratings) are typically based on various attributes of multifaceted objects, rather than a single dimension. These attributes are integrated into a single, coherent judgment. For instance, fair sentences for prisoners involve several dimensions, such as the situational circumstances of the crime, the characteristics of the offender, and the damage to the victim, which are evaluated against each other (for an example, see J. L. Miller, Rossi, & Simpson, 1986). Similarly, concepts of fair welfare payments and tax rates (Liebig & Mau, 2005) and definitions of sexual harassment and child abuse (Garret, 1982; O'Toole, Webster, O'Toole, & Lucal, 1999) are based on several dimensions. In line with this multidimensional approach, the motivation behind the FS method is to present survey respondents with stimuli that resemble real-world evaluations and to force them to make trade-offs between several dimensions. This method enables a more precise determination of the judgment principles that underlie evaluations than is possible using single-item questions. In more technical terms, the key feature of an FS is the implementation of a multidimensional experimental design within a survey. Respondents are asked to form judgments about vignettes—that

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is, descriptions of hypothetical situations, objects, or persons with various attributes (dimensions). The values (levels) of the dimensions are experimentally varied across the vignettes so that the impact of these levels on respondents' judgments can be estimated. The FS method represents one of many specific types of survey experiments (Mutz, 2011). Surveys that use the FS method differ from classic split-ballot experiments (which are mostly used in methodological research to refine answer scales or question types) in their multifactorial design and their focus on substantive issues, such as respondents' attitudes or behavioral intentions. Classic split-ballot experiments, which generally involve a single variation or have rather narrow methodological concerns, are beyond the scope of this volume. Interested readers are referred to the specific literature on survey research (Groves et al., 2009; Sniderman & Grob, 1996).

The fields of application for the FS method include not only the previously mentioned normative judgments and definitions but also intended actions (e.g., intentions to relocate or not to relocate, to employ or not to employ a job applicant: Abraham, Auspurg, & Hinz, 2010; de Wolf & van der Velden, 2001). The target measurements of FSs also include respondents' beliefs about the real world (beliefs about something as it truly "is"), feelings, and thoughts. The growing significance of the FS method is confirmed by its increasing implementation in large-scale household surveys and by the publication of an increasing number of articles in key international journals (for overviews, see Mutz, 2011; Wallander, 2009).

The aim of this monograph is to provide a practical introduction to when, why, and how to use FS methods. In contrast to the limited number of publications concerning methodological issues related to FSs (Alexander & Becker, 1978; Dülmer, 2007; Hox, Kreft, & Hermkens, 1991; Jasso, 2006; Rossi & Anderson, 1982), this book provides more comprehensive information about each stage of the process, ranging from initial ideas to the practical steps that are needed when creating an FS study and statistical techniques for data analyses. Advanced users will benefit from the information in single chapters addressing more complex issues (such as how to treat illogical cases when constructing a vignette sample). Throughout the book, recent developments in survey research and computer techniques (such as software tools for setting up experimental designs) are considered. Many steps are illustrated by examples (for which supplementary material is provided, such as data files, at www.sagepub.com/auspurg_hinz; this webpage also features a glossary of technical terms related to FS techniques).

This book is structured as follows: Chapter 2 provides a detailed introduction to the scope, strengths, and applications of FS methods. In addition, the main technical terms are introduced. Chapter 3 explains how to set up the

experimental design of an FS study, including selecting dimensions, levels, and their combinations. Special attention is given to the theory of experimental designs, which permits the construction of vignette samples that enable the identification of causal effects with maximum precision and statistical power. Furthermore, information about advisable sample sizes for vignettes and respondents is provided. Chapter 4 provides information about how to incorporate vignettes into surveys, including the creation of (text) vignettes and the selection of appropriate respondent samples, answer scales, survey modes, and details in preparation for fieldwork (e.g., pretesting). In Chapter 5, data analysis techniques are presented, beginning with data preparation and a discussion of various methods of addressing hierarchical data structures (such as robust standard errors and multilevel analyses) and including information about special measurements that can be performed in FS studies (such as estimates of willingness to pay). Chapter 6 contrasts FS methods with other multifactorial experimental survey methods—conjoint analysis and choice experiments—to aid readers in effectively selecting from a range of similar techniques. Furthermore, issues of validity are discussed. Chapter 7 contains final remarks on several recent methodological developments (such as combining FSs with qualitative interview techniques) and a summary of the most relevant recommendations. Advanced readers might immediately proceed to some of these later chapters, although Chapter 2 might increase readers' familiarity with the technical terms used throughout the monograph.