

William Michelson.**Time Use: Expanding Explanation in the Social Sciences.**

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Time use is a zero-sum game. Allocating time to any one activity necessitates reducing time spent on other activities, but the study of time use goes far beyond simple time budget allocations. William Michelson's examination of time use data, its use and its explanatory power provides the reader with a thorough understanding of the intricacies of these data as well as illuminating the potential power these data holds for explanation in the social sciences.

As the title suggests, *Time Use: Expanding Explanation in the Social Sciences* is a comprehensive guide for users of time use data. Beginning with a brief but thorough history of the time-use approach and the early collection of data, Michelson places current time use practices in perspective.

The chapter devoted to the demystification of the collection of time use data is of particular importance for those new to the topic. Beginning with the explanation of the time use matrix, Michelson illustrates how the matrix is able to show both quantitative (duration, temporal order) and qualitative data (activity, location and persons present), and how the structure can vary.

The examination of the approaches to analysis sets out the differences between the three basic ways to structure the time use matrix for analysis – the time point file, the episode file and the summary file. For researchers, the choice of which file to use should be based upon their chosen unit of analysis. Not surprisingly, if time is the unit of analysis, the time point file should be used, if an episode is the unit of analysis then the episode file is preferred and if the unit of analysis is the individual then the summary file provides the most relevant information. Michelson's explanation of these files is well organized and thought out. For researchers new to the study of time use data, these chapters will provide the necessary information to be able understand the differences, strengths and weaknesses of these files.

Michelson makes note that summary file data are the most often analyzed as most researchers have focused on the description of activities. He suggests that it is now time to “proceed to more integrated and meaningful use of data from the time-use matrix to extend explanation in the social sciences” (p. 68). With this in mind, Michelson devotes the remainder of the book to the examination of the different possible analytical applications.

The first approach Michelson discusses centres on the investigation of hidden subgroups such home-based workers and caregivers since it is with these small groups that we find very different time use allocations and patterns. However, as is rightly pointed out it can be difficult to analyze small hidden subgroups using a national time use survey because sample size may be an issue.

It is the remaining chapters that contain analytical approaches that “push the envelope” with respect to analytical options. As noted, all of the social sciences could benefit from deeper investigation of the qualitative aspects of time use. This includes examination of the sequencing or patterning of the day, persons present during episodes, differences in location, and level of satisfaction or stress associated with an activity – all of which can provide more meaningful information. In examining these qualitative aspects, researchers may find substantial differences between groups even when time use is similar.

Further analytic power can also be achieved by examining the patterning of a day. While total time allocated to certain activities may look similar across groups, time use patterns can differ greatly. For example, researchers can investigate time pattern differences by looking at the number of episodes of an activity or the sequence of activities. This is easily understood when presented graphically. Pushing the analysis beyond the two-dimensional space and time sphere consists of looking at secondary activities (multi-tasking) which provides for a “better understanding of the reality of the day” (p. 122). Indeed, as Michelson points out, previous research has shown that individuals find episodes of multi-tasking to be more stressful than episodes in which there are only primary activities.

Because most time use data includes information about whom respondents were with during episodes in the day, time-use data lends itself to examination of social contact and family dynamics. While this can be complicated, Michelson provides sufficient examples of previous research to allow readers to understand how social contact and family dynamics can be examined employing time-use data.

Looking at spatial or locational analysis, Michelson notes that although the notion of “trips” and travel time are well-accepted by researchers and have been examined, there are types of spatial analysis that are under-exploited. While having huge analytic potential little has been done focusing on the rooms or spaces where activities take place or the places the respondents are during episodes (such as restaurants, workplaces or schools). This may be, in part, because national representative sample data sets often do not include detailed information such as the room in which an activity takes place, however, most do contain some high level location data such as home, work and “other” locational categories.

The book is concluded with a chapter on exposure to risk and how time-use data can facilitate this analysis. Looking at existing time use data it is possible to examine a level of exposure to crime when examining the time of travel for women travelling alone. Other examples of exposure to risk given in the chapter are interesting; however they would be difficult to measure given current time use data sets and may be more suited to small time use surveys that have specific questions focusing on exposure to risk. That said; this chapter illustrates the potential power of time use data and its continued future importance.

If there is any weakness in this book it is the omission that some of the types of analysis outlined are limited when using existing sources of data. That is, current national time use surveys may not allow for detailed assessment of exposure to risk or spatial analysis and there would likely be significant cost to further elaborate these dimensions. Nonetheless, the analytic options outlined by Michelson are interesting and would indeed expand the explanatory power in any of the social sciences.

As is stated in the preface, Michelson intended to demystify the study of time-use and examine the potential of these data for further analysis in several social sciences. The strength of *Time Use: Expanding Explanation in the Social Sciences* is its readability and the concrete examples Michelson uses to help explain the data files and analytical approaches. This book is an excellent reference for both students and researchers who want to better understand how time use data is collected, how data files are set up, and who want insight into expanding the practices used for analyzing these data.

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