# The Dynamics of Time Use: Context and Meaning

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ABSTRACT: In this article, earlier work on the organization of the household day is revisited to bring a sociological perspective to the study of household time. There is much to be gained from elaborating the conceptualization and measurement of time use to acknowledge and the employment of its dynamic qualities and meanings. That is, analysis of household time use must become far more than a longitudinal accounting process. In this article, no roadmap to such a destination can be provided but perhaps movement in a new direction. The practical application of insights from research on household time use requires conceptual frameworks that allow household time to be depicted as it unfolds and as participants experience it. That is, serious attention might be lent not only to studying where time is spent but also to how activities are situated and experienced in time to realize human affairs.

KEY WORDS: context. dynamics, housework, measurement, and time.

### Introduction

This thematic journal issue acknowledges a tradition in the study of time use that has done more than simply direct attention to time as one neglected aspect of social life. A tradition of study that grounds itself in the minutiae of daily life as time spins out the household day can exert its influence across the disciplines and blur conventional distinctions between "just" theory and "only" method. Its meticulous attention to the rich storehouse of data in the work of the domestic realm meant that the empirical tradition of time use study was not

This paper required a good deal of reflection on a project I undertook with Richard A. Berk in 1975. I am grateful for his comments and suggestions.

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burdened by theoretical frames that defined women's domestic activities as somehow outside the purview of the social scientist. This set the study of household time use apart and gave it great value.

When Richard Berk and I began to study household work in 1975. little guidance could be found in sociology. Household work—the labor of household production—was virtually ignored, not only as inappropriate for research in the sociology of work because it belonged outside the definition of market work but even as a fit subject matter for sociological inquiry more generally. Sociologists, of course primarily male, treated the sociological study of household work much as they treated the work itself: it was of little relevance to their lives. And as "women's work"—something different from "real" work—any mention of it was relegated to discussions of the family, then the sole sociological province of women (for a notable pioneering effort see Oakley, 1974). Even among sociologists who were interested in women's activities within the family, the unthinking exclusion of household work from the discipline meant that no one had taken a close look at the content, organization, and structure of those activities (e.g., Bott, 1957; Komarovsky, 1962; Lopata, 1971).

Thus sociology provided little guidance for the apparently naive notion that housework was real work. Instead, it was Kathryn Walker and Margaret Woods' determinedly "objective" book Time Use (1976) that provided the first glimmer of how to study household labor. That initial exposure was augmented by Alexander Szalai's (1972). John Robinson's (1977), and J. M. Morgan, I. A. Sirageldin, and N. Baerwaldt's (1966) work. Of course, fifteen years later, the sociological study of household labor is so legitimate that it is downright mainstream, and the questions it poses about the organization of social life remain crucial to understanding inequality and anticipating social change (e.g., Berk, 1985; Coverman, 1983; DeVault, 1991; Fenstermaker, West, & Zimmerman, 1991; Huber & Spitze, 1983). Regrettably, no sociologist with a specific interest in household work and women's lives has since replicated and extended our 1979 effort to chronicle and map the structure of the household workday. Such work is laborious and presents many methodological and technical challenges. Nevertheless, there are new questions worth exploring, for example, the dynamic quality of the organization and allocation of household time.

At least from a sociological point of view, research on household time use will in the future be greatly enhanced by a clearer focus on the dynamic and rich socially contextualized nature of time. The meaningful practical application of insights from research on house-

hold time use requires conceptual frameworks that allow household time to be depicted as it unfolds and as participants experience it. That is, serious attention might be given not only to studying where time is spent or how much is allocated, but also how activities are situated and experienced in time to realize human affairs.

# Rethinking the Meaning of Time

The recent study of household time use, as it is represented in both sociological and microeconomic traditions, treats time use as an indicator of social change, or an input into a system of household resource allocation where it reflects particular allocation strategies to enhance group well-being. The result has been a clear chronicle of changes over decades and across cultures in the ways use of the resource of time, presumed to be equally distributed to all members of society, reflect fundamental changes in social life and satisfaction. As a set of descriptions, the study of household time use is invaluable in depicting the activities we value, decisions we deem important, and constraints under which we make them (e.g., Szalai, 1972; Robinson, 1977: Juster & Stafford, 1985). But the sociological scope and application of this research have been unnecessarily limited by a conceptual and methodological approach to time as something that may be effectively abstracted from the context in which it is experienced by group members. Time has been conceptualized as a series of independent investments from a fixed pool of chronological "capital," measured as a static phenomenon, and finally represented as single, seriatim investments, cross-sectionally comparable to other single investments. Time is thus lifted out of the context that makes it meaningful in the first place, namely, the relationships among human activities. Regrettably, in our measurement and analysis of time, we have taken the old adage "time is money" to heart (e.g., Juster & Stafford, 1985). but that is true only as it is embedded with other activities.

Although it is conceptually useful to conceive of time as a fixed resource, equally distributed among all participants, it is also true that time as experienced as much more than the clock we measure it by. As Zerubavel (1981, p. 59) notes in his treatise on time:

The economic-utilitarian philosophy of time presupposes a particular way of viewing temporality, namely, from a quantitative perspective. It reflects, as well as promotes, a definition of time as an entity which is segmentable into various quantities of duration and, therefore, is countable and measurable. According to Lukács (1971, p. 90), one of the most

significant consequences of the modern phenomenon of the fetishism of commodities is that: "time sheds its qualitative, variable, flowing nature; it freezes into an exactly delimited, quantifiable continuum filled with quantifiable 'things.'"

Time passes, and the meaning of that passing is derived from the dynamic associations among human events. Much about it is lost when time is transformed into something static, fixed, and simply "spendable." Similarly, though methods of data collection can reflect the dynamic nature of time, much less attention has been given to analyzing how time unfolds over the course of the day and how each activity is determined in small or large measure by each of the others. The data would be remarkably enriched if it were possible to show how five minutes spent here is not identical to five minutes spent there. Household activities are not arbitrarily arrayed in time, but neither are they wholly independent instances of discrete events. They are both. Time is not "used" or "spent"; it is paired with action, meaning, and social context to create a meaningful daily life. Time is a proxy for how people allocate effort and experience that effort. Hence its meaning is not uniform or constant.

This is true in both a macro historical sense and a micro individual sense. For example, we could argue that how a parent spends time with his or her second child on a spring day in 1994 may be in part determined by how the parent's own mother or father did the same in 1954 and how the parent spent time with the first child in 1989. How much time the parent has decided to spend in the park that day is determined by the fact that someone is coming to fix the dishwasher between 3:00 and 6:00 and that the dishwasher leaked water on the floor, necessitating a postponement of the morning trip to the park. In addition, of course, such decisions are affected by the influences of biography: age, race, gender, class, sexual identity, education, and so on. That is, the choices we make and the meanings we lend to our activities are affected by the larger cultural forces that shape them but also by the dynamic, more spontaneously experienced context of their interdependency.

## Labor and Leisure at Home: A Brief Critique

As part of a relatively ambitious study of household work, content, organization, and division, Richard Berk and I undertook a quantitative processual diary-based analysis of the household day. The anal-

ysis exhibited some aspects of a qualitative narrative, but with a quantitative approach not only could conclusions be drawn about what is done and under what conditions, but the structure of activities could be commented on as they are arrayed in time. The study asked whether household activities differed systematically in their interrelationships with one another and thus in the constraints they impose on workers.

Such analyses were motivated by an interest in the degree of discretion available to household workers as a result of the nature of the work itself as well as the relationship among sequences of tasks and the resulting discretion available to husbands and wives as they coordinated their household efforts. Besides asking these overall questions about the household day, activities were compared across different time periods as the household day unfolded. Was more discretion available to workers in the morning than in the afternoon or evening, and what implications might that have for the relative presence of work and leisure activities? Finally, the structure of the household day was compared across families in which wives were employed fulltime, those in which they were not employed, and those in which there were very small children (Berk & Berk, 1979).

The production function was employed as an orienting concept to show whether the diaries could reveal a structure that responded to the goals of feasibility and efficiency: the grouping of activities that are compatibly undertaken together and the grouping of activities that produce greater output when undertaken together (or in close chronological proximity). Yet the sociological nature of the work site required that the extraneous considerations of uncertainty and perceptions of the importance of the activity be incorporated into the conceptual scheme as well.

The analysis in which an initial 41,000 diary entries from 748 wives were eventually collapsed into 157 categories of household activity involved the conventional description of what was done and some novel observations about how husbands and wives coordinated their household activities. In addition, the clustering of activities and the creation of "production genealogies," showed that the sequential constraints imposed on the organization of household activities are not distributed evenly throughout the day, nor are they distributed evenly across different household activities. About a third of the activities that unfold over the course of the day are affected by some sort of necessary order. Within that pattern, the morning is heavily constrained and meal activities drive the lack of discretion. Likewise,

the clustering of complementary activities depends fundamentally on the heterogeneity of sets of activities undertaken. That is, what activities may be grouped together depends on how "relatable" they may be—how good a fit they allow.

This was an extremely primitive effort to model the dynamic character of the household day, as the conclusion to the work (Berk & Berk, 1979), illustrates:

It is important to recall that this research began with in-depth participant observation in a number of households. The very nature of that data underscored the need to consider longitudinal processes. The collection of field notes necessarily occurs chronologically, and that simple truth implied that analyses failing to array data over time ignored a critical dimension of people's daily lives.

It is one thing to propose longitudinal research and quite another to design and implement the proper research strategy. (p. 225)

The words of the diarists bring to life the features of the household day that the analysis made invisible. Three examples will suffice; all were drawn from the sample of diaries of 748 respondents who on a blank sheet attached to each diary were asked to critique, comment. or otherwise elaborate on the experience of filling out the diary. These reflections from diarists illustrate the complexity that was ignored in the time use analysis. Each example suggests a dimension neglected in what sense people make of household time use. One woman wrote: "I wish there were some accurate way to record and describe how much work it is to get others to do their work-children dressing for school, for instance, or putting away toys, for example." This statement reveals a remarkably complex process in which certain normative orientations to child rearing impose constraints on household activities. That is, this respondent alters her own tasks based on her children's response, and she takes on new tasks as a function of their anticipated response. Although part of this complexity might be portrayed categorically and cross-sectionally—that is, by tallying the additional "nagging children" tasks the wife assumes—it would not indicate how the choice of those tasks is determined over the course of the day or gauge their impact on subsequent tasks.

In response to the requirement that for each task respondents note in their diaries when the task would likely be done again, another woman wrote: "Housework is not too unpleasant to me unless it is never-ending, like picking up or cleaning up after meals—tasks which I seem to be doing and redoing constantly, yet never finishing

or never being able to see an end accomplished." Here, among the obvious points about the nature of household labor, it is implied that days unfold differently depending on the nature of the tasks—in this case, repetitiveness. That is, tasks impose their own structure on each other (e.g., some things must be done before others, and some tasks may be efficiently clustered in time), but also events determine how often tasks are undertaken. In addition, affective reactions to the work depend in part on its processual quality. In other words, there are good days and bad days, but the relationships among tasks and between tasks and emotional states remain a mystery.

Finally, after completing her diary, one woman said, "The only thing I can be absolutely certain of on any given day is that my husband and children will be fed, the children diapered and given attention, and 20 diapers washed and dried." Here it is suggested that although household tasks are well understood to be repetitive and related to each other in the constraints they impose on the entire array of tasks undertaken, there are surprises too: unexpected events that immediately set other, unanticipated tasks into motion.

The work also suffered from inexperience in manipulating diary data, wide variability in the quality of diary entries, and variation in the number of activities across respondents so that when the findings were aggregated, panel at d cohort effects were confounded. That is, the analyses were not of a single individual's day unfolding over time but were represented as an assembled composite, a cohort experience. This fundamentally limited our ability adequately to characterize sequences of activities.

Beyond issues of data reduction and aggregation, the study also did not do well in analyzing the grounding of activities for particular respondents or between husbands and wives. The theoretical orientation did not provide the a priori guidance needed to distinguish significant groupings of activities. Moreover, the focus on central tendencies to reveal household task structure obscured the important role that surprises play as they occur throughout the day. And though it would have required a much larger sample (or an extremely small one), no checking was done to see how the modal structure of activities changed after those surprises. As a result, the book gives the impression of more order than there really is—or at least a different sort of order than might actually be unfolding.

Finally, the attempt to examine the simultaneous impact of a wide range of household characteristics on the organization of the household day failed. The cross-tabulation strategy applied to various types of families in the end required a far greater number of diary entries than the 41,000 generated by the sample. There simply were not enough instances of task variables to allow more than bivariate analyses. Hence when the dynamic features of household members' decision making are neglected, an essential experience of it and the qualities that make it so revealing about social life may be missed. In fact, daily life and its meanings are accomplished together. Our modest conclusions were that "it is possible to collect useful data on sequences of household activities and to generate substantive results. And these substantive results can be interpreted within plausible theoretical frameworks" (Berk & Berk, 1979, p. 228).

The authors answered to their own satisfaction the question probably asked by everyone who has undertaken a large diary study: "Was this trip necessary?" But today many more trips are necessary to do justice both to the data that can be gathered about the dynamics of household life and to the questions those data can address about social change.

# Some Questions of Measurement

The introduction of additional dimensions of time is not incompatible with the conventional portrayals of household time use, but if they were represented in time use analyses, a much richer picture of household decision making, shifting priorities, and anticipated social change would emerge. Yet how would one study and then apply the contexualized, dynamic meanings of time as it unfolds? And how can the human choices represented in time use be placed in a dynamic context, rife with activity, changing meanings depending on the use of time itself?

The measurement of time use becomes increasingly crucial when one appreciates the value of reflecting these more fully contexualized, more interdependent dimensions of it. It may well be that all along it has not been the ability to conceptualize time as a longitudinal process but the ability to measure it as one that has imposed these limitations. This chapter's simple call for reconceptualization cannot do justice to a critique of the extensive work that has generated instruments that have been used to measure household time use with accuracy and authenticity. In particular, the work done by John Robinson and his colleagues in employing and adapting the diary instrument to

many household settings represents a unique contribution to social science (e.g., Robinson, 1977; Juster & Stafford, 1985). The labor intensity of mounting even the simplest diary analysis—the processual, dynamic quality of household time use to be measured and analyzed—will require attention to substantial new problems in measurement. Here are a few examples.

It is now a truism in the time use literature that employed women engage in fewer leisure time activities than their unemployed sisters. Cross-sectional survey comparisons between individuals, time periods, and cultures tell a good deal about the trade-offs faced by employed women in their work, leisure, and family responsibilities. Cross-sectional comparisons show that women employed full-time engage in X fewer hours of leisure and X fewer hours of sleep than those not employed. And differences are evident along those dimensions between women employed in decades X and Y or in cultures X and Y. Fully to appreciate the psychological consequences of such trade-offs. categories of women can be compared along various measures of satisfaction and stress. Revealing differences emerge. Yet how such trade-offs are experienced as they are made might be of additional interest as part of the measurement of time use itself. For example, a case study of the reduction of leisure time activities, as revealed in a diary, might be one of plans to go out that fall through because one must work late at the office or cannot find a baby-sitter. It may be a story about not engaging in leisure activities because friends made plans without enough advance warning and market work or child work takes precedence. It may be a story about fatigue at the wrong time. It may be about the interruption of a TV show by a child having a nightmare. It may be about going over the office accounts instead of going to the movies. It may be about falling asleep before the time use diary is completed!

To ground the discussion of measurement problems that have limited past time use efforts such as ours, I offer a few thoughts about time use measurement strategies are in order. To capture the more contexualized nature of the household day, one might employ a three-step process of intensive measurement. First, extensive observational work can serve as the basis from which to develop coding schemes and diary instruments to be used at later stages. This would certainly include personal observation, but videotaping might also be useful to generate "field notes" to establish meaningful coding schemes. Pilot observational work is of immense importance to the ultimate development of meaningful diary instruments.

Second, from these observations a coding sheet can be developed that observers can use for a much larger number of respondents to record systematically what they see when. Depending on what other information is to be recorded, the result might be a graphical representation of the household's unfolding, in addition to the conventional statistical one.

Third, respondents could themselves fill out the "diaries" developed from the earlier observer's coding sheets. They might wear beepers that would be rung at random intervals and at that point begin recording for a relatively short period of time (say, 15 minutes). Each respondent would be beeped several times over a 24-hour period. An alternative to a written diary record is to have respondents speak into a remote microphone about what they are doing at specified intervals. These observations could later be transcribed and coded.

The progression of tasks recorded might change as things were learned over the course of the day. It might well make sense to give respondents the option of recording their activities (or having them recorded) when a "surprise" occurred, or more generally, when something of particular import or interest happened. Here, dimensions such as flexibility (i.e., the freedom to rearrange a task sequence or to resume it after interruption) and precedence (i.e., the necessary time ordering of tasks to be accomplished) enter in. Giving respondents discretion compromises the statistical inference a bit because one no longer has a representative sample of the day, but it might be a small price to pay for the insights that would result when the meaning of events and resulting tasks could be included in the measurement.

The comments and reactions that respondents provide as they experience the unfolding of events during the day may be incorporated to greater or lesser extent as the recording proceeds. One might, for example, ask respondents to record some comment if tasks are interrupted and resumed or a task sequence is rearranged. Retrospective accounts, once the day's diary is completed, may also help to contextualize the tasks recorded for that day.

One might decide that the detail represented in those examples is too difficult to obtain or too costly to warrant the kind of analyses that would be required. Nevertheless, without some sense of the context in which time is used and of its dynamic nature, the categories of social relations that are measured will not be fully understood or hints at social change the findings suggest be appreciated.

## **Conclusion: Some Policy-Related Examples**

An additional dimension to the study of time use might well center on both the dynamic qualities of time and greater concern with the way the human experience of time contextualizes and determines its use. Useful but relatively static conceptualizations should be combined with cross-sectional methodological approaches and analyses of time use as a process critically determined by the context in which it unfolds. Attention to these additional dimensions may illuminate processes of some relevance to a variety of social programs.

Three brief examples must suffice. First, there is increasing concern that the American commuter is not responding to pleas to cut down on single-driver automobile use that would limit polluting auto emissions. Large employers are increasingly being called on to develop programs that will encourage their employees to ride-share. Had early ride-sharing programs employed time use data to establish the patterns of commuting by prospective participants, those data would not have revealed a critical dimension to commuters' concerns: the fear of unanticipated events occurring over the course of the day. Ride-sharing limits a commuter's ability to respond to surprises or crises that require a car such as lunch hour errands, emergency shopping trips, or calls from a child's school. Moreover, what happens early in the day may affect later choices, and thus commuters are reluctant to give up the flexibility that a car provides. This is keenly felt by time-poor parents in demanding jobs who believe they must have stable resources ready to respond to the unanticipated exigencies of children's lives. In response to these dynamics, some firms now offer loaner cars to those who van-pool or ride-share. In this case, programs respond to the dynamics of the employee's day.

Second, every few years there is a resurgence of interest in increasing job opportunities for welfare recipients. Most of the proposals center on some combination of job training, high school equivalency degrees, and the development of entry-level job opportunities. The crucial problem for women who are targeted for "workfare" is child care. Typically this problem is ignored, and it is presumed that relatives or friends will provide adequate child care. This solution ignores the reality that though the requisite number of hours of child care may be accounted for, they may be the wrong hours. Such child care arrangements typically do not allow parents to be on call or respond to emergencies, and this limits any program's success. The dynamics of the

day, and thus of children's and parents' needs, are not accounted for or fully accommodated.

Third, and in contrast, corporate on-site child care programs that allow parents to visit their children or respond quickly even to minor crises are succeeding. Typically, the parent—especially of a small child—does not want one large block of time but, like the commuter, wants the opportunity to respond to the occasional need as it arises. These programs—unlike the typical workfare arrangement—are able to respond to the dynamics of the worker's day. Once again, it is not the amount of time spent that is at issue but its flexible allocation that might provide additional understanding of our preferences and responses to social change. Again the condition of time poverty—found at both ends of the socioeconomic ladder—only intensifies the need for flexibly arranged demands made on the day.

One may recall the old joke about the statistician and the violinist—and the disappointing musical experience when one takes a probability sample of the notes of a symphony. We know how many notes are played, the kinds of notes played, the frequency with which they are played, and when most of them are played. What we do not know is what the symphony sounds like and what it means, musically. So too with the dynamics of time use and the insights they could provide into the orchestration and performance of daily life.

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