

DAILY ACTIVITY PATTERNS OF PEASANT
HOMEMAKERS

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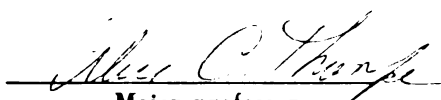
Daily Activity Patterns of Peasant Homemakers

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Linda Jean Nelson

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ABSTRACT

DAILY ACTIVITY PATTERNS OF PEASANT HOMEMAKERS

by Linda Jean Nelson

This study explored the concept of an activity pattern as an approach to understanding how time functions in home management. An activity pattern was defined as the ordering of tasks which is characteristic of a person or group of persons during some specified time span. Time span was defined as the period of time between two specific events which may be selected by the researcher. Two types of activity patterns were suggested as meaningful. Behavioristic activity patterns were defined as those derived from what people do. Ideational activity patterns were defined as those derived from what people say they or others have done, do, or will do. Within the selected time span, the indices of presence, repetition, and sequence of activities were proposed as specific indicators of an activity pattern.

Field work was carried out in a rural Costa Rican community. Data were gathered from nineteen randomly-selected homemakers during daylong observations and interviews on the days preceding and following each observation. The one-day time span studied was bounded by the events of

the arising of the homemaker and the putting to bed at night of the youngest family members.

The researcher delineated fifteen activity categories and isolated four independent variables. The independent variables corresponded to the first preparation of five minutes or more for each of the four meals which were served in the homes: morning coffee, lunch, midday coffee, and supper. Five time spans were formed within the day; the spans were bounded by the independent variables.

A behavioristic activity pattern was determined by applying the three indices of presence, repetition, and sequence of activities within the five time spans to the observed data. Additional insights into behavioristic activity patterns were obtained by examining observations of the procedures for carrying out specific activities.

Ideational activity patterns were derived by applying the three indices of presence, repetition, and sequence within the five time spans to the predictions and recollections of activities which the homemakers verbalized with reference to a specific day. Additional insights into the homemakers' image of their activities were derived from their opinions about repetitiveness in their activities as well as from their expressed attitudes about certain activities.

The behavioristic and the ideational activity patterns of these homemakers were compared. An illustration was given to show how time use goals and attainment of such goals can be inferred from these two types of activity patterns.

The most important finding of this study was that it demonstrated the applicability of the concept of activity pattern in a specific cultural setting. Therefore, the concept of activity pattern was shown to be operational and to contribute to understanding of how time functions in home management. The activity pattern concept unites time with the people who live within it by indicating activities in the order in which they are performed rather than by aggregate clock time allocated to activities out of the context of performance. The activity pattern concept indicates some of the dynamic quality of time passage within the time span studied. It also offers a possibility of examining cultural variations in time use without imposing one cultural view as a base. Some implications of the procedure and the findings for theory, research, and development of educational programs in Latin America were indicated.

DAILY ACTIVITY PATTERNS OF PEASANT HOMEMAKERS

By

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CHAPTER I

INTRODUCTION

Time is an invisible factor which consciously or unconsciously influences the activities of man. It is a concept familiar to every person, but it is interpreted in various ways. Time is viewed differently by professionals such as philosophers, geologists, linguists, astronomers, physicists, historians, psychologists, or anthropologists. This leads to variety as well as vagueness when time is considered. A specific point of view with respect to time must be defined if this elusive factor is to be researchable.

Time, according to traditional home management theory, fits into a conceptual framework developed in a technological society. In this framework time is viewed as a resource with economic characteristics of scarcity and alternative uses. It has traditionally been considered as one of many resources which may be utilized to help families attain desired goals. It is probably true that there are many cases in which time has the characteristics of a resource and is considered as such in making decisions. However, such a concept does not seem sufficiently comprehensive to explain the manner in which time permeates the managerial situation.

This economic perception of time as a resource is limiting for at least three reasons. First, it isolates time from the people who perform within it by considering time as a separate manipulable resource rather than as an integrated factor in the culture. A second limitation is that it minimizes the dynamic quality of the passage of time during which management takes place. Although time can be viewed at any one static point, movement must be recognized as one of its ever present characteristics. Any treatment of time which does not sufficiently concede this characteristic is limiting for the study of time as it relates to home management.

The third limitation posed by the perception of time as a resource is that it may restrict opportunities to understand the meaning of time in a variety of cultures. When the time view of any one cultural group is considered to be the base, cross-cultural comparisons tend to be discriminatory. All cultural views which differ from those of the base group are prone to be considered unacceptable or even inferior. If universal principles of management are to be discovered or if members of each culture are to achieve effective home management within their own cultural framework, a way must be found to free theories from the restrictions of cultural determinism.

The question arises: can time be viewed in a way which overcomes these three limitations? Can the functions

of time in home management be examined in a way which relates people to time, preserves some of the dynamism of time, and eliminates some of the boundaries caused by cultural variation in its meaning? This thesis explores the concept of activity pattern as one approach to the solution of this question.

Concept of Activity Pattern

Definition

In order to define the concept of activity pattern as used in this study, one must first understand the subsidiary concept of time span. A time span is the period of time between two specific events. The two events which bound the time span may be selected by the researcher.¹ An activity pattern is that ordering of tasks which is characteristic of a person or group of persons during the specified time span. An activity pattern shows the predominant arrangement of tasks in sequence within the selected time span and may suggest alternative structures.

¹In this study three different types of time spans were selected by the researcher to be explored: a one-day time span bounded by the events of the arising of the homemaker and the putting to bed at night of young children; spans within a day bounded by meal preparations; spans bounded by the beginning and ending of an activity or a part of an activity such as cleaning the kitchen or sweeping the floor. Each of these types of time spans will be delineated specifically when first presented in the study.

It should be pointed out that since the events which bound any time span may be marked by the clock time at which they occur, the duration or length of time allocated to an activity pattern, or any breakdown within it, could be indicated. This, however, is not essential to the concept.

Identification of activity patterns

An activity pattern can be viewed from two basic positions: the behavioristic and the ideational. What people actually do reveals a behavioristic activity pattern. What people say they or others have done, do, or will do reveals an ideational activity pattern.

The basic data from which a behavioristic pattern might be derived are observations of what people do within a specified time span. Three indices could be applied to activity data to determine patterning. Within any selected time span, the first index is the presence of activities. The second index is their repetition within a time span. The third index is the sequence in which the activities occur.

The basic data from which ideational activity patterns might be derived are people's verbalizations of what they have done, are doing, or will do within some specified time span. Given a set of verbalized activity data for a specified time span, the ideational activity pattern could

be obtained by utilization of the three indices of presence, repetition, and sequence of activity performance within the time span. Additional information which would help to interpret the ideational activity patterns could be obtained from people's expressions of opinions and attitudes with respect to activities.

Importance of the concept

The concept of an activity pattern seems relevant to the understanding of time because it attempts to resolve the three limitations which the traditional resource concept of time imposes. To date, studies of time use have reported total clock-measured time spent in selected activities for a day or a week without consideration of the order in which these activities were performed. Thus the use of time was determined by an aggregate figure which did not indicate the relationship of the activities to one another.

A primary advantage of the activity pattern concept is that it unites people with the time they use because it views people's performance in the order in which it is enacted rather than by total amount of time spent in each activity. The emphasis is upon the organization of human activity rather than upon an activity isolated from the performers.

A second advantage of the concept is that it covers a selected span of time rather than any single point in time. Within the selected time span the activity pattern illustrates the dynamic quality of the passage of time. A third advantage of the concept is that it is not limited to measures of clock duration, but rather emphasizes the content and arrangement of activities. A cultural perception of the importance of clock measures may hinder the recognition of time views in other cultures where such measures are not particularly meaningful.

The activity pattern concept is important in home management because of the possibility of utilizing both behavioristic and ideational activity patterns to gain understanding of time use goals. (First, let us assume that within their ability people behave in a way which leads to achievement of their goals. Therefore, from behavior we can infer goals as well as some indication of goal attainment. Second, let us assume that people's verbalizations about activities represent their model, or ideal, of activities. Therefore, from the ideational activity pattern we can infer time use goals which may or may not be attained. The determination of time use goals as well as some measure of their attainment should be possible upon comparative analysis of behavioristic and ideational activity patterns in any cultural setting. Since one objective of management is to help people attain their

goals, the activity pattern concept will provide information for the guidance of the managerial process.

Limitations of the Study

Several limitations of the study are recognized:

1. Only the activities of a one-day time span bounded by the events of the arising of the homemakers and the putting to bed at night of young children were studied.
2. Interactions of family members were not a focus of the study; only the activities of the homemakers were systematically investigated.
3. Data were collected comprehensively with reference to only two weekdays: Tuesdays and Fridays.
4. Data collection was limited to parts of the school year.
5. Findings were not reported for activities of less than five minutes duration.
6. Ranges and averages of clock-time duration for the activities were not reported.
7. No attempt was made to analyze the content exhaustively or to evaluate the activity performance of the homemakers.
8. Emphasis was placed upon the search for a group activity pattern rather than a study of the patterns of the individual homemakers.

Many of the alternatives considered before deciding to limit the study in these ways are discussed at appropriate points within the succeeding chapters.

Statement of the Problem

Within the confines of the sample chosen for this exploratory study, the research was designed to answer three basic questions:

Do the homemakers exhibit an identifiable behavioristic activity pattern?

Do the homemakers exhibit an identifiable ideational activity pattern?

If they do exhibit these activity patterns, in what ways do the behavioristic and the ideational activity patterns coincide or differ?

This thesis reports the development and application of techniques for discovery of the daily activity patterns of a selected group of homemakers as well as certain implications of these patterns for home management.

CHAPTER II

INTELLECTUAL HISTORY

Time studies within home management have tended to be quantitative, that is, they have emphasized amounts of time spent. In the social sciences, time theories and some exploratory studies have tended toward the qualitative in that they have attempted to indicate that time has varying meanings which should be considered in gathering and interpreting time use data. Both approaches to investigating time contributed to the development of the activity pattern concept.

Quantitative Approach to Time Study

Studies of homemakers' time use have usually been made using chronological records of activities for one or more days. The method of gathering the time records probably affects the validity of the data. Generally, the earliest studies of homemakers' time use were made by means of personal diaries. Since diary studies are time consuming and require cooperative and intelligent subjects, it was discovered that participating homemakers did not represent adequately those homemakers with little education, low income, or with young children.

In the 1930's Warren¹ developed a method of time study designed to eliminate the limited representation which occurred in diary studies. Selected homemakers were asked to recall their activities for some days prior to the interview. This method was based on the assumption that the homemakers' recall was accurate enough so that results were a valid representation of time use in the time which was recalled. It seems that recall might be a variable factor; therefore, the validity of such data might be questioned. The homemakers' variation in ability to remember, the time between the occurrence of the event and the recall, and the relative importance to the homemaker of the events themselves might have operated to make recall data quite different from the actual time use which the method aimed to reveal.

In addition to the method selected for obtaining the data, the method used for reporting the findings in time studies has introduced distortion. Although usually gathered chronologically, the data have been grouped for reporting. Results have not been given in chronological order; rather all events related to some major activity have been reported in one total time unit. Therefore, only an abstraction of the time use pattern has been made.

¹Jean Warren. Use of time in its relation to home management. N. Y. (Ithaca) Agr. Exp. Sta. Bul. 734. 1940.

Warren¹ presented a probable weekly schedule of activities which were not carried out daily. Wiegand reported a similar type of information, accompanied by the conclusion that "there was no evidence of a universal work pattern for a week."² Daily patterns have been presented only in terms of aggregate clock time rather than by utilizing the data related to chronological order of activity performance. Upon inspection of many questionnaires it appeared that food preparation and dishwashing were the only activities assumed to be done more than once daily in North American homes.

Kundak³ in her report of Turkish homemakers' time use presented many data in graphic rather than tabular form. She attempted to combine chronological and clock time in a figure showing percentages of forty-four homemakers who used the hours between 4:30 A.M. and 11 P.M. for any one of ten major activity classifications.⁴ This

¹Ibid., p. 55.

²Elizabeth Wiegand. Use of time by full-time and part-time homemakers in relation to home management. N. Y. (Ithaca) Agr. Exp. Sta. Memoir 330. 1954. p. 14.

³Suat Saadet Kundak. Factors related to use of time in homemaking activities by selected Turkish housewives. Unpublished M. S. Thesis. Lafayette, Indiana, Purdue University Library. 1958.

⁴Ibid., p. 42.

presentation approached the study of the activity pattern; however, Kundak's emphasis was upon aggregate time use and the incipient activity pattern was not emphasized.

It appears that time use studies in home management have been based on data which may not reflect actual time allocation and that the reporting of aggregate data by activity classifications obscures the chronological order which should be an important factor in the study of time. Recently the recall method has been employed for the study of homemakers' time use in cultures other than the North American culture in which the method originated.¹ In order to facilitate comparison, various researchers have tried to use the North American categories in analyzing their findings. The recall method and the aggregate classificatory system of reporting are viewed in this study as limiting to the understanding of home management as it occurs in various cultural settings. The concern with these aspects of previous research is compounded when the problems arising from the different cultural interpretations of time are considered. This uneasiness about the suitability of certain quantitative methods for the study of home management, especially cross-culturally, led to a search for time study approaches used in other disciplines.

¹See Crespo, The housewife's day, Kundak, Rodríguez and González, Tarrant, Warren (1957) in the bibliographic section entitled Studies of Homemakers' Time Use Patterns.

Qualitative Approach to Time Study

Some sources from sociology and anthropology were examined to determine whether or not they contributed concepts which would help to focus the study, or provided methodological suggestions which would help to overcome some of the difficulties sensed in the quantitative approach.

Time theories

Sorokin and Merton¹ pointed out the practical distinctions between concepts of social and public time. Basically this is a distinction between subjective and objective measurements. Social time is time experienced by human beings in relation to events which have meaning for them. Public time is measured independently using means such as clocks and calendars to synchronize time for purposes of social action and communication. Sorokin and Merton discussed qualities of time as follows:

Summing up, we may say that thus far our investigation has disclosed the facts that social time, in contrast to the time of astronomy, is qualitative and not purely quantitative; that these qualities derive from the beliefs and customs common to the group and that they serve further to reveal the rhythms, pulsations, and beats of the societies in which they are found.²

¹Pitirim A. Sorokin and Robert K. Merton. Social time: a methodological and functional analysis. The American Journal of Sociology. 42: 615-629. 1937.

²Ibid., p. 623.

Sorokin and Merton closed with the suggestion that the concept of social time must accompany, or perhaps supersede, the concept of astronomical time in research in social dynamics.¹

Hall² provided a stimulus for further consideration of time as a cultural variation. He conceived of temporality as one primary factor in cultural communication. Temporality included many elements and levels of operation. Often time is taken for granted; therefore, people are unable to volunteer the rules by which this "silent language" communicates. Hall did not attempt to exhaust the possibilities of his classifications although time was frequently used to illustrate variations. He also did not suggest concrete methods for investigating ways of handling time in different cultures, but said "there can be no doubt that if you know the temporal relationships between events you know a tremendous amount."³

Hall suggested that persons who wish to accelerate culture change should identify informal adaptations and bring them to conscious awareness.⁴ Included in his

¹Ibid., p. 628.

²Edward T. Hall. The silent language. New York, Doubleday and Company, Inc. 1959.

³Ibid., p. 69.

⁴Ibid., p. 118.

definition of "informal" are patterns of activity learned by imitation, a category which probably covers most home-making activities. Later he indicated that in addition to the study of informal patterns, a promising lead to understanding culture should be the development of the knowledge of congruence and how it functions.¹ By congruence was meant a sense of appropriateness of combinations which might include temporal combination or sequences.

Field studies

Sorokin and Berger² pioneered in the study of diary time records kept for continuous periods of at least four weeks. Of particular interest is the comparison of activities predicted for certain future days with the subsequent diary records for those days. There was some indication that household activities were among those less accurately predicted and that such activities tended to be under-predicted.³ The Sorokin-Berger study suggested that one means of investigating the dynamics of change through time and for obtaining evidences of planning, a crucial North American managerial concept, would be to compare predictions

¹Ibid., p. 163.

²Pitirim A. Sorokin and Clarence A. Berger. Time-budgets of human behavior. Cambridge, Harvard University Press. 1939.

³Ibid., p. 166-167.

with actual activities occurring in the time predicted.

Since the diary and recall methods were found to have limitations as means for gathering time data,¹ the only additional method which seemed available was observation. Observation is a basic method in anthropology. Firth provided the rationale for observational studies of work patterns:

But as a note for the field worker, it may here be remarked that a most valuable ethnographic document would be a diary of native work from day to day, extending over a long period of time--say a complete year. This would provide most useful data in regard to the organization of activity and the seasonal distribution of occupation.²

Following this, some studies provided ordered activity data by half-days with emphasis on economically productive tasks.³ Provinse recorded the major daily activities of several Borean tribal members during a four week span. He evaluated the procedure as follows:

An hourly unit would furnish a much more exact picture, but the returns from each minute tabulation are probably incommensurate with the added effort required.⁴

¹See discussion of quantitative approach to time study.

²Raymond Firth. *Primitive economics of the New Zealand Maori*. New York, E. P. Dutton and Co. 1929. p. 56.

³See papers by Foster and Provinse in the bibliographic section entitled *Time Studies in the Social Sciences*.

⁴John H. Provinse. *Cooperative ricefield cultivation among the Siang Dyaks of Central Borneo*. *American Anthropologist*. 39: 77-102. 1937. p. 95.

Although anthropologists have presented detailed descriptions of single days, they do not seem to have published techniques for documenting detailed work patterns based on a compilation of observed days for many workers.

Anthropologists who have used observation as a method for gathering time use data have been conscious of the possible alteration of activities which may have occurred because of the presence of an observer. Two means of minimizing this bias have been tried in Mexican settings.

Erasmus¹ and his wife studied the work patterns of an entire village by noting the activity of each person at the moment of contact. This was done to avoid recording activities which might have been changed because of their presence. A thirteen hour day was observed over a three month period. The authors stated that the same household followed no identical routine from day to day. One may well question if their spot-check method could indicate this with certainty. The amount of time spent in each activity was not determined directly by observation. The duration of each activity was calculated proportionally by relating the number of observations of each activity to the total number of hours observed; therefore, these duration data are open to question.

¹Charles J. Erasmus. Work patterns in a Mayo village. American Anthropologist. 57: 322-333. 1955.

Lewis¹ in his study of five urban Mexican families made the unique contribution of constant observation for a one-day span. The days were randomly chosen and records of all activities, especially interpersonal relationships, were recorded stenographically. The problem of possible alteration of activities in the presence of the observer was avoided as much as possible by studying families with whom Lewis had had contact over a period of at least nine years, and, in the majority of cases, using observers who were relatives or in some way connected with the observed family. The case studies, written in novel style, provide entertaining reading, but only a partial order of activities can be determined from the report. Lewis deleted some data "to avoid repetition and insignificant events."² He did not specify his exact criteria for excising an event.

Summary of the qualitative approach

Social time and temporality are concepts which attempt to place time in relation to broad concerns dealing with the understanding of human behavior. Each concept suggests some personal and cultural variations in the treatment of time. Generally they are overviews intended to

¹Oscar Lewis. Five families. New York, Basic Books, Inc. 1959.

²Ibid., p. 6.

stimulate the detailed research needed to support the idea being expounded.

Duration, order, and importance of events as aspects worthy of study in relation to time seemed to be suggested repeatedly in the various papers cited above. Duration and order of events can be measured objectively using a consistent, clock-time measure. The importance of events, however, is a variable which cannot be calculated directly by clock time, since it cannot be assumed that amount of time spent in activities is synonymous with importance.

Selection of the Daily Activity Pattern Approach

In order to gain new insight into time as related to home management, it was decided to explore the possibility of an activity pattern based on ordering of tasks rather than on duration or aggregate clock times devoted to specific activities. The day was selected as a researchable natural time unit which usually had been subordinated to the week in the few studies which mentioned homemakers' work patterns. Perhaps the idea of a possible pattern within the day had been overlooked due to assumed familiarity with the content of a day in North American homes. Any such familiarity, real or imagined, could not be assumed in a culture different from the investigator's own. In the following chapter the procedure adopted for carrying out the exploratory study of daily activity patterns is presented.

CHAPTER III

PROCEDURE

The procedure followed in exploring daily activity patterns as related to home management is described in four major divisions of this chapter. The choice of location and subjects, the development of research techniques, the field work, and a brief statement of the methods of coding and tabulation will be presented.

Locational History

In order to investigate the possible existence of daily activity patterns the author might have studied homemakers representing her own culture, another culture, or more than one culture. The idea of cross-cultural comparison was discarded because it was too complicated for an exploratory study. Although it seemed probable that daily activity patterns would vary among sub-cultures in her own country, the researcher had had previous overseas research experience and was aware of the advantages of developing insights by studying a culture different from one's own. Therefore, she arranged to return to Costa Rica where she had had previous research opportunities.

Since March 1960 the author has been connected with the Department of Economics and Extension of the Tropical

Center for Research and Graduate Study of the Inter-American Institute of Agricultural Sciences of the Organization of American States. The Institute is located in Turrialba, Costa Rica. Its function is to develop and support agriculture and related programs in Latin America. The author's particular responsibilities have been in the area of home economics. Accurate information concerning what happens in rural Latin American homes is needed to provide a foundation for expanding programs of university and extension education in home economics. It was recognized that knowledge of the daily activity patterns of whole families would be valuable in fulfilling the purposes of the Institute and increasing understanding of home management. However, because this was an exploratory study, the sample was confined to homemakers.

Site selection

The exploration of daily activity patterns was limited to homemakers in one rural community in Costa Rica. This was deemed necessary in order to minimize the time and effort needed to develop rapport. The major features desired in the community were as follows: the farms should be small or medium sized, rather than large commercial farms; the community should be relatively accessible under all weather conditions; the houses should not be too scattered nor too numerous; and, if possible,

the researcher should have had previous contact in the community. Although none of the three communities which were considered actually fulfilled all of the requirements, the one chosen was a community of small farms in which the researcher had had previous contacts. These two features outweighed the problems of scattered locations of dwellings and the relatively large number of families it contained as compared to the communities which were not chosen.

Sample selection

All homemakers who lived with their husbands in the community and who were not gainfully employed on a full-time basis outside their homes were considered eligible to be included in the study. Homemakers specifically excluded were those who were widowed, those whose husbands lived elsewhere because of employment, and those who were regularly employed as storekeepers, telegraphers, or teachers. Homemakers who worked in the market on Sundays, in seasonal agricultural pursuits such as coffee harvest, or in home industry such as sewing, were considered eligible. A list of names of family heads whose wives were eligible was prepared by the school directress; there were eighty-four eligible persons. The names were numbered and a sample of nineteen was selected with the aid of a random number table.

Development of Research Techniques

Since a Latin American community had been selected

as the setting for the study, the author reviewed her previous personal experiences in Costa Rica as well as literature referring to Latin American time concepts before choosing research techniques appropriate to the exploration of daily activity patterns. A brief review of the basic methods and instruments used will be given in this section.

Selection of the basic method

In order to explore daily activity patterns it seemed essential to utilize both quantitative and qualitative measures of time use. The basic quantitative data were to be observations of what the homemakers did minute-by-minute. Observation was chosen as the most valid and detailed method to obtain the data. It was assumed that sufficient rapport could be developed so that the observer's presence would not cause excessive alteration of the activity pattern. The interval of one minute was selected rather than the five, fifteen, or thirty minute minimum unit reported in many time use studies because it was believed that brief activity changes were important. It was planned to gather estimated time use data by prediction and recall on the days immediately preceding and following the observations. In addition, questions were formulated to tap aspects of activity patterns which were not deemed observable or which were not confined to a one-day span.

For the purpose of this study, a time span was defined as the period of time between two specific events.

A one-day or daily time span was utilized. This time span could be delineated in three ways. First, it might be measured on a twenty-four hour clock basis, for example, from 7 A.M. on one date until 7 A.M. on the following date. In areas in which a clock is not a cultural artifact, the time span of one twenty-four hour day could be measured from one sunset to the next sunset, or one sunrise to the next sunrise. Second, one day might be interpreted to mean the waking day, that is, the time span from arising until going to bed on the same calendar date. Third, a one-day time span might be limited to the concept of a work day. A work day would be bounded by activities which conceivably could be observed by an outsider. The boundaries of the one-day time span chosen for this study were the events of the homemakers' arising and the putting to bed at night of the youngest members of the family. These events were assumed to bound the span of the homemakers' work day.

Original plan for the visits

The original plan for the visits was based on what was thought to be the ideal situation for obtaining the necessary data. This original plan will be presented here in order to point out the alterations that were forced in the actual situation. As a minimum, five visits were to be made to each family; of these only three were to be

formal visits connected with the collection of activity data. The first visit was introductory in nature and was to be made when both spouses were at home if possible. The contact was to be used to explain the project and ask permission to include the family in the study. At this time the women were to be told that they would be visited on three consecutive days. On the first day they would be questioned about members of the family, the house, and other general matters. On the second day they would be observed at their work and the observer would write down the time whenever the homemaker changed activities and would note what she was doing. They would also be told that the researcher planned to carry her lunch and that they would not have to supply food for her on the day she was observing them. On the third day they would be questioned concerning their ideas about homemaking, for example, which household activities they liked most and least and why. Never were they to be advised that they would be asked to predict and recall their activities.

The first of the three data collection visits was to be made in the early afternoon hours when, according to the opinions of various informants, the homemaker was likely to have a little time to devote to answering questions. After a general conversation, the woman was to be asked if the following day would be satisfactory for the all-day visit. If given permission to visit the following

day, the interviewer would proceed with the questioning using the first four sections of the schedule and terminating with the homemaker's time and activity predictions for the following day. The interviewer would then depart saying that she would arrive about five o'clock the following morning and would remain until the younger children were put to bed.

The observation was to constitute the second in the three day sequence. The homemaker's activities were to be the focal point of the observations. The time of day whenever she changed her activity was to be noted. What she was doing, the equipment she used, and her procedure for work, including sequence and body positions, were to be noted in as much detail as possible. In addition, the observer planned to note the activities of other family members in the same manner as often as possible without losing pertinent information concerning the homemaker.

The third of the data collection visits was designed to cover the remaining four sections of the schedule which related to recall data and attitudes. Whenever possible a family photograph was to be taken on this occasion. A final visit was to be made to deliver a gift copy of the photograph.

Schedule

The schedule was originally written in English, then translated into Spanish with the help of technicians at

the Institute.¹ The major sections of the schedule were designed to obtain general information about family members, housing and household equipment, and selected practices; homemakers' plans for the following day; homemakers' recollections of the previous day; homemakers' responses to questions related to the introduction of change and awareness of change through time; and responses to hypothetical situations involving time.

The schedule sections of particular import for the study of activity patterns were those related to predictions and recollections. The women were to be asked to tell what they were thinking of doing on the following day in chronological order from the time of arising to the end of the day, and, if possible to tell the hour in which each different activity would be begun. As it was thought that the concept of planning would be so foreign that the women might refuse to answer a direct question about the following day, an alternative was provided. In case the subject failed to reply to the first series of questions, she was to be asked to tell what she did "regularly."² On the day following the observation this same procedure was utilized

¹See Appendices A and B for Spanish and English versions of the schedule.

²When the alternate form proved to be unnecessary, it was omitted from the schedule.

to determine the homemakers' recollections of their activities on the previous day.

Generalizations about the repetitiveness of daily life in Latin America are common in North American interpretations of Latin American activities. Foster characterized the daily activities in one Mexican village as follows:

By and large, however, except as modified by child care, the work habits of adults are fairly constant from the time they are married until near the time of their death. . . . The daily round of life in a family depends to a considerable extent on the occupation of the father, and on what he may be doing on any particular day.¹

Jones, in providing background data for a study in a Costa Rican village, stated that "the daily schedule varies little for the people."² If these views actually do operate in the daily life of the Latin American homemakers, it seemed logical that the Costa Rican homemakers to be studied would evidence a definite repetitious pattern of daily activity. Several questions were included in the schedule to probe the presence of an image of repetition in the minds of these women.

¹George M. Foster. *Empire's children: the people of Tzintzuntzan*. Smithsonian Institution. Institute of Social Anthropology Publication No. 6. 1948. p. 151.

²Earl Jones. *A study of a Costa Rican rural education center*. M. A. Thesis. Turrialba, Costa Rica, Inter-American Institute of Agr. Sci. [Mimeo.] 1959. p. 19.

Field Work

This section will describe briefly the 1960 entry into the community and the procedure actually followed in making the visits.

Entry into the community

The researcher was well-remembered in the community. Many people recalled her visits in 1952 and 1953 as a guest in the priest's home. Several also recalled humorous incidents from the early visits when she was learning Spanish. Some women and children displayed black and white photographs she had taken of them during the first visits. During informal talks with both men and women, they showed favorable interest in the topic to be investigated.

In an effort to advise formal and informal leaders of the general plans to carry out a study of the use of homemakers' time, the school directress, the owners of a large general store, the police agent, and some family heads were contacted. The priest was not visited at that time because he had just received notice that he was to be transferred. The new priest was appraised of the plans at the earliest possible date. Two different priests who resided in the community during the field work reviewed the schedule and both gave support to the study from the pulpit.

A house was rented from friends who had moved to the capital and plans were made to spend three weeks in residence

to try out the living arrangements. Lunches and suppers were usually eaten with the owners of a large general store. Since they would not accept payment, the researcher gradually began to spend free hours helping in the store. This served to improve her Spanish vocabulary, offered contacts with many people who otherwise would not have been met, gave an opportunity to explain the purpose of the project, and gave her a certain prestige since she had been taken into the confidence of an influential and respected family.

The school was visited frequently. The teachers were good informants and patient with the researcher's efforts to learn more Spanish. During recess the children formed a willing audience for North American folksongs with motions. They were eager imitators of "Jingle Bells" and other jolly rhythms. A new generation was taught a Spanish version of "Farmer in the Dell" which the researcher had introduced in 1953 to some of their older brothers and sisters. "Lion Hunt" was also translated into Spanish and frequently played, especially by the boys.

A pre-test of the three-day visiting procedure was made during the three week residence in August 1960. Initial visits were made to many of the homes in the sample to explain the project, and, if interest was demonstrated, to request permission to visit the family later as part of the study. At this stage the researcher was overeager and frequently set a goal of too many visits per day. This

necessitated rushing from house to house when the families would have liked her to stay longer to entertain them with folksongs and explanations of life in the United States. When one desires to find out about family life in Costa Rica, one needs infinite patience and must make repeated explanations of one's own life. Personal photographs from home were soon smudged from much passing among the villagers. At first some women were visited when the husband was not present. This often resulted in refusal to participate in the study, since the Latin American husband traditionally controls the activities of family members. When the researcher finally realized the reason for some refusals, care was taken to seek the husband's permission in each case. As a result, in almost all cases in which the spouses were consulted together there was enthusiastic acceptance; in at least one case the husband actually convinced his reluctant wife to participate.

Actual visits and alterations in procedure

The project was explained to the people as an interest in learning how much time was spent by homemakers in household activities each day. However, some residents of the community said that Sunday would be a poor observation day, since they used that day for going to Mass and visiting, and avoided doing laundry as much as possible. They resisted the use of Sunday as a day to study time use

in household activities. When the researcher realized that she might have broadened her explanation to include all the activities of the women, she also realized that the use of Sundays as work days for herself would be contrary to local custom.

The original plan was then revised so that all observations would be made on a Tuesday or a Friday; therefore, two three-day series could be completed each week, avoiding Sunday, provided that holidays or refusals did not interrupt the work. The three-day sequence using Tuesday and Friday observation days would provide a certain physical ease, but perhaps would bias the content of time use, unless the stereotype of repetition of daily activities was the real case.

The first six families in the sample were visited during September and October 1960. Then severe rains halted the field work. When school closed for the three-month vacation at the end of November, the work had to wait for school to reopen in March in order to control the possibility of time use difference by school season. Since children were in school the majority of the year, school season data were thought to be most suited for study. The remaining thirteen families were visited during March, April, and May 1961.

Several comments about the actual observation days will illustrate changes which had to be made from the ideal

plan, and will indicate some changes which may have been due to the presence of an observer. The homemakers, their husbands, or their children frequently asked the observer the time of day or how many pages of activities she had noted. When husbands arrived home about noon, some seemed pleased that their wives had done enough work to fill several pages of notebook paper, while others were incredulous that the women could have done so much.

The homemakers were concerned about the physical comfort of the observer. Usually when they changed work locations they carried a chair or stool to the new location for the observer or they told a child to do so. Several expressed surprise that the observer was willing to go along when they went to rinse clothes or carry water. When some of the children realized that the observer would make these trips, they asked why she would not help carry water. Many times the function of observing had to be reexplained.

Although the observer had explained carefully that she would carry her lunch, many people worried about the fact that she ate little and ate at hours quite different from the customary rural Costa Rican mealtimes. The observer commented that she was accustomed to different times, that she did not do hard physical work while observing and therefore did not require much food, that she could not eat when they did because mealtime was a time of much activity which she wished to note, and that if she ate part

of the family's food the woman would be serving more food and washing more dishes, thereby changing the time patterns of the activities under observation. In spite of all the explanations and the supply of sandwiches, bread, bananas, and candy with which the observer arrived, she was forced to eat something with many of the families. Since she was accustomed to eat lunch about noon when the families usually drank coffee, she soon abandoned the practice of carrying a thermos and shared the family coffee. In some homes she accepted other food, usually a sample of soup, some seasonal fruit or vegetable, or a hot tortilla. Often she was able to satisfy the families' desires to be hospitable by eating with them on some day other than the observation day.

Coding, Tabulation and Analysis

To facilitate tabulation and analysis of the detailed observation data, some means of classification of activities had to be developed. Pre-coded categorization was not used because not enough was known about the homemakers' activities prior to carrying out the research to justify utilization of the groupings reported in previous studies. Since the system of classification finally developed as a concomitant part of the extraction of results, it will be presented as a part of Chapter V, along

with an explanation of the techniques of tabulation and analysis which were employed.¹

¹See Appendix C for a detailed listing of events according to the coding system devised for this study.

CHAPTER IV

CHARACTERISTICS OF THE SAMPLE

A general description of the families which comprised the sample is presented in this chapter. This will provide a setting for the daily activity data which will be presented in Chapters V and VI, and will indicate the general homogeneity of the sample with respect to certain factors which may affect, or be associated with, activity patterns. Selected aspects of family composition, education, occupation, land tenancy, as well as facilities, equipment, and procedures related to housing, food, and clothing are discussed.

Family Composition

Most of the families in the sample were in the expanding stage of the family life cycle. The couples had been married from six to thirty-one years, with a median of ten years married. The median age of the husbands was thirty-eight, while the median age of the wives was thirty, with a range of twenty-three to forty-seven years. The families varied in size from four to eleven persons, with a median of eight. The number of children per family ranged from two to nine, with a median of six. Only two households included persons outside the nuclear family.

The majority of the families (fifteen) included both preschool and school children (Table 1). Nearly half of the families (nine) had children under one year of age. Costa Rican children normally do not enter school until age seven; this meant that all the women had at least one preschool child.

Table 1. Distribution of children in the sample according to age and family composition

Family composition	Ages of children (years)				Total	
	Under 1	1-6	7-13	Over 13	Children	Families
Parents plus:						
Preschool children only	3	12			15	4
Preschool and school children	4	31	24		59	10
Preschool, school, and out-of-school children	2	7	17	9	35	5
Total	9	50	41	9	109	19

Since all the families had young children, it seems pertinent to note the potential help which the mothers might receive from their children. The median age of the youngest child per family was one year. The age of the oldest child living at home ranged from four to twenty-four years, with a median of nine. Since most of the help for

the mother was likely to come from daughters, the age of the oldest daughter was noted. Two mothers had only male children. For the remainder, the age of the oldest daughter ranged from three to sixteen years, with a median of eight. Only three families included out-of-school daughters who were free to contribute help without interfering with studies. The oldest daughters in six families were of preschool age; therefore, they could assume little responsibility. Eight families had oldest daughters of school age. Some of the mothers indicated that their own work varied according to whether the daughter attended the morning or afternoon school session. Even though all the homemakers did not verbalize this problem, it was evident that an oldest daughter who was in school three to four hours per day could neither help a great deal at home nor pay much attention to school assignments when she returned from school.

Education

Although the three-year median for education completed was equal for husbands and wives, the range of education of husbands was greater (Table 2). The one husband with more than six years of education was employed as a grade school teacher. The one homemaker who had completed sixth grade also reported taking a correspondence course in child care before her marriage. In the one case in

which the homemaker said she did not know her husband's education, it was probably limited. He was a day laborer and the wife was one of the women whose education terminated in the second grade.

General knowledge of the educational system in the community is pertinent to this study because field work was carried out only during the school year. It was evident that the split school shifts caused some homemaking problems which may have affected activities.

Table 2. Number of adults who terminated formal education at specified levels

Highest grade completed	Husbands	Wives
0	2	1
1	1	0
2	2	3
3	4	7
4	4	4
5	2	3
6	2	1
More than 6	1	0
Unknown	1	0
Total	19	19

School was in session from March through November, with a two week vacation in July. The three month vacation from November through February coincided with the end of the coffee harvest and the period of the tobacco harvest. The school day was divided into two sessions: one from

seven to ten in the morning, and the other from eleven to two in the afternoon. The sixth grade met Monday through Saturday for a half-day session of four hours. The other classes met Monday through Friday and every other Saturday for half-day sessions. A child might attend two afternoons and three mornings or some other combination to receive his half-days of schooling. As often as possible, the children were assigned in consideration of the distance they lived from school and the possibility of heavy afternoon rains, but many went to school whenever they chose regardless of the assigned hour. There were several short recesses and one longer recess during the school hours. Some of the children who lived near the school dashed home at recess to eat lunch or drink coffee. When children in the same family had different school schedules, the mother had a lengthy lunch serving period. Some children would eat before going to the eleven o'clock session and others would eat when they came home after ten. The children liked to leave home early to play in the school yard and often stayed late to play when school had ended. Mothers seemed to have difficulty keeping track of which children attended which shift.

Occupation and Land Tenancy

Farming, either as owners or day laborers, was the occupation of the majority of the family heads (Table 3).

The farms were small in view of the fact that the average size of the family was eight. The major cash crops in the community were coffee and tobacco, although some sugar cane, corn, and beans were also grown.

Table 3. Distribution of family heads according to occupation and land ownership

Occupation	Manzanas ^a owned					Total
	0	Less than 1	1-6	10.5	Unknown	
Farmer	2	1	4	1	2	10
Day laborer	4	2				6
Teacher	1	1				2
Small business owner		1				1
Total	7	5	4	1	2	19

^aOne manzana equals 1.727 acres.

Since the seasonal farm rhythms and consequent income patterns probably affected activities, it seems relevant to note these briefly. Coffee was picked as it ripened between August and December. After drying, it was sold immediately or held for a time when prices might be more favorable. Laborers who picked coffee for someone else were paid daily or weekly. Tobacco was harvested, dried and sold in large lots between February and April. Laborers who picked coffee for someone else were paid daily or weekly. Tobacco was harvested, dried and sold in large

lots between February and April. Laborers were paid daily or weekly, while owners received a large lump sum payment when they turned in the tobacco which was contracted by one of two local cigarette companies. Day laborers had to work from 6 A.M. to noon daily to earn approximately four colones, about sixty cents in United States money, to pay for daily needs. Land owners usually charged many of their purchases throughout the year and paid their debts when they were paid for their tobacco.

The families were considered eligible for the study only if the wife was not regularly employed on a full-time basis. Five of the homemakers indicated that they had worked for pay sometime during the six months preceding the interview. Two of them worked in the market on Sundays selling coffee, ice cream, and other foods. One ironed and another sewed for persons outside the family. One homemaker sold meals to one of the day laborers who was engaged in the construction of a new water system for the community.

Facilities, Equipment, and Procedures for Homemaking Activities

Housing and house care

Approximately four-fifths of the families (sixteen) owned their own homes. Of the three families who did not own their own homes, two lived in houses owned by parents

of the husband or wife, and one family lived in a house owned by the husband's employer. Eleven of the women had lived their entire lives in the community. The women had lived for six months to twenty-five years in their present house, with a median of six years of occupancy. The houses ranged in size from two to six rooms, with a median of four rooms. One house had a tile roof; two houses had tile roofing in the kitchen only; the remaining roofing was all corrugated metal. Eleven houses had dirt floors throughout; one house had wooden floors throughout; one house had wooden or concrete floors throughout; six houses had some floors of wood and others of earth.

In about three-fifths of the houses (twelve) artificial lighting was provided by a wick soaked in kerosene; four houses had electricity generated by a motor which usually ran from 5:30 P.M. to 10 P.M. and provided a weak current suitable for radios and low wattage light bulbs; two families used candles and kerosene wicks for lighting; one family used only candles.

About half of the homemakers (ten) had running water available in their house or yard; five had the water connected in the kitchen and five had the water coming only to the yard. During the dry season, especially February to April, the village pump operated only a few hours each morning. By about 10 A.M. there was no longer any running water and all available containers had been filled in each

home to provide a supply for the remainder of the day. Nearly half of the homemakers (nine) had no running water available in the house or yard. One homemaker drew water from a well about eighty feet downhill from her house. The homemakers who did not have a source of water available on their property had to carry water from the nearest dwelling with running water or from one of the few small streams which flowed through the village. In rainy season these families placed all kinds of containers to catch the rain in order to avoid trips to outside water sources. A new water system which was under construction should eventually extend the convenience of cold running water to all the houses in the village.

The cleaning procedure in these homes included almost daily washing with cold water and steel wool of such wooden furniture as benches, tables, and kitchen counters. Some homemakers used lemon rind to help whiten these unfinished wooden surfaces. The earthen floors were swept an average of twice daily with a broom made of leaves. These brooms were usually fitted with new leaves every second day. In the houses with wooden floors, the floors were washed, waxed, and polished by hand with rag mops. Bedding was scarce; often only a straw mat and a few pieces of blanketing or burlap sacking were spread on the wooden plank beds each night. During the day the bedding was usually aired and sunned.

Food preparation

The customary diet which the families were observed to eat consisted of rice, beans, tortillas, agua dulce,¹ coffee, bread, and some variations such as potatoes, macaroni, and squash. Only a few homemakers served any meat or eggs on the days when observations were made. Milk was served, but not in quantities sufficient to provide minimum nutritive value per family member. Five families owned cows. Nine homemakers reported that they bought milk with differing degrees of regularity. One woman reported buying milk only when someone was sick. One homemaker said she rarely bought milk and another said she never bought milk. All but two homemakers reported buying bread fairly regularly. All except three women reported that they bought canned goods, although usually only for special occasions.

One of the first activities each morning was to make the daily supply of tortillas, the thin round corn cakes which served as bread. The cooked corn had to be ground, then water was added, and the dough was patted into thin round cakes on a piece of banana leaf. The dough was then cooked in a handleless frying pan over a wood fire. Nearly four-fifths of the homemakers (fifteen) used a meat grinder to grind their corn. Four homemakers ground their corn

¹Agua dulce is a beverage made of crude sugar dissolved in either hot or cold water.

once with a grinder and a second time with a stone mortar and pestle in the ancient Indian manner.

Nearly nine-tenths of the homemakers (seventeen) did their cooking on a fogón, an earth-filled box on legs on which an open wood fire was built. Stones or a metal grill supported the pots above the fire. One woman had an enclosed fogón with a chimney and another cooked on a two-burner kerosene stove.

Clothing and clothing care

The customary clothing for men included work pants shirts of denim or khaki, and straw hats. Women usually wore cotton work dresses and aprons. The children wore beige shirts or blouses and navy pants or skirts if their families could provide this school uniform. At other times the children dressed as miniature adults. Underwear was seldom used. The majority of husbands wore shoes daily. Mothers were about equally divided among those who wore shoes daily and those who never wore shoes. The use of shoes by adults often originated with a doctor's prescription. It was difficult for these families to afford shoes for their many growing children. One mother did see the relationship between shoes, health, and economic resources. She said, "We spend less money on shoes for our children than our neighbors spend on medical bills for their bare-foot children." Three homemakers indicated that no member

of the family owned any special clothing for Sunday. Approximately four-fifths of the women (sixteen) said that they saved the best, that is, the least mended and stained, clothing for Sunday even if they did not possess something especially good.

Clothing was cared for by washing in cold water with either bar or powdered soap. Some homemakers used bluing, bleaches, and starch. The customary procedure was to soap clothes and leave them in the yard overnight. The second day they were rinsed and put in the sun to dry. The women who did not have running water available in the house or yard often soaped clothes in the yard and rinsed them at the water source to save hauling water. Nearly one-third of the women (six) washed in their concrete sinks, five of which were in kitchens and one in the yard. About two-fifths of the women (eight) washed in wooden, platter-like scrubbing boards supported at waist height in the yard. Four of these women had running water available in the yard. Four women did their laundry at the brook and another did her laundry at the well.

Almost three-fifths of the women (eleven) ironed their clothes with charcoal irons. Six women used hand irons which had to be heated over the open fire of the cooking stove. One homemaker possessed both hand irons and a charcoal iron. Another woman owned both hand irons and a kerosene iron; she said she used the kerosene iron for

large ironings, and heated the hand iron when she wanted to press one article.

Slightly more than one-third of the homemakers (seven) had sewing machines. Two women mentioned that they could visit their mothers' homes when they wanted to use a sewing machine. Two said they paid to have most clothing made. More may have done so; however, this question was not specifically asked. Six reported that they never sewed, but only one homemaker said she never mended.

Summary

The nineteen homemakers in the sample all had pre-school children. The family members had limited formal education. The men were mainly small farm owners with an average of less than two acres of land to provide income for an average family of eight persons. The homes were usually small with a median size of four rooms. Facilities and equipment which might shorten the time used for household activities were scarce; therefore, most household work had to be done by human effort.

It was assumed that the homemakers altered their activities very little on the observation day. The observer was well-known to the family members and facilities which might have permitted variation were not available to the women; therefore there was little reason or opportunity to alter their activities.

CHAPTER V

HOMEMAKERS' BEHAVIORISTIC ACTIVITY PATTERNS

An exploration of possible patterning of homemakers' daily activities was undertaken to augment understanding of time as it functions in home management. The pattern of homemakers' activities as determined by observation was designated in this study as the behavioristic activity pattern.

The information reported in this chapter is based upon a compilation of actual observations for an average of thirteen and one-half hours in each of nineteen randomly-selected rural Costa Rican homes. Only the activities of the homemakers were systematically recorded. The observation data do not include any activities which might have taken place prior to the observer's early morning arrival; when the observer arrived, three-fourths of the women were already engaged in food preparation activities. Likewise it was not possible to observe the later evening activities since the arrangement had been that the observer would leave when the younger children were put to bed, this activity being considered an appropriate indicator of the termination of the homemakers' work day.

This chapter is presented in three major divisions related to the activities carried out by the homemakers. The coding, tabulation and analysis systems developed for this study are presented in the first section. The observed daily activity pattern is presented in the second part. The third portion includes observed cases selected to illustrate some aspects of patterning within the activities which comprise the pattern.

Coding, Tabulation and Analysis

Coding

An attempt was made to group observed events according to the principal activities carried out by the homemakers. The classification represented the coder's view of the operational units which were utilized. A skeletal classification was first made using the activities named by the homemakers when they were asked what household tasks they had to perform daily, what they were thinking of doing on the following day, and what they recalled of the previous day's activities. To this preliminary classification were added other activities and events which were observed.

Eight categories were judged by the researcher to include all of the varied activities of the homemakers.¹

¹See Appendix C for detailed coding guide.

Within some of these eight categories certain activities appeared to be of sufficient importance and independence to merit highlighting. The classification was expanded to include fifteen groups of activities. The eight categories and their fifteen subordinate activities are presented in the following outline with explanatory notes included as a basis for understanding the reported data and as a guide for other researchers with cultural classification problems.

I. Food preparation and service

- A. Grinding corn - counted separately because it was often done by persons other than the homemaker
- B. Making tortillas - counted separately because it was always named as a distinct activity by the women
- C. Preparing other food, serving, and eating - since the women often ate while cooking, and frequently continued food preparation while serving some members of the family, it was impossible to classify these activities separately

II. House care

- A. Cleaning kitchen - included dishwashing as this was seldom separated from other kitchen cleaning tasks
- B. Cleaning and arranging house other than kitchen
- C. Hauling water - separated because often done by other family members; also water might be used

for food preparation or laundry in addition to
house care

III. Clothing care

A. Laundering¹

B. Ironing

C. Sewing²

IV. Child care

A. Routine or "expected" - this included any ironing, mending, and special food preparation involved in getting children ready for school, as well as bathing, dressing, nursing, and putting children to bed

V. Recreation

A. Chosen or "expected" - mainly conversation in the afternoon or evening

VI. Personal care

A. Physical

VII. Animal care

A. Cows - clock time devoted to other animals was too brief to be considered and was coded under VIII B.

¹The usual procedure was to wash some clothes and rinse other clothes on the same day. The daily activity was investigated rather than the complete laundry procedure for any given item of clothing.

²Whenever a woman was observed to sew she completed a garment within the same one-day time span.

VIII. Interruptions; forced or "unexpected" circumstances

- A. Caused by children - care due to illness, special activity, or guidance
- B. Other causes - included a variety of miscellaneous activities usually of short duration, as well as work stoppage to converse with the observer

Tabulation and analysis

After the coding system was considered adequate for the purpose of determining the homemakers' daily activity patterns, each of the fifteen activities was assigned a separate color. The information abstracted from the observations was color-coded on graph paper.¹ Each horizontal row of squares showed the sequential activities for a particular homemaker. Each square represented one minute.

The actual clock time was indicated. The clock times were aligned for each homemaker. Thus it was possible to see simultaneously what each woman had done at 7 A.M. or 11:22 A.M. or 3:46 P.M. or any other specified clock time during the observations. No pattern of activities was obvious when the clock times were aligned. That is, the

¹The colored square technique was adapted from one devised by researchers concerned with self-recording of activities at one minute intervals as a basis for calculating daily energy needs. See Garry, Passmore et al. and Passmore, Thomson et al. in the bibliographic section entitled Human Energy Studies.

colors did not consistently repeat in any vertical column. Such repetition would have been an immediate indicator of a pattern of activities according to clock time.

Since no activity pattern was clearly revealed by the alignment of clock time, it became apparent that the quantity of data available from the observations needed to be condensed in order to facilitate further examination. A minimum of five consecutive minutes was selected as the criterion for including an activity in the tabulation. The activities of each homemaker were coded on graph paper in the order in which they had occurred with each square representing one activity of five or more consecutive minutes. Again no pattern was evident from this ordering; that is, no color was consistently repeated in any vertical column of squares when the first activity of each homemaker was aligned.

However, the data did reveal that the sequence of meals observed was identical for all families, although the meals did not occur at the same clock hour, nor for the same duration of time. Thus, the mealtimes of morning coffee, lunch, midday coffee, and supper appeared to be usable as independent variables. Since occasionally some homemakers prepared and served a meal without any intervening activities while others began a preparation and later returned to it, the independent variables selected were actually the first or beginning preparation of five

or more consecutive minutes for each of these four meals.¹

In this study a time span was defined as the period of time between two specific events. The daily time span of the woman's work day was bounded by the events of her arising and the putting to bed at night of young children. Within this one-day time span, five distinct time spans were delineated by the use of the four meals as independent variables. The first, Time Span I, occurred before the beginning of morning coffee preparations. The second, Time Span II, comprised the time between the beginning of morning coffee preparations and the beginning of lunch preparations. The third, Time Span III, took place between beginning lunch preparations and beginning midday coffee preparations. The fourth, Time Span IV, was between beginning midday coffee and beginning supper preparations. The last period, Time Span V, included the time following the beginning of supper preparations to the end of the observation.

¹In addition to preparing the four meals, several of the homemakers were observed to have one other food preparation activity. In the evening nearly three-fourths of them either prepared a beverage before bedtime, or cooked corn or beans for use at unspecified future meals. The observer had been present in all but one of the homes during the four meals; in one case she arrived after morning coffee had been served. It was decided not to consider this evening food preparation period as an independent variable, since it was not a universal happening as were the other four meals. It is possible that if the observations had continued later in the evening, this bedtime beverage preparation might have appeared as a universal event.

To simplify the identification of the independent variables, they will be called coffee, lunch, coffee, and supper when they appear in chronological order. Morning coffee and midday coffee will be specifically identified only when the distinction would not otherwise be clear. To simplify the identification of the spans of time between the meals, they will be identified in the following discussion by the time span number alone whenever possible. When specific designation is needed, the time spans will be identified by naming the meals which form their boundaries.¹

The observed activities which occurred within each time span were examined to see if they revealed patterns or groupings common to the homemakers. The principal findings of this analysis are presented in the following section.

Observed Daily Activity Patterns

Three general indicators of the homemakers' activity patterns were used. The first index was the presence of the activities within any of the five time spans. The second index was the repetition of activities within a time span. The third was the sequence followed within each of the five spans of time.

¹Always keep in mind that the independent variable is the first preparation of five minutes or more devoted to the meal named.

Index I: Presence of activities

In order to determine the time span distribution of all activities which occurred, each activity was tabulated within each time span according to the number of homemakers who participated in it (Table 4). In addition to determining the presence or absence of activities in each time span, it was possible to determine the most common time span for each activity.

Seven activities: cleaning the kitchen, child care, preparing food, personal care, cleaning the house, laundering, and interruptions by adults of five minutes or more duration were observed to occur in all the time spans. The child care activities in Time Spans II and III frequently were related to bathing and dressing, while those in Span V were concerned with putting the children to bed. Those in Span IV had no consistent content.

Apparently many homemakers did not wash dishes following midday coffee. The usual procedure was to clean them in less than five minutes, delegate the task, or leave the dishes until supper dishes were washed. Cleaning other than in the kitchen was slightly more common during Time Span III; however, it was nearly as likely to be done in Span II.

Although the conventional period for doing laundry was during Span III, it is of interest to note that nearly

Table 4. Number of homemakers who performed activities within each time span

Activity	Time Span				
	I ^a	II ^b	III ^c	IV ^d	V ^e
Grinding corn	5	6	.	.	.
Making tortillas	8	13	1	.	1
Cleaning kitchen	3	16	17	4	15
Child care	2	13	15	13	16
Preparing food	2	5	17	12	18
Personal care	2	2	8	3	3
Cleaning house	1	11	13	2	2
Laundrying	1	4	13	9	7
Interruptions	1	3	7	4	8
Recreation	.	1	3	16	17
Sewing	.	1	4	7	7
Interrupt: child	.	1	3	1	4
Ironing	.	1	1	2	5
Animal care	.	4	1	1	.
Hauling water	.	1	2	.	1

^aTime Span I: before beginning morning coffee

^bTime Span II: between beginning morning coffee and beginning lunch

^cTime Span III: between beginning lunch and beginning midday coffee

^dTime Span IV: between beginning midday coffee and beginning supper

^eTime Span V: after beginning supper to the end of the observation

half of the women laundered during Span IV, and about one-third laundered during Span V. Not all the homemakers were observed to have five consecutive minutes of personal care; however, the usual time for personal care appeared to be during Span III when some of the women combed and braided their hair and bathed themselves. Interruptions caused by persons other than children occurred with nearly equal frequency during Spans III and V.

No homemaker was observed to participate in recreational activities, sewing, ironing, animal care, or water hauling for as much as five minutes before making morning coffee (Span I). Also, since many of the children remained in bed until morning coffee was prepared, the mothers were not interrupted by their children during this period.

The most popular time for grinding corn and making tortillas was after serving morning coffee. This explains the fact noted by the observer that in many homes morning coffee was served without any solid food to accompany it. While making the tortillas some homemakers served them hot to family members, but in most cases tortillas were not available to everyone in the family before the day's work began. Only one homemaker was observed to make fresh tortillas for the family's supper; the other homemakers either served reheated tortillas or omitted them entirely.

Animal care, for those homemakers with cows, most commonly occurred during Span II, when all except one

homemaker completed her milking chore. The hauling of water was usually done during Span III. Since water was regularly carried to the house by persons other than the homemaker, this activity was done by the homemaker only when the daily supply had been exhausted, or was low, or in cases in which no other family member could be delegated this responsibility.

Interruptions by children occurred most often in Time Spans III and V when the mothers were probably engaged in lunch or supper preparations. Most of the homemakers participated in some recreational activities after midday coffee, during Spans IV and V.

Although not all the homemakers sewed or mended during the observation time, the usual periods utilized by those who did sew or mend were after midday coffee, during Spans IV and V. The customary time for ironing was after the beginning of supper preparation during Span V. In view of the fact that light was provided in three-fourths of the houses by kerosene wicks, one might question the reason for such a late ironing time. However, supper was often served about 3 P.M.; thus the ironing time may have occurred before the end of the daylight hours. Some homemakers said that they preferred to iron in the evening after the children were in bed because there was less danger from children playing near the hot iron. Also the likelihood of interruption by the children was minimized

at that time. Although some homemakers were observed to iron and mend earlier in the day, these activities always were in conjunction with getting children ready for school and so were classified as child care.

Index II: Repetition of activities

The data were examined in further detail to determine whether any homemakers had participated in any activity more than once within each time span (Table 5). Repetition seemed most likely to occur during Time Span III. During this time span, kitchen cleaning, child care, and food preparation activities were participated in at least twice by more than half of the women, and laundry was done at least twice by about two-fifths of them.

No activities were carried out more than once by at least half of the women during Spans I, II, and IV. Food preparation activities were carried out twice by approximately four-fifths and child care activities by about two-fifths of the women during Span V.

Even though some activities were repeated by only a few homemakers, it was possible to denote the time span during which such repetitions were most likely to occur and to distinguish these from activities which appeared to be completed in one continuous operation. For example, within the same time span the grinding of corn and the hauling of water were never repeated; tortilla making,

Table 5. Number of homemakers who performed activities once or more within each time span

Activity	Time Span																	
	I			II			III			IV			V					
	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3
Grinding corn	5	.	6	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Making tortillas	8	.	12	1	.	1	.	.	.	.	.	.	1	.	.	.	.	.
Cleaning kitchen	2	1	10	5	1	4	8	2	3	3	1	.	11	4	.	.	.	.
Child care	2	.	10	2	1	4	4	5	2	4	6	3	8	5	.	1	1	1
Preparing food	2	.	3	2	.	7	5	3	1	8	4	.	2	10	3	3	.	.
Personal care	2	.	2	.	.	7	1	.	.	3	.	.	3	.	.	.	.	.
Cleaning house	1	.	9	2	.	9	2	1	1	2	.	.	2	.	.	.	.	.
Laundrying	1	.	4	.	.	5	6	2	.	6	1	2	6	1	.	.	.	.
Interruptions	1	.	3	.	.	5	2	.	.	3	1	.	7	1	.	.	.	.
Recreation	.	.	1	.	.	2	1	.	.	10	5	1	11	2	2	1	.	1
Sewing	.	.	1	.	.	3	.	1	.	2	3	1	5	2	.	.	.	.
Interrupt: child	.	.	1	.	.	2	1	.	.	1	.	.	1	3	.	.	.	.
Ironing	.	.	.	1	.	.	1	.	.	2	.	.	3	2	.	.	.	.
Animal care	.	.	3	.	1	1	.	.	.	.	.	1	.	.	.	.	.	.
Hauling water	.	.	1	.	.	2	.	.	.	.	.	.	1	.	.	.	.	.

aNumbers in this horizontal row indicate number of performances.

personal care activities, ironing, animal care, and interruptions by children and others were seldom repeated. Food preparation, kitchen cleaning, and other house care activities were repeated most frequently during Time Span III. Laundry was repeated as frequently during Span III as Span IV. Sewing was repeated most frequently during Span IV. During Span V recreation and child care were the activities most often repeated.

Index III: Sequence of activities

The calculation of presence and repetition of activities within time periods had not indicated the chronological order in which the activities were performed. Sequence of performance within time spans had been selected as an indicator of activity patterns; therefore, the activities of the homemakers were tabulated next in the order of occurrence within each time span. The number of women performing each activity first, second, third, and so forth, within each time span was determined. The activity first participated in by the largest number of women was chosen as the first activity in the sequence pattern. The second activity selected was that participated in second by the largest number of homemakers. The selection of activities continued in this way provided that a minimum of three women had performed the activity. When at least three women had not performed the same activity, no further activities were included in that particular time span.

Using these criteria, only nine of the fifteen activities appeared in the sequence pattern (Table 6). The grinding of corn and the making of tortillas appeared as sequential activities before morning coffee (Time Span I). The prevalent sequence of activities between beginning morning coffee and beginning lunch (Time Span II) was as follows: clean the kitchen, make tortillas or clean the kitchen, take care of children or clean the kitchen, clean other areas of the house, care for children.

The predominant sequence of activities between beginning lunch preparations and beginning midday coffee (Time Span III) was as follows: clean the kitchen, continue lunch preparation, clean the kitchen, take care of children, clean the kitchen, clean other areas of the house, do laundry, prepare and serve lunch, care for children or do laundry. The women apparently did not normally care for children until the kitchen was cleaned, nor begin laundry until they had completed both kitchen cleaning and other types of house care. Those women who engaged in both child care and laundry late in Time Span III were those who bathed children at the stream while laundering.

The common sequence of activities between midday coffee and beginning supper preparations (Time Span IV) was as follows: recreation, food preparation, laundry or food preparation, child care, laundry or sewing. The food preparation in this period was often the starting of corn

Table 6. Number of homemakers who performed activities in dominant sequence within each time span^a

Activity	Time Span																	
	I		II					III										
	1 ^b	2	1	2	3	4	5	1	2	3	4	5	6	7	8	9		
Grinding corn	4																	
Making tortillas		3		4														
Cleaning kitchen			6	4	5			9			7	4		6				
Child care					5		4						6					
Cleaning house						4										7		
Preparing food									9	6								
Laundering																5		
Recreation																		
Sewing																		

^aThe largest number of homemakers performing an activity in chronological order always indicated dominant sequence. A minimum of three homemakers had to participate for an activity to be included in the sequence.

^bNumbers in this horizontal row indicate sequence number.

[illegible]

or beans to cook, rather than the continuation of midday coffee.

The usual sequence of activities following the beginning of supper preparations (Time Span V) was as follows: recreation or sewing, food preparation, recreation or food preparation, food preparation, kitchen cleaning, food preparation, child care or food preparation, recreation or food preparation, child care, recreation, child care. For three-fourths of the homemakers, at least one of the food preparation times involved the preparation of a bedtime beverage or the starting of corn or beans to cook. Child care usually was the putting of children to bed.

Although the women carried out varying numbers of activities in Time Span V, it was assumed that they might reveal a pattern for terminating the day. To examine this possibility the activities were aligned beginning with the last activity observed. When viewed in this manner, the last activity for three-fifths of the homemakers was recreation. This may have resulted from a tendency to converse with the observer toward the close of the day. The next to the last activity for about one-third of the women was either food preparation or child care. This was consistent with the observation that the mothers tended to serve a beverage immediately prior to putting the children to bed.

Pattern

The data from the three indices were combined to construct the observed daily activity pattern (Figure 1). Since Index III, the sequence of activities within time spans, provided the most detailed listing of activities, this index formed the basis for the pattern. Index III was an indicator of tendency in sequence; however, a high proportion of homemakers did not participate in the activities in identical order. Since the number of subjects was relatively small, it was decided that the predominant activity pattern would include only those activities participated in by at least half of the women. This information was derived from Index I and Index II.

The presence of activities within time spans (Index I) grouped all the homemakers and did not show repetitions nor clearly indicate sequence.¹ However, when the most common time spans for participating in activities were considered, seven variations, which did not appear as a result of employing Index III, became evident.

¹There was a tendency for the frequency distribution to coincide with the sequence of performance. The activity participated in by the largest number of women during a time span was usually the first activity carried on during that span. Although the frequency distribution cannot reveal sequence when identical numbers of women participate in two activities during a time span, it is possible that frequency distribution can be a predictor of sequence. In this case, only for Time Span V was the frequency distribution not a likely predictor of sequence.

Figure 1. Observed Daily Activity Pattern¹

Time Span I	grinding corn making tortillas
	----- COFFEE -----
Time Span II	(an animal care) CLEANING KITCHEN (grinding corn) MAKING TORTILLAS or cleaning kitchen CHILD CARE or cleaning kitchen CLEANING HOUSE child care
	----- LUNCH -----
Time Span III	CLEANING KITCHEN PREPARING FOOD CLEANING KITCHEN CHILD CARE cleaning kitchen CLEANING HOUSE LAUNDERING (personal care) (hauling water) PREPARING FOOD CHILD CARE or laundering
	----- COFFEE -----
Time Span IV	RECREATION PREPARING FOOD preparing food or laundering CHILD CARE laundering or sewing
	----- SUPPER -----
Time Span V	RECREATION or sewing PREPARING FOOD preparing food or recreation (ironing) preparing food CLEANING KITCHEN PREPARING FOOD CHILD CARE or preparing food recreation or preparing food child care recreation child care

¹Capital letters indicate activities participated in by at least half of the homemakers; they mark the predominant activity pattern. Small letters indicate activities participated in by fewer than half of the homemakers; they mark possible variations. Parentheses indicate insertions based on probable sequence within the time span in which these activities most commonly were performed.

Animal care was customarily done during Time Span II, immediately after morning coffee. Corn grinding also appeared most commonly during Span II and would logically take place before making tortillas. Personal care and hauling of water occurred most frequently during Span III. It would be reasonable to expect these activities to come after the cleaning of the kitchen and in conjunction with doing the laundry while the women were at the water source. Many women washed their hands, face, and feet, and some brushed their teeth, at that time. Then they carried water back to the house or made a special trip if the household supplies were low and no one else was available to do this chore.

The usual time for ironing was during Time Span V. Many homemakers were observed to iron following some of the food preparation and while waiting for family members to arrive for their supper. Interruptions by children and other persons most commonly occurred during Span V. Since it is impossible to predict interruptions at any fixed sequence in the activity pattern, the location of the interruptions in relation to other activities within the time span must remain unknown.

Aspects of Patterning within Activities

A time span has been defined as the period of time between two specific events. Data were gathered for a one-day time span bounded by the events of the homemaker's

arising and the putting to bed at night of the youngest family members. To derive activity patterns, the time span concept was further broken down into those five periods of time within the day bounded by the beginning preparations for each of the four meals served in all the homes. It should be pointed out that it is also possible to define a time span as bounded by the beginning and ending of any one specific activity. For example, the beginning to the end of kitchen cleaning, as marked by the appearance of another activity classification, could be a time span. The procedure within such a specific activity time span could be analyzed according to the indices of presence, repetition, and sequence of elements. However, to provide insights for the recognition and understanding of behavioristic activity patterns, it seemed more suitable to view specific procedures as an integrated whole prior to suggesting some common aspects of the pattern within an activity.

The following notes made during the observations illustrate some of the observed patterns of organization within units of activity.

A homemaker comments that she is going outside to sweep. After going out-of-doors, she sends her daughter to the house to hunt for the broom.

A homemaker announces that it is time to make lunch. She sends her daughter to the store to buy rice. While the rice cooks, the mother sends the daughter to the store to buy a squash-like vegetable to cook with the rice. Meanwhile the homemaker waits for the purchases.

A homemaker bathes her one-year-old daughter. While she holds the naked, squirming, wet baby under one arm, she begins to search through a pile of clean clothes for something to put on the child.

Many tasks appeared to be carried out only when the finished products were needed immediately. Six women were observed to do ironing which they might have done at an earlier time, but were finally forced to do when someone in the family needed clothes in order to leave the house. Two women were observed to begin looking for clothes for their babies while the babies were wet and slithering in their arms after bathing. Five women were observed to mend at the moment when the clothes needed to be worn; one woman basted her daughter's blouse shut just before the daughter dashed off to school.

The primary example of carrying out tasks at the specific moment when the product was needed was the shopping pattern. Because the homes did not have refrigeration nor much storage space, and because many of the earners were paid daily, the customary procedure was to shop every day. Eleven homemakers reported that they had help from family members in running errands. On observation day, every family except one made purchases. In two cases no separate shopping trip was made, but the husbands brought purchases when they came home from work. In the remaining sixteen homes an average of 2.9 trips by family members was observed. The number of trips ranged from one to

eight; the average time per trip was thirty-six minutes.

Two factors often appeared to be associated with whether or not supplies were gathered at the exact time needed and whether or not trips were repeated. One of these factors was whether the homemaker had to leave the house or immediate surroundings to carry out the task. The other factor was whether or not the task could be shared or delegated.

Laundry was often done away from home and seldom delegated. In only one case was laundry delegated to a daughter of school age, while in three cases it was delegated to adult relatives. The remaining three-fourths of the women did their own laundry; some remarked that the task was too heavy to be given to young children. In no case in which the homemaker herself did the laundry was she observed to retrace steps to bring additional clothing or laundry supplies if she had to leave her own yard to launder.

Organizing the procedure to avoid repeating trips was not the prevailing pattern when the task was done in the house or immediate surroundings. For example, one homemaker made six trips to gather materials and equipment after she had seated herself to sew. Another homemaker sat down to sew, got up to look for the trousers which needed mending, called her daughter in from play to look for patch material, got up again to look for scissors, and then got

up to search for thread.

Some homemakers stored potatoes and other vegetables in the bedroom rather than in the kitchen although the kitchen might appear to be a more logical place for such storage since this was where vegetable preparation began.¹ At least two homemakers made more than one trip to the bedroom to bring vegetables for one meal. An apparently accepted part of the meal preparation pattern was throwing waste on the floor. Eight women were observed to dispose of egg shells and potato peelings in this manner even though this would cause more sweeping later on. Only three homemakers were seen to put such waste directly into a basket or other container. One facet of kitchen cleaning which the women were observed to do more than once daily was sweeping the floor. In addition to their own cleaning activities, the mothers sometimes delegated additional sweeping to their children.

The following notes made during the observations illustrate some of the procedures within activities which were shared or delegated.

The homemaker has her charcoal iron hanging in the kitchen. She cleans the sole plate with wire. She dumps out the old coals. She dries the iron and fills it with hot coals from her cooking fire. She clears the kitchen table and

¹It is probable that vegetables were stored in bedrooms where they would be less susceptible to robbery than in kitchens which were usually open to passing children.

moves it under her single electric light bulb since the motor will begin to function soon. She goes to the bedroom for the blanket and sheet which are used to pad the table for ironing. She covers the table and turns it so the light will come over her left shoulder. She calls her daughter. When there is no answer from the daughter, the mother goes to the bedroom to bring a large pile of clothing to be ironed. She brings the iron from the wood stove. When the daughter appears, the mother tells her to moisten her school uniform so the mother can iron it now and have it ready for school tomorrow.

A mother of ten children is cleaning the kitchen with the help of her daughter of school age. The daughter washes while the mother brings dishes from the dining room as she passes through from the bedroom where she went to see if the baby was awake. The mother dries spoons while the daughter goes to finish clearing the table. The mother tells her to bring all the dishes to wash at one time.

The family finishes lunch. One son returns from school and the mother serves his plate. She pours hot water from the coffee pot on the dishes so the grease will not stick; she scrapes and washes the dishes. She puts corn on to cook. She picks up a pair of pants to be mended, plucks a threaded needle from its spot on the wooden wall, and sits on the bed in the next room to sew. When her son finishes eating she tells him to put water in his plate while she continues mending. He rinses his plate.

These examples support the value of observation to supplement knowledge of work procedures and to develop awareness of patterning of elements which were seldom recounted by homemakers as they discussed their activities.

CHAPTER VI

HOMEMAKERS' IDEATIONAL ACTIVITY PATTERNS

An exploration of possible patterning of homemakers' images of their activities was undertaken to increase understanding of time as it functions in home management. Such patterns, designated in this study as ideational activity patterns, were thought to complement the behavioristic activity patterns in the quest for understanding the functions of time. This chapter reports data related to the image, or mental picture, of their activities held by nineteen randomly-selected rural Costa Rican homemakers.

Three general types of evidence were considered to contribute to a formulation of the homemakers' image of their activity patterns. The first kind of data were opinions related to the repetitiveness or variation of activities. The possibility that the women had an image of an ideal day was next explored by asking them to predict and recall activities for a specific day in the chronological order in which these events were to or had occurred. Homemakers' responses to direct questions and indirect probes concerning attitudes toward activities were the third class of data used to help construct the homemakers' image of their activities.

Opinions Related to Repetitiveness or Variation

Throughout the interviews the homemakers were asked directly about repetition and variation in their activities in order to examine the stereotype often expressed in literature that the daily life in rural Latin America has little variety and is characterized by routine repetition. The women were asked if their days were almost all alike, what they did on Sundays, and what activities they had to do every day. They were also asked about the frequency of doing some non-daily tasks.

In response to the question "Do you think your days are almost all alike in terms of the activities?," three-fourths of the women (fifteen) said, "Yes." One of the remaining four women said that she had more time on days when she did not cook corn or beans. Another woman, who worked in the market on Sundays, said her days were distinguished according to whether the major activities were for the household or the business; she named the days usually devoted to each type of work. Still another homemaker said that Monday, Tuesday, and Saturday were days of more work than the remaining days of the week. The fourth woman said that she did not wash or iron on Sundays.

Based on the assumption that Sunday activities would be different from other days in order to allow time to attend Mass, the women were asked, "What do you do on Sundays?" All the homemakers were able to distinguish Sunday

from other days when Sunday was specifically mentioned. Although they were not asked to name their Sunday activities, slightly more than half of the women (eleven) responded with a list of activities more or less in chronological order. About one-third of the women (seven) indicated one or two specific alterations on Sundays which, other than that, were said to be about the same as other days. The remaining two homemakers responded with a statement of activities which they did not do on Sundays.

The major differences between Sundays and other days were attendance at Mass and deletion of clothing care activities (Table 7). Four of the five women who indicated only one specific change on Sunday reported that they added attendance at Mass to the activities of the other days. Another homemaker made this addition, as well as stating that she did not launder on Sundays. Although two women reported that for health reasons they were not attending Mass currently, and four failed to mention going to church on Sunday, all of the homemakers were observed to attend Mass at some time during the course of the study.

Outside of adding church attendance, the major activity change on Sunday was an apparent effort to delete laundry and ironing from the agenda. The two women who reported doing laundry on Sunday specified that they only washed diapers. One of the five women who mentioned only one variation on Sunday said that she did not do laundry on

Table 7. Number of homemakers who reported specific variations in Sunday activities

Response	Attend Mass	Laundry	Iron	Visit away from home	Get up early	Work in market
"Do"	13	2		4	3	2
"Do not do"	2	5	3			
Not men- tioned	4	12	16	15	16	17 ^a
Total	19	19	19	19	19	19

^aDid not participate in this activity on any day.

that day. The women who said they attended Sunday Mass in addition to all their other regular daily activities may actually have done laundry and ironing on Sunday. However, three-fifths of the homemakers apparently did not follow this practice, since they either said they did not launder on Sunday or did not include laundry in a list of their Sunday activities which included such daily tasks as food preparation and house care.

Another question employed to detect a possible image of repetitiveness was "What household tasks must you do every day?" At least three-fourths of the homemakers mentioned activities classified as food preparation, tortilla making, house care, and laundry as essential daily tasks. Only one-third of the women named any routine child care

activities as tasks which must be done daily. This may have reflected an image that child care is not a household task rather than a failure to consider child care as a daily requirement in their lives.

The more perfect the homemakers' image of repetitiveness of days, the more nearly the average times per week for performing specific activities should approach seven or a multiple of seven. Each homemaker was asked to estimate the number of times she did certain tasks during a week (Table 8). Since this question was inserted for clarification purposes after the first few interviews, data are available for only sixteen of the nineteen homemakers.

Of the activities listed, tortilla making averaged slightly more than once daily, since two women reported making tortillas more than once a day in order to have them fresh for each major meal. Of the three food preparation tasks which were usually not repeated daily, the cooking of beans was most frequently done every other day, corn was cooked two or three times per week, and coffee toasting averaged almost twice a week.¹

In addition to the average estimate that they washed clothes about once a day, the mothers who washed diapers

¹Some homemakers volunteered the information that they sometimes purchased powdered coffee to avoid the chores of toasting and grinding coffee beans.

Table 8. Number of homemakers according to frequency and average of estimated weekly performances of selected activities (sixteen homemakers)

Activities	Times per week											Weekly average
	0	1	2	3	3.5 ^a	4	5	6	7	14	21	
Making tortillas									14	1	1	8.3
Laundrying			1				1	5	8	1		6.7
Changing children's clothes			3		7		3	1	2			4.1
Cooking beans	1		2	3	4	4			2			3.8
Cooking corn			8	6		2						2.6
Ironing						2		1				2.4
Mending	1	4	7	2	5							2.4
Bathing children	1	7	1	2	2	1						2.0
Sewing	6	4	6	2	2	1		1	1			2.0
Toasting coffee	3	2	1	1	2	1						1.7

^aFor some activities the women replied "every other day." These responses were calculated half at three and half at four times per week, thus averaging approximately 3.5.

reported doing this task an average of 8.4 times per week, or slightly more than once daily. Although children's clothing was changed an average of four times weekly, this figure does not convey the reported information that younger children's clothing was usually changed daily, while children of school age changed clothes less frequently. The school children who had uniforms usually wore these all week during the half-day school sessions. When not in school they changed their clothes about twice weekly in addition to Sunday. Although the mothers said they bathed their children an average of twice weekly, in many homes the mothers were observed to wash hands, faces, and feet of their children more than once daily.¹ All except one homemaker reported mending at some time during a week, although nearly one-third said they never sewed new garments.² The average weekly participation in both of these activities as well as in ironing was twice.

Ideal Day

In order to examine the possibility that these

¹The term used in the schedule to mean "wash" children was actually one meaning "bathe." A complete bath requires a great deal of water. Frequency of both "washing" and "bathing" might be inquired about in another study.

²Mending and sewing were asked about separately in this question since some women had been heard to restrict the term "sewing" to construction of a new garment.

peasant homemakers might have a mental picture of an ideal or acceptable day which would influence their responses about their activities, each homemaker was asked to predict her activities in chronological order for the following day. The next day she was actually observed.¹ On the day following the observation, she was asked to recall what she had done the previous day in the order of performance. The assumption was that these predictions and recollections represented an ideal rather than actuality since these women were not accustomed to reflecting about their daily activities.

The analysis of the data reported in this section utilized the same methods as were used with the observation data. The criterion of a five minute minimum for inclusion of an activity was automatically enforced because no homemaker predicted any activity as taking less than ten minutes at a time, nor recalled any as taking less than five consecutive minutes. The activities were viewed as they occurred within the five spans of the time which fell between the independent variables of beginning preparations for morning coffee, lunch, midday coffee, and supper.²

¹See Chapter V for the report of observed activities.

²See Chapter V for details of the coding and analysis procedure.

Predicted activities

When the homemakers were asked to indicate the activities in which they would participate on the following day, many evidenced discomfort. Some said they always did the same thing, some said they did not know, some used terms which indicated that they were thinking of what they usually or sometimes did; however, all did respond in some manner. Only about one-third of the homemakers (six) verbalized any thinking as to whether or not they would have to perform special tasks which did not occur daily, such as cooking corn or beans. Two of these six women concluded that they would not have to do any special tasks, two concluded that they would, and two were undecided.

The three indices of presence, repetition, and sequence of activities within time spans were applied to the predicted data following the same procedure used with the observed data.¹ The data were then combined to construct a predicted daily activity pattern (Figure 2). The only activities which were predicted to be repeated by a high proportion of the women were the food preparation activities which had been selected as independent variables. Within a time span, the only repetition predicted was that made by one homemaker that she would do laundry twice during Span III.

¹See Appendix D, Tables 14 and 15.

Figure 2. Predicted Daily Activity Pattern¹

Time Span I	(personal care)
-----	COFFEE -----
	(animal care)
Time Span II	grinding corn
	MAKING TORTILLAS
-----	LUNCH -----
	CLEANING KITCHEN
Time Span III	CLEANING HOUSE
	child care
	LAUNDRY
-----	COFFEE -----
Time Span IV	ironing
-----	SUPPER -----
	(recreation)
Time Span V	CLEANING KITCHEN
	CHILD CARE
	preparing food

¹Capital letters indicate activities predicted by at least half of the homemakers; they mark the predominant activity pattern. Small letters indicate activities predicted by fewer than half of the homemakers. Parentheses indicate insertions based on probable sequence within the time span in which these activities were most frequently predicted.

Recalled activities

On the day following the observation, when the women were asked to review the events of the previous day, they registered some surprise. Some said they did not remember, but with a few encouraging probes they recounted their day. One queried, "Hay que dar todas las vueltas otra vez?" which means, "Do I have to describe all that running around again?"

The three indices of presence, repetition, and sequence within time spans were applied to the recall data in the same manner as with the observation and prediction data.¹ The data were then combined to construct a recalled daily activity pattern (Figure 3). The only activities recalled by at least half of the women as having been repeated during the day were the food preparation activities which had been selected as independent variables.

Attitudes toward Activities

The homemakers were asked a series of questions about their attitudes toward household activities as well as being asked to respond to a group of hypothetical situations which concerned possible utilization of time. It was thought that the replies would reflect ways in which the homemakers desired to use their time. For example, it

¹See Appendix D, Tables 16, 17, and 18.

Figure 3. Recalled Daily Activity Pattern¹

Time Span I	personal care
	----- COFFEE -----
Time Span II	grinding corn or making tortillas
	animal care, child care, or cleaning
	kitchen
	MAKING TORTILLAS
	----- LUNCH -----
Time Span III	CLEANING KITCHEN
	LAUNDERING
	laundrying or cleaning house
	(personal care)
	----- COFFEE -----
Time Span IV	recreation or sewing
	----- SUPPER -----
Time Span V	CLEANING KITCHEN
	PREPARING FOOD or recreation
	(ironing)
	CHILD CARE
	preparing food or child care
	child care

¹Capital letters indicate activities recalled by at least half of the homemakers; they mark the predominant activity pattern. Small letters indicate activities recalled by fewer than half of the homemakers. Parentheses indicate insertions based on probable sequence within the time span in which these activities were most frequently recalled.

was assumed that homemakers would prefer to be engaged in activities they liked rather than those they disliked. It was also assumed that they themselves would like to participate in the activities which they suggested that a homemaker who had the help of a servant would do herself. In general, it was believed that the homemakers' replies as reported here were indicative of desired uses of time and therefore could be utilized to infer time use goals. These could then serve as motivators in planned action programs.

In a pair of hypothetical situations the homemakers were asked what tasks they would suggest that a homemaker assign to a servant if she had the money to hire one. They were then asked what they thought the homemaker would do if she could hire servants to do all the housework. Laundry and ironing were the tasks these women would most frequently assign to a servant (Table 9). The women had relatively few ideas of activities which they could do if they were relieved of certain daily chores (Table 10). Two women who said they would sit and rest also added that this would not be nice because they were accustomed to working.

The nineteen homemakers were asked if there were tasks they would like to do more easily or faster if they had the opportunity to learn another way of doing them. Each homemaker named a task she would like to do faster; every homemaker except one named a task she would like to

Table 9. Number of homemakers according to their choices of activities to be assigned to a hypothetical servant

Activity	Choice			Total
	First	Second	Third	
Laundering	14	3	0	17
Ironing	1	10	1	12
Cleaning house	0	1	6	7
Preparing food	3	1	1	5
Child care	0	3	0	3
Making tortillas	1	0	1	2

Table 10. Number of homemakers according to their choices of activities for a woman when a hypothetical servant does all housework

Activity	Choice			Total
	First	Second	Third ^a	
Sit and rest	7	1	0	8
Child care	4	1	1	6
Supervise	4	1	0	5
Visit	3	0	2	5
Read, knit, garden, attend movies	1	2	1	4
Care or construction of special clothing	0	3	0	3

^aOnly one homemaker mentioned more than three choices.

complete more easily. Laundry was the most frequently named task in each category (Table 11). The women were asked which tasks they would like to do more often and to which they would like to allocate more time. Their replies were assumed to indicate desires related to other possible uses of time. All except two women named a task they would like to do more often; all except one woman indicated a task to which they would like to devote more time. Sewing was apparently the activity which they most desired to do for which there was not sufficient time in the day (Table 12).

Table 11. Number of homemakers according to activities which they desired to complete more easily or faster

Activity	Desired to complete		Total
	More easily	Faster	
Laundrying	10	6	16
Preparing food	3	4	7
Sewing	3	3	6
Making tortillas	2	2	4
Ironing	0	2	2
Cleaning house	0	2	2
No choice	1	0	1
Total	19	19	38

Even though the homemakers said they would like to do laundry faster and more easily, and would frequently assign it to a servant, they expressed liking to do laundry better than most other household tasks (Table 13). Cooking

Table 12. Number of homemakers according to activities in which they desired to spend more time

Activity	Desired to		Total
	Do more often	Devote more time	
Sewing	6	4	10
Laundrying	1	5	6
Child care	4	2	6
Preparing food	4	1	5
Ironing	1	2	3
Cleaning house	1	2	3
Making tortillas	0	2	2
None	2	1	3
Total	19	19	38

Table 13. Number of homemakers according to expressed likes and dislikes in household activities

Activity	Most liked	Least liked	Total
Laundrying	12	1	13
Ironing		11	11
Preparing food	5	1	6
Holding children		2	2
Making tortillas	1	1	2
Sewing		1	1
Grinding corn		1	1
All activities	1		1
None		1	1
Total	19	19	38

was the next most frequently liked homemaking task. Many women said they preferred doing laundry rather than cooking because cooking was monotonous while laundry provided a chance to work outside the kitchen, often for an uninterrupted span of time. The least liked task was ironing which also would often be assigned to a hypothetical servant. This dislike for ironing was perhaps because it was a hot task; also fuel was often hard to procure in the village.

Summary

The homemakers' image of activities was analyzed in three ways: their opinions related to repetitiveness in daily activities, ideal activity patterns derived from their predictions and recollections of activities during a specific day, and their attitudes toward particular activities.

Generally the women revealed a prevailing image of repetitiveness, that is, sameness of activities unchanged by the days of the week. It was possible to derive ideal activity patterns by applying the indices of presence, repetition, and sequence of activities within time spans to the homemakers' predictions and recollections. Attitudinal probes frequently elicited a mention of laundry activities rather than the meal preparation activities which were so often repeated. Therefore, the repetitiveness

within a day may not have been a factor exerting great influence upon the homemakers' attitudes. The characteristics of the homemakers' ideational activity patterns in relation to their behavioristic activity patterns will be discussed in the next chapter.

CHAPTER VII

INTERPRETATION OF HOMEMAKERS' DAILY ACTIVITY PATTERNS

Daily activity patterns were proposed in this study as one approach to understanding how time functions in home management. A daily activity pattern was defined as that ordering of tasks which is characteristic of a person or group of persons during a one-day time span. The two previous chapters have presented empirical data related to the behavioristic and ideational activity patterns of a selected group of rural Costa Rican homemakers. In this chapter these two types of data will be interpreted. How do they coincide? How do they differ? What meaning does this comparison have for understanding home management?

Comparison of Behavioristic and Ideational Activity Patterns

The homemakers' images of their daily activity patterns as predicted and recalled were very similar in content and sequence, while the activity pattern in which they actually participated was considerably more detailed and varied (Figure 4). The similarity of the two ideational activity patterns suggests that these verbalized patterns represented an ideal day. If the recollections had represented reflective thought about the previous day's activities,

Figure 4. Comparison of Behavioristic and Ideational Activity Patterns¹

	Behavioristic	Ideational	
	Observations	Predictions	Recollections
Time		(personal care)	personal care
Span I	grinding corn making tortillas		
----	COFFEE ----- (animal care)	COFFEE ----- (animal care)	COFFEE -----
Time	CLEANING KITCHEN		
Span II	(grinding corn)	grinding corn	grinding corn or making tortillas animal care, child care, or cleaning kitchen
	MAKING TORTILLAS or cleaning kitchen	MAKING TORTILLAS	MAKING TORTILLAS
	CHILD CARE or cleaning kitchen		
	CLEANING HOUSE		
	child care		
----	LUNCH -----	LUNCH -----	LUNCH -----
Time	CLEANING KITCHEN	CLEANING KITCHEN	CLEANING KITCHEN
Span	PREPARING FOOD		
III	CLEANING KITCHEN		
	CHILD CARE		
	cleaning kitchen		
	CLEANING HOUSE	CLEANING HOUSE	
	LAUNDERING	child care LAUNDERING	LAUNDERING laundrying or cleaning house
	(personal care) (hauling water)		(personal care)
	PREPARING FOOD		
	CHILD CARE or laundrying		
----	COFFEE -----	COFFEE -----	COFFEE -----

Figure 4--Continued

	<u>Behavioristic</u> Observations	<u>Ideational</u>	
		Predictions	Recollections
Time	RECREATION		recreation or
Span			sewing
IV	PREPARING FOOD		
	preparing food or		
	laundrying		
	CHILD CARE	ironing	
	laundrying or sewing		
-----	SUPPER -----	SUPPER -----	SUPPER -----
	RECREATION or sewing	(recreation)	
Time	PREPARING FOOD		
Span	preparing food or		
V	recreation		
	(ironing)		
	preparing food		
	CLEANING KITCHEN	CLEANING KITCHEN	CLEANING KITCHEN
	PREPARING FOOD		PREPARING FOOD
			or recreation
			(ironing)
	CHILD CARE or	CHILD CARE	CHILD CARE
	preparing food		
	recreation or	preparing food	preparing food
	preparing food		or child care
	child care		child care
	recreation		
	child care		

¹Capital letters indicate activities performed, predicted, or recalled by at least half the homemakers; they mark the predominant activity patterns. Small letters indicate activities performed, predicted, or recalled by fewer than half of the homemakers. Parentheses indicate insertions based on probable sequence within the time span in which these activities most commonly were performed, predicted, or recalled.

the recalled pattern should have been more nearly like the observed pattern than was actually the case. Because the activity patterns derived from the activities predicted and recalled by the homemakers are so similar, the terms ideational activity pattern or image will henceforth refer to the combined data. Whenever it is necessary to highlight differences between the predicted and recalled activity patterns, they will be specifically named.

The behavioristic and ideational activity patterns were examined by time spans within the day in order to highlight pertinent relationships of the two patterns. According to the homemakers' image, the time before beginning morning coffee (Time Span I) was considered to include only personal care. However, so few women actually participated in personal care activities during Span I that these did not appear in the behavioristic activity pattern. Although it is possible that the arrival time of the observer precluded the notation of such activities, it is more probable that personal care occupied fewer than five consecutive minutes, since most of the women slept in their clothes and only went to the privy and washed their hands in the early morning.

The time between beginning morning coffee and beginning lunch preparations (Time Span II) was when the women ideationally and actually did make tortillas and care for animals. During Span II some homemakers recalled

cleaning the kitchen and caring for children, but not in relation to the proportion of women who actually participated in these activities during that time. Although at least half of the homemakers actually did clean other than in the kitchen during Span II, this activity was not a part of their image for that time span.

The simplicity of the ideational activity pattern between beginning lunch and midday coffee (Time Span III) indicates that the women thought they completed a group of related activities in a continuous time unit rather than in broken participations scattered throughout the time span. The ideational pattern did not reveal the repetitions which were observed within Span III.

Between the making of midday coffee and the beginning of supper preparations (Time Span IV) the women had an image of few activities. Some reported being "unoccupied" during this time span. Although more than half of the homemakers were observed to participate in some recreational activities during Span IV, less than half of the women recalled such participation, and recreational activities did not appear in the predicted activity pattern during this time span. It might be possible that activities classified as recreational were not considered desirable or acceptable during this time span; therefore the women did not verbalize that they participated in such activities. Or perhaps they did not consider recreational activities to

be household activities and thus did not mention them.

Some women were still engaged in laundry activities during Span IV although their image included completion of laundry during Span III.

Following the beginning of supper preparations (Time Span V) the omission of repetitions from the image is again evident. During Span V participation in recreational activities was apparently acceptable although not verbalized with the frequency in which such activities were observed. Ironing was most commonly done and recalled during Span V, although the homemakers tended to predict ironing as a Span IV activity.

Child care activities were actually participated in by more than half of the mothers during all the time spans except Span I; however, these activities only appeared in the image of at least half of them during Span V. Smaller numbers of mothers included child care as part of their image of Span II and Span III activities. There are a number of possible explanations for this discrepancy. Perhaps child care was not thought of as a household activity. Perhaps the mothers thought most child care activities except those connected with putting children to bed during Span V were delegated to other family members. Perhaps the mothers did not think that their child care activities occupied continuous periods of time. They may have viewed the child care activities as interruptions in household

activities or accepted them as integrated with household tasks. For example, a woman may have assumed that part of her activity while at the water source was bathing children. Thus she might have predicted and recalled laundry activities without specifying that "laundry" included bathing children. Whatever the reasons, child care activities only appeared as a dominant part of the ideational activity pattern during Span V.

Time Use Goals Inferred from Daily Activity Patterns

Both behavioristic and ideational activity patterns were studied to provide insights concerning the functioning of time in home management. Within the conceptual framework of activity patterns, it was suggested that time use goals as well as some indication of goal attainment might be inferred from behavioristic activity patterns. Likewise it was proposed that time use goals, whether attained or not, might be inferred from ideational activity patterns. It has been demonstrated in the cultural setting of this study that activity patterns are present and derivable from indices of presence, repetition, and sequence of activities within time spans. Since one objective of management is to help people attain their goals, an illustration of how time use goals can be inferred from a comparison of behavioristic and ideational activity patterns seems appropriate.

The most pervasive time use goal of these homemakers appeared to be working in relatively long, continuous, uninterrupted time periods. The absence of an image of repeated participation in the same activity within any time span is the strongest support for this inference. The small number of homemakers who were observed to repeat any activities within any time span indicates that the women generally were able to attain this goal except during Span III.

Food preparation activities were those in which the women were least able to accomplish the apparent goal of continued participation until termination. It should be recalled that food preparation and food service activities were classified in a single group because the women seldom ate with their families, but continued to prepare food while serving some family members. They seldom verbalized preparation and service as distinct activities, and often were observed to prepare and serve some meals without any visible separation. In no case were the mothers observed to make any effort to collect all their children to eat at the same time. Possibly the repetition of food preparation can be attributed to the need to serve family members who arrived to eat at widely separated clock hours.

The major means of achieving the time use goal of continued participation in one activity until completed appeared to be the delegation of interrupting activities

to other family members. The women apparently left home only when absolutely necessary, that is, when no one else could be delegated to make the trip. They seemed to prefer sending children on repeated errands rather than to interrupt their own flow of work. They seldom paused in their own productive activities to give directions to their children for errands. Although many contacts between mothers and children seemed to the researcher to involve educational and supervisory elements, the mothers apparently did not consider their supervisory capacity, but rather thought in terms of completing their own activity without interruption during the favored long working period.

Observations indicated that the activities of the children did not seem to be as important as the work activities in which the mothers were engaged. Regardless of what the children were doing, the mothers called them whenever they needed help. Even though the children were carrying out another assigned task, going to school, eating, playing, or studying, they were called. Obedience was expected; however, no consistent type of discipline was observed when the children did not respond.

Since all the mothers had preschool children and almost half of them had a child under one year of age, one might expect a relatively high incidence of routine and unexpected child care activities which would disrupt long, continuous work periods. Interruptions were not a part of

the predominant behavioristic activity pattern; only about one-third of the mothers (seven) were interrupted by children for periods of at least five consecutive minutes during any time span. Moreover, interruptions never appeared in the homemakers' image of their days. Throughout the day, whenever demands of children threatened to interrupt an ongoing activity, the women usually were observed to tell one child to care for another one. One mother who only had sons mentioned that she would welcome a daughter to whom tasks could be delegated. Another woman whose children were all preschoolers commented during the observed day that she had to leave some activities before finishing them because she did not have any helper who could begin meal preparations when necessary. Her statement implied that she had a time use goal of working in continuous periods until completing an activity, but that she was unable to attain this goal.

Additional time use goals could be inferred. Management could then be applied to help women attain the goals which they reveal in their behavioristic and ideational activity patterns. This discussion has served as an illustration of an application of the activity pattern concept. Some general implications of the concept for theory, research, and educational program planning will be discussed in the final chapter.

CHAPTER VIII

SUMMARY AND IMPLICATIONS

Summary

This study was designed to explore the concept of activity pattern. An activity pattern was defined as that ordering of tasks which is characteristic of a person or group of persons during some specified time span, with time span defined as the period between two specific events. Two types of activity patterns were suggested as meaningful for gaining understanding of how time functions in home management. Behavioristic activity patterns were defined as those based upon observations of actual behavior, while ideational activity patterns were defined as those based upon the subjects' verbalized image of activities. Presence, repetition, and sequence of activities within time spans were proposed as three indices which could be used to derive activity patterns.

Techniques for identifying activity patterns were developed and applied to observational and interview data gathered from nineteen randomly-selected rural Costa Rican homemakers. Behavioristic and ideational patterns appeared when the indices were applied to the data. Findings which

illustrated the derivation of the homemakers' daily activity patterns were presented and discussed.

Implications

This exploratory study has implications for home management at three levels: theory, research, and educational programs. Comparison of the behavioristic with the ideational activity patterns of the peasant homemakers in this study reveals features to be considered in the refinement of theoretical conceptualization in home management with regard to time. It also gives insight into the planning of future research, and suggests guides to be used in the formulation of educational programs in Latin America. In this chapter some managerial implications of the peasant homemakers' daily activity patterns will be presented.

Theoretical implications

This study provided stimulation for two considerations of possible import to conceptualization of time in home management.

First, time functions in management in more than one way. The circumstances under which it functions must be discovered and defined so that a more inclusive concept can be developed. This study has shown that time permeates management in a distributional and sequential sense rather than being limited to clock-measured units, fixed static points, and aggregates of clock time allocated to activities.

The relation of time to the theoretical frameworks of the basic sciences should be reexamined to try to discover a larger dimension of time in which activity patterns would be only one of many elements.

Second, this study highlights the fact that there is more than one way to organize among and within activities. Home management theory needs to reflect a sensitivity to variations outside the middle-class, western, industrialized patterns of organization. Perhaps other factors which have traditionally been termed "resources" in the conceptual framework of home management have appropriate patterns of relationship within each culture. Attention might profitably be turned toward the discovery of combinations of facts which are termed knowledge, or skills, or attitudes in various cultures. The examination of combinations which are congruent in various time spans and under shifting as well as stable conditions may reveal patterns useful to the refinement of home management theory.

Research implications

Since it appears that an activity pattern is a researchable concept which helps to demonstrate how time relates to home management, further study of the concept is recommended. This exploratory investigation aroused speculation concerning methodology in such research. Four general points can be made which should expedite activity pattern research.

First, it is clear that time use data gathered by observation and estimation are not equivalent data. Estimations, or ideational activity patterns, are not automatically valid representations of behavioristic activity patterns and cannot be accepted as such. If understanding of how time operates in home management is to be gained, it is suggested that behavioristic and ideational data continue to be collected and compared. Study of both behavioristic and ideational activity patterns provides a stronger framework for the inference of time use goals and goal attainment than does the study of either pattern separately.

Second, it seems probable that neither the duration of activities nor the aggregate clock time devoted to activities within a daily time span is the most meaningful way to study managerial problems in which time plays a part. To avoid the cultural restriction of equating the allocated clock time with the value of activities, it seems necessary to study their ordering within a time span. Meal-times may be a universal independent variable which can be used to mark the boundaries of time spans within a one-day time dimension. The determination of behavioristic activity patterns could then be simplified by more extensive sampling from each major time span rather than by day-long continuous observations in relatively few homes.

Third, classification or coding is a far more serious problem than has been indicated in many published time use studies. Especially when studies are made within cultures unfamiliar to the researcher, it cannot be assumed that what the researcher views as congruent activities or single units of activity will be so identified by the people under study. Some attention needs to be paid to the determination of activities which the subjects consider to be related. The technique of asking people what they are doing while they are working should provide the necessary clues for formation of meaningful categories prior to formal research. Adequate categorization of events into groups of activities appropriate in a given culture can then be followed by the development of a shorthand code for recording household activities and interactions. This would increase the ability of a single observer to record pertinent information related to activity patterns in the home. Such a shorthand system might also enable the collection of more variables simultaneously. Who is participating, where the activity is being done, what is being done, and the duration of the participations in addition to chronological order would more easily be recorded.

Fourth, there are three types of activity pattern research which would seem valuable for examining the function of time in home management: longitudinal, cross-cultural, and simultaneous studies of non-homogeneous

families. A series of studies needs to be made to determine activity patterns for time spans longer than one day. It seems apparent that longitudinal studies would reveal more of the dynamism or fluidity of time than studies limited to a one-day time span. The application of the indices of presence, repetition, and sequence to activity data within time spans of varying lengths should reveal a rhythm of activity. Thus the relationships of various time spans would be revealed.

It is possible that alterations in activity patterns for any one family will be associated with days of the week, seasons of the year, crisis periods, ages of the family members, family standards, or other variables. Simultaneous study of the activity patterns of families of different sizes, of different age and sex composition, of different occupations and social class, and possessing different facilities may reveal variations in activity patterns. Formal education, amount of discretionary income, caloric intake, and intervals between pay periods likewise may be associated with activity pattern variations.

In addition, the study of the activity patterns of all family members during the same time span, rather than only those of the homemaker, should provide insights into problems and possible goals with respect to the intermeshing of time patterns of family members. Studies of the duration, order, and content of family interactions may

also contribute to the study of this basic time management problem.

Implications for educational programs in Latin America

Currently in Latin America there is rapid growth of interest in management on farms, in industries, and in homes. Latin American leaders recognize that the concept of management is in some way important in the development of their area of the world. The findings reported here indicate directions which might be pursued in planning educational programs in home management in Costa Rica and those parts of Latin America with similar conditions.

The major activities which would appear to be most fruitful for teaching and encouraging effective home management in relation to daily activity patterns are the following:

1. Helping the women to recognize the characteristics of their behavioristic and ideational activity patterns.
2. Discussing with the women their apparent goals for time use.
3. Discussing the possible consequences of their observed practices, for example, the perpetuation of the present daily activity patterns in the habits of their children.
4. Helping the homemakers to adjust to variations in circumstances which may force them to alter their activity patterns.

5. Teaching techniques of work simplification which may help to achieve some of the inferred time use goals.

6. Showing the women that gains made by utilizing simplified methods of work may permit them to participate in activities for which they do not now have time. This might enable them to complete activities which are a part of their activity image, although they seldom appear in the behavioristic activity pattern.

7. Using expressed attitudes as a base for initiating programs of interest to homemakers. For example, these homemakers would probably be receptive to an educational program aimed at developing knowledge and skill in faster and easier methods of washing and ironing clothing.

8. Helping the women to gain understanding and skill in supervising and stimulating cooperative participation of family members.

Concluding Statement

Time has a multi-dimensional influence upon people's activities and their ideas about these activities. This study proposed that the concept of activity patterns could be utilized to increase understanding of how time functions in home managerial situations. Techniques for the discovery of behavioristic and ideational activity patterns were developed and applied to the daily activities of a selected group of rural Costa Rican homemakers.

The abstraction of activity patterns from observations and verbal responses was possible; therefore, the concept has been demonstrated to be operational. The inference of time use goals from a comparison of behavioristic and ideational activity patterns was illustrated. Implications for consideration in the refinement of theory, the planning of research, and the development of educational programs in Latin America were highlighted.

The seriousness of the cultural relevance of time as an integrated factor in home management cannot remain underestimated. We need to seek appropriate answers to cultural conditions, and to increase our awareness of the functioning of time as a dynamic factor in human activities, if problems are to be solved realistically and decisions are to be made intelligently.

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APPENDICES

APPENDIX A

Instituto Interamericano de Ciencias Agrícolas

Departamento de Economía y Ciencias Sociales

Turrialba, Costa Rica

y

Departamento de Administración del Hogar y Desarrollo de los Niños

Michigan State University, East Lansing, Michigan

PERSPECTIVA DE TIEMPO DE LAS AMAS DE CASA

No. _____ Enumerador _____

Partes I-IV Fecha _____

Editado por _____ Fecha _____

Codificado por _____ Fecha _____

Observación Fecha _____ Día _____

Partes V-VIII Fecha _____

Editado por _____ Fecha _____

Cinta escrito por _____ Fecha _____

Codificado por _____ Fecha _____

Nombre del jefe de la familia _____

Nombre del ama de casa _____

I. Información General Sobre Miembros de la Familia

A. Cuántas personas comen y duermen regularmente en esta casa? _____ Nombres:	Edad	Educación			Cuándo usa cada uno los zapatos? (Todos los días; Renuncia; 5= los domingos, días feriados)
		Ultimo grado completado?	En qué grado está este año?	Cuántos grados quisiera Ud. que sus hijos completarán?	
Esposo					
Esposa					
Hijos (hombre o mujer):					
Otros (¿qué son de Ud.?)					

- B. Cuánto tiempo tiene Ud. de casada? _____
- C. 1. Cuánto tiempo hace que **vive** Ud. en Barbacoas? _____
2. Cuánto tiempo hace que **vive** Ud. en esta casa? _____
- D. Esta casa es propia? **Sí** **No**
- E. Piensan Uds. irse de este lugar? **Sí** **No**
(Si es **sí**), Indique sus razones _____
- F. En qué trabaja el jefe de la familia? _____
(Si es agricultor), Cuál cultivo les da más entradas? _____
- G. Tienen Uds. terreno propio? **Sí** **No**
(Si es **sí**), Cuántas manzanas tienen Uds.? _____
- H. Trabaja su esposo horas fijas? **Sí** **No**
1. A qué horas sale para trabajar? _____
2. A qué horas regresa? _____
- I. Dónde almuerza su esposo en días de trabajo? en casa _____ le lleva el almuerzo _____ otro, especifique _____
- J. Le pagan a su esposo cada día _____, cada semana _____, cada mes _____, otro, especifique _____
- K. Ha recibido Ud. pago por algún trabajo que ha realizado en los últimos seis meses? **Sí** **No**
(Si es **sí**), En qué trabaja Ud.? _____
- L. Quiere Ud. leer estas tres frases? **Sí** **No**
Con cuál de estas tres frases está Ud. de acuerdo? _____

II. Información Sobre la Vivienda y Comodidades del Hogar

- A. Cuántas habitaciones, incluyendo la cocina, hay en su casa? _____
- B. Cuáles tipos de luz artificial tienen Uds. en la casa? candelas _____
canfinera _____ electricidad _____ otro, esp. _____
- C. El techo es de paja _____ zinc _____ tejas _____
- D. En qué habitaciones tiene la casa piso de suelo _____
madera _____ otros, esp. _____
- E. Algunas comodidades con que cuenta la familia.

Comodidad	Desde cuándo?	Cómo o por qué la obtuvieron Uds.?
1. Tienen Uds. electricidad? Sí No		

E.

Comodidad	Desde cuándo?	Cómo o por qué la obtuvieron Uds.?
2. Qué fuente de agua tienen Uds.? cañería - cocina baño otro, esp. _____ otro, esp. _____		
3. Qué tipo de cocina tienen Uds.? fogón fogón sin humo de canfín de hierro otro, esp. _____		
4. Qué tipo de equipo tienen Uds. para moler? ninguno piedra máquina		
5. Tienen Uds. máquina de coser? Sí No		
6. Dónde lavan Uds. la ropa? pila cuántos huecos tiene esta pila? _____ batea en el patio tiene techo o sombra? tiene cañería? rfo o quebrada otro, esp. _____		
7. Qué tipo de plancha tienen Uds.? ninguna de mano de carbón de canfín otro, esp. _____		

F. Comodidades para notar la hora o el día con que cuenta la familia

Tienen Uds.	Dónde?	Cuándo lo usan?	Cuándo lo obtuvieron?	Cómo lo obtuvieron (regalo, compra)? Si compra, dé sus razones para comprarlo.
1. Radio? <input type="checkbox"/> Si <input type="checkbox"/> No				
2. Reloj de pared o de mesa? <input type="checkbox"/> Si <input type="checkbox"/> No				
3. Reloj de pulsera o de bolsillo? <input type="checkbox"/> Si <input type="checkbox"/> No	(de quién es?)			
4. Almanaque? <input type="checkbox"/> Si <input type="checkbox"/> No				
5. Periodicos? <input type="checkbox"/> Si <input type="checkbox"/> No				

G. Cuando fue la última vez que Uds. han hecho alguna reforma en su casa? _____

Cuál reforma? _____ Cuáles fueron sus razones para hacer esa reforma? _____

H. Piensan Uds. hacer algunas reformas en su casa? ☐ Si ☐ No (Si es si), Cuáles reformas? _____

_____ Cuando piensan hacerlas? _____
 Cuáles son sus razones para hacer esas reformas? _____

I. Cuando fue la última vez que Uds. han hecho algún cambio en sus muebles o utensilios? _____

Cuál cambio? _____ Cuáles fueron sus razones para hacer este cambio? _____

J. Piensan Uds. hacer algún cambio en sus muebles o utensilios? ☐ Si ☐ No (Si es si), Cuáles cambios? _____
 _____ Cuando piensan hacerlos? _____ Cuáles son sus razones? _____

III. Prácticas Escogidas

A. Cuáles oficios domésticos tiene que hacer todos los días? _____

B. Podría Ud. decirme las horas de comida en esta casa? _____

C. Si no comen todo en una sola comida, qué hacen Uds. con lo que queda? _____

D.

Compran Uds.:	X si es sí	Cuántas veces a la semana?	Por qué?
Tortillas			
Pan			
Leche			
Alimentos en latas: Leche Sardinas Otro, esp.			

E. (Si Uds. no compran tortillas), Han pensado alguna vez en comprar tortillas? Sí No
(Si es sí), por qué decidieron Uds. no comprar tortillas? _____

F. Tienen Uds. negocio en el banco? Sí No
(Si es sí), Dónde queda ese banco? _____ Con qué
frecuencia visitan el banco? _____ Por qué
visita el banco? para pedir préstamos para ahorrar otro, esp. _____

G. Quién cuida a los niños si se despiertan durante la noche? _____

H. Nacieron algunos de sus hijos en un hospital? Sí No
(Si es sí): Cuáles? _____ Por qué? _____

I. Tiene algún miembro de su familia ropa que usa sólo los domingos o días feriados? Sí No
(Si es sí), Especifique quiénes. _____

J. De los siguientes artículos, tienen Uds. algunos que sean sólo para usar en casos especiales como visitas, fiestas y bodas:

Artículo	X si es sí	Especifique
Vestidos		
Zapatos		
Trastos		
Ropa de cama		
Otro, esp.		

- K. Cuando fue la última vez que Ud. fue a Santiago? _____
 Como fue? a pie ___ a caballo ___ en cazadora ___ otro, esp. _____
 Por cuánto tiempo estuvo allí? _____
 A qué fue a Santiago? _____
- L. Piensa Ud. ir a Santiago en el futuro cercano? Si No
 (Si es sí), Cuando piensa ir? _____
 A qué piensa ir? _____
- M. Cuando fue la última vez que Ud. fue a San José? _____
 Como fue? en cazadora ___ otro, esp. _____
 Por cuánto tiempo estuvo allí? _____
 A qué fue a San José? _____
- N. Piensa Ud. ir a San José en el futuro cercano? Si No
 (Si es sí), Cuando piensa ir? _____
 A qué piensa ir? _____
- O. Con qué frecuencia compran lotería? nunca ___ cada semana ___ cada mes ___ otro, esp. _____
- P. Con qué frecuencia se apunta Ud. en rifas? _____
- Q. Cuántas veces a la semana hace Ud. los siguientes oficios:
- cocinar maiz _____ cocinar frijoles _____ moler _____
 tostar café _____ lavar ropa _____ lavar mantillas _____
 planchar _____ mudar los chiquitos _____ bañar los chiquitos _____
 remendar _____ coser _____

R. Recibe Ud. ayuda de miembros de la familia en algunas de las siguientes actividades?

Actividad	Quién?	Cuántas veces al día o a la semana?	Por qué hace esta persona esta tarea?	Cuánto tiempo en un día pasa en cada una de estas tareas?
-----------	--------	-------------------------------------	---------------------------------------	---

hacer mandados

chinar

jalar agua

barrer

moler

llevar almuerzo

planchar

aporrarar ropa

Hay algunos otros oficios que ellos hacen? Si No
(Si es sí), especifique _____

S. Qué hora es? _____ Hora en mi reloj _____

(Si no tiene reloj), Cómo sabe Ud.? _____

(Observación) _____

IV. Planes para el Día Siguiente

- A. Por favor dígame que cosas piensa hacer Ud. mañana. Dígamelas en orden, empezando con la hora de levantarse.

Si es posible, dígame más o menos la hora en que Ud. piensa empezar cada una de las actividades que acaba de mencionar.

(Si eso no es posible), Dígame cuánto tiempo piensa Ud. le tomará cada una de las actividades que acaba de mencionar.

V. Recuerdos de Ayer

A. Tenfa Ud. planeando para ayer algo que no pudo realizar? **Sí** **No**

(Si es sí), Qué pensaba hacer? _____

Por qué no lo hizo? _____

B. Hizo Ud. ayer algo que no habfa planeado? **Sí** **No**

(Si es sí), Qué hizo que no ha planeado? _____

Por qué lo hizo? _____

C. Por favor dígame lo que Ud. recuerde de sus **actividades** de ayer.
Dígamelas en orden empezando con la hora de levantarse.

Si es posible, dígame más o menos la hora en que Ud. empezó cada una de las actividades que acaba de mencionar.

(Si no es posible), Dígame cuánto tiempo piensa Ud. que gastó en cada una de las actividades que acaba de mencionar.

VI. Preguntas en Relación con la Introducción de Cambio

- A. Cuál oficio doméstico le gusta más? Indique sus razones.
- B. Cuál oficio doméstico le gusta menos? Indique sus razones.
- C. Cuáles oficios domésticos hace Ud. ligero? Indique sus razones.
- D. Cuáles oficios domésticos hace Ud. despacio? Indique sus razones.
- E. Cuáles oficios domésticos hace Ud. cuidadosamente? Indique sus razones.
- F. Cuáles oficios domésticos hace Ud. a la carrera? Indique sus razones.
- G. Cuál oficio doméstico piensa Ud. que es más fácil? Indique sus razones.
- H. Cuál oficio doméstico piensa Ud. que es más difícil? Indique sus razones.
- I. Cuál oficio doméstico piensa Ud. que es el más pesado? Indique sus razones.
- J. Si Ud. tuviera la oportunidad de aprender un método más rápido de hacer algunos oficios domésticos, cuáles oficios domésticos quisiera Ud. aprender a hacer más rápida? Indique sus razones.
- K. Si Ud. tuviera la oportunidad de aprender un método más fácil de hacer algunos oficios domésticos, cuáles oficios domésticos quisiera Ud. aprender a hacer más fácilmente? Indique sus razones.
- L. Hay algún oficio doméstico al cual Ud. quisiera dedicarle más tiempo? Indique sus razones.
- M. Hay algún oficio doméstico que le gustaría hacer más a menudo? Indique sus razones.

VII. Preguntas Relacionadas a la Conciencia del Ama de Casa
Con Respecto a Cambios Efectuados a Través del Tiempo

- A. Hay algunos oficios domésticos que le toman a Ud. más tiempo este año que el pasado? Cuáles? Por qué?
- B. Hay algunos oficios domésticos que le toman a Ud. menos tiempo este año que el pasado? Cuáles? Por qué?

- C. Cree Ud. que sus días son casi todos parecidos en términos de las actividades que Ud. tiene? (Si es no), ¿Qué los diferencia?
- D. En cuáles horas del día se encuentra Ud. más ocupada? Por qué?
- E. En cuáles horas del día se encuentra Ud. menos ocupada? Por qué?
- F. Cree Ud. que el clima tiene algo que ver con los oficios que Ud. desempeña en el día? Explique por qué?
- G. Cree Ud. que la estación del año tiene algo que ver con los oficios que Ud. desempeña en el día? Explique por qué?
- H. A qué edad de ellos deja Ud. de chinear a sus hijos?
- I. ¿Qué edad tienen los niños cuando empiezan a ayudar en los oficios domésticos?
- J. A qué edad diría Ud. que una persona es vieja?
- K. ¿Cuál ha sido el día más recordado de su vida? Por qué?
- L. ¿Qué hace Ud. los domingos?
- M. Cree Ud. que los oficios domésticos son ahora más pesados o menos pesados que en el tiempo de su mamá o que no han cambiado mucho? Si han cambiado, indique en qué forma:
- Cree Ud. que los oficios domésticos serán más pesados o menos pesados o que no cambiarán mucho en el tiempo en que los niños de hoy se casan? Dé sus razones.
- N. ¿Cómo cambió Ud. sus actividades durante el temporal al fin de octubre de 1960?
- O. Prefiere Ud. hacer sus oficios domésticos en verano o en invierno? Dé sus razones.

VIII. Situaciones Hipotéticas

- A. Suponga que una familia rural tenga oportunidad de hacer un cuarto nuevo en su casa ahora mismo o de hacer una casa nueva, de aquí a un año. ¿Cuál de las dos cosas cree Ud. que la familia debería escoger? Dé sus razones.

- B. El marido de una señora tuvo un accidente serio en el campo. No puede trabajar por lo menos durante un año. Cómo cree Ud. que esa señora puede obtener la comida y otras cosas que su familia necesita para vivir?
- C. Una familia rural se ganó cinco mil colones en la lotería. Cómo cree Ud. que podrían usar el dinero?
- D. El marido de una señora le dió plata para que consiguiera una empleada. Esta señora no puede decidir cuáles oficios domésticos debe hacer la empleada. Qué oficios le daría Ud. a hacer a la empleada? Indique sus razones.
- E. Suponga que hubiera suficiente plata para pagar empleada para que haga todos los oficios domésticos. Qué haría el ama de casa en todo el día?
- F. Cómo cree Ud. que se siente una ama de casa al final de un día muy ocupado cuando todavía le queda trabajo por hacer?
- G. Una familia rural se ganó cinco mil colones en la lotería. Si desean hacer que la vida en la casa sea más cómoda, cómo cree Ud. que podrían usar el dinero para lograr esto?
- H. Una madre rural tiene un niño enfermo. Qué cosas dejaría ella de hacer para poder atenderlo?
- I. Una ama de casa hacía tortillas todos los días. Hace poco comenzó a comprar tortillas. Cómo cree Ud. que piensan los otros miembros de la familia de esto? Por qué cree Ud. que piensan así?
- J. Una señora sirve las mismas comidas todos los días. Por qué cree Ud. que ella no varía sus comidas?

Appendix B**Inter-American Institute of Agricultural Sciences****Department of Economics and Social Sciences****Turrialba, Costa Rica****and****Department of Home Management and Child Development****Michigan State University, East Lansing, Michigan****HOMEMAKERS' TIME PERSPECTIVES****No. _____ Interviewer _____****Parts I-IV Date _____****Edited by _____ Date _____****Coded by _____ Date _____****Observation Date _____ Day _____****Parts V-VIII Date _____****Edited by _____ Date _____****Tape transcribed by _____ Date _____****Coded by _____ Date _____****Name of family head _____****Name of homemaker _____**

I. General Information about Members of the Family

A. How many people
eat and sleep
regularly in
the house? _____

When does each
person wear
shoes?
T-every day;
N-never; F-
Sundays and
holidays

Education		How many grades would you like your children to complete?
Last grade completed	Present grade attendance	

Age

Names: _____

Husband

Wife

Children (male or female)

Others (relationships)

- B. How long have you been married?
- C. 1. How long have you lived in this community?
2. How long have you lived in this house?
- D. Do you own the house? Yes No
- E. Are you thinking of leaving this place? Yes No
(If yes) Tell your reasons
- F. What is the occupation of the family head?
(If farmer) What crop provides the most income?
- G. Do you own your own land? Yes No
(If yes) How many manzanas do you have?
- H. Does your husband work regular hours? Yes No
1. What time does he leave for work?
2. What time does he come home?
- I. Where does your husband eat lunch on work days? at home ____ carried to him in the field ____ other, specify ____
- J. Does your husband get paid daily, weekly, monthly, other . . .
- K. Have you worked for pay at any time during the past six months?
Yes No
(If yes) What did you do?
- L. (Reading test which was abandoned)

II. Information About Housing and Household Facilities

- A. How many rooms, including the kitchen, are there in the house?
- B. What kind of artificial light do you have in the house? candles, kerosene wick, electricity, other ____
- C. The roof is thatch, metal, tile ____
- D. What rooms have floors of earth ____ wood ____ other ____
- E. Facilities
- | Item | When did you get it? | How or why did you get it? |
|------|----------------------|----------------------------|
|------|----------------------|----------------------------|
-

1. Do you have electricity?
Yes No

E. Item When did you get it? How or why did you get it?

2. What water source do you have?

running: kitchen

bath

other

other _____

3. What type of stove do you have?

fogón

fogón with chimney

kerosene

iron

other

4. What equipment do you have for corn grinding?

none

stone

machine

5. Do you have a sewing machine?

Yes No

6. Where do you wash clothes?

concrete sink

wooden platter

river or brook

other

7. What type of iron do you have?

none

sad irons

charcoal

kerosene

other

F. Facilities for telling time

Do you have _____?	Where?	When do you use it?	When did you get it?	How did you get it? (gift, purchase) If bought, give reasons.
--------------------	--------	---------------------	----------------------	---

1. Radio

2. Clock

3. Watch

4. Almanac

5. Newspapers

G. When was the last time you made some change in your house?
What change? Why did you do it?

H. Are you thinking of making any changes in your house? Yes No (If yes) What changes?
When are you thinking of making them? Why do you want to make the changes?

I. When was the last time you made some change in your furniture or utensils?
What change? What were your reasons for the change?

J. Are you thinking of making any change in your furniture or utensils? Yes No (If yes)
What changes? When are you thinking of making them? What are your reasons?

III. Selected Practices

- A. What household tasks must you do every day?
- B. Can you tell me the meal times in this house?
- C. If you do not eat everything at one meal, what do you do with what is left?
- D. Do you buy ? X if yes How many times per week? Why?

Tortillas

Bread

Milk

Canned goods:

 Milk

 Sardines

 Other

- E. (If you do not buy tortillas) Have you ever thought of buying tortillas? Yes No
(If yes) Why did you decide not to buy tortillas?
- F. Do you do any banking? Yes No
(If you do) Where is the bank? How often do you use the bank?
Why do you go to the bank? loans ____ savings ____ other ____
- G. Who takes care of the children if they awaken at night?
- H. Were any of your children born in a hospital? Yes No
(If yes) Which ones? Why?
- I. Does any member of the family have clothes which are for use only on Sundays and holidays?
(If yes) who?

- J. Of the following articles, do you have any which are only for use in special cases such as visits, festivals, and weddings:

Article X if yes Specify

Dresses, suits
Shoes
Dishes
Bed clothes
Other, specify

- K. When was the last time you went to the county seat?
How did you go? on foot ____ on horseback ____ by bus ____ other ____
How long were you there?
Why did you go there?

- L. Are you thinking of going to the county seat in the near future?
Yes No (If yes) When?
Why are you thinking of going?

- M. When was the last time you went to the capital?
How did you go? by bus ____ other ____
How long were you there?
Why did you go there?

- N. Are you thinking of going to the capital in the near future?
Yes No. (If yes) When are you thinking of going?
Why are you thinking of going?

- O. How often do you buy lottery tickets? never ____ every week ____
every month ____ Other ____

- P. How often do you buy raffle tickets?

- Q. How many times a week do you do the following:

cook corn ____ cook beans ____ make tortillas ____

toast coffee ____ wash clothes ____ wash diapers ____

iron ____ change children's clothes ____ bathe children ____

mend ____ sew ____

Activity	Who?	How many times per day or week?	Why does that person do it?	How much time per day used?
----------	------	---------------------------------	-----------------------------	-----------------------------

rinse clothes

S. What time is it? Time on my watch
(If the woman does not have clock or watch) How do you know?

(Observation of anything she did to verify time)

IV. Plans for the Following Day

- A. Please tell me the things you are thinking of doing tomorrow.
Tell me them in order, beginning with the hour of getting up.

If possible, tell me approximately the time in which you are thinking of beginning each one of the activities you just mentioned?

(If this is not possible) Tell me how much time you think each one of the activities will take.

V. Recollections of Yesterday

- A. Had you planned anything for yesterday that you could not do?
Yes No
(If yes) What were you thinking of doing?
Why didn't you do it?
- B. Did you do anything yesterday that you had not planned? Yes No
(If yes) What did you do that you had not planned?
Why did you do it?
- C. Please tell me what you recall of your activities of yesterday.
Tell me them in order beginning with the hour of getting up.
- If possible, tell me approximately the time in which you
began each one of the activities you just mentioned.
- (If this is not possible) Tell me how much time you think you
spent in each one of the activities you just mentioned.

VI. Questions Related to the Introduction of Change

- A. What household task do you like most? Give your reasons.
- B. What household task do you like least? Give your reasons.
- C. What household tasks do you do quickly? Give your reasons.
- D. What household tasks do you do slowly? Give your reasons.
- E. Which household tasks do you do carefully? Give your reasons.
- F. What household tasks do you do on the run? Give your reasons.
- G. What household task do you think is easiest? Give your reasons.
- H. What household task do you think most difficult? Give your reasons.
- I. What household task do you think the heaviest? Give your reasons.
- J. If you had the opportunity to learn a faster method of doing some household tasks, which household tasks would you like to learn to do more rapidly? Give your reasons.
- K. If you had the opportunity to learn an easier method of doing some household tasks, which household tasks would you like to learn to do more easily? Give your reasons.
- L. Is there any household task to which you would like to dedicate more time? Give your reasons.
- M. Is there any household task which you would like to do more often? Give your reasons.

VIII. Questions Related to Homemaker's Awareness of Changes Through Time

- A. Are there any household activities which take you more time this year than last? Which ones? Why?
- B. Are there any household activities which take you less time this year than last? Which ones? Why?

- C. Do you think your days are almost all alike in terms of the activities? (If no) How are they different?
- D. In what hours of the day are you most occupied? Why?
- E. In what hours of the day are you least occupied? Why?
- F. Do you think the weather has anything to do with the tasks you carry out in a day? Explain.
- G. Do you think the season of the year has anything to do with the tasks you carry out in a day? Explain.
- H. At what age are your children when you stop giving them a great deal of attention?
- I. How old are children when they begin to help in household tasks?
- J. At what age would you say a person is old?
- K. What has been the most memorable day in your life? Why?
- L. What do you do on Sundays?
- M. Do you think that household activities are more or less difficult now than in your mother's time, or that they have not changed much? If they have changed, indicate in what way:
- Do you think that household tasks will be more or less difficult or that they will not change much in the time when the children of today get married. Give your reasons.
- N. How did you change your activities during the two weeks of rain at the end of October 1960?
- O. Do you prefer to do household tasks in summer or in winter? Give your reasons.

VIII. Hypothetical Situations

- A. Suppose that a rural family has an opportunity to have a new bedroom now or to have a new house a year from now. Which of the two things do you think the family ought to choose? Give your reasons.

- B. A woman's husband had a serious accident in the country. He cannot work for at least a year. How do you think the woman can obtain food and other things which her family needs in order to live?
- C. A rural family won 5000 colones (about \$750) in the lottery. How do you think they would use the money?
- D. A woman's husband gave her money to get a servant. The woman cannot decide which household tasks the servant ought to do. What household tasks would you give to the servant? Give your reasons.
- E. Suppose there was enough money to hire servants to do all the household tasks. What would the homemaker do all day?
- F. How do you think a woman feels at the end of a very busy day when she still has work to do?
- G. A rural family won 5000 colones (about \$750) in the lottery. If they want to make the life in the house more comfortable, how do you think they could use the money for this?
- H. A rural mother has a sick child. What things would she leave in order to take care of him?
- I. A homemaker made tortillas every day. Recently she began to buy tortillas. What do you think the other members of the family think of this? Why do you think they think that?
- J. A woman serves the same meals every day. Why do you think she does not vary her meals?

APPENDIX C

DETAILED CODING KEY OF HOMEMAKERS' ACTIVITIES

I. Food preparation and service

A. Grind corn

B. Make tortillas

1. Look for leaf and heat it (banana leaf is used as "waxed paper" or pastry cloth; it is heated to soften it so it will not break when used to line a bowl and cover finished tortillas)
2. Knead dough
3. Assemble equipment for tortilla making
4. Form tortillas
5. Turn tortillas
6. Attend fire while making tortillas
7. Wash hands after attending fire before forming more tortillas
8. Store tortillas
9. Give hot tortillas to family members during preparation time
10. Re-grind corn with a stone
11. Send children on errands while making tortillas

C. Other food preparation

1. Fire care
 - a. light fire
 - b. fix fire (unless specifically for tortillas or ironing)
 - c. check fire
 - d. hunt and stack wood (usually done by men)
2. Make coffee, agua dulce, or cold drink
3. Serve coffee, agua dulce, or cold drink
4. Lunch
 - a. prepare
 - b. pack (children come home for lunch, but it is sent to men in the fields)
 - c. send lunch to field (usually a child must be called to do this)
 - d. take lunch to field (only one case)
 - e. serve lunch

5. Dinner
 - a. prepare
 - b. serve
6. Beans, corn, coffee (usually not daily tasks)
 - a. select
 - b. wash
 - c. cook or toast
7. Send children to purchase food
8. Put away purchases and leftovers
9. Do dishes during meal service when there are not enough to serve all members simultaneously (usually less than one minute duration)
10. Gather fruit
11. Boil milk
12. Eat (the woman often eats while cooking and seldom eats with the family; this is difficult to classify separately)
13. Wash children's hands immediately preceding food service
14. Feed the baby other than milk

II. House care

A. Clean kitchen

1. Wash dishes (except as in 9 above)
2. Sweep
3. Clear table
4. Clean stove and counters
5. Clean cooking utensils and equipment
6. Clean sink
7. Send children to clean

B. Clean and arrange house

1. Sweep
2. Make beds
3. Hang bedding to air
4. Wash furniture
5. Make broom
6. Use rag mop on wooden floor
7. Dump water on floor (done to keep dust down)
8. Fill basket or shovel with garbage to carry out of house
9. Water plants
10. Put away children's notebooks and school clothes
11. Send children to clean
12. Supervise children's cleaning
13. Repair loose board in house wall (one case)

C. Haul water

1. Bring water to house from outside source

III. Clothing care

A. Launder

1. Wash diapers
2. Soap clothing
3. Rinse clothing
4. Gather clothes to wash
5. Walk to and from water source
6. Make and use starch
7. Mix bluing or bleach and use the product
8. Hang clothes
9. Take down clothes
10. Fold clothes
11. Send children on errands while doing laundry
12. Clean shoes (includes washing off mud; two cases)

B. Iron

1. Get iron
2. Fix fire for coals to heat iron
3. Fill charcoal or kerosene iron
4. Get blankets (to cover table which is used as an ironing board)
5. Cover table
6. Gather clothes to iron
7. Moisten or brush clothes to be ironed
8. Iron
9. Put away ironed clothes
10. Put away blankets and table
11. Empty iron

C. Sew and mend

1. Hunt for needle and thread (needles usually are stuck in wooden wall)
2. Cut out item to be sewn
3. Take measurements
4. Hunt for patch material
5. Sew by machine or by hand
6. Send children to bring sewing equipment or material
7. Put away equipment

IV. Child care

A. Routine or "expected"

1. Bathe children (this indicates a complete bath)
2. Wash children
3. Change clothes

4. Fix bottle (done separately for each feeding)
 - a. wash bottle
 - b. prepare milk (often powdered)
 - c. fill bottle
5. Give baby bottle
6. Get children up
7. Put children to bed (includes arranging bedding and wrapping children in sacks which are used as bedclothes)
8. Prepare special baby food or food for children when adults do not eat
9. Hold baby
10. Nurse baby
11. Get child ready for school (may include ironing, mending, and preparation of a snack as well as dressing and checking appearance)
12. Comb hair
13. Send to pray

V. Recreation

A. Chosen or "expected"

1. Listen to radio
2. Read
3. Sit
4. Talk or listen to conversation any time after midday coffee
5. Be "unoccupied"

VI. Personal care

A. Physical

1. Bathe
2. Wash extremities
3. Change clothes
4. Comb hair
5. Fix and take medicine
6. Brush teeth
7. Go to privy

VII. Animal care

A. Cows

1. Milk
2. Take cows to and from pasture
3. Give water and food

4. Hunt ropes and other equipment for milking
5. Put calf to nurse
6. Sell milk (put in bottles for pick-up or delivery by children)

VIII. Interruptions; forced or "unexpected" circumstances

A. Caused by children

1. Fix and give medicine to children
2. Look at cuts and wounds
3. Comfort crying child
4. Encourage child to walk
5. Cut finger and toenails (when not included in bathing activity)
6. Look at school notebooks and report cards
7. Talk to child other than to send him on errand when another activity is interrupted to talk
8. Supervise or watch some activity of a child
9. Discipline children
10. Mop floor where child urinated

B. Other causes (one or two cases each; usually less than five minutes duration)

1. Talk or listen to conversation with unexpected visitor when work is stopped to do this
2. Listen to observer's songs or games with children
3. Warm self at fire or in sun
4. Give injection to husband
5. Hunt for something for husband
6. Fix wash water for husband
7. Pace - walk without apparent purpose or destination
8. Peek at neighbors through slats in house wall
9. Look at rain
10. Watch cattle or cars in road
11. Chase chickens from house
12. Hunt for kerosene wick to supply light
13. Fill wick bottle with kerosene
14. Animal care other than cows
 - a. feed chickens
 - b. feed pigs
 - c. feed dogs and cats
15. Buy eggs from itinerant vendor
16. Put ashes on bowel movements and shovel them out (may be from chickens or children)
17. Set tin to catch rain water

APPENDIX D
SUPPLEMENTARY TABLES

Table 14. Number of homemakers who predicted activities within each time span

Activity ^a	Time Span				
	I	II	III	IV	V
Grinding corn		6			
Making tortillas		15			
Personal care	2	1	1		
Animal care ^b		5	1		
Child care		5	8		15
Cleaning house		4	10		1
Preparing food		2	1		7
Cleaning kitchen		5	14	1	14
Laundering		3	10	2	2
Ironing			2	3	3
Sewing			2	2	
Hauling water			1		
Recreation				2	4

^aOnly thirteen classified activities appear because no homemaker predicted any interruptions by children or by other persons.

^bEach woman who had a cow predicted animal care at least once.

Table 15. Number of homemakers who predicted activities by sequence within each time span^a

Activity	Time Span														
	I			II			III			IV			V		
	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3
Grinding corn	5	1													
Making tortillas	5	5	5												
Personal care	2	1	2				1								
Animal care	1	2	2												
Child care	1	3	2	1											
Cleaning house	1		1												
Preparing food	2		2												
Cleaning kitchen	1	2	2												
Laundrying	2	1													
Ironing															
Sewing															
Hauling water															
Recreation															

^aThe largest number of homemakers predicting an activity in chronological order always was selected as the indicator of dominant sequence. A minimum of three homemakers had to predict an activity for it to be included in the sequence.

^bNumbers in this horizontal row indicate sequence number.

Table 16. Number of homemakers who recalled activities within each time span

Activity ^a	Time Span				
	I	II	III	IV	V
Grinding corn	1	8			
Animal care ^b	1	5			
Making tortillas	1	17			1
Personal care	3	2	4		
Child care		7	6		14
Cleaning house		8	7		3
Hauling water		1	2		2
Preparing food		2	2	1	13
Cleaning kitchen		9	12	3	13
Laundrying		1	11	3	2
Sewing			2	4	4
Ironing			2	1	6
Recreation			1	6	7

^aOnly thirteen classified activities appear because no homemaker recalled any interruptions by children or by other persons.

^bEach woman who had a cow recalled animal care at least once.

Table 17. Number of homemakers who recalled participating in activities once or more within each time span

Activity	Time Span									
	I 1a	II 1 2		III 1 2		IV 1	V 1 2 3			
Grinding corn	1	8								
Animal care	1	5								
Making tortillas	1	17					1			
Personal care	3	2		4						
Child care		7		6			13 1			
Cleaning house		8		7			3			
Hauling water		1		2			2			
Preparing food		2		2		1	10 2 1			
Cleaning kitchen		8	1	11	1	3	12 1			
Laundering		1		7	4	3	2			
Sewing				2		4	4			
Ironing				2		1	5 1			
Recreation				1		6	5 2			

^aNumbers in this horizontal row indicate number of recollections.

Table 18. Number of homemakers who recalled activities by sequence within each time span^a

Activity	Time Span																							
	I		II					III					IV					V						
	1 ^b	2	1	2	3	4	5	1	2	3	4	5	6	7	1	2	3	1	2	3	4	5	6	7
Grinding corn	1		5	3																				
Making tortillas	1		5	2	8	2												1						
Personal care	3		2					1	1		1	1												
Animal care		1		3	1	1								1										
Child care			1	3	1	1	1	1	3	1		1						3	6	3	3			1
Cleaning house			1		4	2	1	1	3	3								1	2					
Preparing food			1	1						1						1			2	4	5	3	2	1
Cleaning kitchen			4	3	1	1		11	1	1		1			2			10	1	2	1			
Laundrying			1					3	6	3	2	1	1		3	1		1	1					
Hauling water							1			1	1							1	1					
Ironing										2								1	3	1		1	1	
Sewing										1					4			1	1	2				
Recreation										1					4	2	1	1	4		1	1	2	

^aThe largest number of homemakers recalling an activity in chronological order always was selected as the indicator of dominant sequence. A minimum of three homemakers had to recall an activity for it to be included in the sequence.

^bNumbers in this horizontal row indicate sequence number.

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