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Video Ethnography and Ethnoarchaeological Tracking

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This chapter delineates how video ethnography and ethnoarchaeological tracking can illuminate working family life. These methodologies were integrated into the UCLA Sloan Center on Everyday Lives of Families (CELf) project to document how working parents manage to raise a family and maintain a home. Our discussion begins with a general introduction to the use of video ethnography and ethnoarchaeological tracking methods in anthropology and other disciplines. The chapter next considers how these methodologies have been incorporated, elaborated, and integrated in the CELf project. To demonstrate the analytic potential of video ethnography and tracking, the authors turn to a specific study that relies on these methodologies. The study examines the social cohesiveness of working families by documenting how and how much family members come together when parents and children return home after work and school. The video ethnography provides documentation on how working parents are welcomed home by their spouse and children (interactional cohesion). The ethnoarchaeological tracking provides timed observations of the proximity of family members (spatial cohesion) from the time parents return home until the time the children go to bed at the end of the evening.

VIDEO ETHNOGRAPHY

Ever since sociologist Erving Goffman (1964) appealed to social scientists to turn their attention to the internal complexities of the "social situation" and linguistic anthropologists John Gumperz and Dell Hymes (1964) established the discipline called "ethnography of communication," scholars of social interaction have relied on electronic recordings, film, and photography to closely document social life as it transpires moment-by-moment. Whereas earlier scholarship relied on note-taking to capture the behaviors of social interactants (Leopold, 1939-1949; Sapir, 1949; Kroeber, 1916), audio and eventually video recording allowed more accurate renditions and more detailed analysis of the dynamics of human social encounters in situ.

Electronic recordings provided the methodological grounding for a wide range of research endeavors. Within the field of psychology, for example, child language research burgeoned

in the late 1960s and the 1970s, when portable audio recording machines allowed scholars to reliably capture the exact spontaneous utterances of children and analyze developmental changes in utterance length; grammatical, lexical, and discursive complexity; intonation; and voice quality, among other linguistic and communicative forms (Bloom, 1973; Brown et al., 1968; Keenan & Schieffelin, 1976; Kernan, 1969). Researchers could also record caregivers and others interacting with children and assess children's developing competence in relation to the input to which children were exposed (Snow & Ferguson, 1977). At first film and video were costly, but some child language researchers used this technology to examine nonverbal dimensions of social interactions involving children, especially the role of eye gaze and gesture in children's emergent communicative competence (Bates et al., 1979; Greenfield, 1979).

In addition to child language studies, audio and video technology was essential to the flourishing of sociological studies of human interaction, including ethnomethodology (Lynch, 1985), cognitive sociology (Cicourel, 1987), and conversation analysis (Drew & Heritage, 1992; Sacks et al., 1974; Sacks, 1992; Schegloff, 1987), among others. Varying in the scope of their focus, these pursuits emphasized the importance of close analysis of the recorded data and detailed transcription as a *sine qua non* of analytic rigor. For these fields, recording equipment serves as an essential tool, a microscope that allows the researchers' eyes and ears to apprehend the emergent structuring of utterances, gestures, facial expressions, gaze direction, silences, conversational turns, transitions between speakers, turn sequences, and more extended units of social activity. These structurings in turn are seen as interactional building blocks of social life.

Within the field of anthropology, linguistic anthropologists have championed a form of ethnography sometimes referred to as micro-ethnography. Rather than providing a general account of a society (what members do, how they think and feel, their material worlds, etc.), micro-ethnography focuses on a small facet of a society, such as a particular social group (e.g., an occupation, adolescent peers), setting (e.g., a workplace, schoolyard), activity (e.g., political, religious, or educational practice), performance (e.g., storytelling), or process (e.g., language socialization).

Micro-ethnography abides by the general methodological orientations of ethnography (see Darrah, chap. 17, this volume), in that it relies on participant observation in an attempt to document "the social organization, social activities, symbolic and material resources, and interpretive practices characteristic of a particular group of people" (Duranti, 1997a, p. 85). Participant observation entails prolonged involvement with a social group, using all of the researcher's senses to get a feel for what is happening from the group members' perspective, to the best of the observer's ability, given limitations of outsider status and the impossibility of true intersubjectivity (Clifford & Marcus, 1986). A number of linguistic anthropologists augment participant observation by electronically recording social life as it unfolds in day-to-day human encounters. With the availability of lightweight portable video equipment, contemporary linguistic anthropologists have exercised the opportunity to follow members of a social group with a camera in hand.

In many ways, linguistic anthropologists are like visual anthropologists, but rather than filming events to produce an edited film narrative, the linguistic anthropologist tends to video-record events to collect a corpus of data that can be broken down and analyzed as situations, activities, interactions, or behaviors of the same type. An ethnographic sensibility informs the linguistic anthropologist's use of video data, such that recordings are mined for what they reveal concerning a group's social practices; institutions; social relationships; systems of knowledge, understanding, and feeling; and repertoires of symbols and meanings. Micro-video ethnography involves documenting the moment-by-moment actualization of social order and cultural orientations in a range of locally relevant contexts. Researchers analyze who says and

does what, when, how and to what end, in an attempt to examine how historically grounded sociocultural categories (such as "family" and "home") are realized and possibly transformed in ordinary social encounters.

The use of video ethnography in no way assures observer objectivity. Video ethnography depends on the quality of data captured through the camera lens. Video ethnographers need to be trained in how to minimize observer bias and how to be discreet when filming. In addition, they need to be sensitive to what is encompassed in the frame of the picture, specifically to open up the lens as much as possible to include all participants in a social situation and the physical environment in which social activity transpires. Optimally, the video ethnographer should use a wide-angle lens as primary camera equipment. In certain cases, there is a need to use the zoom capacity of the video camera, however. For example, it is sometimes important to document more precisely what participants are viewing, reading, writing, drawing, or otherwise producing. At these times, the video ethnographer should briefly zoom in to capture the detailed information and then return to the wide-angle format.

In addition, video ethnographers are trained to be sensitive to camera angle. Video ethnographers sometimes feel that they have to decide which participants' faces and which participants' backs will be photographed. Expert video ethnographers, however, try to situate the camera in such a way that most faces are captured. Rather than shooting from behind one or another set of participants, the video camera is placed at some point to one side between the participants. Thus, in recording family dinnertimes, the camera might be positioned at an angle between those seated around a table, avoiding the back of any one family member.

In doing video ethnography, the camera does not usually remain static. Rather, participants move fluidly in their environments. Video ethnographers are trained to follow the participants, using smooth tracking shots by bending their knees as they pursue the paths taken by the participants. In this manner, the video recording is not a series of jerky frames that induce sea-sickness!

Equally important as visual skills is the sound component of video ethnography. The video recording is only as good as the quality of its sound. Because participants in spontaneous social life are constantly moving, the microphone on the camera cannot always capture what people are saying. For this reason and others, it is important to use a wireless microphone. The wireless microphone can be pinned on a central participant, to capture sounds no matter which way the participant turns. It will also capture sounds from a relatively distant point from where the camera is positioned. As such, the wireless microphone allows the video ethnographer to be less intrusive, which is important for capturing so-called naturalistic data. Ideally, it is optimal to be able to use both the wireless microphone and the video camera's external microphone at once. The wireless will provide high-quality sound of focal participants; the external microphone will provide ambient sound. To use both microphones, a mixer can be attached to the bottom of the video camera. The mixer inputs sound from the wireless and the external camera microphones into the recording.

Because electronic recordings are relatively durable, they have a distinct advantage over seeing and listening through our primary senses, which rely on memory and intermittent or delayed annotation of events. Video recordings can be reviewed repeatedly and slowed down, allowing researchers to analyze features that are easily missed with only one opportunity to observe. Researchers are able to document facial expressions, tone of voice, gestures, bodily stances, and the emergent construction of utterances and actions that shape social activities and propel social encounters (C. Goodwin, 1981, 1994; M. Goodwin, 1990).

Video ethnography relies on not only recorded data but also transcriptions of the recordings. Transcriptions reflect the focal interests of the researchers and thus are selective representations of what is recorded (Ochs, 1979). Linguistic anthropologists, for example, generally privilege transcription of utterances over nonvocal behavior. Over the past decade, however,

the representation of nonvocal behavior has been improved through the incorporation of still images from the video recordings at relevant points in the transcript (Goodwin, 1996). Yet another alternative is to view the transcript and video recording simultaneously, either side by side or in the form of subtitles. This possibility allows the recordings and transcriptions to inform each other. The transcription clarifies what people are saying; the video recording provides invaluable situational dynamics. This possibility, however, remains at present largely restricted to the laboratory setting, oral presentations, and Web dissemination rather than print publication.

The assembling of a corpus of recordings and adequate transcriptions is tremendously time-consuming. Moreover, the more one views the recorded data and transcription, the more one is drawn into the systematic complexities of the briefest of social situations. As such, while video ethnography provides documentation of on-the-ground, coordinated enactments of social order and cultural orientations, it cannot stand on its own in capturing the life worlds of either an entire society or a particular social group. Video ethnography needs to be combined with other ethnographic methodologies that tap into broader social time frames and different dimensions of the human experience. To this end, we now turn to ethnoarchaeological tracking as a complement to video ethnography.

ETHNOARCHAEOLOGICAL TRACKING

Situated at the crossroads of anthropological, archaeological, and ethnographic method, ethnoarchaeology is a line of anthropological inquiry addressing the relationship of material culture to everyday behavior and to culture as a whole (David & Kramer, 2001).¹ Ethnoarchaeologists are often also archaeologists who seek to gain insights into fragmentary archaeological pasts by constructing cultural analogies with ethnographic data from the present. It follows that ethnoarchaeology may be regarded as a form of ethnographic research performed for the purpose of informing archaeological concepts and interpretation (David & Kramer, 2001; Gould, 1978; Kramer, 1996; Longacre, 1991). To this end, a great deal of ethnoarchaeological research has focused on aspects of the production, use, exchange, and consumption of craft goods and tools in small-scale societies. With regard to household- and family-level research, studies by Horne (1994), Janes (1983), Kent (1984), and Kramer (1982) among others exemplify the high utility of intensive ethnoarchaeological research programs that address the relationships between built habitats, household organization, economic status, and the production and use of domestic space. Similar lines of inquiry, including questions regarding family identity and the role of domestic architecture in the construction of everyday activities, are pursued in CELF's ethnoarchaeological research on modern-day Los Angeles families (Arnold & Graesch, 2002; Arnold & Lang, 2003; Graesch, 2004).

A hallmark of ethnoarchaeological research is diversity of primary data-collection techniques. Participant-observation (documented with written field notes), interviewing, mapping, photography, video and audio recording, and questionnaires are among the most common data-collection procedures, although not all are incorporated in any given project. Each method of collecting data has its advantages, limitations, and biases. However, the application of a combination of procedures yields a dataset with potentially greater explanatory power and an overall fuller picture of everyday life. Here, we discuss a specific method employed in CELF ethnoarchaeological research—ethnoarchaeological tracking—and consider its broader application to the study of family cohesion.

Tracking is a term we apply to a procedure in which family members are systematically observed in and around their homes at timed intervals. The term originated in CELF group discussions on how ethnographers could most effectively *track* the movement and activities

of individual family members through their homes. In the broader community of behavioral science scholars, this method of observation is better known as a variant of *scan sampling*,² a technique originating in early 20th-century behavioral psychology and used to obtain behavioral data from a group of organisms by observing individuals in turn and recording the behavioral state at the instant of observation (Altmann, 1974; Dunbar, 1976).

In performing ethnoarchaeological tracking, CELF field researchers sequentially observed and recorded individuals at 10-minute intervals during the course of all four filmed visits in the home. Recorded observations reflect the location, the focal activities, and the objects incorporated in the activities for each family member at the instant of assessment (Arnold & Graesch, 2002; Graesch, 2004). The sequential observation and coding of these primary variables for each family member constitutes an *observation round*. Because family homes in our sample rarely exceed 3,000 square feet, observation rounds typically consumed no more than 2 or 3 minutes. Scanning the behavior of all group members in a short period of time can provide a near simultaneous sample of individual behavior (Altman, 1974, p. 258). In other words, tracking data reflect the location and activities of all family members at nearly the same moment in time. This rapid scanning and recording of individual behavior helps reduce sample biases, such as overrepresentation of group activities, that can emerge when individuals are widely dispersed (e.g., in different areas of a village) and observation rounds take longer periods of time to complete (Borgerhoff Mulder & Caro, 1985; Cromley, 1999; Hawkes et al., 1987).

Various methods of standardized observation, including spot observation and focal person follows, have been applied to studies of human activity and everyday behavior by numerous anthropologists (e.g., Draper, 1975; Erasmus, 1955; Hawkes et al., 1987; Johnson, 1975; Konner, 1976; Munroe & Munroe, 1971; Nerlove et al., 1974; O'Connell et al., 1991). Many of these studies share a common goal of documenting the total time humans allocate to a range of everyday activities (see review in Gross, 1984), while others emphasize standardized observation of behavior for the purpose of understanding the distribution of activities across space (e.g., O'Connell et al., 1991). Scan sampling, or tracking, can be distinguished from other quantitative data collection procedures, such as spot observation or point sampling, in that behavior is repeatedly recorded at predetermined points in time (Hinde, 1985). Because observation periods, the frequency of observation, and behavioral coding are all rigorously structured by the sampling procedure, tracking is well-suited to research in which intra- and intergroup comparisons of activities, uses of objects, and uses of space are an analytic goal.

Tracking, however, emphasizes controlled observation at the expense of participation in family home life. In this respect, tracking is not appropriate for examining *emic* perspectives on family activities, interactions, and uses of home spaces. Insights into such matters are perhaps better acquired with informal interviews, questionnaires, and creative exercises, such as those in which family members draw maps of their homes (e.g., Kent, 1984) or film and narrate "home tours" with a video camera (e.g., Arnold and Graesch, 2002; Graesch, 2004). Tracking is a method better suited to questions regarding the *frequency* and *spatial distribution* of activities in the home and within the community (e.g., O'Connell et al., 1991).

Furthermore, tracking data can be used to generate quantitative assessments of activity budgets, but are not always analytically comparable to data generated with other standardized observation methods, such as focal person follows (e.g., Hawkes et al., 1991). While two or more sequential tracking records may be identical and thus imply temporal continuity in individual (or group) behavior, there is no guarantee that individual family members remained in the same location or engaged in the same activity in the 10 minutes that transpired between observation rounds. Whereas focal person follows can report discreet allocations of time to particular activities, tracking data only reflect the frequency at which certain behaviors were recorded during observation rounds over the course of a home visit.

VIDEO RECORDING AND TRACKING OF WORKING FAMILY LIFE

In this section, we consider how video ethnography and ethnoarchaeological tracking methodologies are integrated into the larger project conducted by the UCLA Sloan Center on Everyday Lives of Families (CELf). Below we present the general outline of the CELf study and the role of video recording and tracking in the study.

Overview of Participants and Procedures

The CELf study examines the everyday experiences of 30 middle-class dual-earner families. Each family comprises two parents who work 30 hours or more per week, has two or three children, with one child 8–10 years old, owns a home, and pays a mortgage. The families reside in different neighborhoods in the Los Angeles area, are ethnically diverse, and include same-sex as well as heterosexual parents.

In research endeavors involving human populations, analysts weigh the advantages and disadvantages of diverse methods. A large sample size, for example, has the advantage of potentially capturing a representative swath of the population under study. Large samples, however, preclude or inhibit collecting in-depth information on each participant in the sample. Alternatively, small sample sizes allow researchers the opportunity to capture a range of details relevant to a particular research question or dilemma. The limited number of participants, however, makes it more difficult for researchers to generalize findings and perform certain statistical analyses. In other words, there is a tension between the costs and benefits of large-scale and fine-grained studies. In the CELf project, we believe that there is much to be learned from intensively video-recording, photographing, tracking, interviewing, and collecting biological data from 30 working families. The 30-family corpus is sufficiently large to allow for certain quantitative analyses and at the same time is manageable for qualitative inquiry into the complex dynamics of everyday family life.

An integrated set of data collection methods from the social and life sciences document each family over a 1-month period. Prior to data collection, informed consent was obtained from all family members and visitors to the home. The next five steps undertaken to gather information on each family, shown in Table 18.1, involve a wide range of procedures, including standardized questionnaires; interviews; digital photography; videotaped home tours guided and narrated by participants; and a repeated salivary sampling of cortisol, which can be an indicator of a stress response. All maps, photographs, video and audio recordings, tracking observations, transcripts, questionnaire responses, biological data, and subjective reports of moods and stressors are digitized, stored, and integrated on a server. To ensure anonymity, pseudonyms were used to identify study participants in transcripts. The server, which is only accessible to CELf researchers, facilitates the use of multiple databases and the blending of different disciplinary methodologies to explore the dynamics of working family life.

As shown in Part III of Table 18.1, the heart of the CELf study is documentation of a *week in the life of working families* across the workweek and the weekend. On 4 days, family activities and interactions are documented by three ethnographers, two of whom make video recordings of the family and one of whom records family members' locations and activities. The procedures followed by these ethnographers are detailed below.

Video Ethnography of Working Families

In documenting a week in the life of working families, video ethnography plays a central role. We used two semiprofessional digital video cameras with wide-angle lenses to capture the routine activities that occupy parents and children across the week, including weekends. The decision to employ two cameras was based on the need to dedicate a camera to each working parent,

TABLE 18.1
Organization of Data Collection Procedures

| | |
|-------------------------------|--|
| Telephone Screening Interview | |
| Part I: | Home Visit to Introduce Project |
| | Describe study to family |
| | Review informed consent procedures |
| | Identify other possible visitors to the home |
| | Leave consent forms and first set of questionnaires for family |
| Part Ia: | Collect signed consent forms |
| | Collect completed questionnaires |
| Part II: | Home Visit for first set of interviews |
| | Conduct interviews on daily routines, social networks, and educational practices |
| | Measure and map home |
| | Photograph home interior, exterior, and artifacts |
| | Provide instruction on self-guided home tour filming and camera use |
| Part IIa: | Introduce procedures for collecting salivary cortisol |
| | Introduce procedures for collecting daily mood reports |
| Part III: | Documenting a Week in the Lives of Working Families |
| | Collection of Salivary Cortisol and Mood Ratings |
| | Assessments occur four times per day on 3 weekdays (upon awaking, before lunch, before leaving work or school, and before going to bed). On two of these days, videotaping and tracking are also taking place. |
| | Videotaping |
| | Two ethnographers with digital videocameras film family activities in and away from home during 2 weekdays (in the morning before school and work, in the afternoon and in the evening), Saturday morning, and Sunday morning and evening. |
| | Tracking |
| | During filming days, an ethnoarchaeologist records on a hand-held computer in 10-minute intervals family members' activities in the home, members they interact with, location of activities, and objects they are using. |
| Part IV: | Home Visits for second set of interviews |
| | Conduct parents' interview on health and well-being |
| | Conduct guided, videotaped tour of refrigerator and medicine cabinet |
| | Conduct children's interview on school, extra-curricular activities, friends, work |
| | Administer a children's psychological measure |
| | Leave second set of parents' questionnaires |
| Part V: | Collect questionnaires and home tour camera and tapes |
| | Pay family and provide children with gift certificate |

to obtain comparative data on their day-to-day experiences. When a parent was not present, the second camera focused on other family members, such as children playing with their friends, siblings, or members of their extended family. The video ethnographers recorded each working family not only in the home but also in the car and in a variety of community settings.

Field researchers filmed family members' interactions during 2 weekdays and 2 weekend days. The weekday recordings included early mornings from the time family members woke up until they left for work and school and afternoons and evenings when parents and children returned home until the children went to bed. Weekend recordings documented family life on Saturday and Sunday mornings and Sunday evenings. The video corpus for each family includes approximately 50 hours of recordings.

Graduate students and postdoctoral fellows from diverse disciplines were trained to carry out video ethnography in the CELF study. The overarching goal of training was for field

researchers to achieve a high comfort level with the video camera and the sound equipment. When researchers are familiar with the recording equipment, they emit a greater sense of ease to those being recorded, which is crucial in entering the intimate space of family and home and doubly crucial when two cameras are on the scene. When video ethnographers know where to position themselves to be out of the way of those being recorded, can move fluidly in and out of occupied spaces, change tapes easily, and locate by touch the important controls on the camera, then family members come to see the camera as part of the researcher's persona.

Before traveling to each family to record, each researcher assembled and readied equipment and supplies. In addition to the digital video camera, the following items were essential: camera batteries; sound mixer; high-quality external microphone; wireless microphone set; batteries; fanny pack (to hold wireless microphone transmitter on person being recorded); earphones; tripod, monopod, or body brace to secure camera; and prelabeled digital video tapes. Additional batteries and tapes were placed in the pockets of a photographer's vest worn for the duration of the video-recording session. This arrangement allowed the video ethnographer to easily change tapes and batteries in the course of recording.

The researchers arrived in front of the family home (or other location) before the appointed time. This period was used to connect the external and wireless microphones and the earphones to the camera and the camera to either a body brace or monopod and check the functioning of the microphones. When the family indicated that they were available, the researchers turned the cameras on as they approached the family.

During the recording itself, the video ethnographers strove to be as discreet as possible, remaining at a close enough distance to allow accurate recording but far enough to preserve a degree of insularity for the family members. We found that wearing earphones is also a good way of distancing the researcher from the ongoing social interaction. In the CELF project, researchers had the additional challenge of the video ethnographers staying out of the way of each other. During recording, the researchers usually relied on the body brace or monopod as family members moved around the house and yard and in community spaces. Recording in the car was usually done with a handheld camera, sometimes aimed toward the back seat and sometimes toward the driver.

The completed digital video tapes for each working family are copied, digitized, and uploaded to the CELF server. Once accessible in the server, the tapes undergo the following postproduction procedures:

1. Transcribers produce an Activity Log of the family and home activities that occur during each recording. A set of Key Terms (e.g., homework, TV, exercise) is used to identify activities of particular import to the CELF study. The Activity Log and Key Terms offer an efficient overview of tape contents, so that researchers can locate analytically relevant events in the lives of working families, such as the returning home of family members at the end of the day.

2. Transcribers produce a transcript of selected tapes. Because researchers at CELF are centrally interested in the systematic ways in which families interact when they are together, it is essential not only to log video recordings but also to carefully represent what family members are saying and doing. Transcribers write down family members' words, voice quality, emphatic stress, pauses, and overlapping conversational turns as well as gestures, facial expressions, and actions. The transcribers utilize the software program vPrism to synchronize the transcribed behavior with corresponding moments in the video recordings. Using vPrism, the co-authors of this chapter were able to simultaneously view video footage and detailed transcripts of family togetherness when parents return home from work during the week. Looking at both video and transcript, we were able to see much more than each of these media on its own can provide, including subtleties of family communication and affect.

Ethnoarchaeological Tracking of Working Families

In addition to capturing family interactions through video recordings and transcripts, CELF researchers used ethnoarchaeological tracking to document how family members spatially situate themselves when they are at home. Tracking procedures were integrally tied to a broader set of ethnoarchaeological data-collection techniques used to study contemporary Los Angeles families and their material worlds (Arnold & Graesch, 2002). Prior to tracking families' activities and interaction in their home spaces, archaeologists on our team first documented the *physical attributes of the family home* (see Table 18.1, Part II). Interior and exterior home dimensions, architectural features, and major furnishings were systematically mapped using a combination of digital and conventional measuring tools. Floor plans for each family home were initially drawn in the field and later digitized using architectural design software embedded in Microsoft Visio. Upon digitizing the home map, interior and exterior home spaces were assigned numerical labels that later organized observations of family activities (Fig. 18.1). As discussed below, the floor plan of each home is central to tracking and analyzing how family members move through and utilize the spaces in their home.

Next, the material *contents* of each family home were documented with comprehensive digital photography in each home space. This included digital images of all objects in these settings as well as 360-degree panoramic photographs capturing the location and association of architectural features and artifact assemblages. All digital images were then uploaded to a central database where each was evaluated and assigned keywords to facilitate archival searches. Panoramic photographs were cleaned and stitched together using a combination of Adobe Photoshop and Quicktime VR software.

Prior to embarking on family home visits (see Table 18.1, Part III), a tracking database was customized for each family using FileMaker Pro desktop software and uploaded to a Visor handheld computer using FileMaker Mobile. The handheld database features preprogrammed drop-down lists from which relevant time, location, and activity data can be inputted for each family member (Fig. 18.2). All home spaces were numerically coded (see Fig. 18.1) but also included a common name (e.g., kitchen, living room, bedroom) for ease of data entry and onsite navigation. Similarly, each family member was coded with a letter (A = mother, B = father, C = 8–10-year-old child, D–G = remaining children [oldest to youngest], additional family members, and visitors), but were also listed by name. The letter codes helped trackers verify that all family members were sequentially documented at the conclusion of each observation round, including those that did not return home during our visit.

Observation rounds began shortly after arriving at the family's home and concluded when children were put to bed at night. Trackers moved through the home every 10 minutes, recording not only the space number in which family members occurred, but also their relative location, posture, and activities. Data inserted into these fields could be selected from drop-down lists of commonly observed behavior (e.g., sitting on west chair, eating dinner) or inputted manually using an onscreen keyboard.

Trackers were trained to remain on the periphery of family activities and interactions as well as to minimize their presence in front of the video cameras. To this end, trackers preplanned alternate routes through the family home for walking observation rounds and constantly strove to anticipate changes in activities that led to the movement of family members *and* video ethnographers when collecting data. Smaller houses often posed greater constraints on movement through home spaces, and trackers sometimes had to exit the house through one door and reenter through another in order complete an observation round without disrupting the social setting. An effort was made by all field researchers to avoid obstructing regularly traveled passageways so as to not affect patterns of family interaction and movement through home spaces. Prior to home visits, trackers consulted with video ethnographers and used the digitized

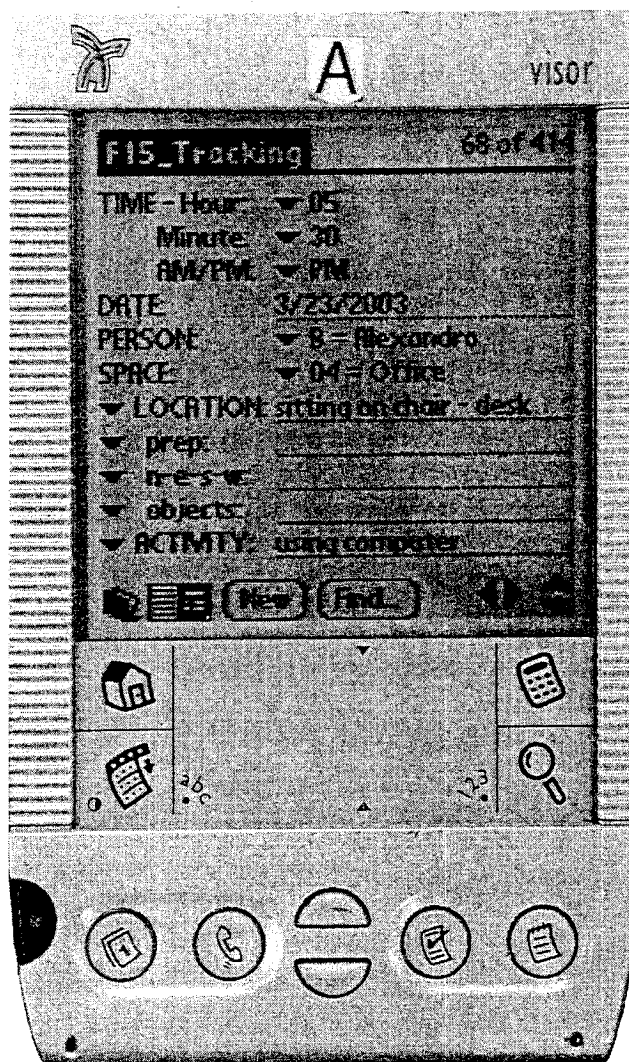


FIG. 18.2. Tracking screen on hand held computer.

map to strategize potential filming locations and ways to physically minimize intrusiveness in the house.

Between observation rounds, trackers often attended to small data-collection tasks that were noted when archiving Part II ethnoarchaeology data (see above). Specifically, the 6 to 7 minutes between each round were used to correct mapping errors and omissions as well as to address any gaps in the photographic record. Trackers also used this time to opportunistically document conversation, activities, and uses of space not captured on camera or during observation rounds. Descriptive field notes were recorded on small paper tablets or with the handheld computer and a portable keyboard.

Ethnoarchaeology data-collection equipment, including the handheld computer, a digital camera, digital and conventional measuring equipment, a small notepad, batteries, and a flashlight, were stored and carried in the many pockets of a photographer's vest when conducting field research. Trackers were also encouraged to pack snacks and water to help counteract the effects of fatigue and hunger when collecting data in family homes for 6 or more hours per visit.

VIDEO AND TRACKING METHODS IN ACTION: STUDYING FAMILY COHESION

In this section, we apply video and tracking methods to illuminate the state of contemporary working families as cohesive social units and the practices and processes that may facilitate or hinder family members' interconnectivity. Using video and tracking data, we probe the dynamics of family cohesion through two questions: (a) To what extent do family members greet one another when parents return home from work? and (b) To what extent are family members together in the same room when parents return home from work? The first question considers family cohesion in interactional terms, that is, family members as co-participants who coordinate in the activity of greeting a parent who is returning home from work. The second question considers family cohesion in spatial terms, that is, the togetherness of family members in a single home location.

The concept of cohesion enjoys widespread use in psychological analyses of the family. Defined commonly as the "emotional bonding that family members have toward one another" (e.g., Olson et al., 1983, p. 70), family cohesion has been approached typically as a global, traitlike characteristic of family functioning or the outcome of family interaction processes. Assessment of cohesion has been undertaken almost exclusively with self-report procedures, and the questions used to capture family members' perceptions of cohesion reflect the broad terms in which it is defined. For example, with the Family Adaptability and Cohesion Scales (version III; Olson et al., 1985), cohesion is reflected by such items as "Family togetherness is very important" and "Family members like to spend free time with each other."

Although information gathered in this way has proven useful for understanding the perception of bonding experiences in the families, in the present analysis we adopt a rather different perspective on the concept of cohesion. Specifically, we view cohesion as a quality of the transactions between family members that can be inferred by outside observers based, for example, on the physical proximity of family members to one another, particularly in different locations in the home, and on the coordinated reunions that occur between family members after they have been separated. Because cohesion is viewed as a characteristic of an ongoing, enacted process between family members, the methods used here are designed specifically to capture the flow of contact between family members, across different physical spaces, across time, and across different groupings of parents and children. Defining and assessing cohesion in this way is advantageous because it permits analysis of how emotional connections are achieved and maintained within families and, more specifically, how family members' experiences outside the home—for example, at work, in school—come to affect events within the home. In short, rather than view cohesion as a relatively global perception of interaction provided by family members, we approach cohesion as an aspect of family interaction that outside observers can infer based on the quality and topography of behaviors displayed by family members. Details of the methods used to assess cohesion in the present analysis are considered next.

Below we report on two analyses of family cohesion we conducted using the CELF database. First, we consider the interactional cohesion of the working families at the moment family members reunite after parents return home from work. Second, we analyze the spatial cohesion of working families after parents return home from work, drawing on ethnoarchaeological tracking observations. The interactional analysis primarily relies on the video recordings and transcripts of working family life. Both analyses focus on 2 weekdays for 20 families in our study. These 20 families were families for whom data collection had been completed at the time of analysis. All families were headed by both a mother and a father, and had both parents working outside the home on both videotaped weekdays. Left out of the analyses were one family for whom data collection had not yet been completed (F21), one family that included a mother who worked from home (F2), and two same-sex parent families (F10, F11).

Video Ethnography of Family Cohesion

We have examined the social togetherness of family members as co-participants in family interactions. We ask, "How do members of working families engage one another in social encounters?" Our focus is on family interactional cohesion when family members return home at the end of the day after parents are at work and children at school. We focus specifically on how parents returning from work are received by family members in the home. Returning parents' own behavior was not part of the current analysis. While our analysis of spatial dimensions of family cohesion (discussed below) will capture the entire period from the time the first family member returned home to the time that the children were in bed, the interactional analysis of family cohesion considers the moment when a parent returns home from work and reunites with the rest of the family. In some cases, a reunion takes place in the driveway; in others, it occurs in the entryway to the home; and in still others, it transpires in interior rooms. Reunion encounters did not always occur immediately upon the parent entering the home, depending on family members' location in the home. A reunion was defined as the returning parent's first encounter with a family member who was home at the time of the parent's arrival. Each parent could be involved in as many as three to four reunions per night as families in our study range in size from four to five members; however, not every family member was necessarily home at the time of a parent's arrival. In the 20 families under analysis, a total of 98 reunions were videotaped when parents returned home after work, that is 4.9 reunions per family, or 2.5 reunions per day. The length of these initial interactions ranged from very brief (1–2 seconds) to drawn-out (5 minutes or more).

In our study, we used the video images and transcribed text to analyze two important components of families reuniting after parents return home from work. First, we analyzed the *ecology of family reunions* during the workweek. That is, we examined the video record for which parent returned home first and which parent picked up the children after work. Second, we analyzed the *character of family reunions* for each working parent returning home. To examine the character of family reunions, the co-authors examined transcripts and video recordings for family members' use of greetings, kinship terms, requests for assistance, reports of the day, displays of affect, and attention directed toward the returning parent.

Ecology of Working Family Reunions. Because parents in our study are all dual-income earners, we were able to investigate the family reunions that occur when working fathers and working mothers return home at the end of their workdays. Our initial analysis of the data shows there are fundamental differences between the returns home of mothers and fathers. Regarding which working parent arrives to the home first after work, across the 39 weekdays under analysis mothers returned home first on 28 of the days (72%).³ On 11 of the days (28%), fathers returned home first. Regarding which parent picks up the children from school or after school programs, across 38 weekdays in the analysis mothers picked up children on 29 of the days (76.3%).⁴ On 6 of the days (15.8%), fathers picked up children. On 3 of the days (7.9%), another family member or a babysitter picked up the children. These results indicate a gender asymmetry between parents, with mothers primarily arriving home before their spouse and taking on the task of picking up the children. Conversely, fathers in our sample tend to work later and arrive home later, reducing their opportunities to bring their children home.

In addition to investigating gender roles, we also examined whether relative income influences which parent arrives home first and/or picks up the children. There is evidence that income may influence both these activities. Using data from the 19 families who reported on their income, we found that the spouse who earns the higher income is less likely to arrive home first and less likely to pick up the children. Considering the 12 families in which fathers reported the higher income, there were only 2 out of 24 days (6%) when the father arrived

home first, and on both these days the father arrived home only 15 minutes before the mother. Among the seven families in which mothers reported the higher (or in one case equivalent) income, the fathers arrived home first with greater frequency (9 out of 14 days, 64%). As such, in these seven higher-earner mother families we see an attenuation of the earlier-reported gender asymmetry in who returns home first. When his spouse makes a higher income, it appears to increase the likelihood that the father will be the first to arrive home.

Such a pattern is again evident when looking at which spouse is responsible for picking up the children from school or after school activities. Among the 12 families in which fathers reported the higher income, the fathers never picked up their children at the end of the school day (0%). However, among the seven families in which mothers reported the higher (or in one case equivalent) income, their husbands picked up the children 50% of the time. Again, in these seven families we see an attenuation of the earlier-reported gender asymmetry in who is responsible for bringing children home after school. When his spouse makes a higher income, it appears to increase the likelihood that a father will be the one to pick up the children. The role of income becomes especially important when one considers that out of the 4 fathers in our sample of 20 families who picked up their children, all had a spouse who was making the higher income.

One important note of qualification: While income does appear to attenuate the gender asymmetry, this effect is not absolute. Even among those families in which mothers were the higher-earners, they still arrived home before their spouse on 36% of the days, and assumed the task of picking up children 50% of the time. Compare these figures to the very low number of higher-earner fathers who arrived home first (6%) and performed child pick-ups (0%), and we see that the gender asymmetry still remains even when income is taken into account.

The implication of these results is that the typical context surrounding reunions differs for working mothers and fathers. For example, as mothers tend to pick up the children, children's reunions with mother are likely to occur immediately after the ending of the mother's workday, and often occur in a car outside the child's school/activity. In contrast, before reuniting with their fathers, children have usually already seen their mothers and have been home for some period of time. These differences are important to consider when interpreting the data we present next regarding the qualitative nature of working mothers' and fathers' reunions.

Character of Working Family Reunions. Turning to the character of family reunions, we examine how working parents are welcomed home by the rest of the family. How do wives welcome husbands and husbands welcome their wives when they return from work? How do children welcome home their fathers and mothers? Reunion moments were recorded in the field as one of many types of naturally occurring family activities that occurred at the end of the weekday (along with such events as, e.g., dinner preparation, phone calls, children's bedtime, etc.). After these recordings were digitized and stored on the server, each parent's first hour home was transcribed in detail, allowing us to conduct the current analysis. The authors used not only video recording of reunion moments, but also the transcription of talk that took place, no matter how brief. Use of the recordings in the absence of the transcript or vice versa would have resulted in less clarity in our qualitative understanding of each reunion, since video recordings capture verbal and nonverbal behavior, and careful transcription ensures that brief but important utterances get noted.

Reunions after parents return from work are opportunities for the family to reconstitute itself as a social and emotional unit and for returning parents to recognize their transition from public to private life worlds. Across the world's societies, people tend to acknowledge one another when they encounter one another after being apart (Goffman, 1963, 1967, 1971; Duranti, 1997b). Such acknowledgments ratify the status and emotional value of the person encountered. In the initial moments of a social encounter, a display of deference, that is,

appreciation of another, indicates that one upholds the social face that another wishes to assume and have ratified (Goffman, *ibid.*). In our study of family reunions, we are interested in the extent to which deference is displayed to returning parents.

To understand reunion behavior in the 20 families in our analysis, each of the 98 reunions that occurred between a returning parent and a family member was carefully observed for four types of behaviors:

1. Positive Attention was coded for displays of appreciation toward the returning parent such as: salutations ("hello," "how are you?" "Daddy!"); affection (excited intonation, hugs and kisses); assistance (e.g., taking father's coat or offering mother a soda); or scaffolding a child's greeting (a parent directs child's greeting of returning parent such as, "Go give Daddy a hug").
2. Negative Affect was coded for anger, criticism, or whining that occurred during the reunion, either directed at the returning parent ("I asked you to come home early, and you're home so late!") or due to another situation (family members arguing when parent enters).
3. Logistical Talk was coded for: requests or directives for help from the returning parent ("Go pick Bobby up from soccer"; "Can you help me with this game?"); questions and statements having to do with the activities of the household ("Did you pick Bobby up from soccer?"); or household business ("That bill came in the mail").
4. Distraction was coded when a family member did not show recognition of the parent's return and either completely ignored the parent or treated the parent in a distracted manner, a "side involvement" (Goffman, 1971), often due to primary involvement in another ongoing activity.

Reunions were categorized based on the one predominant code that best defined the tone or activities of the reunion, that is, identified the most frequent or dominant behavior. Results are shown in Table 18.2. A reunion was coded as "Positive Attention" when the welcoming family member displayed appreciation and was generally attentive to the positive social face of the returning parent. One of the latter three codes was applied when the parent was received with generally nonattentive, nonappreciative behaviors. A reunion that contained a combination of positive attention, negative affect, logistical talk, and distraction was categorized based on

TABLE 18.2
Interactional Cohesion of Family: Predominant Character of Reunions after Work

| | <i>Positive Attention</i> | <i>Negative Affect</i> | <i>Logistical Talk</i> | <i>Distraction</i> |
|------------------------------|---------------------------|------------------------|------------------------|----------------------|
| When Fathers are Greeted By: | | | | |
| Spouse (<i>n</i> = 22) | 36% | 27% | 18% | 18% |
| Child (<i>n</i> = 46) | 32% | 6% | 11% | 50% |
| When Mothers are Greeted By: | | | | |
| Spouse (<i>n</i> = 11) | 55% | 9% | 18% | 18% |
| Child (<i>n</i> = 19) | 63% | 0% | 0% | 37% |
| Total (<i>n</i> = 98) | 42% (<i>n</i> = 41) | 10% (<i>n</i> = 10) | 11% (<i>n</i> = 11) | 37% (<i>n</i> = 36) |

Data presented as percentages of all coded reunions.

which code was most evident or seemed to be most dominant in the reunion. Coding was completed by two coders who each coded every reunion. Agreement between the two coders was above 80%. Any disagreements in the coding of a reunion were resolved through discussion between the coders.

The following excerpt of a father returning home to his wife and toddler illustrates two "positive attention" reunions.

Mother: Hello!
 ((pause))
 ((to Joshua)) Who's here?
 Joshua: *((waves to father))* (Daddy.)
 Father: Hi, sweetie.
 Mother: Hello.
 Joshua: *((runs to father and hugs him))*

It was surprising to us that, considering family members' welcoming behavior across all 98 reunions in the 20 families, positive attention to the returning parent was not the predominant behavior (see Table 18.2). Instead, when parents arrived home at the end of the day, family members were about as likely to be distracted and treat the reunion as a side event as they were to fully engage in receiving the returning parent. This is indicated by the similar frequencies of Positive Attention reunions (42%), and Distracted reunions (37%).

A lack of positive attention was most predominant in the receptions toward fathers. Positive attention toward fathers was displayed in only 34% of family members' reunions and, most striking, was equally absent in the welcomings by spouses and by children (36.3% of spouse reunions and 32.5% of child reunions). This finding indicates that fathers' returns home tended to be marked by a general absence of attentive reunions across family members. In contrast to fathers, when mothers returned home from work positive attention was displayed in 60% of the 30 reunions, both by spouse and by children (63% spouse Positive Attention, and 55% child Positive Attention).

The following excerpt of transcript from a family occurred directly after the father (Vee) arrives home with a pizza for dinner and is met by his wife and two sons (Virat and Harun). The transcript gives a sense of the general high level of activity in the home and lack of positive attention to the returning father. The interaction also contains a display of negative affect by the son, Virat, as well as logistical talk from the spouse.

Virat: *((whining))* PAPA! What did you buy for ME:::?
 Father: What do you want?
 Mother: VEE!
 Harun: Sure, you bought him a Quizzno.
 Mother: *((from other room))* VEE, PICK UP THE PHONE!
 Virat: You didn't buy anything for me::!

Children were more likely to be distracted when welcoming fathers than they were when welcoming mothers (50% and 37%, respectively). In fact, when welcoming fathers, children were more likely to be distracted than they were to greet him with positive attention (50% and 32.5%, respectively); whereas when welcoming mothers, children were more likely to display positive attention than they were to be distracted (63% and 37%, respectively). Mothers and fathers displayed equal levels of distractedness in their welcoming home of their returning spouse (18% for both husbands and wives). In the excerpt below, the father arrives home and

goes to the computer room to greet his sons (Jeremy and Alan). The father makes numerous bids for connection with his sons, who are distracted and either do not respond or respond only minimally while playing a computer game with a friend.

((As Dad enters room, Alan is playing video game, while Jeremy and a friend are watching))

Father: Hey, dudes!

((1.8 second pause))

What are you playing?

Alan?: *((unclear utterance))*

Jeremy: What the heck?

Father: *((rubs and pulls Alan's head up towards Father))*

((looking down at Alan)) Hey, dudes!

Alan: *((softly))* Hi.

((looks briefly at Father then back to video))

Friend: *((Reacts to video game))* Hey! We didn't do that one.

Father: How was school? *((Gives high five to Jeremy))*

Jeremy: *((looking at video))* Good.

Father: Hey there, dude!

((taps Jeremy on his head))

Jeremy: *((continues looking at video))*

Father: *((extends open palm to Jeremy))*

Jeremy: *((continues looking at video))*

Alan: Dad, this is not working good . . .

Friend: No, it is.

Alan—do it—

Pass it.

Father: *((pokes Jeremy's shoulder))*

Alan: *((looks at Father, gives a high fiver, then looks back to video))*

Father: *((rubs Alan's head))*

Alan: *((continues looking at video))*

Despite these and further attempts by the returning father to communicate with the children, they remain glued to the video game they are playing. After repeated bids for attention, Father walks out of the room, muttering to the video ethnographer, "God forbid they should know anything else besides play, huh?"

In addition to being more distracted, children engaged in more logistics-related talk when receiving fathers than when receiving mothers (11% and 0%, respectively). This percentage actually underrepresents the logistical character of children's reunions with fathers, as distracted children often eventually asked father for assistance with an activity ("Dad, this is not working good").

While displays of negative affect were low across all the 98 reunions, returning fathers were also more likely than mothers to encounter negativity. Of the 10 displays that occurred in our sample of 98 reunions, 9 of these displays occurred during a father's reunion, and 6 of these instances of negative affect actually concerned some purported wrongdoing by the father. Negative affect assumed the greatest salience when fathers were welcomed home by their wives (27.3% of these reunions). The following negative welcome transpires just after Mother and Father talk by cell phone as Father drives home from work and they discover that

Father forgot to refrigerate the chicken that he had prepared for dinner. Mother finds the plate of chicken sitting on the kitchen counter:

- Father: ((*enters kitchen area*))
 Mother: So does that mean that's all spoiled?
 Father: I think so.
 Mother: What did you do *that* for?
 Father: Well, I'll have to look at it and see.
 Mother: ((*walks away from father as she speaks*))
 But you need to answer my *question*.
 Father: ((*does not reply to mother*))

In sum, by using video ethnography we have revealed a number of patterns running across working families in our study. At the end of the day, mothers tend to be the parent who arrives home first from work and picks up the children from their school or after school activities. When either parent returns to the family after work, he or she is likely to be received by family members in a distracted, task-oriented, and even negative manner rather than be greeted attentively and with appreciation. This finding of a lack of positive attention is especially prevalent in the receptions of returning fathers. Frequent distractedness, especially in children, seems to be the primary reason behind the low rate of positive receptions.

Although the small sample size precludes definitive conclusions, these observations on how families reconstitute at the end of the day serve as useful indicators of family cohesion. Results have important implications for active, dual-earner families as they indicate one way in which the level of interactional cohesiveness in families can suffer if activities, tasks, and individual pursuits are overprioritized. These results can be better understood by turning now to our ethnoarchaeological analysis of family cohesion in which we present results on the proximity of family members when at home at the end of the weekday.

Tracking Family Cohesion

In addition to analyzing family cohesion from the point of view of interaction, we use ethnoarchaeological tracking data to examine the *spatial* cohesion of family members when they came home after work and school. Our analysis of tracking data collected from 20 families suggests that family members rarely come together within several hours of returning home. This may be explained in part by the irregularity in the timing of family home reunions on weekday afternoons and evenings. Parents frequently coordinate hectic work schedules and commutes in order to transport children to and from after-school activities at various points in the afternoon. For many families, no two afternoon schedules may be identical, and there is seemingly always some degree of unpredictability in the schedules of parents and children alike such that simultaneous convergence on the home is impeded. Our tracking rounds, for instance, typically began when one of the parents (usually the mother; see discussion of video data above) returned home with one or more of the children.

The number of rounds during which both parents were observed in the home is typically much lower than the total rounds recorded for each family, indicating considerable variability in the times at which family members return home on weekday afternoons and evenings (Table 18.3). Moreover, the frequency at which we observed all family members in the home is highly correlated with the frequency at which we observed both parents in the home ($R = 0.9$).⁵ These data suggest that opportunity for family togetherness is largely influenced by parents' afternoon schedules.

TABLE 18.3
Family Togetherness: Tracking Data

| Family | Total Observation Rounds ¹ | All Home ² | | Parents Home ³ | | All Together ⁴ | | Parents Alone ⁵ | | Parents Together ⁶ | |
|--------|---|--------------------------|-------|------------------------------|--------|------------------------------|-------|-------------------------------|-------|----------------------------------|-------|
| | | <i>n</i> | % | <i>n</i> | % | <i>n</i> | % | <i>n</i> | % | <i>n</i> | % |
| 1 | 22 | 13 | 59.1% | 13 | 59.1% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% |
| 3 | 43 | 5 | 11.6% | 5 | 11.6% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% |
| 4 | 50 | 24 | 48.0% | 27 | 54.0% | 0 | 0.0% | 4 | 16.7% | 0 | 0.0% |
| 5 | 34 | 12 | 35.3% | 12 | 35.3% | 1 | 8.0% | 1 | 8.3% | 3 | 25.0% |
| 6 | 73 | 18 | 24.7% | 32 | 43.8% | 0 | 0.0% | 2 | 11.1% | 3 | 9.4% |
| 7 | 42 | 24 | 57.1% | 24 | 57.1% | 6 | 25.0% | 4 | 16.7% | 4 | 16.7% |
| 8 | 48 | 26 | 54.2% | 30 | 62.5% | 6 | 23.0% | 1 | 4.3% | 1 | 3.3% |
| 9 | 53 | 29 | 54.7% | 29 | 54.7% | 5 | 17.0% | 8 | 27.6% | 2 | 6.9% |
| 12 | 26 | 24 | 92.3% | 26 | 100.0% | 2 | 8.0% | 2 | 8.3% | 4 | 15.4% |
| 13 | 69 | 36 | 52.2% | 37 | 53.6% | 10 | 28.0% | 3 | 8.6% | 5 | 13.5% |
| 14 | 22 | 17 | 77.3% | 17 | 77.3% | 1 | 6.0% | 5 | 29.4% | 0 | 0.0% |
| 15 | 52 | 22 | 42.3% | 22 | 42.3% | 8 | 36.0% | 4 | 18.2% | 1 | 4.5% |
| 16 | 21 | 17 | 81.0% | 17 | 81.0% | 5 | 29.0% | 2 | 11.8% | 1 | 5.9% |
| 17 | 41 | 26 | 63.4% | 26 | 63.4% | 4 | 15.0% | 1 | 4.0% | 1 | 3.8% |
| 18 | 50 | 17 | 34.0% | 17 | 34.0% | 0 | 0.0% | 4 | 23.5% | 1 | 5.9% |
| 19 | 29 | 13 | 44.8% | 15 | 51.7% | 3 | 23.0% | 1 | 7.7% | 0 | 0.0% |
| 20 | 57 | 15 | 26.3% | 15 | 26.3% | 3 | 20.0% | 3 | 20.0% | 1 | 6.7% |
| 22 | 34 | 23 | 67.6% | 23 | 67.6% | 4 | 17.0% | 1 | 4.3% | 2 | 8.7% |
| 23 | 51 | 22 | 43.1% | 23 | 45.1% | 2 | 9.0% | 6 | 27.0% | 3 | 13.0% |
| 24 | 58 | 35 | 60.3% | 35 | 60.3% | 7 | 20.0% | 3 | 8.6% | 6 | 17.1% |

¹Total number of tracking rounds (at 10-minute intervals) on 2 weekday afternoons/evenings beginning when at least one family member was home and ending when children were put to bed.

²Tracking rounds during which all family members were observed in/at the home.

³Tracking rounds during which *both* parents were observed in/at the home.

⁴Tracking rounds during which all family members were observed in/at home *and* all family members were together in the same home space.

⁵Tracking rounds during which all family members were at home and neither parent shared space with another family member.

⁶Tracking rounds during which both parents were observed in/at the home *and* alone together in the same home space.

When all of the family members finally do congregate under one roof, they rarely situate themselves in the same home spaces or participate in activities in which more than one or two people are engaged. The daily return from work and school to home is seemingly a phased transition during which family members physically and psychologically reorient themselves to the relationships and tasks central to home life. Family members who have been home for longer periods of time are often at a different phase of this transition than that experienced by family members who have only recently walked through the door. As our analysis of video data suggests, these phases may be discernible by varying displays of attention and varying levels of commitment on the part of children to reestablishing group togetherness at the end of the day. Furthermore, parents and children often attend to a wide range of tasks and activities that physically situate family members in different areas of the house on weekday afternoons. Recurring activities observed during tracking rounds include meal preparation, schoolwork, play, laundry, work-related phone calls, and watching television. While many of these activities

involved two or more people, we rarely observed all family members coming together in the first several hours home.

However, the frequency of group congregation is just as low throughout the remainder of afternoon and evening observations. Among the 20 families analyzed, the frequency of observations in which all family members are at home *and* recorded in the same home space ranges between 0% and 36% (Table 18.3; median = 16%). Ten of our families came together in less than 16% of total observations in which all members were in the home, and 10 families came together in greater than 16% of these observations. However, only 6 of our 20 families congregated in the same house space more than 20% of these tracking rounds, and members of five of the families *never* collectively shared space during our weekday visits to their homes. These data indicate a surprisingly low occurrence of *group-level* interaction following the family's return to home on weekday afternoons and evenings.

It is important to note that variability in the frequency of family congregation among these 20 families is *not* strongly correlated with variability in the total time we spent studying each ($R = 0.2$). In other words, we did not observe family members coming together more frequently among families for which we have a greater number of total observation rounds (e.g., Family 6; see Table 18.3).

However, parents are rarely found alone in home spaces. The frequency of observations in which a parent was found individually occupying a house space ranged between 0% and 29% (median = 10%; see Table 18.3). These data indicate that while families rarely congregate as a group, parents are sharing space with at least one other family member between 71% and 100% of tracking rounds performed when all family members had returned home. Furthermore, parents are typically recorded as sharing space with one or more children rather than with each other. Tracking data indicate that parents in only 6 of the 20 families shared exclusive space (i.e., in the absence of their children) in greater than 10% of the total observation rounds (range = 13–25%; median = 16%). In contrast, parents of nine of the sampled families came together between only 3% and 9% (median = 6%) of the tracking rounds in which both parents were in the house, and parents of five families *never* shared exclusive space during our visits to their homes. These data indicate that parents are carving out very little time for private conversation and interaction prior to putting children to bed on weeknights.

The analytical limitations of tracking data as a measure of family togetherness lie chiefly in the rate at which observations of family members are recorded. That is, people can and do interact more frequently than that documented at 10-minute intervals. The completion of children's homework, for instance, is an activity often attended by either or both parents, although sustained physical proximity of activity participants is not the norm. Our between-round observations (see above) indicate that parents frequently move in and out of home spaces in which homework and school-related projects are situated while simultaneously attending to other late afternoon and early evening tasks (e.g., dinner preparation, finances, job-related phone calls). Thus, interaction among family members is often intermittent yet frequent, although we rarely observed instances in which *all* family members came together in the 10-minute span of time between tracking rounds.

Our measure of daily family togetherness may also be underestimated by data derived from only 2 weekdays of family observation. We recognize that some families, in the midst of juggling chaotic weekday schedules, may strive to schedule more time with each other on days other than those we observed (e.g., a family game night). We expect, however, that families who have volunteered (self-selected) for our study would want to highlight and perhaps even exaggerate the frequency of these occurrences, thereby augmenting the number of observations in which all family members congregate in certain home spaces. Furthermore, our comprehensive data on daily routines collected during interviews conducted *prior* to tracking days do not reflect these types of scheduled interactions.

Family Cohesion Summary

We have suggested that family togetherness can be profitably analyzed along two dimensions: (a) interactional cohesion, determined by the participatory involvement of family members in social encounters with one another; and (b) spatial cohesion, determined by spatial proximity of family members to one another. Our analysis of the interactional cohesiveness of working families focused on family encounters when parents returned home from work. Our spatial analysis rested on ethnoarchaeological tracking observations of family members' movements and activities when they were at home. Our interactional analysis relied on video recordings and transcripts of the verbal and non verbal behavior of family members as they engaged one another and otherwise carried out their daily life activities.

Our study of how working families reunite after work indicates that working mothers tended to return home earlier and pick up the children more often than did working fathers. This was the case even when the mothers were the higher-income earners in their families. Therefore, compared to husbands, working mothers had fewer opportunities to be welcomed home by their spouses and children who were often not home when mothers arrived. At the same time, while spouses and children tended to be home when fathers arrived, reunion interactions were often not positively attentive. Working fathers were less likely to be welcomed with deference by their spouses and children than were working mothers who returned home after their husbands. One possible reason for this finding is that fathers tended to arrive home later in the evening. Since our tracking data show that family members become very involved in a variety of tasks and activities over the course of an evening, it may have been the case that by the time fathers arrived home, family members were so involved in their activities that they were distracted and limited in their availability to fully welcome the returning father. The spatial cohesion results also show that members of working families in this study rarely even congregated all together in a single location in the home during the week. Even more rarely were spouses in the same location, just the two of them together as a couple. Rather, family cohesiveness in the home took the form of one parent together with one or more children, usually engaged in one or more tasks.

CONCLUDING COMMENTS

Understanding fully the everyday lives of families requires methods that capture family members' activities and coordinated behavioral exchanges, as they unfold in real time and across different situations in and around the home. This chapter provides an introduction to two procedures—video ethnography and ethnoarchaeological tracking—that are designed to enhance the information that can be gathered on exchanges within families and the contexts in which they occur. As demonstrated in this chapter, application of these methods to questions about the interactional and spatial cohesion of families illustrates how they yield data not readily available from questionnaires and interviews.

Although these methods are likely to prove informative in addressing a wide range of questions, they are not without important limitations. For example, intensive data collection of this sort can impose a significant burden on participants (or discourage other families from participating), limit the amount of information that can be collected from a given family, and force the investigator to make numerous decisions about who, when, and where to record, and with what frequency. The procedures themselves might alter the very processes we seek to clarify, they result in a large and sometimes unwieldy corpus of data, and they entail a high degree of logistical planning and organization. Finally, because administering these procedures with large samples is likely to be prohibitively expensive, caution must be exercised in generalizing observations from a small sample to working families more generally.

Notwithstanding these qualifications, video ethnography and ethnoarchaeological tracking are powerful tools that build on established traditions in anthropology, archaeology, psychology, and sociology, and they promise to expand the repertoire of social scientists seeking to gain insight into the dynamic properties of working family life.

NOTES

¹See David and Kramer (2001) for a comprehensive discussion of the history, scope, and application of ethnoarchaeology over the last 50 years.

²*Scan sampling*, *instantaneous sampling*, and *instantaneous scan sampling* are terms applied to similar data-collection techniques (Altmann, 1974; Hawkes et al., 1987).

³For one family, parents' return home from work on 1 weekday was not recorded.

⁴On 2 days, after-school pick-ups were not captured on film.

⁵Spearman's Rank Order Correlation was used to measure the association between tracking data.

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