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Taking the Temperature of Family Life: Preliminary Results from an Observational Study

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Conducting work–family research is a little like being a meteorologist: the basic principles of climatology are fixed, but the weather is always changing. For millennia, humans have formed families and labored to support them, but the structure of both work and family has changed dramatically over the past century, especially in the industrialized world. Family members once lived within an extended multigenerational network; today, the "typical" (though not universal) family structure is the nuclear unit, with just two adults shouldering household and childcare duties. At the same time, over the past century, the pace of paid work has been accelerated by new technologies and a global economy. Women have entered the workforce *en masse*, and dual-income families with children now comprise the predominant household composition in the United States (Bianchi & Raley, 2005). Technology has also altered the tenor of family life. Some innovations save labor and facilitate contact between family members – microwave ovens, cell phones – while others may distract and isolate family members from each other – video games, TV, and the aforementioned cell phones, when loaded with voicemails from work.

As weakened social, civic, and extended family ties compromise families' support networks, parents devote more time than ever to demanding jobs. The resulting time crunch appears to take a particular toll on women, the traditional keepers of the home front. For today's parents, many of who came of age during the feminist movement of the 1970s, the idealized stay-at-home mother seems as remote and unlikely as the black-and-white sitcoms that depict her. At the same time, despite women's participation in the work force, gender roles still appear to hold some sway over the distribution of labor at home. Data from the National Survey of Families

and Households suggests that men typically contribute between one-fourth and one-third of total household labor, and are less likely to participate in childcare and in "core" household tasks (cooking, cleaning) than women (Bianchi, Milkie, Sayer, & Robinson, 2000). Perhaps as a result, more than a third of women report "always feeling rushed" (Mattingly & Bianchi, 2003), and the comically harried mother has become a trope in popular media. According to the sociologist Arlie Hochschild, the difficulty of balancing work and home creates a "time bind," in which parents, particularly women, devote even more hours to their jobs in order to avoid the overwhelming demands of the household, and then must catch up at home (Hochschild, 1997).

Despite these pressures, the family is still popularly seen as a source of refuge and restoration from the demands of the outside world. In popular culture, even dysfunctional clans – like the family at the center of the quirky comedy *Little Miss Sunshine* – often are pictured as providing sanctuary from a chaotic world. "Family values," or at least some families' values, continue to inspire political rhetoric and to draw voters to the ballot box. Realities may be "changing," but the family home, at its best, continues to offer the promise of a physical and emotional haven for its members.

How can researchers chronicle changing work–family realities in all their complexity? Given the ever-shifting nature of both the home and the workplace, it is important for research to remain dynamic as well. Returning to the meteorology metaphor, some research in this area focuses on large-scale surveys and the mapping of demographic trends, much like using global satellites to capture shifts in temperature and precipitation. Other researchers hone in on psychological processes, such as the impact of work-related stress on close relationships, a basic science approach that resembles the study of how wind patterns produce storms. Often missing from both lines of work–family literature is a sense of what the "weather" looks like and feels like on the ground. How are families responding, on a daily basis, to changes in the workplace, the economy, technology, schools, and gender roles? To truly understand the fabric of everyday life, researchers need to start with very basic questions. Where are family members spending time? How and when do they come together after the workday? What activities do they pursue? Does home still feel like a shelter, or are family members experiencing stormy weather?

This chapter will discuss work–family research that speaks to these questions, focusing primarily on an intensive ethnographic study of work–family life conducted by the Center for Everyday Lives of Families (CELF). We will begin by describing the study itself, an exploration of "a week in

the life" of 32 dual-earner Los Angeles families. Next, we will outline preliminary findings that reflect the "changing realities" of this volume's title. We will summarize research on how family members greet each other after the workday, when and where family members spend time in the evening after work, how families members feel when together or alone, how families eat dinner, and even how family members' stress hormones appear to fluctuate across the day. Throughout, we will highlight a tension that seems to characterize these families' efforts to come together, the difficulty of negotiating between the pull of outside distractions and the promise of home as a haven. While families in our sample appear to want to spend time together, and to enjoy the time they spend with each other, finding this time and instantiating it as routine appears challenging for many families. This tension appears to be especially acute for women, for whom home functions both as a refuge and a workplace, a place to unwind but also a source of family demands and responsibilities.

Before beginning this discussion, we need to make clear that the findings described in this chapter come from a collaborative study with many researchers working together; by presenting them here, we do not wish to take credit for our colleagues' efforts. These ideas are the collective product of a tremendous amount of work, both in collecting these data, and in making sense of this complicated dataset. The contributions of our participating families are also not to be discounted. They agreed to go under our researchers' microscope, sacrificing time and privacy in order to enrich our understanding of the contemporary work–family climate.

The Everyday Lives of Families Study

Much of the research highlighted in this chapter was conducted by the Center for the Everyday Lives of Families (CELF), an interdisciplinary research group headquartered at the University of California, Los Angeles, and funded generously by the Alfred P. Sloan Foundation. CELF's mission was to capture a "week in the life" of 32 middle-class families residing in the greater Los Angeles area. Most of the CELF data was collected between 2002 and 2004. Families were eligible for the study if they had a mortgage on their home and included two cohabitating adults, both of whom worked full-time (more than 30 hours per week), and at least two children, one of whom was between 8 and 10 years of age at the time of the study. Outside those stipulations, the families studied by CELF ranged widely in social and cultural background. While the majority of families were of Caucasian

descent, African-American, Latino, East Asian, and South Asian families were also represented within the sample, as well as two families led by gay males. Parents' ages ranged from 28 to 58 years, with a median age of 41 for both men and women. The couples in the study had been married or partnered for 3–18 (median 13) years. The median annual family income was $100,000, with a range from $51,000 to $196,000. Most of the participating parents reported 40–49 hour workweeks, although almost a third of fathers (and 13 percent of mothers) worked over 50 hours per week.

The study included intensive observation of each family. Before beginning the study, family members were interviewed about daily routines and beliefs about education and physical health, and filled out questionnaires asking about recent life events and personality characteristics. During the week of the family's participation, family members were videotaped and physically tracked by researchers for four days (two weekdays and two weekend days). Tracking typically began when one of the parents returned home from work and continued every ten minutes thereafter, until children went to bed; at each tracking interval, a researcher recorded every family member's activity and location. On three separate weekdays, two of which overlapped with filming days, participating family members completed four diary measures of mood and work events and provided four saliva samples, which were then analyzed for levels of cortisol, a hormone connected with stress and physiological arousal. At a separate session, after completing the study week, family members filled out questionnaires on marital quality and current symptoms of depression.

Analyses of these data are ongoing, as family members' interactions are transcribed and coded by CELF researchers. We present a number of preliminary findings here, culled from coded video data, tracking data, and cortisol data, as well as results from a collaboration with another Sloan-funded study, the University of Chicago's 500 Families Study, which is led by Barbara Schneider and Linda Waite (Schneider & Waite, 2005).

Preliminary Results: Families Coming Together After Work

Greetings and First Contact

When families return home at the close of the work or school day, a busy, transitional time begins; families must shift gears from the day's activities, back into the household social environment, while preparing for the evening's

meal and the evening's extracurricular and homework activities. The time can be one of joyful reconnection among family members, but it can also be marked by pressure and stress. This "first hour home" has been of particular interest to CELF researchers. One focus has been on family member's reunions with each other and the greeting sequences connected with these reunions. Anthropologists believe that every culture has some codified system of greeting and acknowledging others, and that greetings provide clues about the nature of the relationship between greeters, as well as each person's relative status and power.

Almost all reunion sequences involving parents – specifically, the greeting that marked a parent's arrival home – were captured on videotape by CELF researchers. Subsequently, a group of anthropologists and psychologists (Ochs, Graesch, Mittman, Bradbury, & Repetti, 2006) coded these greeting sequences, using four general categories reflecting whether the behavior shown by the greeter was characterized by positive affect, negative affect, distraction, or "logistical talk" (e.g., a piece of information or a request to complete a household task). The researchers expected most greetings to be marked by positivity and affection, as family members were reuniting after not seeing each other all day. To their surprise, over almost 100 reunions, greetings were primarily positive less than half of the time. Distraction was almost equally common as positive affect, while negative affect and logistical talk each characterized about 10 percent of reunions.

Ochs and her CELF colleagues also found that the nature of the greeting shown to returning parents appeared to be influenced by gender. Mothers were the first to have contact with their children on three-quarters of the weekdays that were videotaped, with a mean difference of almost two hours between mothers' first contact and fathers' first contact. Perhaps because fathers were, on average, more likely to arrive home later than their wives, fathers' appearance was less likely to be heralded positively by family members, or even heralded at all. Only about a third of family members' reunions with fathers were characterized by positive affect, according to CELF coders. Wives greeting their husbands were almost as likely to show negative as positive affect, and also showed high levels of distracted and logistical behavior. When children greeted their returning father, they were more likely to show distraction than positivity; fully half of reunions between fathers and children were coded as "distracted," while less than a third of father–child reunions were predominantly positive.

What keeps family members from responding positively to returning parents, particularly fathers? The high percentage of "distracted" reunions speaks

to the many competing activities and diversions that seem to shift family members' attention away from each other. As CELF researchers have gleaned from activity data (discussed later in this chapter), children spend most of their weekday evening time pursuing "indoor leisure," which includes watching television, playing video games, and surfing the Internet. As a number of our video clips of family reunions attest, it is not rare for returning fathers to find themselves competing for attention with a video game in progress or a favorite television show. At the same time, as discussed later in this chapter, wives appear to spend a large proportion of their evening time at home engaged in chores (Graesch, Broege, Arnold, Owens, & Schneider, 2006). Since the first few hours home might be particularly taxing, given the demands of dinner preparation, it is perhaps no surprise that many wives gave their husbands an apparently lukewarm reception. The long gap (almost two hours, on average) between parents' arrivals home means that, in many families, both children and wives had a chance to become fully ensconced in evening activities by the time fathers returned home from work.

If this pattern of reunions is borne out by future research, it has interesting implications for work–family researchers. In the literature on psychological "unwinding" from work, researchers have examined constructs like negative emotion spillover (that is, the transfer of negative feelings from the workplace into the home) and social withdrawal (a coping strategy observed after higher-workload days) (Story & Repetti, 2006). However, little allowance has been made for the ways that other family members respond to returning workers. If a worker is met with disinterested children at the end of a long workday, withdrawal from family members might be an involuntary default response. Similarly, a critical greeting from an annoyed spouse might trigger another type of "unwinding" response. In either case, a returning spouse's desire to relieve pressure from the workday by having a pleasant conversation or even by venting about the day's events would be quashed. Differences in the reception received by fathers and mothers, and by first-arriving parents and second-arriving parents, might also underlie some of the gender differences found in work–family recovery.

The study of reunions underscores researchers' need to examine the family as a whole, as an interrelated ecosystem rather than a collection of individual members. To that end, naturalistic, observational methods help place family interactions in context. Family members are unlikely to be able to reconstruct or to accurately self-report the nature of their greetings and reunions in the kind of detail that a video record allows.

Physical Togetherness

Just as reunions reflect family members' closeness and involvement with each other, so too does their physical proximity – the degree to which they spend time in each other's presence while at home. Focusing on data from the first 20 families to participate in the study, CELF's tracking database was used to examine the spatial cohesion of family members in the evening after the work or school day (Ochs & Shohet, 2006). Interestingly, these CELF researchers found that family members rarely congregate in a single space in the evening. Across the 20 families, the number of times that all family members were observed together in the same home space accounted for about 15 percent of all weekday evening observations. However, five of the 20 families were *never* together in a shared space in the evening, at least when tracking observations were made.

This finding echoes results from other studies of American family time, which have also found that families devote relatively little time to joint activities. For example, one study (Crouter, Tucker, Head, & McHale, 2004) discovered that dual-income families with adolescent children only devoted about four hours per week to shared family activities, and that most of that time was spent eating dinner together and watching television. However, adolescents who spent more time in family activities tended to have fewer conduct problems and fewer depressive symptoms two years later.

Even though family members were observed gathered all together relatively infrequently in the CELF data, parents were also not often seen alone at home, or exclusively together with no children present. Instead, Ochs and her colleagues found that the most frequently observed configuration on weekday evenings was one parent sharing a home space with one or more children. The fact that individual parents were most often found to be sharing space with children, rather than with each other or with the whole family gathered *en masse*, reflects our observation that mothers and fathers are divvying up childcare responsibilities in the evenings. For example, a father might help one child with homework at the kitchen table while the mother gives another child her bath. While a "divide and conquer" approach to childcare makes sense in the face of evening time demands, and allows each parent a chance to connect with individual children, it also leaves families fairly low on other types of restorative time: time all together to pursue group activities, and alone time for parents to decompress, either individually or with each other.

The relative infrequency of whole-family gatherings was surprising to CELF researchers, and contrasts with qualitative studies of family time in

other cultures. For example, in Italy, families appear to spend more time at home together in closer physical proximity, according to preliminary anecdotal results from i-CELF, a study conducted by a satellite group of CELF researchers in Rome, Italy with a small sample of eight families (E. Ochs, personal communication, Spring 2006). This apparent cultural difference – which needs to be borne out by systematic research – may be due to the fact that urban Italians, at least in the i-CELF sample, tend to reside in smaller living spaces and to share a single car, which leads to greater coordination of work-home routines. In contrast to families in many other cultures across the world, middle-class families in the US often own more than one car and are accustomed to generous amounts of private space; the average allocation of living space for each American family member has tripled in square footage since the 1950s (Graesch, 2006; Wilson & Boehland, 2006). Spacious homes offer families more breathing room, but also might lead to greater fragmentation at home, as family members spread out and pursue activities in separate spaces. In a small subsample of CELF families, children in four out of five households had television sets in their bedrooms (Pigeron, 2006), which might offer further inducement for isolation.

Families' Use of Outdoor Spaces

Families' spacious homes, as discussed above, often include outdoor spaces, especially in balmy Southern California. Arnold and Lang (2003) analyzed data from ten CELF families and found that the families invested both financially and emotionally in outdoor home spaces – front and back lawns, garages, and swimming pools. These spaces often became a focal point of home tours that were conducted by individual family members, and were spoken of with pride and a strong sense of ownership. However, surprisingly, family members were observed spending very little actual leisure time in these "leisure spaces." In fact, despite mostly pleasant weather during filming, Arnold and Lang (2003) found that seven of the ten families did not spend *any* leisure time in their back yards. Two families had formal pools, but no family members were seen using these pools during filming. For eight of the ten families, time spent in front yard spaces was almost exclusively confined to coming and going in cars, unloading groceries, and unloading trash. This research indicates that, while families appreciate their outdoor spaces, they do not often take advantage of them. Once again, the pulls of distractions and diversions, from chores to telecommuting to a myriad of enticing indoor leisure activities, seem to conspire to keep family members indoors but often separated.

Families' Use of Indoor Spaces

While the CELF study focused on close observation of a small sample of families, the Sloan-funded 500 Families Study, led by University of Chicago researchers Barbara Schneider and Linda Waite, used Experience Sampling Methodology (ESM) to study a large number of middle-class, dual-income families in the Chicago area (Schneider & Waite, 2005). In an ESM study, participants are signaled or electronically beeped at random intervals within a particular timeframe, such as once every few waking hours, and asked to provide information about their activities, and in this case their location, proximity to other family members, and mood. A group of CELF and 500 Families researchers (Graesch et al., 2006) combined their sources of data in order to get a more complete picture of everyday family life, focusing on weekday afternoons and evenings and merging ESM responses from the Chicago dataset with the CELF tracking observations.

Activities at Home

Graesch and colleagues' analysis of the merged dataset found that the majority of family time at home in the evening (almost a third of total observations) was spent engaged in "indoor leisure" activities including television watching, Internet surfing, reading, and playing games. Household chores and communication (i.e., talking on the phone, using email) were the second and third most frequently pursued activities at home. However, this pattern shifted when activity reports from both studies were examined by individual family members. The authors discovered that leisure was the most frequently pursued activity for fathers and children, but mothers spent more time doing chores than any other activity – about a fourth of their total observations. Mothers also spent a considerable amount of time in the kitchen – about a third of the total time they were home on weekday evenings. Another study (Ahrentzen, Levine, & Michelson, 1989) that examined the activity patterns of dual-income Canadian families over a 24-hour period during the workweek found similar gender differences. While at home, the Canadian mothers spent twice as much time alone in the kitchen and more time with children in bedrooms and bathrooms than did fathers. Men spent more time than women in the living room, engaged in passive leisure, while women spent more time in the kitchen, doing chores and caring for children.

Children in the merged CELF and 500 Families dataset spent the largest proportion of their weekday evening time in leisure (almost 40 percent of children's time was spent engaged in leisure, compared to about a fourth

of fathers' time and less than a fifth of mothers' time) (Graesch et al., 2006). Children's second and third most frequently pursued activities were communication and schoolwork, followed by personal care (dressing, bathing); children apparently spent very little time doing chores, at least according to their own reports and to tracking observations. The fact that chores did not appear to be on children's radar screens suggests that parents are not systematically delegating household responsibilities to their children, even though parents themselves – especially mothers – are devoting substantial time to chores.

Feelings about Activities

In the 500 Families Study, family members were also asked to rate their emotions when responding to ESM beeps. Graesch et al. (2006) found that mean scores recorded by both fathers and children reflect an overall emotionally positive experience in the home on weekday evenings when engaged in leisure, their primary activity. On the other hand, Graesch and colleagues reported that, when mothers were engaged in their primary activity, chores, their emotions were mostly negative, with greater feelings of stress and irritation and lower levels of happiness. When family members were together, family members' emotional experiences were more likely to be positive than when alone, a shift that was most notable for fathers. Mothers reported slightly more feelings of stress and irritation when with other family members than alone, but also reported more happiness and enjoyment than at other times – especially when the family was gathered together to participate in the common activity of eating a meal.

These researchers' results indicate that family time together can serve as a restorative activity that positively impacts family members' emotional well-being. Compared to their husbands and their children, mothers are more likely to report negative emotions and feelings of stress and irritation while at home on weekday evenings, particularly when doing chores. This finding is unsurprising, given that women appear to have more responsibilities at home and to spend more time engaged in household labor, a pursuit that is usually regarded as undesirable. However, the researchers found that all family members, including mothers, feel happier when the family is gathered together, especially when they are engaged in a single activity like sitting down to a meal. It is striking that, while all family members report that they enjoy group time, such time appeared to be fairly rare in both the merged and the CELF-only dataset. Just as families cultivate outdoor spaces but rarely use them, so too do family members appear to appreciate group togetherness without always managing to achieve it.

Family Media Use

As discussed above, both the CELF and 500 Family Study found indoor leisure to be the most frequently reported evening activity of family members, particularly children, for whom leisure was the most represented category of both primary *and* secondary activities. More often than not, that leisure includes some form of electronic media, like video games, television, and computer use, so how parents and children relate to media is an important, but little-studied, aspect of contemporary family life. Does media use lead to the spatial and emotional fracturing of family life, or does it give family members more opportunities to come together in a joint activity? In a study of families with young children, researchers found the television to be on about six hours a day, on average (Vandewater, Bickham, Lee, Cummings, Wartella, & Rideout, 2005), and families in about a third of the homes reported that television is on "always" or "most of the time," even if no one is watching. In a study of the television viewing habits of the 500 Families sample, Dempsey (2005) found that parents view over 9 hours of television each week, while adolescents watch about 13 hours. Mihaly Csikszentmihalyi, who pioneered Experience Sampling Methodology, and Robert Kubey found that television watching is one of the few leisure activities that makes people feel worse – less energetic, less able to concentrate, and less relaxed – after they have engaged in it (Kubey & Csikszentmihalyi, 1990). Yet we know little about the effects of television, whether it is on in the background or actively being watched, on family interactions, or the household emotional climate.

The CELF dataset lends itself to intensive exploration of these issues. As a start, Pigeron (2006) examined the media consumption habits of the first five families to participate in the CELF study. Each household included more than one TV set (the median number was three), and, strikingly, in four of the five households, at least one child had a TV set in his or her bedroom. Pigeron (2006) also found that, in four of the five households, at least one television was constantly on, whether or not any family members were watching. Each household also included one or more computers (median two), and one or more cellular telephones. Family members, especially older children and adults, were frequently observed multitasking with media; working on the computer while talking on the phone, for example. Media consumption can divert family members from time together, at least occasionally: Shohet, Ochs, Campos, and Beck (in press) found that, in a third of weekday dinners, family members were seen pursuing activities outside the scope of the dinner. Watching television and talking on the phone were among the biggest dinner distractions.

These observations of media use unearthed a surprising finding. While media consumption is often considered an isolating activity that separates family members from each other, in this sample, more often than not, media use was a dyadic or multi-party activity. For example, CELF researchers observed parents and children cuddling in front of the television, or siblings collaborating to play a video game. In one family, a father and son watch a sports game together, and enthusiastically root for their favorite team. Similarly, Dempsey's analysis (2005) of the 500 Families data found that television is not necessarily a solitary diversion. Dempsey found that more than half of family members' television viewing took place in the company of other family members, and was frequently accompanied by chatting and interacting. However, in the same study, Dempsey also found that adolescents who watched the most television spent the least amount of time talking with their parents, suggesting that television does not always facilitate conversation – at least among the heaviest viewers.

Just as with families' space use and meal consumption, this study of media use highlights some interesting contradictions in modern family life. Family members often appear to devote considerable time to electronic media; television, phones, and other devices seem to pull families away from time together, as when encroaching upon dinner, for example. However, families may also use media as a platform for togetherness and developing shared interests. As with a number of the areas outlined in this chapter, media use is an important part of family life that is poorly understood and difficult to measure using conventional methods.

Eating and Meal Preparation

Researchers have noted that children in families that eat dinner together regularly tend to report less anxiety, and do better academically, than children in families without such a routine (reviewed by Fiese, Tomcho, Douglas, Josephs, Poltrock, & Baker, 2002). How often do American families eat dinner together? According to several large studies, a significant percentage of children eat regular family dinners. For example, a study of almost 100,000 preteens and adolescents found that about 45 percent reported eating dinner with their families between five and seven times per week (Fulkerson, Story, Mellin, Leffert, Neumark-Sztainer, & French, 2006). However, it is difficult to gauge the accuracy of this self-reported data, or to determine if "dinner with the family" denotes all members sitting down to the same table at the same time to the same meal. For example, family members might be helping themselves to food at approximately

the same time, but microwaving a burrito to eat in front of the television is different from sitting down to the same table with family members. An observational study like CELF allows for more direct, consistent coding of dinnertime behavior than a survey or questionnaire report.

Shohet et al. (in press) coded and examined videotaped dinners in the 30 CELF families led by heterosexual parents. They found that, over the two weeknights and one weekend night that were filmed, 77 percent of families ate at least one dinner "in unison" (in the same place and at the same time). However, only 17 percent of families ate together in unison on all three days. Over the three days, 63 percent of families had at least one dinner that was "fragmented," with family members eating in different locations and/or at different times (i.e., with meal start times more than 10 minutes apart). In addition, at least one family member, most often the father, missed at least one filmed dinner in fully half of the families. As Shohet and colleagues' results suggest, the families in the CELF sample managed to eat together on a fairly regular basis – but sitting down to dinner together did not appear to be an everyday ritual for most of them. Instead, it appeared that, more often than not, families had to work around diverging schedules or missing family members.

Shohet et al. (in press) also examined meal preparation within the CELF sample. Their analysis of the video data revealed that over 80 percent of family dinners were prepared by only one cook at a time, most often the mother. When both "single-chef" and "multi-chef" dinners were examined, mothers were involved in some capacity in 91 percent of weekday dinners and 81 percent of weekend dinners, while fathers were involved in dinner preparation only about a third of the time. Therefore, it appears that the burden of dinner preparation falls disproportionately on women, at least within the CELF sample, and that other family members do not seem to be sharing in this workload.

Physiological Stress

Not only did CELF's intrepid families endure being videotaped, tracked, and questioned, but they provided saliva samples four times a day for three of the days they participated in the study. Family members' saliva was then analyzed for levels of cortisol, a hormone that has been associated with stress and arousal. Most cortisol research to date has been conducted in laboratory settings – for example, asking participants to give a speech or take a test and measuring how much their cortisol levels increase. Incorporating cortisol sampling into a naturalistic study like CELF is treading new ground,

although more and more naturalistic studies are tracking cortisol, since it is a fairly durable and stable hormone that lends itself to repeated sampling over time.

Analyses of the adults' cortisol (Saxbe, Repetti, & Nishina, in press) revealed that, in keeping with other research, cortisol shows a strong diurnal rhythm: cortisol levels typically start out high and decrease sharply over the morning, then taper off over the rest of the day. For the women in the CELF sample, marital satisfaction (as measured by the Marital Adjustment Test) seemed to be linked to this daily pattern. Women who were lower in marital satisfaction showed a "flatter" cortisol slope: their cortisol levels were lower in the morning and did not show as much of a decrease over the course of the day. A flattened slope is a cortisol profile that has been tied to chronic stress, burnout and even mortality risk (Sephton, Sapolsky, Kraemer, & Spiegel, 2000), suggesting that, at least for the women in our sample, the quality of the marital environment may be related to physical health.

Marital satisfaction also appeared to be associated with women's recovery from the workday, when evening cortisol level was examined in conjunction with parents' afternoon cortisol and with their diary ratings of afternoon work events. On workdays that parents rated as being busier, evening cortisol levels tended to be lower than average, suggesting that physiological recovery was exaggerated after higher workload days. For women but not for men, this relationship was moderated by marital satisfaction, such that women with higher marital satisfaction showed more dramatic decreases in cortisol after the close of a busy day.

The relationship between marital satisfaction and women's cortisol patterns is intriguing and bears further study. Both epidemiologists and social scientists have observed that, for men, marriage appears to offer a general health and well-being benefit, but that, for women, the health boost conferred by marriage is more dependent on the quality of the marriage than on the simple fact of being married (Kiecolt-Glaser & Newton, 2001). In other words, while married men tend to live longer than unmarried men, women who are unhappily married do not appear to live any longer than single women. These cortisol findings suggest a possible physiological mechanism for that phenomenon.

It remains unclear why marital satisfaction may be especially meaningful to women's stress hormone fluctuations. Some of the other findings reported in this chapter might provide clues, however. For example, according to the tracking and ESM results analyzed by Graesch et al. (2006), women appear to devote a significant chunk of their weekday evening

time to chores, more so than men or children, and report more stress and irritation when in the presence of other family members than do their husbands or children. Women also were involved in the preparation of more than 90 percent of dinners observed by CELF researchers (Shohet et al., in press). If women's marital satisfaction ratings reflect their feelings about the quantity and quality of their time, and the division of domestic labor in their household, it makes sense that women who are overworked at home would show cortisol patterns reflecting both more chronic stress and greater marital dissatisfaction. This hypothesis can be tested by exploring relationships between cortisol patterns and behavioral observations at home, a project that is underway.

Conclusions and Future Directions

As we hope these preliminary conclusions and speculations have illustrated, families' current "weather" is volatile and hard to describe in monolithic terms. However, a few themes seem to underlie a number of the disparate findings discussed here. For example, families report that they enjoy their time together, at least when sampled "in the moment," but finding time to connect appears to be challenging for families, given the relative infrequency of family gatherings in our sample and the preponderance of distracted reunions between family members. Similarly, while families report positive feelings during family dinners, only 17 percent of families in the CELF sample managed to sit down to the evening meal together on all three of the days they were tracked by researchers (Shohet et al., in preparation). Both household chores and high-tech media appear to increase family members' "distractibility," with different distractions affecting different family members. For example, chores appear to absorb more of women's time, while indoor leisure consumes the largest proportion of children's time. However, there is some evidence, mostly anecdotal at this point, that family members are able to connect around entertainment media like television and video games, suggesting that families' desire to be together might influence the pursuit of a potentially isolating activity.

While family time appears to be mostly positive and rewarding, mothers' emotional experience at home seems to be more conflicted, with mothers reporting some feelings of stress and irritation while doing chores and in the presence of other family members. The fact that mothers spent the greatest percentage of their time at home engaged in household labor might help to explain these ambivalent feelings, along with the fact that

mothers were involved with the preparation of over 90 percent of family dinners and were often home with children for several hours as principal caregivers before their husbands returned.

This evidence for women's mixed emotional experience at home is echoed by other studies. A telephone survey of Ohio parents (Roxburgh, 2006) found that, while mothers and fathers were about equally likely to express dissatisfaction with the time they had available to spend with their families (only about a fifth of parents reported being completely satisfied with their family time), fathers were more likely to express the desire for *more time* to spend with spouses and children, while mothers were more likely to want to improve the *quality* of family time. Women are also more likely to report "always feeling rushed" than men, and other time diary studies have found a 30-minute "leisure gap" between men and women, such that men tend to enjoy about a half-hour more leisure time than women each day (Mattingly & Sayer, 2006). Many researchers have suggested that women's workload at home exceeds that of men's, not merely in terms of total hours but also the nature of the work done by women. For example, time diary studies have found that when husbands and wives divvy up household tasks, women are more likely to be responsible for chronic, largely unavoidable tasks like meal preparation and childcare, while tasks that are more likely to fall under men's purview, like yard-work and home repairs, often allow for more flexibility in scheduling (Mattingly & Sayer, 2006). A recent Australian study found that, not only do women spend more time engaged in child care than men, but their child care time tends to involve more multitasking, more physical labor, less scheduling flexibility, and more overall responsibility for managing children's activities (Craig, 2006).

As these studies suggest, and as the CELF/ESM evidence supports, mothers' time at home is not consistently relaxing and pleasurable, at least to the same degree as it is for fathers and children. Mothers' feelings about their more taxing "second shift" might help to explain why women's cortisol patterns appeared to be linked with their ratings of marital quality. It is possible that, when household demands are especially burdensome for women, both their marital satisfaction and their stress responding systems are affected.

The research described in this chapter is still at a preliminary stage, as we and other CELF collaborators continue to parse this large dataset. However, it is our hope that the CELF findings presented in this chapter helps to illustrate how a naturalistic, *in situ* study can complement data from other research methodologies. Not only do the CELF data offer us a view of family life "from the ground," but its use of observational rather

than self-report data helps to circumvent some of the biases or problems with recollection that can challenge a retrospective survey study. For example, a study of the 500 Families dataset (Lee & Waite, 2005) found large and sometimes significant differences between husbands' and wives' accounts of the time they devoted to housework, depending on whether they estimated this time in terms of hours per week on a questionnaire, or responded to ESM prompts that sampled their activities in the moment. By combining information from multiple sources, including close observation, self-report, physical tracking, and even physiological measures like cortisol, researchers can converge on the real experience of life within the contemporary family and take the temperature of work–family realities today.

References

Ahrentzen, S., Levine, D. W., & Michelson, W. (1989). Space, time, and activity in the home: A gender analysis. *Journal of Environmental Psychology*, *9*(2), 89–101.

Arnold, J. E., & Lang, U. A. (2003). The changing landscape of home: Reflecting and shaping middle-class family lives. Center for Everyday Lives of Families (Working Paper).

Bianchi, S. M., Milkie, M. A., Sayer, L. C., & Robinson, J. P. (2000). Is anyone doing the housework? Trends in the gender division of household labor. *Social Forces*, *79*, 191–228.

Bianchi, S. M., & Raley, S. B. (2005). Time allocation in families. In S. M. Bianchi, L. M. Casper, & R. Berkowitz King (Eds.), *Work, family, health, and well-being.* (pp. 21–42). Mahwah, NJ: Lawrence Erlbaum.

Craig, L. (2006). Does father care mean fathers share? A comparison of how mothers and fathers in intact families spend time with children. *Gender & Society*, *20*(2), 259–281.

Crouter, A. C., Tucker, C. J., Head, M. R., & McHale, S. M. (2004). Family time and family members' psychosocial adjustment: A longitudinal study of adolescent siblings and their mothers and fathers. *Journal of Marriage and Family*, *66*, 147–162.

Dempsey, N. P. (2005). Television use and communication within families with adolescents. In B. Schneider, & L. J. Waite (Eds.), *Being together, working apart: Dual-career families and the work-life balance* (pp. 277–296). New York: Cambridge University Press.

Fiese, B. H., Tomcho, T. J., Douglas, M., Josephs, K., Poltrock, S., & Baker, T. (2002). A review of 50 years of research on naturally occurring family routines and rituals: Cause for celebration? *Journal of Family Psychology*, *16*(4), 381–390.

Fulkerson, J. A., Story, M., Mellin, A., Leffert, N., Neumark-Sztainer, D., & French, S. A. (2006). Family dinner meal frequency and adolescent development: Relationships with developmental assets and high-risk behaviors. *Journal of Adolescent Health*, *39*, 337–345.

Graesch, A. P. (2006). An ethnoarchaeological study of contemporary U.S. houses and households. Center for Everyday Lives of Families (Working Paper).

Graesch, A. P., Broege, N., Arnold, J. E., Owens, A., & Schneider, B. (2006). Family activities, uses of space, and emotional well being: A collaborative merging of time diary and ethnoarchaeological data. Center for Everyday Lives of Families (Working Paper).

Hochschild, A. R. (1997). *The time bind: When work becomes home and home becomes work*. New York: Metropolitan Books.

Kiecolt-Glaser, J., & Newton, T. (2001). Marriage and health: His and hers. *Psychological Bulletin*, *127*(4), 472–503.

Kubey, R., & Csikszentmihalyi, M. (1990). *Television and the quality of life. How viewing shapes everyday experience*, Hillsdale, NJ: Lawrence Erlbaum.

Lee, Y.-S., & Waite, L. J. (2005). Husbands' and wives' time spent on housework: A comparison of measures. *Journal of Marriage and Family*, *67*, 328–336.

Mattingly, M. J., & Bianchi, S. M. (2003). Gender differences in the quantity and quality of free time: The U.S. experience. *Social Forces*, *81*(3), 999–1030.

Mattingly, M. J., & Sayer, L. C. (2006). Under pressure: Gender differences in the relationship between free time and feeling rushed. *Journal of Marriage and Family*, *68*, 205–221.

Ochs, E., Graesch, A., Mittman, A., Bradbury, T., & Repetti, R. L. (2006). Video ethnography and ethnoarchaeological tracking. In M. Pitt-Catsouphes, E. E. Kossek, & S. Sweet (Eds.), *Handbook of work and family: Multi-disciplinary perspectives and approaches* (pp. 387–409). Mahwah, NJ: Erlbaum.

Ochs, E., & Shohet, M. (2006). The cultural structuring of mealtime socialization. In R. Larson, A. Wiley, & K. Branscomb (Eds.), *Family mealtime as a context of development and socialization* (pp. 35–50). San Francisco, CA: Jossey-Bass.

Pigeron, E. (2006). Learning to be connected: A look at technology-mediated social worlds. Center for Everyday Lives of Families (Working Paper).

Roxburgh, S. (2006). "I wish we had more time to spend together . . ." The distribution and predictors of perceived family time pressures among married men and women in the paid labor force. *Journal of Family Issues*, *27*(4), 529–553.

Saxbe, D. E., Repetti, R. R., & Nishina, A. (in press). Marital Satisfaction, Recovery from Work, and Diurnal Cortisol in Working Parents. *Health Psychology*.

Schneider, B., & Waite, L. J. (Eds.) (2005). *Being together, working apart: dual-career families and the work-life balance*. New York: Cambridge University Press.

Sephton, S., Sapolsky, R., Kraemer, H., & Spiegel, D. (2000). Diurnal cortisol rhythm as a predictor of breast cancer survival. *Journal of the National Cancer Institute*, *92*, 994–1000.

Shohet, M., Ochs, E., Campos, B., & Beck, M. (in press). Coming together at dinner: A study of working families. In B. Schneider (Ed.), *Why workplace flexibility matters: A global perspective*.

Story, L. B., & Repetti, R. L. (2006). Daily occupational stressors and marital behavior. *Journal of Family Psychology*, *20*(4), 690–700.

Vandewater, E. A., Bickham, D. S., Lee, J. H., Cummings, H. M., Wartella, E. A., & Rideout, V. J. (2005). When the television is always on: Heavy television exposure and young children's development. *American Behavioral Scientist*, *48*(5), 562–577.

Wilson, A., & Boehland, J. (2006). Small is beautiful. *Journal of Industrial Ecology*, *9*(1–2), 277–287.