

Off-Scheduling within Dual-Earner Couples: An Unequal and Negative Externality for Family Time¹

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Using couples' time-diary data from two French time-use surveys (1986, 1999), this article explores the extent to which off-scheduling within dual-earner couples is an unequal and negative externality for family time. An empirical typology of family workdays is built using a variant of optimal matching, and three kinds of family time are taken into account: conjugal time, father- and mother-child time, and parents-child time. The results indicate that off-scheduling is an unintentional by-product of employers' economic interests and that, since it reduces conjugal and parents-child time but fails to foster temporal complementarity between parents, it is a negative factor for family solidarity.

The widespread participation of women in the paid labor force is recognized as one of the greatest social changes of the second part of the 20th century, no doubt because at the same time it led to the outnumbering of male-breadwinner families by dual-earner families (Nock and Kingston 1984; Presser 1987). In 2000, 53.5% of all American married couples and 57.7% of American married couples with preschool-age children (under age 6) were dual earners (Presser 2003). The generalization of dual-earner

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couples is not limited to the United States but is a trait shared by every economically advanced country. For instance, in France in 2002, 62.4% of couples were double earners, according to the Labor Force Survey (LFS) conducted by INSEE (Institut National de la Statistique et des Études Économiques, or the French National Institute for Statistics and Economic Studies).

The advent of dual-earner couples has radically transformed the organization of everyday family life. Indeed, when both partners participate in the labor force, the family's day becomes more complex, as work schedules may not overlap, or, in other words, may be desynchronized (Nock and Kingston 1984). Everyday family life is different when work schedules are desynchronized, as couples tend to spend less time together but to share domestic and parental work more equally (Kingston and Nock 1985; Nock and Kingston 1988; Presser 1994). Despite the substantial effects of off-scheduling on family time, the question of whether couples choose desynchronized work schedules so as to divide child care more evenly (Presser 1988) or prefer synchronized workdays in order to spend time together (Hamermesh 2002) remains unanswered. Although these two possible explanations conflict with each other, they are based on two strong hypotheses. The first is that couples can freely choose how paid work is scheduled, and the second is that the structure of family time is simply a question of personal preferences that can be followed at will.

Yet economic history tells a very different story, that of the increasing control of employers over the timing of work. Weber (1930) considered the Industrial Revolution to have been fostered by the transposition of the Benedictines' strict organization of time into everyday secular life. Throughout Europe during the 18th and 19th centuries, time constraints were imposed on factory workers, sometimes using physical violence, to put an end to the system of long weekends (Saturday and Sunday plus Saint-Monday and Saint-Tuesday) and the resulting concentration of work into a few weekdays (Thompson 1967). This was also designed to increase productivity (Clark 1994). The control of workers' time went farther with Taylorism and Fordism, which prescribed how time within the day should be organized in order to sustain mass production (Starkey 1988). The new productive paradigm, called "flexible specialization" after Piore and Sabel (1984), adds the notion of flexibility to the equation, as it requires that employees constantly adapt both the content and timing of their work to ensure that production remains in line with the slightest variation in demand. The timing of work is a crucial economic issue for private-sector companies (Moore 1963); this casts doubt on the notion that couples have power over their work schedules.

The history of the family is also at variance with the contention that family time is simply a matter of individual preferences. Indeed, the pre-

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industrial family was a small economic unit that was at once the unit of production and consumption and the locus of labor (Tilly and Scott 1978). The industrial revolutions in Europe and America brought about changes in conjugal and parents-child relationships. First, the transition from home-based to industrial work externalized a great amount of work and weakened the economic dimension of the family. Although entire families entered the factory at first (Hareven 1982), women and children were progressively excluded from wage earning, reducing their economic contribution and, as a result, the economic interdependency between women and men. Although very asymmetrical, given the economic power that fathers had as main breadwinners, families, and especially women, specialized in nurture and socialization, shifting domestic solidarity toward interpersonal relationships (Hareven 1982; Rotundo 1985). Second, compulsory schooling and tighter labor regulations gradually turned children into dependent persons requiring care (Ariès 1962). The importance of interpersonal relationships went farther as married women increasingly entered the labor market during the mid-20th century and lessened the economic power of men, paving the way for less gendered family relationships that were more centered on interpersonal bonds (Rotundo 1985). Drawing on Durkheim's (1921) article on the consequences of social change for families, Berger and Kellner (1964) argue that, in contemporary societies, solidarity within couples mainly relies on discussion, which creates and sustains a shared principle of vision and division of the world that they call a domestic *nomos*. Put simply, even if the division of household labor is still highly gendered, the main source of solidarity for contemporary families is time spent together.² However, this does not mean that the time family members spend together is necessarily positive, as family time is also made up of tensions, arguments, or even physical violence; thus, under extreme circumstances, being with the family can be something to avoid (Hochschild 1997; Daly 2001).

Taken together, these bodies of literature on economic history and family history offer new theoretical perspectives on the question of dual-earner couples' off-scheduling (i.e., partners' timing their work schedules so that one is not working when the other one is). Since the timing of work is crucial for employers, off-scheduling could be an indirect result of work-time policies within the company rather than the direct effect of couples' trading time together for parental efficiency. Furthermore, as off-scheduling reduces the amount of time families spend together, it could affect the main source of solidarity of the contemporary family. This article investigates this issue using couples' time-use data from two French surveys conducted in person by INSEE in 1986 (covering 1,463 dual-earner

² Hamermesh (2002) puts forward a highly similar hypothesis.

couples) and 1999 (1,111 dual-earner couples). Couples' time-use data makes it possible to see how their work schedules are correlated with family time. This article uses an innovative descriptive technique (a variant of optimal matching called dynamic Hamming matching) to explore the question of the role played by employers in dual-earners' off-scheduling and the effects of this lack of synchronicity on family time.

BACKGROUND

Previous Studies on Dual-Earner Couples' Work Schedules

Currently, no full description of the way work is combined on a daily basis within dual-earner couples can be found in the existing literature. Family workdays are usually analyzed through diverging measurements of the amount of off-scheduling and data, making it impossible to review these studies without presenting their methodological details. Indeed, first of all, data with information on the work schedule of each partner are needed, but in actuality few surveys provide this kind of information. Moreover, the description of family workdays requires more than just counting the number of minutes couples are not working simultaneously, since information on the window of time during which each partner works as well as on the timing of off-scheduling is necessary. After presenting the extent of off-scheduling, I will review the explanations put forward to account for dual-earner couples' synchronicity or lack thereof.

Off-scheduling: extent and measures.—Most descriptions of family workdays and off-scheduling are based on surveys in which work schedules were measured through two questions regarding *usual* work start and finish times. Using the 1977 Quality of Employment Survey conducted by the Survey Research Center (SRC) of the Institute for Social Research at the University of Michigan, Staines and Pleck (1983) found that only 54% of dual-earner families had a standard family workday for both partners, while 12% had shifted schedules (one partner had a standard workday, the other a nondaytime shift). A standard workday is defined as the "shift in which the worker begins work each day between 3:30 a.m. and 11:59 a.m." and is opposed to an afternoon shift, "beginning . . . between noon and 7:59 p.m."; a night shift, "beginning . . . between 8 p.m. and 3:29 a.m."; rotating shifts; and "other irregular patterns of hours (variable hours)" (Staines and Pleck 1983, p. 93). A typology of family workdays is derived from this individual typology by cross-tabulation (see Staines and Pleck [1983, p. 93] for more details). This definition is problematic, however, as part-time workers are not distinguished from full-time workers and can end up classified in nonstandard work schedules even if they only work for a few hours in the afternoon (Presser 1984).

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With the same data, but with different measures, Nock and Kingston (1984) found that 20% of American dual-earner couples experienced off-scheduling of over eight hours per day, while only 8.5% of dual earners were perfectly synchronized. Three numerical indicators were used to summarize their definition of the family workday:³ “total family work time” (i.e., the sum of each partner’s work time), the “length of the family workday” (i.e., the number of hours when at least one partner is working), and the “amount of off-scheduling” (i.e., the number of hours when only one partner is working).

Using the work supplement of the May 1980 Current Population Survey (CPS), Presser (1984) also demonstrated that in only 66% of full-time dual-earner couples, neither partner did shift work. The cross-tabulation of partners’ work schedules—standard versus nonstandard—defines four kinds of family workdays: husband only on shift, wife only on shift, both spouses on shift, neither spouse on shift.⁴ Using the 1997 CPS supplement, Presser (2003) showed that only 46% of dual-earner couples had “traditional” work schedules (both partners working standard hours and weekdays). Analyzing the series of CPS May work supplements (1973, 1978, 1985, 1991, and 1997), Hamermesh (2002) showed that the lack of synchronicity within American dual-earner couples—synchronicity being measured by a series of dichotomous variables indicating whether each hour of the day is jointly worked by couples or not—increased considerably between the 1970s and 1990s.

Using the workweek grid of the 1999 French time-use survey, Chenu and Robinson (2002) showed that 45% of French dual-earner couples experienced a level of desynchronization greater than 60%. To do so, they used a more elaborate version of Nock and Kingston’s (1984) off-scheduling index, which takes into account what they called “structural

³ The term *family workday* was coined by Nock and Kingston. As words represent the stock of knowledge of a society (Elias 1991), it was indeed crucial that changes occurring within families be reflected in the vocabulary. English-speaking readers might be interested to know that the English language is more advanced in this respect than other languages, French in particular. It is only very recently that words were tentatively proposed and used in French to denominate dual-earner couples (*couples bi-actif*). The scientific community has an important part to play here, and to a certain extent this linguistic slowness is also a scientific delay in acknowledging the situation experienced by 6.2 million French couples in 2002.

⁴ Presser (1984, p. 580) used the Bureau of Labor Statistics’ (BLS) 1979 definition of shift work. “Day shift: full-time schedule (35 hours or more per week) in which at least half the hours fall between 8 a.m. and 4 p.m.; evening shift: full-time schedule in which at least half the hours fall between 4 p.m. and midnight; night shift: full-time schedule in which at least half the hours fall between midnight and 8 a.m.; miscellaneous shift: full-time schedule of less than 6 or more than 12 hours per day.” Nondaytime shifts are grouped together to form a simple dichotomous variable opposing standard to nonstandard work schedules.

desynchronization,” namely, the share of off-scheduling that stems from unequal work durations. They argue that a day containing a full-time shift perfectly synchronized with a part-time afternoon shift would be mistakenly classified as a highly desynchronized day only because of the difference in duration.

The evidence provided by these studies suggests that off-scheduling is quite common among dual-earner couples and is on the rise. However, most of these results can be questioned on the grounds that partners' *usual* work schedules are not equal to *actual* family workdays. Serious analysis involving time cannot be undertaken without time-use data (Robinson 1985). In time-use surveys, respondents are asked to describe their activities on a particular day, in their own words, using a diary. This information is subsequently coded using international conventions established by Szalai (1972) and colleagues. Information on time collected through diaries is less subject to approximations and biases linked to social desirability than stylized time-use questions about usual work start and finish times (e.g., diaries provide more precise information on the usual working hours for rotating workers) or about time spent on specified activities such as watching TV or reading to children (Hofferth 2006). Furthermore, stylized time-use data provide virtually no information about the sequences of daily activities. Finally, analyzing off-scheduling among dual-earner couples using stylized questions increases the effects of these individual approximations even more.

Another limitation is that more usual statistical methods cannot deal appropriately with sequences, as they require time to be reduced either to durations or to categorical indicators based on arbitrary definitions. This is certainly why most studies on the synchronicity of dual-earner couples presented here tend to skip the descriptive phase and focus on modeling. However, I have successfully built an empirical typology of family workdays using the 1986 and 1999 French time-use surveys and applying optimal matching analysis (Lesnard 2004). This typology is adopted in this article and will be presented in more detail later.

Factors explaining off-scheduling.—It has been argued that dual-earner couples might choose to work shifts in order to take turns caring for their children (Presser 1988). It has also been suggested that dual-earner couples have a preference for spending time together and opt for synchronized work schedules (Hamermesh 2002). Unfortunately, even if families with children appear to be slightly more desynchronized than families without (Nock and Kingston 1984; Chenu and Robinson 2002) or well-off families appear to have more synchronized work schedules (Chenu and Robinson 2002; Hamermesh 2002), these theories could not be formally tested by

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the scholars who proposed them, as none of them used information on partners' degree of command over the scheduling of their work hours.⁵

The economic factors that shape individual and family workdays are, on the other hand, quite well documented. At the individual level, Presser (1987) demonstrated that only 10% of managers have nonstandard work schedules, a figure that jumps to 30% for service workers. Atypical work schedules are more common in some occupations and employment sectors but are also correlated with earnings. Hamermesh (2002) showed that lower-wage workers have a higher probability of working morning and evening shifts than those with high earnings and that the increase in wage inequalities between 1973 and 1997 accounts for the growth of off-scheduling. In 1997, only 27% of American full-time wage and salary workers had flexible work hours that allowed them to vary or make changes in the time they began and ended work (Golden 2001). Moreover, while 20% of managers had flexible work schedules, only 2.2% of laborers were in a position to change their working hours. And quite logically, most of the time, nonstandard work hours resulted from job constraints and not from a preference to better arrange child care, in particular because most (71%) of those working nonstandard hours did not have children under the age of 14 (Presser 2003).

The evidence at hand suggests that work schedules are tightly linked to job and employment sector and are decided on most of the time by employers; exceptions are found mostly among employees located on the highest steps of the social ladder. How do these individual constraints combine at the couple level? Even fewer studies address this issue, but they all point to similar economic constraints. Full-time dual-earner couples' work schedules also depend on occupation and employment sector (Presser 1984), and overall, the higher their education and socioeconomic position, the more dual-earner couples are synchronized (Staines and Pleck 1983). Taken in sum, these results suggest that the position occupied in the economic field is highly correlated to both individual and conjugal work schedules.⁶

⁵ Surprisingly, this information is available in the work supplements of the CPS (in which the question "Do you have flexible work hours that allow you to vary or make changes in the time you begin and end work?" appears), as revealed by Golden (2001).

⁶ On the economic field, see Bourdieu (2005). On the use of the concept of the field in the social sciences, see Martin (2003). According to Bourdieu, the economic field is the historical product of the differentiation of economic activities from the rest of society. It is characterized as a social space where interactions are based on rational principles. Economic fields are still organized on a national basis, even though globalization tends to connect and unify national economic fields. Position in the economic field is twofold. First, individuals are located within companies, depending on their skills, educational attainment, gender, wages, power, etc. Second, companies are themselves located in the broader economic organization according to the product and services they provide,

Previous Studies on Family Time

As with family workdays, it is not possible to review the few studies that have been dedicated to family time without commenting on the definitions used. First, I consider the research that has been conducted on family time and on changes over time. Then I look into the analyses that have been conducted on the effects of off-scheduling on family time.

Family time: content and trends.—Family time is not a natural category for analysis in the traditional framework of time budgets (Budig and Folbre 2004) and has often been reduced to the main activities performed with children. Consequently, most studies on family time have focused on parental time, undoubtedly because of the academic success of the concept of human capital, in which measuring parental time is crucial (Bianchi 2000). However, diaries have been designed to collect far more information than what the main activities are—in particular, with whom the activities in question are carried out. Stone (1972) is the first social scientist to have used this additional information to provide insights on parental time for the 12 countries that participated in the project coordinated by Szalai (1972). Unfortunately, no details on the nature of family activities are given. Robinson (1977) also used the “with whom” information, but mainly as an illustration of the usefulness of the time-use data in a book not focused on family time.

With the copresence variable of time-use diaries, it is possible to distinguish two major types of family time: the time partners spend together, or conjugal time, and the time parents are with their children, or parental time. In 1981 (according to the 1983 Study of Time Use conducted by Juster, Stafford, Hill, and Parsons), the time American partners spent together was composed mainly of TV watching (44 minutes on an average day, according to wives’ accounts of conjugal time), meals (33 minutes), and other leisure (28 minutes) (Kingston and Nock 1987). There were some discrepancies in the time men and women reported being in the presence of one another that can be attributed to diverging gendered views on what spending time together is. Parental time is unsurprisingly highly gendered, especially in single-earner families, where women spend twice as much time with their children as men (Nock and Kingston 1988). The definition used is problematic, however, as the time both parents spend with their children is counted twice, once in the father-child time and again in the mother-child time. The only solution to this double counting would have been to define three kinds of parental time: both parents with

the competition they are facing, their size, the degree to which they are vertically or horizontally integrated, etc. Hence, position in the economic field refers to the double position of agents within firms and of firms within national and international economies.

the children (parents-child time), only the father with the children (father-child time), and only the mother with the children (mother-child time). More interesting is the kind of activities performed in the presence of children: unpaid work is the main activity carried out by women with their children, whereas TV watching is the principal parental activity for men. Similar results have been found by Bryant and Zick (1996) using the Eleven-State Time-Use Survey (1977–78), one of the rare U.S. surveys with information from both partners.

These findings suggest that mother-child time is more connected to unpaid work and care than to interpersonal time. However, as no definition of parental time is given—for instance, it is impossible to know if partners took part in parental time jointly or individually—these results are difficult to interpret. This interpretation is supported by a study done by Silver (2000) using the 1998 Canadian time-use survey conducted by Statistics Canada, which shows that father-child and mother-child time decrease as the age of the children increases, whereas parents-child time (i.e., the whole family together) remains stable. This means that the time parents spend with children individually is more related to daily care, which disappears as children become self-sufficient. But self-sufficiency does not suppress all family sociability: family time is reduced but becomes more balanced between parents and children, thus turning into real together time—contributing to domestic solidarity—and less care time.

The time American parents spent in the presence of their children increased between 1981 and 1997. Comparing the 1997 child development supplement of the Panel Study of Income Dynamics (PSID) to the 1981 Study of Time Use, and with the help of a technique to disentangle structural and behavioral change,⁷ Sandberg and Hofferth (2001) show that even though the higher proportion of women in the labor force tends to decrease the time parents spend with their children, this structural factor is outweighed by behavioral change. This upward trend has been corroborated by Sayer, Bianchi, and Robinson (2004), who analyzed the change in parents' child-care time observed in the 1965, 1975, 1985, and 1998 American time-use surveys conducted by the SRC. The more advanced and original method used by Sayer et al. to unravel structural and behavioral factors in the change in parental time allowed them to neatly demonstrate that not only has parental time increased in the United States since 1965, but it has increased *despite* negative structural factors linked to family changes. In other words, and contrary to what is com-

⁷ The PSID is a longitudinal study of a representative sample of U.S. individuals, conducted by the SRC. The child development supplement to the PSID features a diary for one or two children per family, ages 3–12, which is filled in by the main caregiver.

monly believed, American parents have never spent so much time with their children, in spite of the increasing complexity of their daily lives (Bianchi, Robinson, and Milkie 2006). Such a trend is also found in Canada, France, the Netherlands, and the United Kingdom (Bianchi et al. 2006).

Previous studies have shown that leisure is the fabric of everyday family life and that, although limited to parental time, time together is increasingly valued. The increase of family time might be related to the expansion of leisure time. It is indeed interactive child care (time spent helping or teaching children, talking or reading to them, and indoor or outdoor playtime) that increased the most between 1965 and 2000, for both mothers and fathers, while routine child care did not change much for mothers and only slightly increased for fathers (Bianchi et al. 2006). Contrary to what Dumazedier (1967) had imagined, the growing weight of leisure time is not at the expense of the family; rather, it is the family that may be the locus of the development of leisure.

Off-scheduling and family time.—Few studies document the impact of the scheduling of work within dual-earner couples on family time. However, Kingston and Nock (1987) find, not surprisingly, that the total amount of off-scheduling appears negatively correlated with partners' time together. Rather than introducing the total amount of off-scheduling,⁸ they measured the effect of desynchronization on parental time through a series of variables indicating each parent's number of work hours over four time periods.⁹ Fathers appear to spend more time with children (watching TV) only when their partners are working late in the afternoon or evening. Consequently, it is only when mothers are working during after-school hours that fathers increase their contribution to parental work. These results have been corroborated by Brayfield (1995). Using the National Child Care Survey from 1990 (see Hofferth et al. 1991), which features employment and child-care time diaries, Brayfield found greater paternal involvement in child care when mothers work in the evening or on night shifts, or when they work on weekends. Slightly higher levels of child-care time (in which child care is the primary activity) among fathers with desynchronized schedules have been also found for France (Chenu and Robinson 2002). In Great Britain, fathers who spend time with their children when the majority of other men are engaged in paid

⁸ Kingston and Nock took the comments of Berk (1985) into account. She argued that the timing of off-scheduling is of paramount importance for childcare. A quite similar argument can be found in Bianchi (2000): parents do not need to be present all of the time during weekdays, when children go to school.

⁹ The main drawback of this approach is that it deals with the family workday as completely disconnected individual work spells.

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work (which is atypical) are those with low-level occupations in the service and sales sectors and with employer-led flexibility, in the form of shift work (Oliver 2007).

Three conclusions can be drawn from these previous studies. First, evidence suggests that conjugal time and parents-child time consist of daily activities not linked to paid or unpaid work: eating and leisure. This would accord with the hypothesis that interpersonal relationships are the core of contemporary family solidarity. The second major conclusion is that even though father- and mother-child time are related both to unpaid work and to leisure, the bulk of the increase in child-care time observed between 1965 and 2000 can be attributed to recreative child care—that is, to leisure activities. Although only child care has been studied over a long period, again, this supports the contention that being together is increasingly important for contemporary families. Third, previous studies have shown that even if desynchronization is indeed correlated with less conjugal time and more mother-child and father-child time, the timing of desynchronization must be taken into account to capture and understand these effects.

Previous studies were unable to provide insights into this question for two main reasons. The first one is statistical. Quality time-use data with information from both partners are almost nonexistent in the United States, the only country in which studies have investigated the effects of off-scheduling.¹⁰ Furthermore, numeric or a priori categorical indicators have proved inadequate to tackling the methodological challenge of describing family workdays and measuring off-scheduling. This calls for new tools capable of taking the sequential dimension of daily life into account (Presser 2003). The second reason for the limitations of previous studies is conceptual. Family time used to be restricted to direct child-care activities, preventing previous analyses from taking a broader view on how the different components of family time have changed over time and have been influenced by off-scheduling. Both of these reasons seem to be related to the fact that the use of time has traditionally been studied within the time-budget framework,¹¹ where only work duration and direct child care can be taken into account. With time budgets, a night shift and a nine-to-five workday are the same because they are of the same duration, and the time a family spends watching TV is not recorded as

¹⁰ Time-use surveys have been conducted in the United States since the beginning of the 20th century, but, aside from the 1981 Study of Time Use and the 1977–78 Eleven-State Time-Use Survey, none of them feature diary information for couples.

¹¹ Time-use surveys are still often mistakenly called time-budget surveys, a name in total contradiction with the way information on time is collected.

family time but as individual spells of TV activity. Not only does the time-budget filter individualize daily life, it also eradicates timing.

Everyday Life and Cross-national Comparisons

Quality time-use data from both partners are needed to carry this study to a successful conclusion. Using data from France may limit the degree to which the results found apply to other countries, especially the United States. Given that this debate has been initiated by American sociologists with American data, in an ideal world, I would have used American data as well. However, the necessary data unfortunately do not exist, and therefore data from France, one of the few countries with couple data available in two surveys, will be used instead. Even if the underlying hypotheses of this study are not specific to the United States or to France but concern all economically advanced countries (for more details on the degree of similarity between those countries, see Gershuny [2000]), this may present certain limitations related to public policies and particularly the state provision of inexpensive and quality child care in France.

In the now-classic welfare regime scheme proposed by Esping-Andersen (1990), France is usually considered a good example, along with Germany, of a conservative welfare regime in which corporatist public policies foster traditional gender roles. Despite its usefulness for international comparisons, the limits of the Esping-Andersen framework are well known, particularly in terms of family-work balance (Lewis 1992; Gornick, Meyers, and Ross Phillips 1997), where the boundaries are less clear-cut. Indeed, with regard to policies that support employment for mothers, policies in France are not very different from those in the Scandinavian countries, which are regarded as the best examples of social democratic regimes in the Esping-Andersen typology. One of France's peculiarities is that public policies aim to encourage both female employment *and* childbearing. However, the other side of the coin is that the opening hours of these publicly funded child care facilities are rigid and narrow, compelling many French couples to resort to other arrangements. No major changes in these policies can be reported between 1986 and 1999.

And in fact, previous research on the possible connections between daily lifestyles and public policy regimes remains largely inconclusive (Gershuny and Sullivan 2003; Pacholok and Gauthier 2004). If welfare regimes do redistribute discretionary time—the amount of time above the temporal poverty line (Rice, Goodin, and Parpo 2006)¹²—the convergence of the

¹² Rice et al. define discretionary time as the time available once basic needs are satisfied (paid and unpaid work and personal care). This measure of temporal autonomy is very different from spare time, and they argue that it is a better measure of welfare

actual content of daily life in different public policy regimes is very well documented, as cross-national comparisons have been a long-standing tradition in the time-use field since the international project headed by Szalai (1972). Using data from the Multinational Time Use Study,¹³ Gershuny analyzed 20 countries (40,000 individuals ages 20–60), many of them at multiple time points, and found converging patterns in the time spent on everyday activities (leisure and paid and unpaid work).

However, the welfare-state framework, like any typology, “may conflate national characteristics and policies” (Hook 2006) and as a result may obscure more than cast light on the effects of national contexts. In her study of men’s unpaid work in 20 countries, spanning 1965 to 2003, Hook (2006) used multilevel models to demonstrate that the most prominent factor explaining cross-national differences is married women’s employment, as well as, to a lesser extent, the length of parental leave: the more women are employed (full-time) and the shorter the parental leave, the more fathers do unpaid work. The proportion of women engaged in the labor market was also found to have an impact on the division of household labor in Germany and Israel (Lewin-Epstein, Stier, and Braun 2006). However, the availability of publicly funded child care was not statistically significant in Hook’s study. Not only does the unpacking of welfare-state regimes into specific policies explain cross-national variation in men’s unpaid work, it also accounts for change across time when the national-level data on women’s participation in the labor force are included in the model. In other words, the upward trend in men’s unpaid work is above all related to the increase in women’s participation in the labor market and the spread of dual-earner families.

These results suggest that the comparability of the conclusions found for France are likely to depend on two factors: the proportion of women participating in the labor market and, to a lesser extent, the length of parental leave. Whereas there is no national parental-leave scheme in the United States or Australia, French women are entitled to 16 weeks of paid leave (14, before 1979; Gauthier 1996). Even if over the 1986–99 period no policy change can be reported, the relative position of France in matters of parental leave has nonetheless considerably changed, since at the beginning of the 1970s France was one of the countries with the longest parental leave, whereas it is now closer to countries with a liberal welfare state than to social democratic welfare regimes (Gauthier 2002).

The proportion of French women ages 25–54 in paid employment went

than money, in particular because discretionary time is easier to compare across space and time than money. For more details on the concept of discretionary time, see also Goodin et al. (2005, 2008).

¹³ <http://www.timeuse.org/mtus/>

up from 70% to 78% between 1986 and 1999, although many of these women gained part-time jobs. The labor force participation rate of American women in the same age range was 71% in 1986 and 77% in 1999.¹⁴ Though the figures are similar, perhaps the greatest source of concern in comparing France to the United States is the difference in the proportion of part-time workers: 16.9% of French employees worked part-time in 2002 (according to the LFS of that year), while 17.4% of employees worked part-time in the United States in 2002 (according to the 2002 CPS annual average). The proportion of women working part-time in France was close to 15% in the 1980s but soared to almost 30% in the 1990s, after the introduction of tax deductions to foster the creation of part-time jobs or the transformation of full-time jobs into part-time ones. One may question the validity of the results on the grounds that some women may choose their job on the basis of work schedules. However, this is unlikely to be the case, as half of the employees who worked part-time in 1999 did not choose to do so, and also because taking care of children was put forward as a reason for doing so by only 35% of these women (Lesnard 2006a). Most of these part-time employees are civil servants and, as such, have more control over the scheduling of their work hours than most employees in the private sector (Chenu 1990). When chosen, part-time work often consists of full and partially worked standard workdays. When imposed, part-time work often means work schedules outside the boundaries of the standard workday or staggered. Most of the time, when women work part-time they are not entitled to preferential work schedules. The slightly higher proportion of women working part-time in France (29.9%, according to the 2003 LFS), as compared to the United States (25.3%, according to the 2002 CPS), is more related to tax incentives available to employers than to a choice by women to cut down on their work hours in order to achieve a better family-work balance.

I will investigate this issue in two ways. First, I will consider the amount of off-scheduling attributable to the partner with the shortest workday. Since most part-time jobs are held by women, this means that I will look at the extent to which desynchronization has arisen because women are working at a time of day when their partners are not. Second, I will use the net dissimilarity index (NDI) proposed by Chenu and Robinson (2002), which is simply women's share of desynchronization divided by the proportion of time that partners would be working simultaneously if both schedules were fixed at random.

¹⁴ Data extracted from OECD.stat (Labor Force Statistics) on March 4, 2008.

Research Question and Analysis Plan

The literature on couples' workdays suggests that work schedules depend on occupation, employment sector, and earnings, thus giving some empirical credit to the speculation that personal preferences are only one part of the story explaining off-scheduling. Previous studies on family time also support the contention that time spent with all members of the family together is an important factor in building solidarity in contemporary families. All in all, these two bodies of empirical literature give rise to the speculation that off-scheduling among dual-earner couples might not be a choice but the unintentional consequence of employers' economically motivated behavior. If so, the effects this has on family time would not be the result of dual-earner couples' trading togetherness for efficiency. As togetherness is theoretically a crucial source of solidarity in the contemporary family, the decrease in time together brought about by off-scheduling would also be unintentional and as such potentially negative for family solidarity.

The aim of this article is to examine the extent to which off-scheduling within dual-earner couples is an unequal and negative externality for family time. There is externality when one person's actions impose costs or benefits on another. Here it is suggested that dual-earner couples' off-scheduling can be attributed to a large extent to employers who generally have authority over employees' work schedules and set them in accordance with their own economic interests. Existing evidence also suggests that desynchronization does not affect couples randomly, but above all weighs on those located low on the social ladder, and hence that off-scheduling is an unequal externality. Furthermore, considering the theoretical importance of time together within contemporary families, and in view of previous studies on the effects of off-scheduling on family time, this externality can be also described as negative for domestic solidarity.¹⁵

DATA AND METHOD

The 1986 and 1999 French time-use surveys, which were the most recent ones to be conducted, present an incomparable advantage for this study by featuring couples' time-use information. The two surveys were carried out by INSEE over a period of one year each and had high response

¹⁵ No personal opinion is expressed here as to whether or not partners should spend time together; rather, existing theories and empirical evidence are used to put forward the assumption that spending time together is the main source of solidarity for contemporary families.

rates (65% and 80%, respectively).¹⁶ In the 1986 survey, one respondent was selected among household members ages 15 and over using the Kish method (Kish 1949). When the respondent had a partner, he or she was also interviewed. In the 1999 survey, all household members ages 15 and over were interviewed. In both surveys, respondents were asked to describe their activities over the course of one day, selected by interviewers so that all the days of the week were represented equally.¹⁷ One-day diaries with five- and 10-minute time slots were collected. Comparability can be an issue, but an unpublished methodological study suggests that problems are likely to be minor and limited to very specific sequences of activities (e.g., “clearing the table” may or may not be contained in “having a meal”).¹⁸ Work and family time, for which measurements are presented below, should not be too biased by this methodological difference. Note that in order to make the comparison of family workday typologies between 1986 and 1999 easier, the analysis was performed on the two pooled data sets; 50% of the former’s time slots were dropped.¹⁹ In the following analysis, weights are not used, since the statistical technique used here to analyze family workdays sequentially was completely new and had to be programmed using SAS.²⁰

In addition to completing time diaries, wage-earning respondents were also asked questions about who determined their work schedules, choosing from among five responses: (1) the company determines work schedules with no change possible, (2) a choice between fixed work schedules is offered by the company, (3) work schedules can be changed from one day to the next in an à la carte system, (4) work schedules are determined by employees, and (5) schedules are determined by another method. Wage-earning couples’ command over the scheduling of their workdays is derived from the cross-tabulation of each partner’s answer to this question. Four possibilities were considered: work schedules are imposed on both partners (both partners answered 1 or 2), a schedule is imposed on one partner (one partner answered 1 or 2 and the other 3 or 4), work schedules

¹⁶ The survey was suspended during the summer and Christmas holidays.

¹⁷ Respondents from the same household were asked to describe the same day.

¹⁸ Alain Chenu, personal communication, June 2, 2002.

¹⁹ This is not to say that 50% of the information has been dropped, since five-minute activities represent less than 5% of the activities reported in diaries. Pooled data sets have been used only to construct the empirical typology of family workdays. All the other analyses in this article include all information available in the surveys.

²⁰ Weights are now supported in SAS, and in addition, a Stata plug-in implementing weights has been developed since the first version of this article was written. The impact of weights on the results presented in this article has been investigated, and there is no significant change, undoubtedly because of the high quality of the French data.

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are decided by both partners (3 or 4 for both partners), and schedules are determined by some other method (at least one partner answered 5).

Work Schedules as Sequences: A New Method of Classifying Family Workdays

In order to describe the everyday work experience of dual-earner couples, it is necessary to take work hours and their scheduling into account for both partners simultaneously. As we saw, Nock and Kingston (1984) tried to break up the family workday into three indexes, which I will use to measure off-scheduling and to derive *work synchronicity percentages*—the ratio of the number of hours of simultaneous work to the number of hours at least one spouse works (the length of the family workday). However, the problem with this numerical approach is that it is subsequently difficult to obtain a meaningful overview of family workdays.

The best way to describe family workdays is through an empirical typology, but the difficulty then is to find a suitable distance measure to gather similar work schedules and separate dissimilar ones. Such measures should use all the information present in the diaries of the time-use surveys but should also respect the timing of events: an eight-hour workday from nine to five is very different from an eight-hour night shift. In my earlier work (Lesnard 2004, 2006b) I proposed the use of a special case of optimal matching analysis, called dynamic Hamming matching, with no insertion-deletion (*indel*) operations but with substitution costs derived from the transition matrices between the different states of the process considered.

Optimal matching analysis, or simply optimal matching (OM), was introduced into the social sciences by Abbott and others (Abbott and Forrest 1986; Abbott 1995; for a review, see Abbott and Tsay 2000). This family of methods can be seen as a way to measure the dissimilarity between pairs of sequences by assessing the complexity of matching them using three basic operations: insertion, deletion, and substitution. As a consequence, OM only generates dissimilarity matrices, and additional statistical analysis dealing with dissimilarity objects, such as clustering, are needed.

Unlike substitution operations, insertion and deletion of events loosen the connection of processes with their temporal scale. In the case of work schedules, insertion and deletion operations alter the connections between work schedules and their locations in the day. As the purpose of applying OM is precisely to analyze jointly the number of work hours and their scheduling, these temporal distortions should be avoided, and so insertion and deletion operations should not be used. Consequently, my approach is to use substitution operations only and to derive their costs from the series of transition matrices between the different states defined; this is

TABLE 1
 SAMPLE SIZES (No. of Households)

Type of Household	1986	1999
Dual-earner couple who worked the day of the survey	1,463	1,111
Without children at home	425	330
With children at home	1,038	781
Other types of households	8,909	6,349
Total	10,372	7,460

the method termed dynamic Hamming matching (Lesnard 2004). Indeed, a high transition rate between two states on a given date indicates that these two states are close, since the probability of switching states is high, while a low transition rate suggests that the two states are, on that particular date, quite distinct—in other words, that they belong to different rhythms.

For instance, if individual schedules are studied and two states are defined—work and nonwork—then, because 9 a.m. is quite a usual time to start work, it is impossible to say that the schedules of one person who works at 9 a.m. and another who does not are very dissimilar. On the other hand, working at 9 p.m. is less common, and a schedule with work at that time would be considered very different from another with no work at 9 p.m. This dissimilarity measure is consequently endogenous and dynamic, reflecting the fact that time is socially structured (working at 9 a.m. is socially different from working at 9 p.m.) and that this social structuring is mirrored by collective rhythm (the sociological name for the transition matrices).²¹

I apply this method to the pooled French time-use surveys in order to make the comparisons between 1986 and 1999 easier.²² All days with at least 10 minutes of paid work for both partners have been considered for the analysis. Rather than deciding arbitrarily the minimum duration of work at which family days were to be considered as jointly worked, I adopted the widest definition possible, thus allowing the comparison method and the clustering algorithm to identify family workdays with few work hours. Only 6.5% of these days jointly worked by dual-earner couples are weekends. The combined sample size is considerable (see table 1). Partners' individual diaries are simplified and combined to describe family workdays with the help of four elementary states, or, in other

²¹ See Durkheim (1912) and Zerubavel (1981) for more details on the link between time and collective rhythm.

²² Results are unchanged whether the two data sets are pooled or not. It is simply in order to make comparisons easier that only the pooled results are presented here.

words, family workdays are described as processes evolving in a 4-state universe: (1) no partner works, (2) only partner 1 works, (3) only partner 2 works, and (4) both partners work.

Thus, the proximity between any two family workdays at t is provided by the intensity of the average transition rates for the whole sample between $t - 1$ and t , and between t and $t + 1$. The dissimilarity matrix obtained by applying this rule is then submitted to a standard clustering algorithm.²³

An Extensive Definition of Family Time

In order to measure family time as defined, I use the “with whom” information collected in the diaries and reduce the variety of activities described by couples to a meaningful subset of categories. I use here a slightly refined version of the coding scheme proposed by Kingston and Nock (1987).²⁴ Based on this nomenclature, three family-time categories are defined using couples’ descriptions of whom they are with:²⁵

1. *Conjugal time*.—Each partner declares s/he is with the other.
2. *Parents-child time*.—Each partner says s/he is with the other and with at least one child.
3. *Parent-child time*.—Each partner claims to be alone with at least one child.

Unfortunately, it is not possible to apply this definition to the 1999 survey: children were not distinguished from partners in the “with whom” item in the diaries. However, with the additional hypothesis that parent-child time does not happen simultaneously—that both spouses never spend time alone with a child at the same moment—it is possible to measure it. Since in 1986 simultaneous parent-child time is nil, this hy-

²³ The β -flexible algorithm, or flexible WPGMA (Weighted Pair Group using arithmetic Averages), has been used here. See Milligan (1980, 1989) for a review of the advantages of this method. Flexible WPGMA is better than Ward, especially when noise and outliers are present.

²⁴ The different activities are paid work, unpaid work (routine domestic chores), travel, meals (outside the workplace), conversations, leisure, TV, care, and semileisure (gardening, knitting, etc.).

²⁵ More precisely, conjugal time, as well as parents-child time, encompasses every activity carried out in the presence of the other partner also declared as such by the other partner. Activities about which partners made conflicting statements are not considered here. In 1999, conditional to the activity nomenclature used, 76% of partners (in couples without children) have converging statements about being together. Conflicting statements can be attributed to a large extent to partners who do not get up at the same time but say they do in the diary (13%). The rest of the statements really diverge on the question of being together. Whether such discrepancies are mistakes or reveal diverging gendered views on being together is an interesting avenue for research.

pothesis will be assumed in the remainder of this article. Another consequence of this flaw in the design of the 1999 survey is that father- and mother-child time are likely to be overestimated, as it is not possible to distinguish partners' conflicting statements (one partner claims she or he is with the other partner, who says she or he is alone or with someone else) from true father time and mother time.

FINDINGS

Family Work Days and Off-Scheduling

The variety of family workdays can be optimally summarized in eight different types.²⁶ The most frequent workdays for dual-earner couples are combinations of two eight-hour standard workdays. This category, double standard workdays, represents 49% of family workdays in 1986 (see table 2). If this sort of workday is considered to be the reference, then other forms of family workdays can be characterized as atypical.

Atypical family workdays deviate from this reference in four main ways. The family workday with long work hours is characterized by at least one workday of more than 10 hours. The shifted family workday is composed of shifted individual workdays: shifts can be scheduled in the morning, in the afternoon, in the evening, or at night. When partners' work schedules are completely desynchronized (e.g., one works night shifts, and the other has a nine-to-five schedule), the family workday is *perfectly shifted*. Another source of atypicality stems from women who worked only partially on the day observed.²⁷ Finally, a less clear-cut group incorporates family workdays with short or irregular work hours for at least one partner.

In 1999, standard family workdays represented only 44% of total family workdays. About 70% of the work time of these couples is simultaneous (synchronous). The standard family workday potentially allows for time together, but of course whether or not this time is indeed spent together remains to be shown—this is precisely the aim of this article. Logically, when at least one spouse works more than 10 hours, synchronicity is

²⁶ There is no general rule to determine how many types, or classes, should be kept. The flexible WPGMA height for the last steps in the grouping process can give some guiding elements, as a jump reveals that two dissimilar clusters have just been joined (elbow criterion). The first big jump occurs when the number of classes changes from eight to seven, suggesting that a typology with fewer than eight classes is too synthetic (figure not reproduced). As this typology proved to be interpretable and no significant information was recovered from more detailed typologies, I have adopted the eight-class solution.

²⁷ This type is not only made up of part-time workers, and part-time workers are not to be found exclusively in this category.

TABLE 2
TYPES OF FAMILY WORKDAYS IN 1986 AND 1999

TYPE OF FAMILY WORKDAY	1986				1999			
	%	Length of Husband's Workday	Length of Wife's Workday	Synchronicity of Work Schedules (%)	%	Length of Husband's Workday	Length of Wife's Workday	Synchronicity of Work Schedules (%)
Double standard workday	49	8:36	7:54	72.8	44	9:02	8:20	70.1
With long hours	8	11:04	8:51	57.7	10	11:15	9:36	57.8
With shifted schedules	14	7:05	7:07	23.9	15	7:06	7:16	23.3
In the morning for men	8	6:34	6:48	31.0	8	7:01	7:02	29.9
In the evening for men	4	7:21	7:39	22.1	4	6:34	8:08	23.4
Perfectly shifted	3	8:15	7:16	5.4	3	8:02	6:56	4.2
With a partial workday for women	12	8:54	4:49	36.9	16	9:07	5:18	36.5
With short/irregular work hours	17	5:47	4:15	27.0	15	6:45	4:46	31.9
Overall ^a	100	8:09	6:53	52.4	100	8:39	7:18	50.5

^a Figures in the % columns are rounded totals of the main variables, time figures are averages, and synchronicity is measured as an overall percentage for each year.

lower, by 12 points. This situation of potentially reduced sociability affects one dual-earner couple out of 10. The most dramatic increase in off-scheduling is nonetheless due not to overwork but to couples' shifted work schedules. The average synchronicity rate for these couples is a low 23%, a figure that can almost reach zero for perfectly shifted couples (3% of family workdays). Most of the time, family workdays are shifted in the morning for husbands and in the afternoon for wives. This configuration is theoretically appealing, because it means that fathers are at home (or can be available) when children come back from school, or, in other words, that interpersonal time can be traded for a more equal division of parental labor.

Not surprisingly, when women worked partially on the day observed, the synchronicity of work schedules was rather low (37% in 1999). However, even if off-scheduling is largely the result of unequal work durations between partners, it is also due to the significant amount of shift work in these reduced schedules; in other words, part-time work is also quite often shifted work. In 1986, 69.8% of women who worked part-time in the morning began work before 9 a.m. On average, these women started work 93.5 minutes before 9 a.m. (i.e., at 7:27 a.m.), and almost half of this time was desynchronized (42 minutes). Among women who worked part-time in the afternoon, 70.6% ended work after 5 p.m. On average, these women stopped working 132.6 minutes after 5 p.m. (i.e., at 7:12 p.m.), and 57.9% of this time was desynchronized (76.8 minutes), meaning that their partners were not also at work. In short, about seven out of 10 women who worked part-time did so outside the boundaries of the standard nine-to-five workday, and a significant proportion of this time was desynchronized. All in all, the share of off-scheduling that can be attributed to women (i.e., women who were at work when their partners were not) was, on average, 17.0% for women who worked part-time in the morning and 15.8% for those who worked part-time in the afternoon.

Overall, off-scheduling increased by 11.4%,²⁸ from 4 hours and 43 minutes in 1986 to 5 hours and 15 minutes in 1999. Relative to the length of the family workday, it increased from 47.6% to 49.5%. Using the em-

²⁸ The *P*-value from the two-tailed Student significance test is $P < .0001$. The size of differences observed is assessed in this article using Bayesian tests. For more details, see Rouanet et al. (2000). Difference, or *d*, = 32 minutes; SE = 203.255; the calibrated effect, or d/SE , = 0.159. When the calibrated effect is less than 0.4 in absolute terms, the effect is considered small. When it is greater than 0.6 in absolute terms, the effect is considered large. When the calibrated effect is somewhere between 0.4 and 0.6, it is neither small nor large. Bayesian tests using noninformative prior distribution can be used to see if this descriptive result can be extended to the whole population. Here, since the probability that the effect is small, or $P(d/SE < 0.4)$, equals 1, the off-scheduling increase is thus statistically significant but small.

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pirical typology described above, it is possible to explore the causes of this increase in greater detail. Off-scheduling can increase or decrease either because the number of desynchronized hours within family workdays or the proportion of desynchronized family workdays has gone up or down. First, it appears that the most synchronized family workdays were slightly (but significantly) less synchronized in 1999 than in 1986.²⁹ Second, the relative size of this type of family workday slightly decreased. However, the greatest change is certainly the increase in the number of family workdays with part-time hours. In order to make sure that the overall slight increase in off-scheduling is not a statistical artifact arising from the increasing number of family workdays with unequal work durations, I first consider Chenu and Robinson's (2002) NDI. The average NDI also went up slightly between 1986 and 1999 (not shown),³⁰ suggesting that the upward trend in off-scheduling holds when checked for unequal work durations. The share of off-scheduling attributable to women rose from 17.0% in 1986 to 21.4% in 1999 for morning part-time shifts and from 15.8% to 19.4% for afternoon part-time shifts. The slight increase in the number of desynchronized work hours is therefore not a statistical artifact due to the rise in the number of women working part-time.

Two conclusions can be drawn from this empirical typology of family workdays. First, as expected, standard family workdays appear to be in a minority in France and to have lost ground since the mid-1980s, which is another way of saying that off-scheduling is widespread and growing. Second, the different kinds of family workdays identified make it possible to locate off-scheduling at specific times during the day and to accurately relate this to work schedules, paving the way for an analysis of links with employment sector and occupation.

Off-Scheduling and the Question of Choice for Couples

Now that the reality of off-scheduling is established, I will investigate the degree to which couples have control over the timing of their work hours. Table 3 shows that work schedules are generally fixed by employers. Only 10% of couples claim to have some freedom in choosing their schedules. As can also be seen in table 3, the vast majority of couples who can choose their work schedules have synchronized workdays. Of course, we do not know yet if this synchronicity is indeed used by couples to spend time

²⁹ $P = .00014$; $d/SE = 0.318$; $P(d/SE < 0.4) = 1$. The difference is statistically significant but small.

³⁰ $P = .003$; $d/SE = 0.112$; $P(d/SE < 0.4) = 1$. The difference is statistically significant but small.

TABLE 3
 DETERMINATION OF WORK SCHEDULES FOR EMPLOYED COUPLES IN 1999 (%)

TYPE OF FAMILY WORKDAY	DETERMINATION OF COUPLE'S WORKDAY				OVERALL
	Imposed on Both Partners (51%)	Imposed on One Partner (27%)	Decided by Both Partners (10%)	Other (12%)	
Double standard workday	43	51	79	38	48
With long hours	4	7	5	9	6
With shifted schedules	21	16	4	12	17
With a partial workday for women	19	15	8	18	17
With short/irregular work hours	14	11	5	22	13

NOTE.—All columns sum to 100%; figures shown are rounded.

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together. On the other hand, couples whose work schedules are imposed on them have little chance of having a standard family workday. As a result, off-scheduling appears mostly to be the choice of employers, albeit indirectly, rather than of couples.

I will focus on providing the main outlines of the correlation between the scheduling of work, the employee's position in the organization s/he works for, and the organization's economic positions. Family workdays are not randomly distributed among dual-earner couples. Off-scheduling depends to a large extent on spouses' social position (see table 4).³¹ When husbands' positions are at the management level, two family workdays out of three are standard, whereas for factory-worker families, the odds are 1 to 3. As a general rule, the higher a couple's social position, the greater the synchronicity. This result has been confirmed by a series of negative binomial regressions not reproduced here.³²

More precisely, what matters most is both the social position *and* the kind of occupation, which are of course closely related.³³ Employees located high up on the social ladder are also those who have the most freedom to choose their schedules and who, on average, have the longest work hours. However, these long work hours are relatively standard from a scheduling point of view.³⁴ The kind of occupation does not really matter for such employees, which is not the case for employees located lower down the social ladder, who have a much higher probability of having

³¹ The social position of spouses is approximated here to those of male spouses. This is for reasons of efficiency. First, given social homogamy, it is often necessary to know the social position of only one partner to position couples socially. Second, the French coding system of social position (*professions et catégories socioprofessionnelles*, or PCS; see Desrosières and Thévenot 1988) is still quite androcentric: it is easier to identify the social positions associated with male occupations, and so the social position of couples is better approximated using male social positions.

³² Results are available on request from the author. The distance between couples' midworkdays was modeled by a negative binomial regression. Controls included, among others, work duration, education, and earnings. Different combinations of child-related variables were also introduced. The effects of social position, approximated by the French social class structure, were large and highly significant. Negative binomial regressions are a particular case of generalized linear models and are a generalization of Poisson regression. Their use is recommended with nonnegative dependent variables (McCullagh and Nelder 1989). Selection models are another alternative for handling zeros.

³³ Another argument in favor of using French data is this country's long tradition of measuring social position (Desrosières and Thévenot 1988). The French social class structure (PCS) is based on various dimensions: occupation, education, self-employed vs. employee, public vs. private, economic sector, etc.

³⁴ "Relatively" standard only because long work hours necessarily mean that some work hours are located on the fringes of the standard workday (nine to five). As a matter of fact, work hours often overflow into the evening for this category of employee (Lesnard 2006a).

TABLE 4
TYPE OF FAMILY WORKDAY BY SOCIAL POSITION OF THE HUSBAND, 1999 (%)

Type of Family Workday	Self-Employed	Management Level	Media or Culture Position	Head Clerk	Salesman or Domestic Service Occupation	Clerk	Police Officer	Health Worker, Driver,	Factory Worker	Overall
Double standard workday	34	66	43	55	43	65	34	37	46	
With long hours	27	4	1	7	24	0	14	5	10	
With shifted schedules	8	4	7	12	0	20	28	28	15	
With a partial workday for women	16	15	13	15	19	15	11	18	16	
With short/irregular work hours	16	10	34	11	14	0	13	12	14	

NOTE.—All columns sum to 100%; figures shown are rounded.

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atypical work schedules whose shape depends on the characteristics of the job and the economic sector. For instance, factory workers can operate around the clock in eight-hour shifts and consequently have shifted schedules in the morning and at night, whereas unskilled service workers can also have atypical work schedules, but these consist of full- or part-time afternoon or evening shifts, staggered schedules, and other highly irregular work hours.

Overall, few couples, and mostly those located high up the social ladder, do have control over their work schedules, and when they do, they disproportionately choose synchronized work schedules. Other dual-earner couples face a greater risk of having desynchronized work schedules, depending on each partner's occupation and employment sector. These findings are congruent with the contention that the timing of work is crucial for employers and is related to the position of employees in the organization and of the organization in the economic system.

Family Time

I turn now to trends in family time, starting with couples with no children,³⁵ for whom family time is by definition reduced to conjugal time. The main conjugal activities in 1986 were having meals, watching TV, and other leisure pursuits (see table 5). On average, partners spent almost three-and-a-half hours daily with one another. Conversations, as defined in time-use surveys—declared as a main activity—are quite residual, obviously because most of them occur while something else is going on. The fabric of conjugal time is not made up of deep discussions but of more mundane daily activities—even unpaid work is quite a substantial part of conjugal time, although women do most of it alone. Conjugal time increased by about 50 minutes between 1986 and 1999.³⁶ Watching TV together has soared and is the new number one conjugal activity. More detailed analyses reveal that the bulk of this increase in conjugal time happened on weekend days. This increase in time together fits with the hypothesis of the growing importance of family togetherness.

Family time is radically different for couples with children. Most of the partners' time together is logically transformed into parents-child time, and in particular mealtime, the family activity par excellence (see table 6). This is less true for TV watching and other leisure activities, for which

³⁵ In the remainder of this article, a family with no children is defined as a couple with no children living at home at the time of the interview. Family time is measured for all types of families and days.

³⁶ $P < .00001$; $d/SE = 0.267$; $P(d/SE < 0.4) = 1$. The difference is statistically significant but small.

TABLE 5
 CONJUGAL TIME FOR COUPLES WITH NO
 CHILD AT HOME (Hours and Minutes
 per Day)

ACTIVITY	CONJUGAL TIME	
	1986	1999
Paid work	0:04	0:01
Unpaid work	0:19	0:24
Travel	0:16	0:12
Meals	0:55	1:09
Conversations ...	0:05	0:02
Leisure	0:44	0:59
TV	0:54	1:16
Care	0:04	0:04
Semileisure	0:02	0:04
Total	3:23	4:11

only a small amount seems to be transferred from conjugal time to parents-child time, even though both of these remain among the main parents-child activities. Conjugal time shrinks drastically and TV watching becomes the most popular activity in which partners spend time together.

Not surprisingly, mother-child time is much higher than father-child time, and the predominant mother-child activity is not care but unpaid work. In everyday life, the dividing line between domestic chores and parental responsibilities is nonexistent, and since women are in charge of most of those two kinds of unpaid work, they have to develop multitasking capabilities. Fathers' time alone with their children is limited to a few minutes here and there, but mostly concentrated on TV watching and other leisure activities.

It appears that couples with children are more likely to organize their time more efficiently because the presence of children generates more work. As a result of this, couples with children have less time to spend together as a family than those with no children present. However, the provision of care, mostly for young children, is disproportionately done by women, while men spend time with older children at leisure activities and watching TV (recreation activities account for almost 40% of father-child time and only 15% of mother-child time). Not only do women spend more time with children than men do, but the content of parental time is also highly gendered.

Time together within families with children increased by three hours between 1986 and 1999. Conjugal and parents-child time increased by

TABLE 6
 FAMILY TIME FOR COUPLES WITH CHILDREN (Hours and Minutes per Day)

ACTIVITY	1986				1999				
	Conjugal	Parents-Child	Father-Child	Mother-Child	Total	Conjugal and Parents-Child	Father-Child	Mother-Child	Total
Paid work	0:02	0:00	0:01	0:01	0:04	0:04	0:05	0:05	0:14
Unpaid work	0:05	0:04	0:04	0:37	0:50	0:16	0:10	0:53	1:19
Travel	0:03	0:06	0:03	0:10	0:22	0:10	0:08	0:18	0:36
Meals	0:08	0:27	0:02	0:10	0:47	0:50	0:13	0:22	1:25
Conversations	0:01	0:01	0:01	0:03	0:06	0:03	0:01	0:03	0:07
Leisure	0:09	0:15	0:05	0:10	0:39	0:43	0:14	0:23	1:20
TV	0:15	0:12	0:06	0:08	0:41	0:49	0:20	0:17	1:26
Care	0:01	0:01	0:06	0:35	0:43	0:07	0:10	0:40	0:57
Semileisure	0:00	0:00	0:01	0:03	0:04	0:02	0:05	0:03	0:10
Total	0:44	1:06	0:29	1:57	4:16	3:04	1:26	3:04	7:34

one hour,³⁷ and father- and mother-child time each also increased by one hour.³⁸ More detailed analyses (not reproduced here) show that it is on weekend days that most of this additional time together took place. While women were spending four times as much time alone with children in 1986 as men, 13 years later, mother-child time was only twice as much as father-child time. However, the content of father-child time remained marked by gender, and the time fathers spent providing care increased by only four minutes. In contrast, the number one mother-child activity was, more than ever, household chores, during which the time spent in the presence of children even increased, revealing the greater daily tensions women are facing. Even if gender differences in the total amount of time spent with children have decreased, gender differences in the kind of time spent with children are on the rise.³⁹ All components of family time rose, despite the fact that the highest proportion of women in the labor force was observed in 1999; this is in accordance with theories asserting that being together is increasingly important in all contemporary families. Dual-earner families are no exception to this trend, as the results for this type of household are almost identical to those found for all families.⁴⁰

The Consequences of the Family Workday for Family Time

It has been established that off-scheduling is widespread and seldom chosen by the few couples who control the timing of their work hours, and that time spent with the family has increased. I will now investigate whether family time varies significantly with the amount and timing of off-scheduling. To do this, I will consider the total amount of conjugal and parents-child time, broken down into types of family workdays and years. But first, it can be seen in figure 1 that the rise in conjugal and parents-child time observed for dual-earner families hides a slight decline (7 minutes), though statistically not significant ($P = .1050$), when only the days jointly worked by those couples are considered. The decline is

³⁷ $P < .00001$; $d/SE = 0.930$; $P(d/SE > 0.6) = 1$. The difference is statistically significant and large.

³⁸ The increase in mother- and father-child time is likely to be overestimated because of the flaws in the design of the 1999 survey. For mother-child time, $P < .00001$; $d/SE = 0.435$; $P(d/SE > 0.4) = .923$. The difference is statistically significant but neither small nor large. For father-child time, $P < .00001$; $d/SE = 0.671$; $P(d/SE > 0.6) > .995$. The difference is statistically significant and large.

³⁹ The fact that father- and mother-child activities are very different from conjugal and parents-child activities in both surveys suggests that the comparison of the two surveys is not too problematic.

⁴⁰ Space constraints do not allow me to present separate results for dual-earner families.

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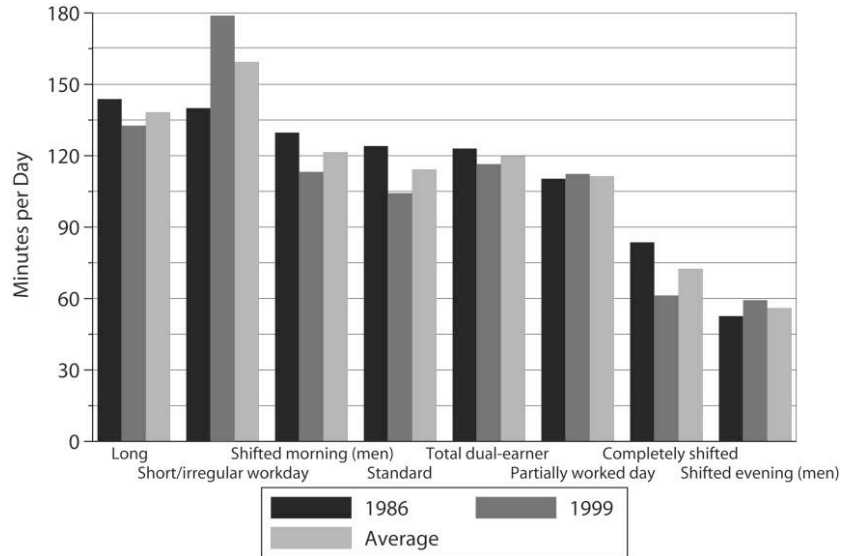


FIG. 1.—The consequences of the family workday on conjugal and parents-child time for couples with children. Source: INSEE, 1986 and 1999 time-use surveys (author's calculations).

even more pronounced, and this time is statistically significant, for dual-earner couples with standard work schedules.⁴¹ The fact that family time is lower when the days are jointly worked than when they are not is not really a surprise. However, the fact that family time stagnates on these days is more surprising given the strong overall upward trend. In all likelihood, the rise in dual-earner couples' off-scheduling, which affects even the most synchronized workdays, accounts for this trend.

The effects of off-scheduling on conjugal and parents-child time depend on timing. When off-scheduling occurs in the evening (the family workday is perfectly shifted or men's schedules are shifted in the evening), then time together is greatly reduced.⁴² On the other hand, when off-scheduling happens in the morning (with men having shifted schedules in the morning), the amount of conjugal and parents-child time is not significantly different from the most synchronized dual-earner couples. All in all, this suggests that most conjugal and parents-child activities take place in the evening during the week and, as a consequence, that even if parents have

⁴¹ $P = .014$; $d = 19$ minutes; $SE = 85.90$; $d/SE = 0.224$; $P(d/SE < 0.4) = .956$. The difference is therefore statistically significant but small.

⁴² For men with work schedules shifted in the evening, $P < .00001$; $d = 74.996$ minutes; $SE = 85.035$; $d/SE = 0.882$; and $P(d/SE > 0.6) = .949$.

quite desynchronized work schedules, this does not affect conjugal and parents-child time as long as the whole family can be together at this key moment of the day. This is also true even if the number of hours worked is small, as is the case with women who work part-time in the evening. In such couples, the amount of conjugal and parents-child time is significantly lower than in families with the lowest level of off-scheduling (40 minutes less; not shown in fig. 1).⁴³

Turning to parent-child time, father-child time appears to be quite sensitive to the scheduling of work within couples (see fig. 2). Fathers with a standard workday spent approximately half an hour daily alone with their children in 1986. Logically, it is when fathers have a long workday that they spend less time with their children. However, when partners' workdays are shifted, parents spend more time alone with their children, and all the more so when the end of the father's work-time is synchronized with school closing times.⁴⁴ When the number of hours worked is not too high, off-scheduling seems to create some sort of temporal complementarity between partners. However, a more detailed analysis (not shown here) reveals again that this father-child time remains largely gendered, as described above. Results found in 1999 are very similar but are not exactly a translated version of 1986, since the increase in father-child time seems to be greater for fathers working long hours and those who have completely shifted schedules (an increase of one hour) than for fathers who work morning or evening shifts (45 minutes).

Figure 3 reveals that even though mother-child time varies less with the different types of family workday, it is nonetheless greatly responsive to off-scheduling. On the whole, the more off-scheduling, the more women spend time with their children without their partners, but unlike for men, the timing of off-scheduling within the day is less relevant. The main dividing line is between standard and shifted family workdays, in particular when men work in the evening or at night.⁴⁵ It is interesting to note that when women finish work at roughly the same time as school

⁴³ $P = .0013$. The calibrated effect equals 0.474; this points to an effect of medium magnitude. However, the size of the sample does not allow us to extend this result beyond the sample analyzed ($P[d/SE > 0.4] = .681$).

⁴⁴ Father-child time is 37 minutes higher in couples in which men have work schedules in the morning than in those in which off-scheduling is the lowest ($P < .00001$). The calibrated effect equals 0.766; this suggests that this difference is not only statistically significant but also large, though the sample size does not allow us to extend this conclusion further ($P[d/SE > 0.6] = .886$).

⁴⁵ For men's shifted schedules in the evening, $P < .00001$; $d = 62.194$; $SE = 58.204$; $d/SE = 1.069$; $P[d/SE > 0.6] = 1$. The difference is statistically significant and of large magnitude. The difference between family workdays shifted in the morning and standard workdays is statistically significant ($P < .00001$) but smaller ($d = 42.162$; $SE = 64.618$; $d/SE = 0.652$; $P[d/SE > 0.6] = .65$).

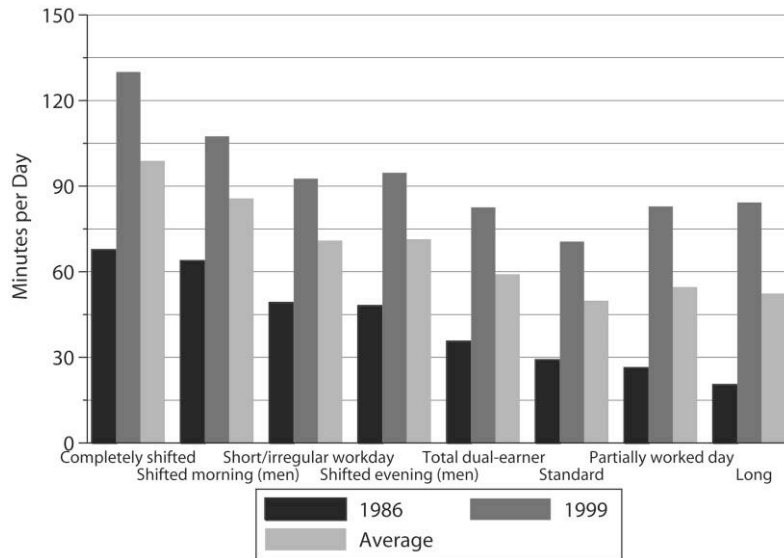


FIG. 2.—The consequences of the family workday on father-child time for couples with children. Source: INSEE, 1986 and 1999 time-use surveys (author's calculations).

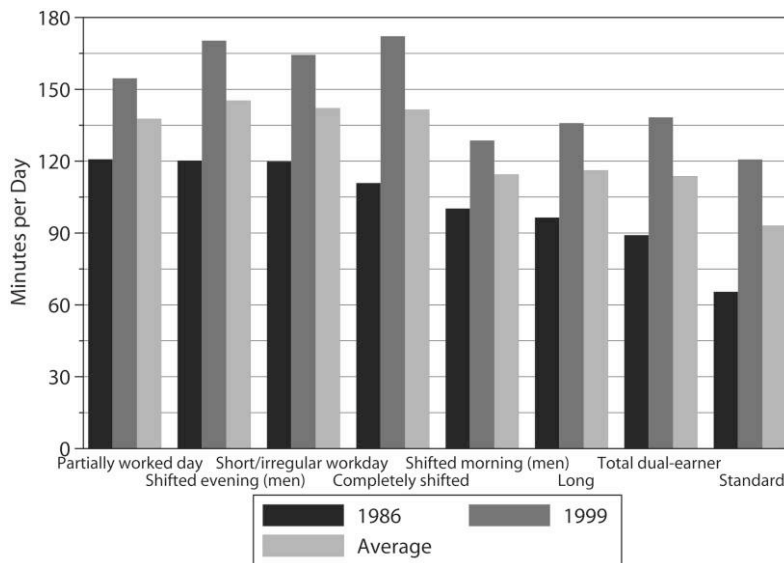


FIG. 3.—The consequences of the family workday on mother-child time for couples with children. Source: INSEE, 1986 and 1999 time-use surveys (author's calculations).

closing time and their partners are still at work (i.e., in family workdays with shifted schedules in the evening), they spend two hours alone with their children. Again, it is the triple synchronicity of partners' work schedules and children's school time that matters. However, when the situation is reversed—that is, when the time men finish work coincides with school closing hours and the women are still at work (i.e., in family workdays with shifted schedules in the morning)—then the men spend almost half that much time (1:03) alone with their children. This shows that the effects of off-scheduling on family time are not symmetrical for men and women.

Summary

This analysis of the empirical typology of couples' work schedules, built using dynamic Hamming matching, shows that off-scheduling is widespread and on the rise. The few dual-earner couples who claim to have some control over the timing of their work overwhelmingly favor standard family workdays, suggesting a preference for synchronized work schedules. The proportion of shifted family workdays, characterized by high levels of off-scheduling, is seven times higher for couples whose work schedules are chosen by their employers. Atypical work schedules and off-scheduling are not randomly distributed but are highly correlated with employment sector, occupation, and position on the social ladder.

The three kinds of family time measured here (conjugal, parents-child, and father- and mother-child time) have considerably increased since the mid-1980s despite the rise in the number of women who participate in the labor market. The effects of off-scheduling on family time vary with the timing of off-scheduling and the kind of family time. Off-scheduling is associated with less conjugal and parents-child time only when it occurs in the evening, which is the moment of the day when most family sociability takes place. The impact of off-scheduling on father- and mother-child time differs. Off-scheduling tends to increase the amount of time fathers spend with their children, all the more so when the time at which men finish work coincides with school closing times. The effects of off-scheduling on mother-child time appear to be more wide-ranging, but depend less on the time of day at which women finish work. The content of family time is highly gendered—household chores and child care for mothers, and TV and other recreational activities for fathers—and this gender difference is strengthened by off-scheduling.

DISCUSSION

Most of the results presented in this article were also found scattered throughout various studies on other countries. Whatever measurement methods were used, previous studies already showed evidence that off-scheduling was a reality for many dual-earner couples (Nock and Kingston 1984; Presser 1984; Hamermesh 2002). While these studies all refer to the United States, the factors put forward to account for off-scheduling were not limited to the United States alone but involved parental or conjugal preferences more generally and, to a certain extent, employment sector and occupation (Presser 1987, 2003). In this regard, it is interesting to note that preferences in terms of off-scheduling and togetherness were deduced from observed behavior in these studies; that is to say, time use was interpreted in behavioral terms without taking economic constraints into account. Yet, historically, economic expansion is based on factory discipline, or on a strict control of the timing of work (Thompson 1967; Clark 1994).

One of the many strong points of French time-use surveys is their inclusion of a question about who controls the scheduling of paid work. Only 21% of French employees have flexible work schedules,⁴⁶ a figure close to the 27% found for the United States (Golden 2001). The proportion of flexible work schedules is logically lower at the couple level: only in one dual-earner couple out of 10 do both partners claim some control over their work schedules. These findings are consistent with the idea that controlling the timing of work is crucial for contemporary employers. As this information is available in the 1999 French time-use survey, it is possible to see how couples use this freedom. Results are unambiguous: when both partners control the timing of their work, 79% of couples' workdays are highly synchronized, and when both partners have their work schedules decided by their employers, the proportion of highly synchronized workdays plunges to 43%. This result supports the hypothesis put forward by Hamermesh (2002), that couples have a preference for synchronized leisure.

Although this study did not concentrate on the question of the causes of atypical work schedules, off-scheduling was found not to be randomly distributed but, on the contrary, highly correlated with dual-earner couples' occupation and employment sector. U.S. studies have also showed that less-skilled employees were more likely to have shifted schedules (Presser 1987; Golden 2001; Hamermesh 2002). Again, this is consistent with the hypothesis that employers fix work schedules for reasons related to the nature of their commercial activities, the competition they are

⁴⁶ This figure applies to the individual level. At the couple level, freedom is reduced, since in some couples only one partner has control over his/her work schedule.

facing, the size of the company, and the kind of jobs needed. Working a night shift does not make sense for most professionals and managers, since most of the time work is not organized in shifts for these workers. It is therefore logical to find that atypical work schedules are more common at the bottom of the social scale among poorly skilled workers, rather than at the top, where most professionals and employees control their own work schedules, if not others'.

Summing up, it appears that off-scheduling is more commonly found among couples in which both partners lack control over their work schedules and that are located low down on the social ladder. These two results are in keeping with the theory that off-scheduling is an employer-on-couple externality. Indeed, it is important to emphasize that, with the exception of couples in which both partners work for the same organization, employers do not determine couples' workdays directly. And when they do, it is very unlikely that they have something to gain from imposing desynchronized work schedules. But the scheduling of work is a crucial economic resource for any organization, whether it operates in the industrial sector, where equipment use is a concern, or in the service sector, where opening hours are an issue. At the couple level, these individual constraints cumulate and, in some instances, give rise to off-scheduling. The concept of externality seems particularly well suited to describing and understanding the situation as it focuses on the unintended and neglected effects that an employer's work-time policies have on dual-earner couples.

But there is more. Though off-scheduling is the composition of two individual effects, namely partners' work schedules, "morphological factors always exert their action through the specific logic of each field" (Bourdieu 1984; my translation).⁴⁷ Put simply, this means that while off-scheduling is an unintentional product of an organization's economic behavior, such a phenomenon would not exist in the first place without the atypical work schedules that employers require of low-skill employees. These atypical work schedules are linked to employment sector and occupation—in short, to the way economic activities are organized, and because of social homogeneity, these individual inequalities become stronger at the level of the couple. All in all, the lower the position of dual-earner couples on the social ladder, the higher the likelihood of off-scheduling; as a consequence, off-scheduling is an externality that increases inequalities.

Turning to family time, the volume and structure of time together appear very similar in American and French families, confirming time-

⁴⁷ In the original French, "L'action des facteurs morphologiques ne s'exerce jamais qu'au travers de la logique spécifique de chaque champ."

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budget findings restricted to primary activities (Gershuny 2000). French family time together (conjugal and parents-child activities) consists of meals, TV watching, and other leisure activities and does not differ much in this respect from the daily life of American families (Kingston and Nock 1987). As Nock and Kingston (1988) found for the United States, and Silver (2000) for Canada, the predominant mother-child activity in France is not care but unpaid work, whereas fathers spend most of their time alone with their children watching TV. To my knowledge, this is the first time that trends in three different kinds of family activities have been studied. All components of family time soared between 1986 and 1999, including in dual-earner families, despite a greater female labor force participation rate. Similar trends have been found for the United States (Bianchi et al. 2006) and for child-care activities in the United States, Canada, France, the Netherlands, and the United Kingdom (Sayer et al. 2004; Bianchi et al. 2006). American dual-earner couples may have more control over their time than French ones (Rice et al. 2006), but current trends in time spent together in the family are very similar in the two countries, suggesting that the behavioral changes at work are not related to welfare regimes but rather to the spread of dual-earner couples and the greater weight of togetherness within the contemporary family. These findings are indeed consistent with theories asserting that being together is increasingly important for contemporary families (Durkheim 1921; Berger and Kellner 1964).

When only days that have been jointly worked by French dual-earner couples are considered, the picture is different, however, as the time these couples spend together, either with their children or alone, remained the same between the mid-1980s and the end of the 1990s. It may even have diminished. The fact that the time dual-earner families spend together increased on every day except for those that were jointly worked suggests that the expansion of off-scheduling has negatively affected family time. This is particularly true of the most synchronized family workdays, whose synchronicity dropped between 1986 and 1999 along with the time parents spent together alone or with their children. The rise of off-scheduling is thus correlated with less time together at the society level.

At the couple level, the results also indicate that, as expected, and consistent with Kingston and Nock's (1987) findings, off-scheduling overall is negatively correlated with partner's time together and with children. However, because Kingston and Nock used a simple numerical indicator of off-scheduling, they did not see that this negative correlation is observed only when partners' work schedules lack synchronicity in the evening, the time of day when the bulk of family sociability takes place. It is the triple synchronization of the schedules of fathers, mothers, and children that matters. When fathers come home late at night, either because they

work long hours or evening shifts, they are desynchronized with the rest of their family. When they stop working roughly at the same time their children finish school, fathers spend more time with their families, whether in parents-child activities, if their partners are also back home from work, or in father-child activities, if not. Off-scheduling is positively associated with father-child time, especially when the end of the fathers' workday coincides with school closing times, a result also found by Nock and Kingston (1988). The impact of off-scheduling on mothers' time alone with their children is even bigger, but is less dependent on the timing of desynchronized work hours.

If the rise in parents-child and conjugal time is interpreted as a sign of the increasing importance of being together as a family, then off-scheduling seems to have negative effects on family solidarity. However, one might think that off-scheduling fosters a better division of parental labor between partners, thus allowing a more efficient use of time within the family, and that this would offset the loss of togetherness. The evidence at hand provides limited support for this hypothesis. First, the effects of off-scheduling on parent-child time are largely asymmetrical, suggesting that off-scheduling is only partially being translated into temporal complementarity.⁴⁸ Temporal complementarity would imply that partners pursue, or at least take advantage of, off-scheduling so that they better divide parental work. The fact that off-scheduling has twice as much effect on mother-child time as on father-child time suggests limited parental complementarity between partners. Second, the extra time desynchronized fathers spend alone with their children remains highly gendered, a result that also appears, though it is not commented on, in Nock and Kingston's (1988) study. Most of these fathers have not integrated unpaid work into their daily sequence of activities. As a disposition—as a structured and structuring system of action—caring for children or maintaining the household is not only a matter of being present but of knowing what to do and when and how, and of anticipating the various needs of the house and of household members. In sum, it is possible that it is this domestic expertise, which, because of the highly gendered socialization of sons and daughters, women acquire during their childhood and men do not (Chodorow 1978; Kaufmann 1997), that prevents men from turning this unintended organization of the workday into temporal complementarity. It is also possible that men refuse to learn those skills or refuse to do unpaid

⁴⁸ Zerubavel (1981, p. 69) defines temporal complementarity as a “temporal division of labor” and asserts that “the temporal coordination of complementarity differences among [group members] enhances their interdependence and, thus, functions as a most powerful basis for a strong organic solidarity within the group.”

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work or care for their children no matter how their workdays coincide with their partners’.

Since most of the time off-scheduling is an employer-on-couple unequal externality, rather than a choice made by couples, the resulting greater involvement of fathers with their children is not the outcome of a parental strategy to improve parenting. The apparent greater gender equality observed is but a smoke screen, hiding highly structured and structuring gender dispositions. Since asynchronicity in dual-earner couples’ work schedules reduces the amount of time partners and children spend together but fails to promote a temporal complementarity between partners, it is negative for family solidarity. Moreover, as off-scheduling does not affect dual-earner couples randomly but above all those located lower down the social ladder, the way work and family are balanced on a daily basis is socially determined to a significant extent. On average, executives who control the timing of their work hours have more conjugal and parents-child time than factory-worker couples. Consequently, the volume and the structure of family time are also homologous to the social position of spouses; the higher their social rank, the more time they spend together and the less separate mother-child and father-child time there is. Pieced together, these results strongly support the hypothesis that off-scheduling is a negative and unequal externality for family time.

Conclusions and Suggestions for Further Research

In spite of its limitations, this research extends our understanding of changes in everyday family life. Even though, as has just been emphasized, many of the findings replicate results found in previous studies, the broader theoretical perspective adopted here nonetheless enables a reinterpretation of these findings and allows new light to be cast on the issue of off-scheduling within dual-earner couples. Indeed, it is because I have drawn on important traditions within sociology that it was possible to put the different pieces of this jigsaw, scattered in many studies, together. But the focus of this article is to go beyond reinterpreting previous results to provide new insights into how the various kinds of family workdays and off-scheduling affect the different types of family time. These results hinge on the variant of optimal matching used to build the empirical typologies of family work schedules. Combined with the comprehensive definition of family time, this analytical approach has proved to be very effective in exploring how various forms of off-scheduling relate to family togetherness.

The results of this study suggest, above all, that dual-earner couples’ off-scheduling is the unintentional consequence of employers’ economic behavior. What I have strived to show here is that very few couples control

the timing of their work hours. Using information from the empirical typology of family workdays, I have also demonstrated that these couples seem to prefer synchronized work schedules, whereas those who have no power over their work schedules have strikingly higher chances of having desynchronized family workdays. I have extended research on dual-earner couples' preferences for the timing of their joint work hours. As previous studies do not provide information on factors constraining choices made by couples, they have interpreted synchronized work schedules only in motivational terms. But since it turns out that very few couples are free to fix the shape of their family workdays, such interpretations stretched the data at hand.

Furthermore, most of the results of this study tally with U.S. findings. The proportion of flexible work schedules (at the individual level), the extent of and the trend in off-scheduling, the correlation of atypical work schedules with occupation and employment sector, the structure and volume of family time, and the effect of off-scheduling on conjugal, father-child, and mother-child time appear to be strikingly similar in France and in the United States. This leads to only one conclusion: that the importance of togetherness for contemporary families, the causes of off-scheduling, and the consequences for family time are very likely part of trends in social change that pervade welfare regimes. The connections between the timing of work and the positions of employees and employers within national economic fields are therefore a promising avenue of research aimed at better understanding the economic causes of off-scheduling. Such research would also cast light on how individual inequalities combine at the level of the couple to produce stronger inequalities.

It would also be of particular interest to investigate other levels of off-scheduling within dual-earner couples. Given the existing data, it may be possible to build empirical typologies of family workweeks by applying dynamic Hamming matching to workweek grids in which respondents are asked to report their work hours for seven consecutive days, broken down into 15-minute time slots. Such simplified seven-day diaries have been used to collect data on workweeks in some of the countries that participated in the Harmonized European Time Use Studies (HETUS), an ongoing harmonization project carried out by Eurostat in collaboration with a number of national statistical institutes.

With the exception of the United Kingdom, the possibilities of replication are to date limited in view of the data required by such analyses. However, as the importance of collecting couples' time-use data is increasingly acknowledged, more and more suitable data sets should be available in the future. All surveys conducted within the context of the HETUS project feature couple data, and the next wave will allow rigorous and detailed cross-national comparisons to be conducted in order to assess

whether or not welfare regimes or national policies mitigate the results found for France.

Finally, the results of the present study also have implications for policy, since balancing work and family life is not only an issue for women but a major conjugal and social question. The replacement of the male breadwinner by dual-earner families requires new modes of division of domestic and parental labor and calls for new temporal rights for families. In this context, the “three worlds of welfare capitalism” scheme traditionally used for orienting comparative public policy regimes seems less relevant, as the scheduling of work within couples is not taken into account by standard public policies. To my knowledge and to date, the first law acknowledging this problem is the Flexible Working and Work-Life Balance law enforced since April 2003 in the United Kingdom, which forces employers to consider employees’ requests for more family-friendly work schedules but unfortunately does not coerce employers to accept them. In any event, the kind of public policy dual-earner couples may need remains to be invented and may not fit in with the traditional welfare regimes scheme, as this example suggests.

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