FEMALE KNOWLEDGE WORKERS AND

THE ILLUSION OF WORKING-TIME AUTONOMY

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Abstract

Purpose – This article asks, what are the temporal realities of female knowledge workers? It especially focuses on women's possibilities of using working-time autonomy, and the work and non-work practices that shape their possibility to use work-hour autonomy. In knowledge-work, working-time autonomy is usually high, but exercising autonomy is not always possible. The study was carried out in Finland, where full-time work is common also among women, even if they have small children.

Design – The data includes 19 semi-structured interviews of women who have knowledge-intensive work. The method of analysis is problem-driven content analysis.

Findings – Female knowledge workers intertwine several temporal realities. The utilisation of working-time autonomy is restricted by unpredictability, continuous interruptions, hurriedness and ineffective work practices. The temporal realities of family life, such as taking children to the daycare or school, other everyday routines and a spouse's working time autonomy have an effect on women's possibilities to use working-time autonomy. The line between work and non-work blurs.

Value – This study sheds light on working-time autonomy among female knowledge workers. It adds an understanding to the temporal realities of work and outside work that influence the use of

work-hour autonomy. This information is needed to understand time demands arising from work, which play a role in work-family research in particular.

Keywords: knowledge work, working-time autonomy, work and non-work practices, women workers

INTRODUCTION

One of the most important developments in the industrialised world has been the increase of knowledge economy and work (Blackler, 1995; Cortada 1999; Ojala & Pyöriä, 2015). Knowledge work is associated with a high level of autonomy of work-time and processes, and hence, knowledge workers can—at least theoretically—adapt their work to suit personal needs (Kelly et al. 2011). Female knowledge workers, who often are in charge of family routines and coordinating schedules around the home, benefit from this time autonomy (Eikhof, 2016; Hill et al., 2011). Therefore, female knowledge workers are an interesting focus of analysis .This topic is also of increasing importance with the increase of employees working in knowledge intensive professions (Kelly et al. 2011; Truss et al. 2012).

This study concentrates on Finland, which has high proportion of knowledge workers, standing at 38 percent of the total employment (Eurostat 2016). Another interesting characteristic that describes Finnish labour markets is the full-time working-time culture also among women, also mothers.. The employment rate among mothers of young children, 3–6 years old, stood at 80 percent and the employment rate of fathers is 90 percent in 2014 (Statistics Finland, 2014, p. 44). This is supported by public social policy and the public childcare, and also cultural acceptance of a working mother (e.g., Pfau-Effinger, 2004; Mahon et al., 2012). Women in Finland are largely expected to participate both to paid employment as well as be responsible for household chores and child care (Oinonen 2013).

There is a high proportion of knowledge work and also high level of work-time autonomy in Finland. Still, looking at the working-time practices of salaried workers shows remarkable stability; work is still centred around the 'core hours', between 9 am to 5 pm (Pääkkönen, 2015), even when knowledge work is detachable from the workplace and theoretically, it is possible to do it anywhere and at any time (Cortada 1999; Ojala & Pyöriä, 2015). It seems that the promises

of knowledge work are not taken up—the knowledge economy follows the practices of the post-industrial society. This brings up the question, is working-time autonomy an illusion in knowledge work, and why is this so? This article asks, what are the temporal realities of female knowledge workers? It especially focuses on the possibilities to use work-hour autonomy and the work and non-work practices that shape the possibilities to using it. The study uses interview data from 19 female knowledge workers to explore these research questions. Next, the study outlines the research on work-time and work-hour autonomy of knowledge work and the context of the study, i.e., the characteristics of Finnish working life. Thereafter, the data, research design and analysis are described. Finally, the article concludes with a discussion on the findings and topics for further research.

TEMPORAL REALITIES OF KNOWLEDGE WORKERS

Knowledge work has been described as expert work involving design and technical expertise, idea generation and creative problem-solving (Blackler, 1995; Cortada, 1999). Also, higher education is characteristic for knowledge work and knowledge workers. The increase in knowledge work has been visible in most industrialised countries as a result of changing production systems. Since the turn of the decade increasingly more employees have worked in positions where work is about handling, producing and coordinating knowledge and processes (Cortada 1999; Pyöriä, 2006). In Finland 51 percent of female and 48 percent of male salary earners worked as specialists, senior specialists or managers in 2014 (Statistics Finland, 2014, p. 13). According to Eurostat (2016), the proportion of knowledge workers in Finland is around 40 percent of the total employment

Knowledge work has changed the relationship of work to time, as it is detachable from a specific time and place. According to Aileen O'Carroll (2008) the temporal reality of knowledge work entails a profound paradox: work requires creativity, which, using her phrasing, 'resists compression' (p. 180), while the industrial clock time (Adam, 1995) still persists. Furthermore, employees have other temporalities, such as family life, which add layers to everyday life.

Working time dimensions: working time autonomy as a key to good work-life balance?

Paid work structures daily life and its schedules; it creates a particular temporal reality—or many realities—for those who are employed. This not only affects the time at work, but also structures and affects time outside work. Knowledge work in particular has changed the relationship of time to work (Cortada 1999). Work processes are not directly linked to the time spent at work, and work is personalised. Yet, knowledge workers also work in teams both at the workplace and outside the workplace in virtual networks, for example. (van Echtelt et al. 2006)

Characteristics of post-industrial work schedules (e.g. Supiot, 2001) are time (i.e. length of the working day), timing, tempo, predictability, fragmentation and, the central focus of our study, autonomy of working-time (see Adam, 1995; Garhammer, 1995; Fagan, 2001). The *length of the working day*, specifically long hours, is a critical factor in time stress and time conflict (Grzywacz & Marks, 2000; Voydanoff, 2005). The *timing of work* means the time of day, the week or year that work takes place. The *tempo of work*, for example, feelings of hurriedness at work, is linked with negative feelings and exhaustion (Green, 2006; Gunthorpe & Lyons, 2004). In addition to these aspects, it is also important to consider how *predictable* and *fragmented* work hours are (Fagan 2001; O'Carroll, 2015).

Finally, *working-time autonomy*, which is sometimes called 'flexitime' and 'schedule flexibility' (Hill et al. 2008) is an important aspect of working-time, and a characteristic of knowledge work in particular. Quantitative studies typically rely on single item measure of time autonomy and measures used in studies vary (Kelly et al. 2011). Despite the kind of measure used, it has been found that autonomy assists in coping with work and family responsibilities. In other words, it is a work related resource that assists the interface of work and family (Hill et al., 2008; Kelly et al., 2011).Yet some studies have noted that a lack of autonomy is associated with increased negative feelings such as work-family conflicts and imbalance (Costa et al. 2006; Bianhci & Milkie, 2010), and the findings are explained with very long hours that often come along with having high schedule control (Schieman et al., 2009; Kelly et al., 2011).

It is important to acknowledge that although sometimes conceptualized as 'having flexibility', it might be *for* the employee not *of* the employee (Southerton, 2011; Hill et al.,

2008). The latter, i.e. organizational flexibility can have adverse effects on family life (Henly et al., 2008; Hughes & Parkes 2007; Geurts et al., 2009). Recently it has been pointed out that when flexibility policies are linked to policies enhancing work-family interface some of its' negative effects are not recognized, including adverse effects on work –family conflict (Rubery et al., 2016). In this study, the concept of working time autonomy, not flexibility, is used to refer to workers' having the right to make choices on when and how long they engage in work-related tasks (Hill et al., 2008).

Employees exhibit very different rights to time and autonomy of time at work; some, typically professional workers, enjoy high task and time autonomy, while others, typically low-educated workers in blue-collar work, need to follow the schedules ruled by the employers. It has been discussed that schedule flexibility can be a new way of stratifying work force by giving them unequal rights to adopt working conditions to suit their personal needs (Kelly et al., 2011).

In Finland, 66 percent of male and 59 of female salary earners have at least 30 minutes flexibility in their daily working-time (Sutela & Lehto, 2014). In European comparison this type of daily working time flexibility is high, although national variation persists. The sixth European Working Conditions survey (2015) reports that 77 to 45 percent (average 62 percent) of employees have fixed working-time, i.e. working-time with no individual autonomy; the highest proportions were found in Bulgaria and the lowest in Finland (The Sixth European Working Conditions… 2015) Previous studies have shown that sometimes autonomy is not used (van Echtelt et al., 2006), because of for example workplace culture (Jang, 2009). This has been called an 'autonomy paradox' (van Echtelt et al., 2006; see also Eikhof 2016; Kalleberg 2011). Therefore knowledge work's relationship to time is somewhat paradoxical; regardless of the autonomy, office hours persist.

Explanations of the persistence of office hours

Although for post-industrial working-time, workers, and knowledge workers in particular, have the right to choose differently from normal office hours, it is not done to a great extent. Why is this so? Why do knowledge workers stick to a normal work time? Based on literature, this study suggests that there are three reasons arising from work that explain why autonomy is not

exercised: 1) the nature of work and work process itself, 2) the internalised understanding of the ideal worker, and 3) time pressure at work.

The first reason is the nature of work and work processes themselves; this means that work—also knowledge work—requires 'face time' with colleagues and is dependent on the work done by colleagues, which is not isolated (van Echtelt et al., 2006). Face-time can also be seen by managers as an indicator of the organisational commitment, leading employees to put in long hours to prove their commitment (Hochschild, 1997; Rutherford, 2001). It has also been noted that face time may act as a method of social closure, excluding women from senior positions. This is because with the gendered divisions of domestic labour, not all women are able to work long hours (Rutherford, 2001).

The second factor that influences the hours worked is the internalised ideal of a worker (Lewis, 2001; Kelly et al., 2010; Pas et al., 2014). This means that there is an internalised ideal of a worker that might be seen as a requisite for career development, which impacts the ways of working and taking up certain rights, such as exercising autonomy of work hours (Dumas & Sanchez-Burks 2015), and not following it might result in penalties (Sang et al. 2015). The ideal is gendered and it has been said that in general, the ideal worker is a male worker who has no family responsibilities; therefore, women do not fit within it (Lewis, 2001; Dumas & Sanchez-Burks 2015). The ideal worker represents the gendered work culture of the work organisation, but should be considered together with national work cultures (e.g. Pfau-Effinger, 2004). Finland has a wide acceptance of the working woman, which is based on history, culture and supported by taxation. This has shaped the national culture that approves women's full-time work side-by-side with men (Julkunen & Nätti, 1999). But gender differences prevail. Even with similar work hour practices and equalised household responsibilities in Finland and also in other European countries, women are still seen as the main care providers for children (Oinas, 2010; Oinonen 2013).

The third reason explaining the long hours worked is the hurriedness and time pressures at work experienced by knowledge workers (Green, 2004; Sang et al., 2015). Experiencing a time-squeeze is among the major challenges especially for parents working longer hours (Milkie et al., 2010). According to the Sixth European Working Conditions Survey (2015), Finland stands out as one of the countries in the European Union with very high proportions of

employees experiencing hurriedness at work. Therefore, the lack of time at work causes a need to stretch work hours, which makes using working-time autonomy difficult.

Next, the article briefly discusses the temporal realities outside of work, particularly family life.

Temporal realities of private life and work-life interface

Employees have also other temporal realities besides work—those of family and private life in general. The rhythms, routines and schedules of work outside of work, and family life in particular, are part of an employee's temporal reality that defines the allocation of time and experience of time. It has been said that women's time is best described with process time and that women in particular need 'open ended time' (Adam, 1995). Therefore, persisting on office hours might stem also from the family and home sphere.

Research on the work and family interface has long acknowledged that the employed interweave both work and non-work spheres, and that they are not isolated. An employed person moves from one sphere to another, together with schedules, experiences and emotions. Internationally the increase in female participation in the labour force has in particular has increased attention to combining work and personal life (e.g., Gallie & Russell, 2009). Various approaches to describing and studying how work and family, or more broadly work and life (see Fagan et al., 2012) are reconciled or balanced have been proposed. Despite the conceptual ambiguity, there is a consensus that work can interfere with home, but home can also interfere with work, and experiences are both negative and positive (e.g., Greenhaus & Beutell, 1985; Kinnunen & Mauno, 1998). A substantial amount of work-family research relies on a conflict orientation (eg. Gallie & Russel, 2009; Grzywacz & Marks, 2000; Kinnunen & Mauno, 1998; Allen et al., 2014), where the demands of work and family are viewed as incompatible because of conflicts caused by time, behaviour, or strain (e.g., Frone et al., 1997; Ruppanner, 2013). Work-family conflict has effects on employees, such as increased stress, poorer job performance, higher turnover intentions, increased absenteeism, and various negative health outcomes (Carlson & Kacmar, 2000; Frone et al., 1992).

However, work and family life, or private life in general, are not unavoidably in conflict, but can either cause conflicts or enrich the life of individuals, and sometimes both at the same

time (i.e. are separate constructs; see Bianchi & Milkie, 2010). In general enrichment refers to learning skills at work or home that benefit actions in the other sphere. These have been for example social skills (Greenhouse & Powell, 2006), and skills related to organizing various activities together and to multitask (Ruderman et al., 2002). Besides highlighting conflict or enrichment experiences, many studies discuss of work-family balance. This orientation refers to perceived interface, or easiness of intertwining the life-spheres together. (Fagan et al., 2012.)

Women weave work and family life together

Gender is an important aspect that influences the temporal experience of individuals. Even if men are taking on a greater share of responsibility around the household, such for childcare, their time commitment and responsibilities for household duties does not yet match that of women (Aassve et al., 2014; Bonke & Esping-Andersen, 2008). Furthermore even in coupled, heterosexual families, time coordination is often performed by women. In other words, women have the ultimate responsibility in coordinating daily routines. (Southerton, 2011.) This has in some studies being called as "weaving" (Garey, 1999).

All in all, time relates to parenthood, not only through how time is used but also via other time related actions and demands. Time obligations, which are those activities that need to be done, shape daily rhythms and routines (Roy et al., 2004). Some of these are time-bound, i.e. actions that cannot be postponed, and others less so. Having simultaneous time demands causes for many parents lack of time and even time starvation (Tubbs et al., 2005; see also Hochschild 1997).

Women knowledge workers have the theoretical possibility to of enjoying autonomous working time, it is interesting to know how women weave together the demands at work and at home, and how these relate to persisting on the office hours, are the promises of flexibility taken up. Therefore this study looks beyond use of time and other structural aspects of time, such as length of work hours to understand the temporal experiences of knowledge workers.

RESEARCH DESIGN

Aim and data

The paper asks, what are the temporal realities of female knowledge workers? The study is especially interested on the work and non-work practices that shape the possibilities to exercise work hour autonomy.

The data consists of 19 semi-structured interviews of women in knowledge-intensive work positions (see Table 1). The data was gathered in the spring 2015 by face-to-face and phone interviews. The interviewees were recruited from a workers union for highly educated employees in cooperation with another research project that concerned of time use. The duration of the interviews varied between 27 and 74 minutes, but generally they lasted about an hour. The semi-structured interviews handled the questions of work-life balance, time use and the organisation of work.

Interviewees were aged 34–55 and have different family situations, including married or cohabiting families with children, single parent families, singles and adult couple families. The variety of the interviewees is the result of available interviewees. However, the number of interviews is adequate since the data sufficiently answers the research questions (O'Reilly & Parker 2012).

The interviewees work in both the public and private sector, for example, in the fields of education, research and social services. All hold a lower or higher university education and 15 of them work on a permanent work contract. Some of them worked in supervisory positions. Thus, they have already established a relatively stable position in the labour market.

The working time patterns represents well Finnish working time pattern: a great majority of the women worked full time (app. 37 hours a week), only three worked part-time. All the interviewees have at least moderate working-time autonomy. Most of them can choose the starting and finishing time of their work, with around 2-hour flexibility. Some of them have a contract with total working time which means that they have a yearly work-time, usually 1600 hours, and they have (theoretical) autonomy to choose their own daily work-time. However, they

all work in demanding positions with a heavy workload, and experience high pressure for over-time work.

Table 1. Characteristics of the interviewees.

nro	ID	Age	Occupation	Spouse	Children
1	ID101	34	Specialist	yes	no
2	ID102	35	Research manager	yes	no
3	ID103	36	Educational Designer	yes	2 under 7 years
4	ID104	50+	Civil servant	yes	2 under 18 years, 1 adult
5	ID106	53	Project coordinator	no	1 under 18 years, 3 over 18 years
6	ID107	42	Head of development	yes	2 under 18 years
7	ID123	40	Senior researcher	no	no
8	ID124	48	Civil servant	yes	2 under 18, 1 over 18
9	ID110	47	Head of educational design	yes	2 over 18 years
10	ID111	35	NGO instructor	yes	2 under 7 years
11	ID112	49	Head of design	yes	1 under 18 years, 1 over 18 years
12	ID114	40+	Project manager	yes	1 under 7 years, 1 over 7 years
13	ID121	39	Development designer	no	no
14	ID115	37	Researcher	yes	1 under 7 years, 1 over 7 years
15	ID116	55	Development designer	yes	1 under 18 years, 4 over 18 years
16	ID117	53	Director	no	2 over 18 years
17	ID118	40	Researcher	no	1 under 7 years, 1 over 7 years
18	ID119	51	Program director	no	2 over 18 years
19	ID122	55	Editor	yes	2 over 18 years

Method

The method of the analysis is problem-driven content analysis. Content analysis aims for a complete description of the content of the data from the viewpoint of the research question. It takes into consideration both the common and exceptional statements of the interviewees, and then identifies themes and patterns that combine the data (Eriksson & Kovalainen, 2008).

According to Krippendorf (2004), this method is derived from a question and the systematic reading of the available text that could provide an answer. This differs from text-driven analysis, which is motivated by the text itself and the possible questions arising from it. The analysis in this article was formed on the basis of previous studies and theories of work-time in knowledge work. The analytical questions are thus built on the basis of the previously recognised issues concerning women's work-time, namely, temporal realities of the work and family life. The analysis was facilitated by using a qualitative data analysis software package Atlas.ti, which was treated as a means to accomplish coding and classifying the data. The main codes were work-life balance and organization of work.

FINDINGS

The analysis is particularly focused on the temporal reality of work and the temporal reality of non-work and family life. These themes are particularly read from the view of work hour autonomy and the possible reasons for why autonomous work hours are not used.

Temporal reality of work

This analysis started by considering the relationship of work processes and autonomy. First and foremost, it is clear that the interviewees do not fully use work hour autonomy, although it is in place, theoretically. Female knowledge workers described their workplaces as having many practices that affect their possibilities to use work time autonomy. Similar findings have been reported in earlier studies (Eikhof, 2016; Kalleberg, 2011). In the interviews, this autonomy paradox (van Echtelt et al., 2006) was explained by work process and time pressure, of which the next quote gives an example. The quote is a description of a woman working in the public sector, and whose work is unpredictable. She explained:

> *An example could be when another unit asks help for their […], and then you don't have time to comment it during in the given time. Then when you have time to make comments, it is too late, they have forwarded it and it's no use. This kind may come. Or you don't*

have time to familiarise to what they are preparing. Or if there's a developmental project or something, and you don't have time to react to it as fast and as well as they hope and you also hope yourself. (ID104)

The other interviews also showed that a difficulty with the work process was the unpredictability of the work, together with repeated interruptions, which fragment the temporal reality at work. The unpredictability of work tasks and hours is difficult particularly for the families with young children who have time-dependent care responsibilities at home (Murtorinne-Lahtinen et al, 2016). These findings are in line with some recent studies (O'Carroll, 2015). The interviewees described that work assignments given with very short notice or with no notice at all were typical. Unpredictable assignments postpone other work tasks, and result in lowering the quality of work as the deadlines are so tight that it was not possible to prepare the assignments as well as they would have liked to. These problems associate with the nature of the work, such as the personalized nature of the work tasks that is described in the following quote:

In this kind of job, you are kind of an entrepreneur. […] And you have responsibility on your own. There is no one else I could say that could you do this. So you just have to try to manage and as I've a responsible personality and I'm slightly perfectionist, I just have to be flexible. (ID102)

Women reported heavy workloads and time pressure, and had no opportunity to delegate or share the work with colleagues. One interviewee, who is a director herself, said that this setting , is just something she and all the employees have to face and accept, because, "if you start to cry and whine, it is soon a moment when you have to look at the mirror and ask yourself, is this really my job" *(ID110).* This quote shows that even though there is theoretically some autonomy in working-time, the pressures of work overshadow autonomy. Collaboration and schedules of their colleagues was another important aspect that defined how working time was spent. Still, this collaboration, in practice often in meetings, was not always seen effective. Female knowledge workers seemed to seek maximised productivity for their work hours as a result of time pressure. One interviewed told in particular told of collaboration with colleagues as time consumers:

I find that the biggest time consumers are our meetings with the admin staff. […]I don't get anything out of those. We have ineffective meeting practices, and it angers me (ID 110)

Many of the interviewed women regularly work overtime which is in line with previous studies (see e.g. Sang et al., 2015). Overtime work was mostly non-paid, but sometimes compensated as time-off work. Sometimes this possibility was not realized. This was because of women's reluctance to stay away from work owing to their perception that they are needed at the workplace because of their expertise, or because they simply have too much to do. In the latter case, the work tasks build up in their absence and, therefore, women did not want to take time off. However, the women did not demand a re-organisation of work, but rather they arranged their own lives and holidays to fit in the needs of the work organisation.

One strategy that the interviewees used to manage the fragmentation of working time and lack of time was to de-synchronise their work hours, at least partly with other workers at the workplace. Typically, this de-synchronising means working early mornings or late at night, such as described in the next quote:

> *I don't have a family, no children waiting for me, so I have no forcing reason, and I can make these arrangements. So I may wake up at 5:30 and go early to work or until late at night. (ID102)*

De-synchronisation ensures that certain times of the day are peaceful, which allows, for example, time to concentrate on specific tasks. It is noteworthy that in the above quote, the employee said that she can do so, because she did not have a family or other responsibilities. Another strategy that the women used was to work at home, i.e. teleworking. For most of them, teleworking was important because they cannot concentrate at work on those tasks requiring it. All in all, one important aspect of the temporal realities of knowledge workers was to guarantee time without interruptions.

Reciprocal flexibility: constructing a new ideal worker?
The women knowledge workers told that they are willing to be flexible, and to work long hours when needed, but only if the employer allows them autonomy for their working-time arrangements. Women follow the idea of reciprocity, and expect that the employer follows it as well. Rather than building an image of an ideal worker who is ready and willing to work

whenever needed, women expect the work organisation to compensate them the extra effort and flexibility that they have shown towards the organisation.

New type of ideal worker was a worker who is flexible for the needs of the work organization, if the organization and supervisors are willing, in turn, to allow them work-time autonomy. This is illustrated by some of the interviewed for example by one who viewed herself having a strong, senior position in the work organization:

> *I think I have such seniority, that I can just say that it doesn't matter if I can't make it, I just prioritise this and make that later, and I believe and hope that all necessary will be done (ID 116)*

The new ideal worker seemed to be built on women's consciousness and commitment to the work organization and the work itself. This was seen in that the interviewees mentioned that they do not want to keep others waiting on something they should do. Women explained that if they are responsible for a particular task that directly influences the work process of others, they prioritized or re-scheduled their tasks to secure smooth work organization. Below is an example of this.

> *Usually [the combining of my own and coworkers and clients schedules] means that I have to be the flexible one. When there are many projects going on, I have to be flexible with many people and it makes the tasks building up, and that is hard to manage. (ID 122)*

Summing up, there are various work-related practices that impact using work-hour autonomy. It seems that the most important aspect is the workload and hurriedness, which means that using working-time autonomy is simply not possible. Work builds up and there is no one else to take care of the work. Another important factor is that the work process depends on individuals doing their part of the work, and women prioritised the needs of others to ensure a smooth work process, or at least not to cause delays in the work process.

Temporal reality of non-work and family life
A third focus of our study is to analyse the way women explain their temporal realities of family life and how the realities structure their work practices. A majority of these women have the

responsibility of caring for their children, and some have other care responsibilities, such as taking of their own or spouse's parents. Only four interviewees had no care responsibilities at all.

Women are not using their working time autonomy, but rather resisted exceedingly long hours. The women said that, particularly, family routines and relationships, care responsibilities and time restrictions prevent them from working 'all the time' or at night or weekends. Various non-work schedules, such as children's daily practices, hobbies, a spouse's working-time and the family's everyday routines involve time arrangements, which have an effect on the female knowledge workers' working-time as well. Women said that they prefer to work so-called 'normal hours', to keep up their family routines. These time obligations (Roy et al., 2004) structure work days, and time autonomy is used to limit work hours to the normal, approximately 40 hours a week.

The orientation to overwork and work outside office hours is two-fold. On the one hand, women quite strictly said that they avoid working on weekends. In the most extreme case was one interviewee who refused to use the necessary technology for working at home, such as an encrypted internet connection. She said that she prevents work penetrating her free time and home. On the other hand, several interviewees mentioned that they often do minor work-related tasks at home, such as checking their email. Furthermore, the interviewees said that they at least orient themselves to the next workday in the evening beforehand, such as in this quote:

I may do some tasks at evenings, after the kids have gone to sleep, because it usually helps the next work day. (ID103)

This kind of unpaid extra work helps them get through the following workday or week more easily, but it may not help women in managing their family life. Interestingly, the women do not necessarily consider this kind of planning or working on specific tasks as work. Checking work email at home is seen as a practice that helps get through everyday work. Thus, it was not overtime work either, but something the women told that they needed to do. The same was the case for working during holidays. Overall, the conception of work is fluctuating and it questioned, as in the next quote:

Q: So you don't work at home at all?

A: Well, no. Some emails I check and that kind of thing, but I try not to do that. And nothing happens during weekends. The holidays are different, of course. Then it's a necessity to check emails. (ID112)

A heavy workload and stretching work hours together with blurred boundaries between work and family can be a source of conflict at home, as reported by earlier research (Ruppanner, 2013). One interviewee told of disagreements about time with her husband.

Q: Do you have any arguments with your spouse or children about time use?

A: Yes, well. Often especially about how holidays are spent. Should holidays be free time or should work be done also then. That has been an issue of disagreement. (ID116)

One particular source of disagreement is that the woman does not have a clear boundary between work and non-work time on holidays. In fact, it was not easy for these women to find a suitable time for holidays. One example of this is a female knowledge worker who wished to have a week-long holiday for a family reason. However, she felt that she had to cancel her holiday because something unexpected came up at work. Instead of having a longer period off work, she has only one day off every now and then. Overall, the fact that women adapt their private lives, not work, disturbs the image of women adopting the conception of reciprocal ideal worker, and rather sticking to the more traditional understanding (Lewis, 2001; Dumas & Sanchez-Burks, 2015) where the workers need to show commitment to the organization.

All in all, it seems as women knowledge workers' temporal reality is affected by time obligations and schedules arising from family life and non-work. Yet it seems that the promises of autonomy are not taken up, and women did not use autonomy to any substantial scope for family reasons. Given positive connotations given in research on 'flexibility' and autonomy as a way to avoid work-family conflict (Costa et al., 2006; Bianhci & Milkie, 2010), the finding is somewhat surprising. Hurriedness and unpredictability of work seem to prohibit using autonomy for private reasons.

DISCUSSION

This article has analysed the temporal realities of female knowledge workers and working-time autonomy in Finland, which has high level of knowledge workers, high level of women full-time workers and also high level of work-time autonomy. The analysis has pointed out that even though female knowledge workers have autonomy over their work-time in principle, they do not

always use it. The descriptions of working-time were concerned mostly with how to balance the demands of work and cope with the pressured work hours; autonomy is overshadowed with hurriedness.Women knowledge workers use the reciprocal flexibility which can be seen as a means to build new kind of ideal worker. Furthermore, women's reason to not to use working time autonomy is linked to family life, and its routines and practices that regulate female knowledge workers' use of and—ultimately—experience with time.

Fragmentation of work hours is characteristic of knowledge work, and this has been discussed in other studies as well (O'Carroll, 2015). One important aspect of the temporal realities of knowledge workers is that they need to use specific means to guarantee time without interruptions. These included off-scheduling one's working time or staying away from the workplace. It seems as besides hurriedness working time fragmentation is the utmost difficulty experienced by these women, and because of that working time autonomy remains as an illusion.

Women knowledge workers constructed and renewed the ideal worker. Workload, hurriedness and the autonomy of the work tasks together mean that completing work tasks does not allow for using time autonomy. Furthermore women wanted to be flexible for the needs of others', and tried to maintain an overall smooth work process. Women had a very strong internalised orientation to this and it was the core of defining the temporal reality within work. In other words, if their work required them to advance work of others, women prioritized this work. Fulfilling the needs of others for a common benefit resulted in re-ordering work tasks, and leaving some work undone. This in turn resulted in work piling up and causing increasingly more difficulties with hurriedness. However, some described vividly that they are not willing to sacrifice all for the work. On the contrary, they are forming a new ideal worker, who expects the organization to be reciprocally flexible in turn.

This study makes an important practical contribution. Working-time autonomy, or flexible work, is often seen as a prerequisite of good work-family balance. This study shows that autonomy is not necessarily a key to good work-family relations if not accompanied with some other aspects. These knowledge workers were tightly tied to the office hours although not tied to work place with a timecard. Routines of the family, such as hobbies, seem to be time institutions that prohibited working 'all the time'.

This study did not compare male and female knowledge workers, which can be seen as a limitation of the study, as we cannot identify what are the differences between women and men.

Yet the findings are similar to a study (Shockley & Allen, 2012) conducted in the U.S that reported that among university staff it was women who were more likely to use flexibility to achieve better work-outcomes, in comparison to men. The researchers suggest that owing to of women's subordinate position at work, they feel that they have to work harder to success, and therefore adopt various strategies for enhancing their work careers.

Working time culture varies across countries and therefore the applicability of findings needs to be considered carefully. There are significant differences in the way working life is regulated and in the gendered work patterns (Gallie & Russell, 2009), for example. Still these findings are applicable to understand the various temporal realities of knowledge workers.

Although knowledge work has been a focus of a number of studies, some areas call for future research. One of the interesting areas of future research would be to examine the micro-work described in this study in more detail. It would be interesting to learn the importance of it to the work process and also to the lives of knowledge workers and their work-family balance. Another interesting topic for future research would be the construction of an ideal worker and how that varies in different work position and organizations, as well as national differences that occur. In addition, our study used a qualitative orientation, quantitative data and methods would give more insight to the extent of the new ideal worker.

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