

How to get through...

Individual biographical perspectives on flexible working hours and their implications for each life course: the example of shift work

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July 2012

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Introduction

During the last decade employment conditions have been an ongoing subject of change, especially regarding working hours. More and more employees are affected by flexible working time arrangements, meaning having to work in the evening, at night and on weekends. Many of them are also being confronted with extremely irregular work schedules, without any power to influence them. From the variety of existing arrangements throughout the trades, a large number of different requirements are arising; private and family life need to be arranged around a given work schedule. First and foremost, it is the individual worker, who is facing those demands, but they could also become a challenge for social services and/or security programs as irregular working hours are becoming more and more popular. One very obvious example of a problem faced by shift workers is the organization of child care.

Most of the social support systems (like child care) were developed for employees, who work regular hours from nine to five throughout the week, and/or usually have a partner, who is e.g. able to help with childcare. Additionally, social aspects are often not taken into consideration when negotiating the arrangements between workers and companies in collective agreements. This is also due to the fact that research on social effects of shift work and its implications for biography and life course is not very common and therefore the demands workers are facing are not systematically looked at.

Although those issues are becoming more visible with a growing part of the workforce participating in irregular working hour arrangements and the diversity of those arrangements, they are not new to a more or less large part of the workforce who has been dealing with the demands of shift work for a long time. One very prominent and well know example of irregular working hours are the different types of shift work in the metal working industry in the Ruhr Area. In this area shift work has a tradition in many families as the industry heavily relied on coal, steel and metal production during the last century (Loer 2007). In those trades it was always necessary to have the branch open around the clock and therefore shift work was always part of the work. The project this paper derives from is based on biographical narrative interviews with women and men who are or have been working in the metal industry in this area. The interviews are analyzed via the biographical case-reconstruction method (Rosenthal), which takes the whole life course into consideration.

Before the analysis of the interviews is presented, the paper begins with a brief introduction of the situation regarding shift work in Europe and especially in Germany. Afterwards, the already existing findings of studies focusing on social aspects of shift work dating from the 1970s and 1980s are summarized to build the background for the research done in the project at hand. The project is then introduced with a description of the research design and a brief description of the methods used. Finally, the results of the interviews are laid out and discussed.

Shift Work in Europe and Germany

The history of shift work

Ever since women and men are working in factories, time in people's lives is divided in working time, for which they get paid, and time without pay. The latter being used for family work, unpaid household or reproduction work or leisure time activities¹. Hence working time can be seen as an issue of the workforce "since the beginning of the Industrial Revolution" (Messenger 2011: 295). Having this historical background in mind it is without surprise, that working time has been one of the first issues looked at in legislation; in Germany namely with the 'Preußischem Regulativ' in 1839, which mainly restricted the daily working hours for young workers (Nachreiner 2011: 15). This can also be seen in other countries for example the United Kingdom; here it was "the Factories Act of 1844 [...] limiting the working hours of women and children" (Messenger 2011: 295).

The latest relevant transition in the legal field in Germany was the decision of the Bundesverfassungsgericht regarding women and shift work. In 1992, the court acknowledged shift work (as far as it includes working at night) as an additional burden to the strains arising from the tasks at work (Beermann 2010: 71).

Shift Work in Europe

Nowadays there is a large variety of issues discussed in as well in politics as in science regarding working time, part time work and the amount of working time being two popular examples. In addition, the share of women in the workforce and the increase in them working irregular hours is a rising topic of discussion². First I will give a brief overview of the situation on the European level to lay the background for the discussion of the situation in Germany.

According to the Fourth European Working Conditions Survey (EWCS), 17.3 % of workers in the EU27 are working shifts. Looking at the country groups, it can be seen that the proportion

¹ As this project focusses on working time arrangements, it only looks at paid work. Therefore when the word work is used in this paper it means paid work unless stated otherwise.

² The questions of e. g. women's share in the workforce, women working part time and the gender pay gap are addressed in many research projects and can be traced in the publications e. g. of the European Commission on the topic. However, it is not further discussed here, because of the different focus of this paper.

is higher than average in the Eastern and Southern country groups, whereas the other country groups are slightly below average. In the analysis of the EWCS it is explained as due to the structure of the sectors in the country groups and the differences of shift work prevalence in the sectors. “In health, about one third of workers work shifts. In the hotels and restaurants, and manufacturing and transport sectors, around one in every four workers is a shift worker.” (Parent-Thirion 2007: 22) Looking at the structure of work it can be seen in the EWCS that shift workers are facing less autonomy regarding their working tasks (50-60 % without autonomy compared to 30 % in the overall workforce) (2007: 22). In addition to this lacking autonomy in the design of the work itself, 70 % of the shift workers have no say in the organization of their work schedule (compared to 53 % in the rest of the workforce).

Another important point to look at is the perceived outcomes of shift work. For the European level this can also be done based on the EWCS, in which the findings are interpreted. However, this has to be treated with caution as the reasons for the correlations are not clarified, but they “clearly point to the negative impact of shift work on working conditions in general” (2007: 23). In detail, shift workers have a higher feeling for risk at work and state more often that their work affects their health. Additionally, they are more often not satisfied with the working conditions and face work-life balance conflicts nearly twice as often as other workers. Focusing on gender differences Presser et al show by analyzing data from the EWCS that men are more likely to work non-day work, which is the category under which they subsume non-standard working arrangements (2008: 101). In contrast, women are more likely to work on weekends.

Shift work in Germany

According to the EWCS in Germany, 15.7 % of workers are claiming to work shift work; for the manufacturing industry Beermann states that around 33.0 % of the workers are still working shifts (2010: 71). However, looking at other studies will produce different estimates of how many workers are actually faced with shift schedules. This is due to very different definitions of shift work being used in different studies. So it is very difficult to gain an overview over the situation in Germany. Nonetheless, the following provides a short introduction.

Under the ‚Arbeitszeitschutzgesetz‘ (working time – protection – law) working time is subject to legal provisions defining e.g. the time frame for rest periods or the maximum amount of working hours per week. The main aspect regarding shift work is § 6, Abs. 1 which states that for the design of work schedules, especially if they include working time at night, verified ergonomically results have to be taken into account. Otherwise there are no clearly outlined provision, which turns the design of shift schedules and the organization of shift work into a complex task (Seibt et al 2006).

In addition, the variety of arrangements is growing by the day and there is a vast variety of systems throughout the branches and companies. Beermann sums the situation up and states, that it becomes increasingly more complex to analyze the impacts of the different schedules scientifically accurate because of their varieties (2010: 72).

However there are recommendations for the design of shift schedules, which can be found in the occupational health directive of the Deutsche Gesellschaft für Arbeits- und Umweltmedizin e.V. (DGAUM). The conclusions can be summed up as follows (Seibt et al 2006: 6/7, free translation):

- No more than three night shifts in a row.
- Fast rotation from early (e. g. 6am to 2pm) to late shifts (e. g. 2pm to 10pm).
- Rotating forward (which means a follow up of early, than late, than night shifts).
- Starting early shifts not too early (better 6am than 5.30am).
- Trying to limit the duration of a shift to eight hours.
- Blocked free time on weekends, which means a minimum of one free Friday, Saturday and Sunday once during a shift cycle.
- Avoiding inopportune shift cycle (e. g. Night, free day, early or night, free or night; or only having single free days).
- Avoiding short term shift cycle changes from the employer side.
- A minimum of one free evening throughout the weekdays (Monday to Friday) per week.
- Employee oriented flexibility and individual approaches regarding the design of a shift cycle. This includes the chance to volunteer for night work.

Looking at those recommendations shows that designing a new shift cycle is a very complex task, which does not just have to satisfy the employer and the needs of the company, but also the needs of every single employee in the branch and their personal needs. Also the existence of this guideline does not imply that all shift cycle plans are designed in compliance with those recommendations. There are still people working only night shifts and workers who endure ten-hour-shifts. This is due to the complex net of legal recommendations and the lack of a governmental guideline, which clearly defines boundaries.

Theoretical Background/concepts

The effects of shift work on the worker can be divided into medical and social effects. As this paper is focusing on the social effects and the meanings for society/social security etc., the medical effects are only briefly summarized and the literature used in this paragraph is recommended for further reading.

Occupational health and safety and shift work

The effects of shift work on the body have long been a topic of ergonomic research. Therefore, there is a broad variety of aspects which need to be considered. The source of the effects is basically always the same: the disruption of the circadian rhythm (Presser et al 2008: 83). Especially because of night work the body faces a physiologically desynchronisation as workers are acting against their 'inner clock'. Therefore fatigue and reduced performance are the most obvious consequences (Beermann 2010: 75).

Subsequently, especially complains and diseases in connection to the circadian rhythm are reported in the population of shift workers with sleep disorders being the most prominent effect e.g. suffering from ‘chronique fatigue’ (Beermann 2010: 76). Another issue shift workers are often complaining about is problems regarding the gastro-intestinal tract. Those are often connected to a poor diet at night and wrong eating habits (e.g. consuming high calorie meals during night shifts). Nachreiner shows that variability of working time and the influence workers have on the organization of their working time are an additional aspect concerning the well being, as it can be seen in Figure 1(2011: 20/21).

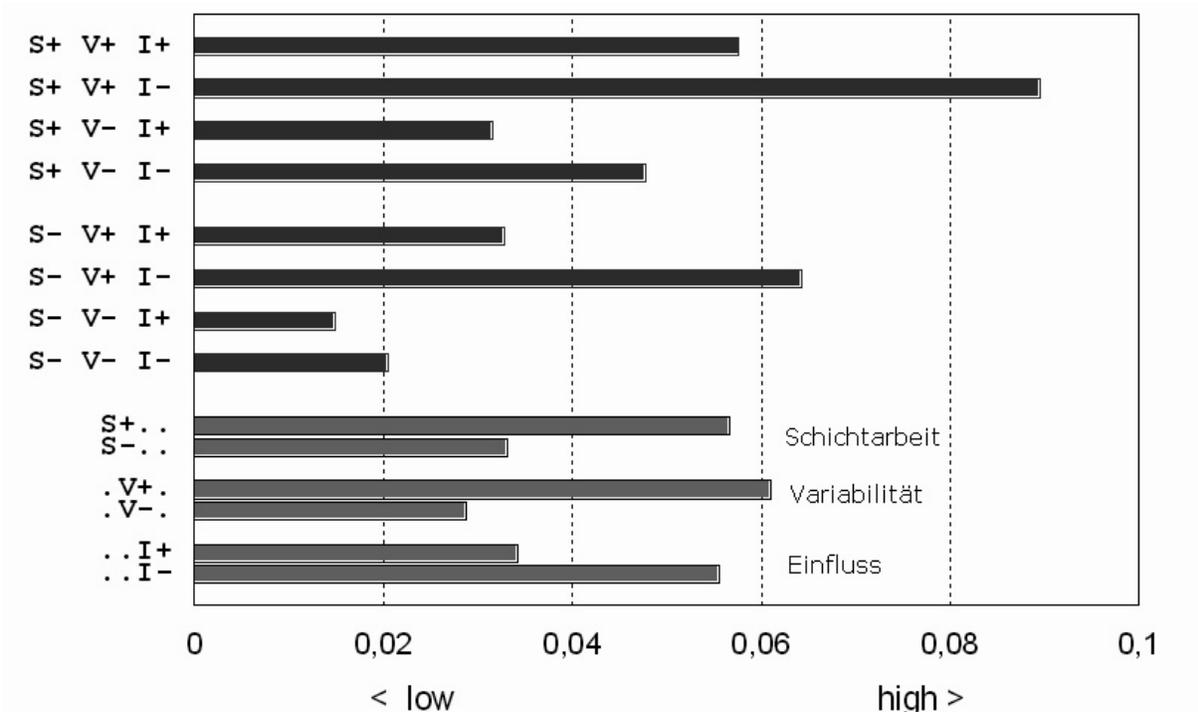


Figure 1: Health complaints working flexible hours, here stomach trouble. (S+ shift work, S- no shift work, V+ high variability of the working times (independent from shift work), V- low variability, I+ influence on the design of working time, I- low influence), Nachreiner 2011: 21

Another risk for shift workers are cardiovascular diseases; the connection between those and shift work has been proven through epidemiological studies and it can be seen from the existing results, that it is likely due to a complex interaction of different factors (Beermann 2010: 76).

Social aspects of shift work

Looking at work from the sociological point of view, one can define it as practice of the human being and in addition seeing the individual as a living person, which has different and varying interests and needs. Also, the working person does not act on its own, but is integrated on mul-

multiple points into society. First, there is the company paying for their work and then there are colleagues depending on their performance and cooperation. Shifting the focus from work to their free time, there is family and friends. All the different groups have expectations and needs; are depending on the individual and/or provide the human being with resources. It is all those interactions with other individuals and all these demands from the different parties involved in a working relationship that the sociological view is interested in; trying to understand the consequences of work on the social life and experience as well as the living practice (Böhle et al 2010).

Looking at shift work as a special work arrangement, the first noticeably different aspect is of course the irregular working hours involved and the demands arising from them. Those were also in the focus of studies from sociologists in the 1970s and 1980s in Germany. Before that time, sociologists had mainly focused on medical and economic factors, investigating shift work, the problems of performance and other working time issues were treated as secondary questions (Neuloh 1975: 107). Neuloh investigated shift work looking at socialization. He shows that shift work means an ongoing conflict for the worker trying to find a way to arrange the working time structure dictated by the working time arrangement and the societal time structure in his life. The latter is still being characterized by a preference for evening hours and weekends for social activities. In his conclusions he attests a possible decline of the personality structure of shift workers beginning with their work in shift arrangements due to tendencies of social isolation (1975: 127). He also connects this finding to health problems many shift workers are experiencing.

Alheit and Dausien are focusing on the biographical aspects in their study (1985). They look at shift work from the biographical point of view and show that the relation between work (and especially working time) and the individual is not a static. It has to be recognized as a two way process of influence and change (Alheit/ Dausien 1985: 14). Regarding the effects of shift work, they describe a lifelong conflict between two worlds: the societal time arrangements and the requirements arising from the shift schedules, the most prominent effect of which being sleep disorders.

The effects of shift work and the demands shift workers find themselves faced with are summarized in figure 1.

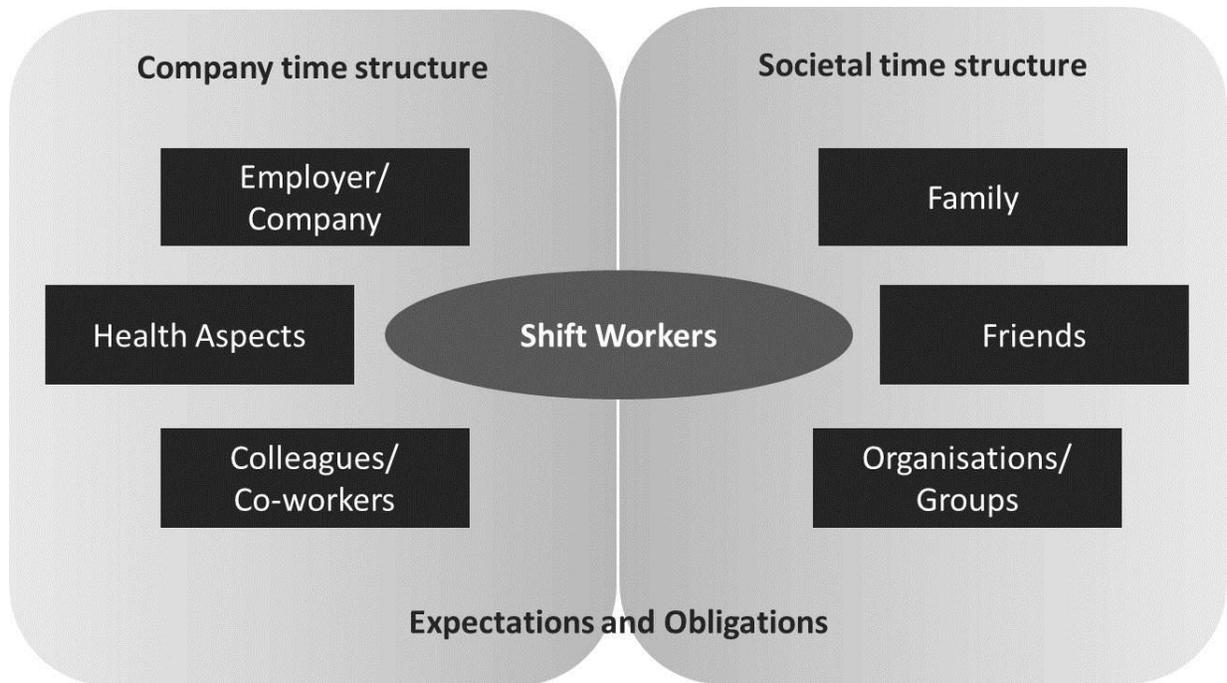


Figure 2: The shift worker and their surroundings. Own graphic based on (Neuloh 1975, Alheit/Dausien/Flörcken-Erdbrink 1986)

The few studies that already exist take a more in depth look at the shift workers situation using qualitative methods (Neuloh 1975, Alheit/Dausien/Flörcken-Erdbrink 1986). They outline that shift workers are living in ‘social desynchronization.’ In addition to their work, they are facing the task to bring their life and especially their time in congruence with the ‘normal’ societal time schedule (meaning free time in the evening and on weekends). This does not just affect the workers but also their families, partners and/or friends. Living with shift workers requires many different considerations such as: organizing their own life around the time schedule usually given by the company the shift worker is working for; planning the whole family life around the given work schedule and the needs of the worker (e.g. day sleep); and taking the often complicated schedule into consideration whenever they plan social activities.

Research Design

Research Questions

In the previous paragraphs the situation of shift work has been outlined and the existing results have been summarized. It has become clear that shift workers and their families/friends do not just have to deal with their present situation; they also have to plan their future facing the demands arising out of their working arrangements. That is why the paper at hand is focusing on social and biographical questions. In order to support shift workers during their life course, this paper identifies resources that employees, who are able to manage shift work well, rely on. Only when those resources are determined can they be made available for all affected parties and benefit all shift workers. Accordingly, the research questions are:

How do workers integrate shift work into their biographies and future?

What special demands arise for their social life?

What resources do workers have to cope with the demands originating from shift work? How can they renew these resources?

This project also looks at family traditions and special aspects arising out of the geographical boundaries given to the project, i.e. focusing on the Ruhr Area in Germany. Not only is shift work in some families a generation-long tradition, but there is also a special working culture in this area. Additionally, the perspective of working women will be a special focus of this project as women working in a male dominated industry and dealing with the demands of shift work will be interviewed/are interviewed.

Research Methods

The research methods for this project were chosen to allow an open approach. It was also important that the method used for generating the data focused on the view point of the workers and therefore avoids taking the perspective of the researcher. The methods used are part of the interpretative social research methods. Interpretative social research traces back to the distinction between a normative and an interpretative paradigm made by Thomas Wilson (1979/1973). The latter one attributing the human being with acting and recognizing abilities and an understanding of social reality as created by interactions (Rosenthal 2011:14/15). This also implies the assumption that the human being as an acting individual generates the social rules and reality in a continuing process on the basis of perception and interpretation of their (social) reality (Rosenthal 2011: 39, Hoffmann-Riem 1980: 342). As the research questions also take biographical aspects into account, the methods chosen include this aspect in the gathering of data and its analysis.

Biographical narrative interviews were used for gathering data. Those interviews offer a very open approach and allow the interviewed person to structure their specific experiences as well as to set their own focus in their narration. It was developed by Fritz Schütze, who also discovered the narrative constrains, which constitutes the basis of this methodology. Those constrains lead to the explication of the already mentioned structures by the interviewed person (Przyborski/ Wohlrab-Sahr 2009: 93/94). The interviews begin with a request to narrate the story of the person's life. Throughout the following narration, the interviewer will not interrupt the narrating person as to allow him or her to develop the story on their own. Afterwards, additional questions are asked alongside the narration given so that the interviewed person can stick to her or his experience structures from which the narration had developed. Finally, additional questions can be asked before a consensual ending is reached. All questions focus on the aim to evoke narrations from the interviewed person (Schütze 1982, Loch/Rosenthal 2002).

For the analysis of the interviews the Biographical Case-Reconstruction method was used (Rosenthal 2011). This method was chosen, because it allows the researcher to look at the

whole biography of the person. Only the look at the biography and analysis of the case as a whole without looking at the specific research questions first guarantees the inclusion of all aspects and remaining in the view point of the interviewed person. The result of this analysis is a case structure to which the research questions are then applied. In the analysis, the main distinction is made between narrated and experienced life story. Those two are reconstructed and then contrasted.

Sampling

As this paper relies on an ongoing research project (conducted in the course of a PhD study) the sampling is not yet finished. However, due to the fact that the project also relies on a finished M.A. thesis first results can be presented. The chosen method relies on thorough analysis and great detail and therefore does not require a broad sample, but a few cases.

The sample includes the already finished in depth analyses of 3 male cases; those cases consist of two interviews each, which were performed with a two year period in-between. This allows for a greater knowledge of the case structure and, since in two cases changes occurred in the two-year period, also leads to results regarding how changes apply. The sample also includes one female case and two additional male cases, which have been analyzed in a 'global analysis' so far.

First Results and First Conclusions

Looking at the case structures revealed by the analysis of the interviews, there are some aspects that seem to repeat themselves as well as some individual ones. In the following, the repeating aspects are described briefly, before one special aspect is explored further.

The acceptance of shift work as an aspect of one's own biography and therefore of the planning of one's life goes along with the acceptance that shift work is needed due to organizational issues of the company. Those are mostly the need of the company to have production running 24/7 or to be able to complete orders in time. Those reasons do not necessarily lead to shift work for all employees in a branch; often production or specific parts of the production process work shifts, while the rest of branch sticks to rather normal working hours. The acceptance of shift work for one's life course is accompanied by different factors, such as the obligation towards colleagues and co-workers and the obligation to help guarantee the further success and existence of the company.

Having accepted shift work into the life course and especially for planning their own future, the financial aspect gains a greater role. As there are often decent amounts of additional payment for working shifts, workers tend to plan with those amounts, the classical example being for building a house. In addition, workers adapt their lifestyle to the amount of money they earn, e.g. one interview partner uses much of his free time for visiting concerts and also travels

quite a lot to see his favorite artists. He can only do this because of the additional money he earns and also because he has some flexibility in his shift schedule.

Additional aspects that workers seem to use to cope with shift work are attributed to the nature of work during night shifts, which is often characterized by lesser supervision and more freedom regarding how tasks are carried out and collegial support in a team working the same shift schedule. Often those 'shift groups' also spent great amounts of their free time together, which allows social company during times most other friends might be at work and can also be beneficial for a better understanding at work. Often these communities are fairly strong and are helping each other out, not only in the work place but also in a social setting.

Another rather common point throughout the interviews is one or more people acting as a kind of 'Synchronisator' to help workers deal with their common societal time system. This often means a lot of organizational work, which is not compensated by any institution. Those persons help other friends to understand the shift schedule or help making appointments. Obviously, this work has a huge meaning to the shift workers; it can be seen as one of the guarantee factors for the employability of the affected workers, as it keeps them in touch with the society. However, it is not recognized by any institution neither the social security system nor the companies, who do not compensate for this kind of work. This person can be the boyfriend/girlfriend, spouse, a good friend or even one of the parents.

Drawing conclusions from the first results of the study at hand, it becomes clear that social (family/friends) support serves as resource for workers in irregular working hours arrangements and helps them to deal with the special demands arising from those arrangements. To date, those resources are often not used efficiently and could be organized systematically e.g. as employee assisting programs specially designed for shift workers. Additionally, companies should think about supporting social contacts between workers and they should monitor the important role of superiors for the benefit of the workers. This could save them money in the long run and workers would benefit as well.

As the project is still in progress those first results and suggestions show the potential of resources shift workers have built to cope with the demands they are facing. The further research will go deeper in analysis of those resources and include – in addition – cases which lacked those resources to show possibly negative outcomes.

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