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TIME, TIME SCARCITY AND CAR MOBILITY

DR. JEEKEL, HANS, TECHNICAL UNIVERSITY EINDHOVEN AND RIJKSWATERSTAAT, NETHERLANDS,
HANSJEEKEL@HOTMAIL.COM

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Dr. Jeekel, Hans, Technical University Eindhoven and Rijkswaterstaat, P.O.Box 20906, 2500 EX The Hague, Netherlands, hansjeekel@hotmail.com

ABSTRACT

The relationship between time and car mobility in modern western societies is interesting and problematic at the same time. In this paper this relationship is central.

A first focus is on time, time use and the characteristics of modern societies. From this focus we look at the relationship between time use and aspects of car use. The car can be seen as a great helper in situations with time pressure and time scarcity. As modern societies develop more time pressures are created, especially in single, full time working households and in families with younger children. Questions around time, time scarcities and reliance on cars are mostly framed as individual questions. However; a great part of this “time use – car use complex” originates from decisions and attitudes of governments and employers. The relationship between time and the car is being enforced and accelerates.

.A second focus is on different types of households. Which households are time poor, and seem to need cars as permanent helpers? Which households are time rich? And how do time poor households without cars find their ways?

In the last part we put the results of this literature study into perspective. Although there are problematic sides to an accelerating “time stress – car use complex” many households seem to like time scarcity. This paper ends with a road ahead on time, time scarcity and car mobility, a road towards more sustainable patterns of modern life.

Keywords: car mobility, time, time scarcity, flexibility, carless households

TIME AND THE CHARACTERISTICS OF MODERN SOCIETIES

Time is often seen as something of individuals, as belonging to the private spheres. It is questionable whether this is completely correct. A short overview on characteristics of modern societies to time and time use will clarify.

In modern societies *high standards of flexibility*, in work, in leisure, in arrangements are taken for granted. Everything has changed recently, everything will change again soon, and you are expected to be able to adapt easily to ever new circumstances and arrangements. Individuals and households that miss a certain level of “adaptation power” can face problems. *Sennett* describes in *The Corrosion of Character* (1998) how people in their working life have now to behave more flexible than ever. That seems to be a necessity in the New Capitalism, globally organised and aiming at short - term time economic profits, related to shareholders value. New Capitalism asks for adjustment to new situations all the time, to intense flexibility. Stable institutions and practices are barriers in this new economic order. People see companies come and go, see mergers with efficiency cuts, meaning loss of employment and feel that “the economy” is the hidden force shaping their lives. The urge for

flexibility sometimes creates anxiety and restlessness, as Bauman and Rosa explain in their work (for example ; Bauman,2006, Rosa, 2005 and 2012)

An important driving force related to this ever growing importance of flexibility is *the geographical process of spreading out of activities and services*. Activities, and services, once situated in their vicinity, have now moved to specific locations. On these locations more flexibility can be found, in terms of space and in terms of regulations. Modernisation has created separate spaces, separate locations for several functions. We now have industrial areas, office areas, shopping malls, and housing areas without much other activity ¹. Proximity is no longer necessary.

Geographers have analysed these processes from all perspectives. A school in human geography, *time geography* did conceptually arise with Hagerstrand in the seventies (Hagerstrand,1970) and is now with the availability of proper data getting a research focus (see Schwanen (2007 b) and Couclelis (2009). To use services, and to realise activities, households now have to travel over longer distances.

Societies in the western world have also grown into *task combining societies* (SCP,2006). On a single day you have to be active in different spheres of life, each with their own schedules and organisational arrangements and their own specific time frames (e.g. the combination of opening and closing hours). You work, you escort your children, you go to hobbies, you give medical aid, and you have to do the daily shopping. And you have to do it all at the same day, on which also the plumber will visit you to do a small repair, but he is unfortunately not able to say exactly when he will arrive. Planning and scheduling life has become normal. Task combining in a spread- out society means that within set timeframes longer distances have to be crossed. Daily life has become more complex and restless.

An extra element is that with growing prosperity many households in modern societies feel they have *more options to choose*, resulting for example in not using the nearest service (school, shop, plumber) but the one that is the best fit in their eyes (van den Brink,2005). For example, in a village in the Netherlands more than 40 % of the parents did not choose the nearest school for their children (Jeekel, 2011, 313). This also means travelling longer distances.

An extra word about the *timeframes*. In most European countries many shops, services, and government activities still follow a nine to six- pattern, meaning that people with full time jobs will find these services closed when they are free. Knulst, a researcher of the Dutch Social Research Institute (SCP) noticed already in 1984 ; “persons with a normal fulltime job have a chance of 10 to 15 % to find a service open” (Knulst,1984,5). Since 1984 something has changed – for example ; we now have Internet- services - but in 2010 this same Institute concluded (SCP,2010,110) ; ‘the situation where more hours are being worked, while the opening hours of services have not changed significantly leads to the suspicion that the possibility finding a service open probably has diminished”. This also leads to complex time schedules, and feelings of time pressure.

TIME AND CAR USE IN MODERN SOCIETIES

Task combining in tight timeframes and over longer distances than in the past asks for great flexibility. Many activities are combined in chain trips. Households need a transport mode that creates the opportunity to reach different activities at different locations in tight time

¹Analysis for example in ; Harvey (1989)

slots. The car seems to be the only transport mode that fits. Cars can organise the traffic between the different networks modern households are active in.

Many people feel nowadays they *have no choice in using the car* or not (are “driven to drive”, see Soron, 2009) . Many practices, that are normally seen as belonging to modern life, like having a whole spectrum of different experiences, working at a distance from your home, and keeping friends in a vaster area, are more difficult without a car. As the German researcher Rammler states ; “The car grows into “...*ein Grundausstattung eines volwertigen Gesellschaftsmitglied*” (Rammler,2003,5 ;,“the car grows to a basic element for full and able membership of modern society”).

Adams (2005) concluded that our societies are *hypermobile* in style and attitude. He considers this a problem, as does Sager (2005). But hypermobility can also be framed in a more neutral way. *Schokker and Peters*(2006) focus on hypermobility from a completely different angle than Adams and Sager. In *Hypermobielen* they look at what hypermobilists are actually doing. Hypermobility for them is an expression of hypermodernism, and that is just modernism to its utmost consequences. They see a ;”...strong individualistic life style coming up in a global functioning economy”. With that life comes : ‘...an increase to the “now”, the “moment”, experiencing “real time” and no acceptance of delays or postponement whatsoever (Lipovetsky)”² (Schokker and Peters,2006,6). Time management in such a society is, for every individual, a personal task.

As the car is always available, expectations regarding time management and combining activities are rising. Friends expect you to be able to combine activities and work within tight time schedules because you have this flexible tool, able to solve mobility puzzles.

“Hypermobiles” are , - being helped by mobile apparatus, not only the car but also mobile phones, blackberry’s etc -, experienced in solving these puzzles in a perpetual search for the cleverest routes. Obviously these “hypermobiles” consider themselves car dependent!

There is *unrest* created by patterns of normal modern life. Especially in households with younger children, but also in single households *subjective time pressure* can be felt. In the Netherlands data on these issues are available. The national Social Research Institute SCP asked respondents how many times during a week they felt hurried. The average was three times a week (SCP,2006,24 and table 2.6, for data from Flanders ; see Moens,2004) ; “the difficulty to keep standard dinner times, school times, work times, is not shown in the time schedule, but via feelings of hurriedness”(SCP, 2006,25).

In a comprehensive report on time use (SCP,2010 ; Tijd op Orde) it was concluded that 60 % of the women and 52 % of the men felt *time pressure*. 57 % of the women and half of the men felt hurried more times per week. Women feel more often hurried than men. Women have in most households the mental care of that household. Van der Lippe (2009) showed in the Dutch context that especially a job design that includes many deadlines and a large degree of autonomy increases feelings of time pressure. When children fall ill, need new clothes, the related tasks are for the women. The same holds for escorting.

Hurriedness is most noticed between ages 30 and 50. And task combiners are more hurried (SCP,2006,26). This is explained in Tijd op Orde (SCP,2010,42) ; “ Being active in more domains of life, means not only having to cope with different activities, but also with different expectations and different duties and appointments in the different domains, meaning one has to change gear all the time”

Escorting is now the fastest growing activity in the mobility field. Escorting means driving people, often children or the elderly, to clubs, friends, hospitals.

²The French philosopher Lipovetsky paints in *Les Temps Hypermodernes*(2004) the rise of a society of instant action, cherishing to “now” and the experience of “real time”.

We have figures for Switzerland; in 2005 94 per cent of escorting was done by car, and women between 30 and 50 years of age dominated in this motive. For the Netherlands it looks like some 15 per cent of the journeys made by women between 30 and 50 years are for escorting (MON 2009,8.11 category overig). In the British Travel Survey 2006 is stated ; “while younger women make more escort trips than younger men, men aged 50 and over made more escort trips than women in the same age group.” Including both the school run and other escort trips, women aged 30-39 made over 25 per cent of their trips escorting someone else. And in Germany , for parents with children under 6 years escorting is 26 % of their trips, slowing down to 12 % when children are above 6 years. .

From these data the picture arises that escorting is an important motive ; somewhat like 11 per cent in journeys and 8 per cent in distance, with a peak for women between 30 and 50 years of age with children, where escorting accounts for 25 per cent or more of their journeys. Escorting is very car dependent ; it looks like more than 80 per cent of the distance for escorting is travelled by car, making escorting one of most car oriented motives. The second highest mode for escorting is walking, and not public transport. Public transport has no role in escorting.

THE CAR AS A HELPER

The car is the central helper in realising expected and promised activities in the scarce time available. This is clarified in a number of publications that bring real life into academia.

In *Rushing Around ; coordination, mobility and inequality* (2002b) Shove analyses what is necessary to allow the social practices now defined as normal in our societies take place. She defines a practice as ; a routine like way in which people travel, use products, in which developments are framed, and in which the world is understood. Mobility systems facilitate all the practices that can take place, but mobility systems do also change these practices. The task for mobility changes through time “...mobility is not about getting from A to B... but instead about integrating everyday life and the activities required of “normal” practice. And ; “...people are rushing around in order to preserve the sense that they are behaving in normal and ordinary ways” (Shove,2002,9).

This deals with “spacing and timing”, planning and organising of different activities and practices in space and time. Each human being in our time and society has to follow his or her own spacing and timing – programme. In Shove`s view the car is the best equipped to help with this `rushing around`. Exclusion can be a problem for people obliged to participation to these practices without the possession of individual and collective instruments to follow the aforementioned difficult and tight time schedules. Shove concludes that a more collective programmed society will create less social exclusion, and she asks what in our time is considered to be “an effective membership of our `normal` society` .

In *Running around in circles* (2003) Skinner analyses the need for mothers to manage a number of deadlines each day. On time to school, not too early leaving work, on time back at school, on time to the hobby, an time picking up from hobby. Managing the coordination points, the moments of change to another activity is essential. Keys to successful management of deadlines are a short distance between work, school and care, flexible working hours, help from family and friends, and having disposal over fast transport³.

³ Craig (2005) signals in *How do they do it? A time- diary analysis of how working mothers find time for their kids* , that full-time or nearly full- time working mothers with children in full day nurseries spend almost the same amount of time with their children than other mothers. The car is necessary to make this possible. A view arises ; “women rushing from work to pick up their children from day care, cooking, bathing and feeding and talking to and playing with and reading to their children, and

And Dobbs describes in *Wedded to the Car ; employment and the importance of private transport* (2005) some reasons why households with access to many public transport facilities still use their cars for most journeys. Public transport does not take them exactly where they have to be, and households are very critical about the inability of public transport to make chain trip patterns. Public transport seems to be stuck in a “nine to six” – society. Women are more active on the labour market when they have a car at their disposal.

Southerton presents in *Squeezing Time ; Allocation practices, coordinating networks and scheduling society* (2003) a study on hurriedness. He interviewed 20 households in a suburb of Bristol. All respondents feel sometimes, and a few very often, hurried and nervous. The need to have a dual, or at least an one -and- a half income in order to be able to live what is considered a normal middle class life in our modern societies leads to less time for daily household activities. Whether hurriedness existed “depended on individual capacities to schedule their practices in line with the shared socio- temporal constraints found in their contexts of network interaction” (Southerton, 2003,17). Hurriedness depends on context. When a few of the planned activities are not taking place as scheduled a relaxed morning can easily change into a hurried day. From his interviews Southerton concluded that hurriedness is increasing.

There are cultural differences in the moments of time pressure. In *Famille et temps ; Etat de l'art et tour d'horizon des innovations* (2002) the Swiss researchers Kaufmann and Flamm presented a European perspective on this theme. Looking at organising life with children they see three models.

The first is the traditional model ; women stay in majority home to take care of the children. This is the case in Italy, Greece, Spain and Ireland. On the other end of the spectrum are countries where most women work more or less full time. This means leaving their kids the whole day in controlled environments. This is the case in France, and mostly in Scandinavia. The third group is an intermediate group. Women mostly work part time, and children are part of the time raised within the family as in Italy etc. This is more or less the situation in Great Britain, in Germany, in Austria en certainly in the Netherlands.

Countries supply different arrangements. The authors show that for example in France part time childcare is mostly not available.

The three models have direct consequences for car mobility. The relatively relaxed situation in Italy etc. has in the intermediate countries -combining work and child care on the same day- become a rushing around pattern. In the countries with full employment for women the stress is concentrated on the two moments of leave and pick up. Time in the car becomes quality time ; for women that work all day, the journeys with their children are seen as a way to have privileged contacts with their children .

AN ACCELERATING AND RE- ENFORCING PATTERN

In Western European countries mostly 80 % of all households own at least one car (Jeekel,2011, 201). 20 % of all households are carless ; singles, poorer households, ethnic minorities, single parent families, elderly women. Employers and governments more or less expect households to be car- owning. New locations, often related to highways, are developed with car use in mind.

Car use offers room for new and broader choices. Growing prosperity gives rise to growing expectations (van den Brink,2004). Dissatisfaction arises when modern living conditions

cuddling them to sleep, before dropping exhausted into bed themselves and beginning it all again the next day “(Craig,2005,16).

cannot meet the standards related to these growing expectations. Partners expect more from their relationships than ever, the burden of affective problems is growing. In the work sphere demands from employers towards employees are growing, and employees have higher expectations of their careers. It is rather difficult to meet these higher expectations, so ; a price is paid for all these higher demands (Van den Brink,2004,20) ; more divorces, more stress, more burn- outs. Women in particular have to combine activities in different domains, in rather tight timeframes; "...the housewife – spending a great deal of her time in and around the house, and being able to follow her own time schedule - knew margins. These margins disappeared, and the former housewives tasks are being spread over more, and more busy, people, thus creating stress in society."(Van den Brink,2004,26).

Van den Brink (2004) defines a *process of growing expectations*. Norms and standards for social interaction rise. We become more sensitive to inconvenience, to nuisance, and to risks. And we have higher, mostly implicit, demands on interaction. Dissatisfaction is growing, but there is no single body able to coerce these higher standards. Modern society creates higher norms for living together, but most citizens also accept that these norms will probably not be met.

Cars are mostly faster than other transport modes. But extra speed to overcome distance is not used to diminish time pressures. It is often "consumed" through shortening the time periods between the activities, allowing car drivers to carry out more activities in the same time frame. Greater flexibility leads to greater flexibility. To cite the Dutch philosopher Achterhuis ; "*people buy time with speed, and this process continues and continues*"(Achterhuis, 1998). With this pattern stress and time pressure are to stay.

The *Dutch Social Research Institute* (SCP) presented in 2004 a report called *De Veeleisende Samenleving*. This reports contains an essay on stress and stress feelings in our times. Their principle is ; "Our modern society is a demanding society. New possibilities are used to realise more, and not to reduce efforts and strains, thus realising more leisure and free time. Faster mobility leads to greater travel distances, to higher productivity, to more production, the higher incomes, to higher consumption, to women emancipation, to more task combiners and to higher mortgages. "More and fast" is in our societies more important than "less and relaxed". (SCP,2004,36). The price for this choice is high ; a relative high degree of mental fatigue. But from the perspective of the SCP "this seems to be an evitable side effect of an acceleration society and an accepted and wished individualisation"(SCP, 2004,36). Our existence is time- intensive and with this time – intensity comes, according to Breedveld who studied school hours, childcare and the related responsibilities ; ""one hitch, one train too late, one meeting that ends later, or one day that children are unexpected free from school, and problems arise"(Breedveld,1999,22).

TIME AND TIME SCARCITY IN A BROADER SOCIETAL CONTEXT

Time, time scarcity and stress are in our societies framed as individual questions. The dominant vision is that individual households create time stress themselves, with their choices, and are seen as responsible for their own solutions. One of their solutions is a use of the car for smaller trips, which leads to environmental damage, to traffic safety problems and to loss of playgrounds for children.

It is however *questionable whether the framing of time issues as individual generated problems is appropriate*. We already noticed the interrelation of time use and societal characteristics and arrangements. Beck (2001) marks his position very clearly stating on this issue ; "each of us is expected to seek biographical solutions to socially produced troubles".

In *City time ; managing the infrastructure of everyday life* (2004) Jarvis focuses on the political and societal context of time scarcity and hurriedness. She too argues that time scarcity is too often framed as an individual problem, and as an individual question. But time scarcity also contains power elements and inequalities. Richer households can more easily mitigate time scarcity than poorer households. And responsibilities for service providing previously taken by governments are now, in the neo- liberal climate, laid on households. Take for example waste; municipalities formerly came to pick up your bigger waste. Now households are expected to deliver increasing amounts of waste themselves at the dumps. But one can, in the eyes of Jarvis, also think of home care, volunteer aid, or too little capacity in day nurseries.

Jarvis also sees the restrictions created by opening hours regimes. Much coordination is needed within households. Part of the time scarcity is a result of government decisions. She asks for a good theory on daily coordination. And she finishes ; "...do we care sufficiently about the consequence of escalating inequality, congestion, pollution and uneven development, to invest in public solutions to private coordination problems, when these threaten social cohesion and environmental sustainability?"(Jarvis,2004,14)

Also the observation should be made, taking some Dutch examples, that *politicians* expect modern households to have no time scarcity, when they decide on government budget cuts and their approach. For example budget cuts on child nurseries are motivated by leading politicians with the vision that these nurseries are overused, and that parents have to take more care for the children themselves. Budget cuts on psychiatry are explained by stating that families have a greater role to play in helping psychiatric patients. Budget cuts on medical aid are motivated by arguing that more medical aid by relatives would be appropriate. However, these same leading politicians want to see less part time work and more full timers, otherwise our European societies cannot keep up with the new economic players in the world. It remains unclear which coherent and integral vision on time, time scarcity, work load and combining activities is here at stake ! It looks like modern households have to do more other activities, and also to work more!

Also interesting is the *position of employers*. The often announced revolution in work, coming from more homework, and arrangements of new working styles starts slowly. *Teleworking and working at home* can be seen as alternatives to car travelling. But how important is teleworking ?

We have figures for three countries. These are unfortunately rather old figures, newer figures cannot be found. In the United Kingdom in 2006 3 per cent of those who were employed always worked from home, and a further 5 per cent did so at least one day per week (National Travel Survey,2006,49). For another 10 per cent of the employees it was possible to work from home. In the Netherlands in 2003 between 3 and 22 per cent of the employees worked from home with some regularity (more than once in two weeks) , on average 6 per cent (SCP,2003,89 -114). Higher education and work in the public sector are indicators for working at home/ teleworking. In Sweden in 2005 1 per cent of those in employment teleworked, while 21 per cent of the employed stated they had work tasks appropriate for teleworking (41). From these data a picture arises ; more than one fifth of the employed population can telework relatively easy ,half of this group actually works at home sometimes, and half of this last group (4-8 %) work regularly at home. ⁴

Next to the fact that teleworking is not possible for many jobs (e.g school teachers, health care, builders) an important reason for the rather marginal results is in the behaviour of the employers. Three probable explanations can be offered ; habit, the wish to meet in person, and active resistance by employers.

⁴Cairns et.al (2004,345) stated that in the U.K. with a proper telework and homework strategy a 12 % reduction in car use for commuting could be the result.

To start with the last explanation. When their employees work at home employers are not able to control whether they are working. Working at home is seen as problematic by many employers, especially by operational managers. Although the management literature sometimes suggests otherwise, the basic management style in offices and factories is still “command and control”, especially at the lower management levels. With their employees working at home, managers have to steer on results, on content, and not on behaviour in the office. Many managers seem not able to steer that way, are not used to manage professionals. The Dutch IT consulting firm *Cap Gemini* (2009) describes this in greater detail its report *Trends in Mobiliteit* -report. Although it should not matter what employees do all the day - when they achieve the agreed results and are available to talk to and mail with colleagues, that should be enough - this new working structure is blocked by old fashioned control thinking.

The wish to meet face- to- face plays a role in difficult decisions, and in shopping and leisure. Virtual meeting remains something other than actual meeting, and habit remains an important explanation, especially for the generation over 30 years, who did not grow up with IT. Many IT possibilities seem to be used in practise for the first time when employers see physical mobility to work no longer as obvious, and start considering organising work in a “mobility poor”- way (Cap Gemini,2009,25).

Another way to diminish time pressure could be to create urban areas where the need for car mobility is lower. Although there are always many expectations on the results of the relationships between the characteristics of built up areas and mobility the links between these characteristics and vehicle miles travelled (VMT) seems rather weak. Most impacts arise from the attitudes of mobilists and from everyday spatial and temporal patterns. The verdict here seems to be ; there is a link, lower density in built up areas creates higher car mobility levels, but take into account residential self- selection and do not expect too much (Brownstone, 2008, Brownstone and Golob, 2009, Handy, 2005)..

However ; possibly we will arrive at a tipping point (Gladwell ,2000), when the first generation that grew up with IT reaches adulthood, and starts driving. For this generation the complete use of the IT- spectrum is obvious. This generation created virtual networks, and lives in them. But until this generation dominates the labour markets we still have to wait, and to see advancements, but rather slow advancements in substituting car use by working home.

Last element to be presented is the relation to *sustainability*. The complex of time scheduling, need for coordination, time scarcity, hurriedness and stress does not look very sustainable. Searching for more sustainable life styles seems rather far away in this general pattern in the western developed countries (SCP,2004).

Our modern risk societies are characterised by *a battle around time*. As long as this battle is not made explicit, and not fought, feelings of time pressure, hurriedness and stress will probably grow. The development of a policy on time, with the aim to diminish psychological fatigue and stress, can be useful.

TIME POOR AND TIME RICH PEOPLE

As stated earlier time pressure and time scarcity is mostly an issue in families with younger children and with singles who work full- time. As van der Lippe (2009) states ; especially the presence of young children increases feelings of time pressure, especially with higher educated women.

Time scarcity is less an issue in couples without children, with singles working part – time, with families with grown- up children, and with the elderly. To take this further ; many of these households are even time rich. It is interesting to note how many people can spend their afternoons just sitting and talking in sidewalk cafes!

In the time rich populations a difference can be seen. There are richer time rich households and poorer time rich households. The first group is mostly involved in many leisure activities, and are the great holiday spenders. The second group is sometimes involuntary time rich.

Quantifying the groups with some “rules of thumb” offers a clearer perspective. In most Western European countries full families now take up 28 % of all households (Jeekel,2011,198). Nearly half of them will have younger children (until age 12). Singles account for 35 % of all households. It is estimated that half of them will work full – time. And 6 % of all households consists of single parent families, with the estimation that half of them will have children in ages below 12. Some 35 % of the households can thus be seen as time poor households.

On the other side we have a 12 % elderly households (singles and couples), and at least 10 % families that can be seen as having no time scarcities. Probably, at least 25 % of the households can be seen as time rich. 40 % of all households are probably intermediate between time rich and time scarce.

In our societies time rich people and time poor people can live near to each other. Where a time rich individual has all the time in the world, has his hobbies, is busy developing himself, taking leisure, or is simply bored by all the time in front of him, his neighbour is rushing around and does not know how to combine all different tasks and expectations.

There is probably some form of residential self – selection. In some neighbourhoods the time rich dominate, for example in areas with many service apartment blocks, while in others the time poor dominate, for example in the family oriented newer middle class suburbs. As we can notice there seems to be only minor solidarity between the time rich and the time poor households. A new dichotomy is starting to develop. Within the time rich there is also this other dichotomy ; the richer time rich households have a far greater geographical area in which they live and create their experiences, than the poorer time rich households.

Also the car use of the different groups differs. Richer time rich households are mostly great car users, using their cars for shopping, visiting friends and leisure. These households avoid congestion locations and congestion times. Poorer time rich households, and especially the lower educated among them, have a smaller action radius. Barriers and difficulties dominate their approaches (Morris,2006). Morris describes “travel horizons”, to be seen as ; the distance or the location that people are able to travel. For most lower educated people this distance is small. This is a function of knowledge, familiarity, trust, and fear of interchanges. Unfamiliarity leads to staying nearer to home. With their smaller travel horizons many people with lower incomes or without cars need to use services and facilities nearer to their homes.

TIME SCARCITY AND THE CARLESS HOUSEHOLDS

How do carless households cope with problems of time scarcity? Not being able to use a car leads probably to some impossibility to realise all activities in the set time frames. To this general rule there are at least two exceptions ; the first has to do with budgets. When carless households have a rather high budget they can pay for taxis. And the second is related to specific locations. It is clear that in the biggest western cities car use does not offer the advantages of speed and flexibility. Households know this ; in the three city Lander of Germany (Hamburg, Bremen and Berlin) only in average 42 % of all trips are made by car,

compared to a national German average of 58 %. And in central Paris only 12 % of all trips are made by car.

In general, carless households can face problems in realising all necessary activities, unless they are “time rich”. But is this the situation? Looking at their characteristics carless households will in majority probably be more time rich than average. On the other hand, around 40 % of the carless households hold jobs. As we know there are only few carless full families. Thus, most carless households facing time scarcity will be single households, but there will be some carless and working full families, and more single parent families.

We know very little about their situation, and about how they combine tasks and activities in set timeframes without a car. Theoretically four possibilities are available. The first is to move to the biggest cities. Here there is no or no great disadvantage. The second is to reduce the spectrum of choices ; some possibilities are not to be realised by carless households. They just do not go to the forest for just an hour, or they choose locations that are within bicycle reach. Third possibility is to ask for lifts. We know from literature (Davey,2004, RAC Foundation,2009) that members of non – car households have some reluctance to ask for lifts. In *The Car in British Society* (RAC Foundation,2009,82) is stated ; “some people who did not own cars...felt that they were a burden on their friends and families”. And a fourth possibility is the move forward, the creative carless elite showing that time scarcity can be fought with creativity, with solutions that make car drivers smile!

An estimated 30 % of carless households with time scarcity will probably have some real accessibility problems. For example ; it is difficult to reach highway locations without cars, it is difficult to reach hospitals late in the evenings. In most national policies on car mobility only minor attention is given to this type of accessibility problems.

MODERN AMBIVALENCE AROUND TIME

The problems mentioned in the previous chapters have to be seen in perspective. Sometimes people love their time scarcity. Part of the time scarcity has to do with the moral climate, and with status elements ; you attain a higher status by explaining that you are very busy.⁵ And the Norwegian researcher Hjorthol (2005,7) states ; “...not only is time pressure normal, it is also socially acceptable and to a degree status- giving....time pressure becomes “a contemporary myth “.

Mobility, and especially hypermobility , gives many citizens the idea that mobility is without boundaries. “Everything that can be done, should be done”, could be a motto in modern western risk societies. More people than ever will probably define their lives as a chain of events, spontaneous or self - created.⁶ There are also many expectations; being mobile is such a customary practice, that you are expected to drive to locations 100 km away the same evening for a joint activity. As we see a societal discourse on well- considered food, there is no start to define well- considered – ethical, thoughtful and responsible - mobility. With mobility, everything is taken for granted. Although there are now books on ethics and mobility (Bergman and Sager,2008) it often looks as if the relationship between ethics and mobility still has to be invented!

⁵ Also on this theme Gershuny (2005) ; Busyness as a badge of honour for the new subordinate working class

⁶An interesting book on this theme is ; Schulze (1992, revised 2005) ; *Die Erlebnisgesellschaft*

THE ROAD AHEAD ON TIME, TIME SCARCITY AND CAR MOBILITY

The car facilitates the rushing around of modern households. Combining tasks in tight timeframes can be done via car use. Households temporarily without a car can feel awkward. But this rushing around also leads to high CO2 emissions, to stress, to loss of latitude, and to loss of relaxation. This relaxation comes back with a switch-over to a time-rich existence.

Politicians, economists employer and other decision makers have been successful in framing questions on time and stress as individual problems, arising from maladjustments of specific households to the demands of modern societies. There is hardly any discussion on the responsibilities of decision makers in our societies for time problems with which families and single households are confronted.

The first step on the road ahead is to analyse which choices and attitudes of politicians, governments and employers lead to time problems for households. To name a few ; the need to be physical present at work, choices in diminishing government services, budget cuts that ask for extra time to be spend by households, the creation of highway locations without public transport, and keeping conservative opening and closing hours. All elements that can be arranged otherwise.

The second step is raising the awareness that we have with time and time scarcity a rather great societal problem at stake. Stress, burn out, do cost our societies money, in terms of real money and in terms of human resources. The battle around time is fought individually. The time is ripe for a "time movement", starting to discuss the rushing around collectively.

The third step is to create answers to the permanent raising of flexibility standards. We should not bring all human relations under the pressure of permanent higher efficiency and flexibility. There are values higher priced than flexibility. A moving towards more relaxation, and more solidarity between the time rich and the time scarce would be more sustainable and wiser.

And the last step is to make a start with discussing ethical questions in the area of mobility. Food is now discussed from all sorts of ethical perspectives. Mobility is still a "free for all" area. We should start to discuss how well-balanced and well-considered mobility could look like !

LITERATURE

Achterhuis, H (1998) ; Mobiliteit tussen schaarste en rechtvaardigheid, in Achterhuis, H en Elzen, B red Cultuur en Mobiliteit, blz 105-121, Den Haag, Sdu

Adams, J. (2005).Hypermobility; a challenge to governance, in *New modes of Governance ; Developing an Integrated Approach to Science, Technology, Risk and the Environment*, edited by Lyall, C and Tait.F. Ashgate,;Aldershot

Bauman, Z (2006); Liquid Fear, Cambridge, Polity Press, 2006

Beck, U. (2001). Die Modernisierung der Moderne. Frankfurt am Main,, Suhrkamp Taschenbuch Verlag

- Bergman, S. and Sager, T. (2008). The Ethics of Mobility, in Rethinking Place, Exclusion, Freedom and Environment, editors Bergman, S. and Sager, T., Aldershot, Ashgate.
- Breedveld, K (1999); 4+2=7 ; arbeidsduurverkorting, taakcombinatie, opvoeding en onderwijs van 4 tot 12 jaar oude kinderen, SCP studie in opdracht van de commissie Dagindeling
- Brownstone, D (2008). Key relationships between the Built Environment and VMT, Special Report 298 ; Driving and the Built Environment, University of California, Irvine
- Brownstone, D and Golob, T (2009). The impact of residential density on vehicle usage and energy consumption, Journal of Urban Economics 65 , 91-98
- Bundesamt for Statistik/Bundesamt fur Raumentwicklung. (2007). Mobilitat in der Schweiz ; Ergebnisse des Mikrozensus 2005 zum Verkehrsverhalten, Neuchatel
- Cairns, S et.al (2004) ; Smarter Choices ; changing the way we travel, Department of Transport U.K.
- Couclelis, H (2009). Rethinking time geography in the information ge. Environment and Planning A, 41, 1556-1575
- Craig, L (2005); How do they do it ? A time- diary analysis of how working mothers find time for their kids, Social Policy Research Centre, University of New South Wales.
- Davey, A. (2004). Coping without a Car. *Paper prepared for the New Zealand Institute for Research on Aging*
- Department for Transport U.K. (2010). Transport Trends, 2009 edition and National Travel Survey, London
- Dobbs, L (2006); Wedded to the Car; women, employment and the importance of private transport, in : Transport Policy, 12, 266-278
- Dobbs, L (2007); Stuck in the Slow Lane; Reconceptualizing the Links between Gender, Transport and Employment, in ; Gender, Work and Organization, 4,2, 85-108
- Gershuny , J (2005); Busyness as the badge of honour for the new superordinate working class, in; Social Research, 72, 287-314
- Hagerstrand, T (1970). What about people in Regional Science ? Papers and Proceedings of the Regional Science Association, 24, 7-21
- Handy, S (2005) ; Critical Assessment of the Literature on the Relationships Among Transportation, Land Use and Physical Activity, TRB Special Report 282
- Harvey, D (1989); The condition of post modernity, Oxford, Blackwell
- Hjortol, R (2005); Mobility in Daily Life, the Car and Use of ICT for Family Logistics, Paper submitted to the 45 th Congress of The European Regional Science Association, Amsterdam, august 2005
- Infas und DLR (2010). Germany ; Mobilitat im Deutschland ; Ergebnisbericht ; Struktur- Aufkommen- Emissionen- Trends, Berlin- Adlershof

)

Jarvis, H (2004); City time; managing the infrastructure of everyday life, ESRC Work Life and Time in the New Economy, seminar paper

Jarvis, H (2005); Moving to London. Time household coordination and the infrastructure of everyday life, in: Time and Society, Vol 14 (1), 133-154

Jeekel, H (2011) ; De autoafhankelijke samenleving, Delft, Eburon

Jorritsma, P (2007); Bereikbaarheid en time- management; een notitie ten behoeve van de workshop Dagindeling, Kennisinstituut voor Mobiliteitsbeleid

Kaufmann, V en Flamm, M (2002): Famille, temps et mobilité; état de l'art et tour d'horizon des innovations, Recherche réalisée a l'intention de la CNAF et de l'institut pour la Ville en Mouvement

Knulst, W (1984); Tijdsbesteding en Overheidsbeleid, SCP rapport

Kramer, C (2005); Zeit fur Mobilitat. Raumliche Disparitaten der Individuelle Zeitverwendung fur Mobilitat in Deutschland, Stuttgart, Franz Steiner

Lipovetsky, G. and Charles, S.(2004). Les Temps Hypermodernes, Paris, Grasset

Lippe, van der, T (2007). Dutch Workers and Time Pressure. Work, Employment & Society, 21, 4, 688-209

Moens, M (2004); Handelen onder druk; tijd en tijdsdruk in Vlaanderen, in ; Tijdschrift voor Sociologie Vol.25, nr.4, blz 383-416

Morris, K. (2006). Research into Travel Horizons and its subsequent influence on accessibility planning and demand responsive transport strategies in Greater Manchester. *Paper for ETC*, Strasbourg

RAC Foundation (2009). The Car in British Society (Authors ; Lucas, K. and Jones, P.)

Rammler , S (2008); Die Wahlverwandschaft of Modernity and Mobility, in: Canzler, W, Kaufman, V and Kesselring, S (2008); Tracing Mobilities, 57-77, Ashgate

Rosa, H (2005). Beschleunigung. Die Veränderung der Zeitstrukturen in der Moderne, Suhrkamp Verlag

Rosa, H (2012). Weltbeziehungen im Zeitalter der Beschleunigung. Umriss einer neuen Gesellschaftskritik, Suhrkamp Verlag

Sager, T. (2005). Footlose and Forecast – free; Hypermobility and the planning of society. *European Journal of Spatial Development*, September, 465- 488

Schokker, T. and Peters, P. (2006). Hypermobielen, *bijdrage aan het Colloquim Vervoersplanologisch Speurwerk*

Schultze, N (2005,1992) ; Die Erlebnisgesellschaft

Schwanen. T (2004) ; How time- pressured individuals cope with disturbing events affecting everyday activities; a literature review and conceptual analysis, paper CVS, 25-26/2004, Zeist)

Schwanen, T , Ettema, D and Timmermans, H (2007 a). If you pick up the children, I 'll do the groceries; spatial differences in between-partner interaction in out-of-home household activities, in; Environment and Planning A, volume 39, 2754-2773

Schwanen, T.(2007 b). Matter(s) of interest: artefacts, spacing and timing. Geografenska Annaler, 89B, 9-22,

Sennett, R (1998); The Corrosion of Character, in Nederlandsevertaling; De Flexibelemens (2000), Norton, New York

Shove, E (2002); Rushing around ; coordination, mobility and inequality, draft paper for the Mobile Network meeting, october 2002

Skinner, C (2003); Running around in circles; how parents coordinate childcare, education and work, Joseph Rowntree Foundation

Skinner, C (2005); Coordination points; a hidden factor in reconciling work and family life, in; Journal of Social Policy, jrg 34, nr. 1 , 99-119

SCP (2004); De Veeleisende samenleving, Den Haag

SCP (2006); De tijd als spiegel. Hoe Nederlanders hun tijd besteden, Den Haag

SCP (2010) : Tijd op Orde, Den Haag

Soron, D. (2009). Driven to drive ; Cars and the Problem of "Compulsory Consumption", in J. Conley and A. Tiger MacLaren, Car Troubles, Aldershot, Ashgate, 181-197

SCP (2010) ; Tijd op orde? Een analyse van de tijdsorde vanuit het perspectief van de burger, Den Haag

Southerton, D (2003): Squeezing Time; Allocating practices, coordinating networks and scheduling society, in: Time & Society, vol. 12, No 1, (2003), 5-25

Van der Brink, G (2004). Hoger, harder, sneller....en de prijs die men daarvoor betaalt. Bijdragen aan WRR Rapport over Waarden en Normen, Den Haag

Wajcman, J (2008); Life in the fast lane ? Towards a sociology of technology and time, in; The British Journal of Sociology, Vol 59 (1) , 59-77

Figures on car mobility and escorting can be found in :

- Sweden : RES 2005 – 2006 The National Travel Survey, SIKa (Swedish Institute for Transport and Communications Analysis) ,2006
- Germany ; Mobilitat in Deutschland 2008 : Ergebnisbericht ; Struktur – Aufkommen – Emissionen _ Trends, Infas und DLR, Berlin, 2010
- Switzerland ; Mobilitat in der Schweiz ; Ergebnisse des Mikrozensus 2005 zum Verkehrsverhalten, Bundesamt fur Statistik / Bundesamt fur Raumentwicklung, Neuchatel, 2007
- France ; La mobilité des Français. Panorama issu sur l ' enquete nationale transports et déplacements 2008, Commissariat General du Developpement Durable, 2010

)

- Netherlands : Mobiliteitsonderzoek Nederland 2009, Tabellenboek, Rijkswaterstaat, 2010
- United Kingdom; Transport Trends, 2009 edition and National Travel Survey: 2009, Department of Transport, 2010