

Paper from the conference On the Move: ACSIS conference 11–13 June, Norrköping, Sweden 2013, organised by the Advanced Cultural Studies Institute of Sweden (AC SIS). Conference Proceedings published by Linköping University Electronic Press at http://www.ep.liu.se/ecp_home/index.en.aspx?issue=095. © The Author.

Automobility, car-normativity and sustainable movement(s)

Anna Samuelsson

Centre for Gender Research, Uppsala University

Anna.Samuelsson@gender.uu.se

Modern society can be said to be a car society since it has been designed to fit the needs of the private car. In this paper I discuss relations between cars, mobility, planning and sustainability in cultural perspectives. I discuss the historical roots and contemporary landscape of car culture and the sociocultural factors that reproduce it, such as planning and infrastructure; the car as sign of status, adulthood, flexibility, masculinity and the car as “space of one’s own” in embodied habits. In recent years, cars and mobility have been subject to several studies and interdisciplinary research projects. Many of these highlight the ambivalent position of the car: on the one hand as symbol of individual freedom, mobility and speed, but on the other as the source of problems as fatal accidents, pollution, smog, noise, congestion, road rage, barrier creation, unjust land use, erosion of natural cultural heritage, reduced bodily exercise/movement, hazardous particles and not at least climate change. An important point is the gap between science and policy: for decades research has problematized increased motoring, and with the climate goals, most research and government agencies say that driving need to reduce. In spite of this motorized mobility is reinforced on local, national and global level. However local initiatives around the world challenge “car-normativity”, and in recent years there’s talk about “Peak car” in the western countries. We have to seriously ask: what kinds of mobility and movements are sustainable for humans, other beings and the world?

Keywords: Car society, car-normativity, sustainable mobility.

INTRODUCTION

Today the level of carbon dioxide is the highest ever in the history of humankind (400 ppm, parts per million), and its rising.¹ One third of Sweden's emissions of carbon dioxide, a key component in climate changes, come from transports on the road, and most of that from private cars.² On local level we see problems as smog and hazardous particles (from asphalt, tires and fumes) that actually causes more deaths than car crashes each year. Automobility has transformed landscapes and cities in a way that obviously have the car as norm. Cars create barriers and long distances between social functions in the phenomenon called *Urban sprawl* (in Swedish, "utglesning"). Most car trips are less than 5 km and in cities less than 3 km and can thus be considered as unnecessary. The question is: Why does this car-system continue? Why do people, particularly men, continue driving so much?

My proposed answer is *Car-normativity*, which is a concept I use to describe both socio-cultural and structural, material aspects, but before I go into that I will say something about the historical roots, which of course is important to explain car-society.

HISTORICAL ROOTS

In the end of the 19th century the electric car³ and the petroleum (based internal combustion engine) car were equal competitors, together with other technologies like steam and gas, but with cheap oil found in the US, fossil-fuel-based motor car "won". Ford's first mass-production (that started 1913) and the motorization of the first world-war meant the end for larger investments in the previously popular electric car. An infrastructure for petrol-cars developed and standardisation in components could cut the costs. The industry collaborated with governments in US and Europe to develop roads, and through illegal collaboration between the oil- and the car-industries, other transport systems were eliminated, even though this violated anti-trust laws. Trams (in Swedish, "spårvagnar") were a common sight and mode of transport in cities, also in the US, but these collaborations bought up and eliminated these. As Dennis and Urry puts it in their book *After the Car* (2009), "This conspiracy helped the car rapidly to become a consumer good owned and driven by private individuals (mainly men), offering utopian notions of progress." (p. 35). The system became technologically and ideologically locked.

In Sweden, the system and car-landscape became similar to US after world war two, partly because of that the experts were very inspired by American planning. In his book about the historical roots and mechanisms of Swedish car-society, historian Per Lundin (2008) points to the role of community planners. The consequences were separation of different modes of transport and of societal functions, and the car as norm, which in the documents also was expressed in that walking was described as "irrational" and driving "rational". Of course this also solved, as it were meant, a lot of problems with traffic jams and accidents. The projects were interlinked with a modernist aesthetic ideal which also meant that half of Sweden's older buildings were destroyed in the years 1960-70. We became locked into the car-system, and even though many of the planners later became critical to their own work, planning still is performed, predominately, with the car as norm.

¹ "Koldioxid når rekordnivå", Dagens Nyheter May 11 2013.

² Trafikverket.se "Jämför trafikslag" ("Compare modes of transport"), <http://www.trafikverket.se/Privat/Miljo-och-halsa/Dina-val-gor-skillnad/Jamfor-trafikslag/> 2013-06-25. Freight and flight however, stands for rapidly growing proportions (See also, Vägverket 2009, p. 19).

³ Battery-powered electric vehicles (BEVs).

CAR NORMATIVITY, CULTURAL (RE)PRESENTATIONS, EMBODIED HABITS

Now back to the concept *Car-normativity*, which I use in parallel to *hetero-normativity* (Butler and others) and *meat-normativity* (Gålmark 2005). On cultural and social level this is expressed in the Swedish expression “Villa, Volvo och Vovve” – “House, Volvo and Dog”, as ideals and signs for normal, desirable life (today maybe also a grill is included in this norm). In many parts of Sweden, you are still considered as strange, queer, if you not take the drivers-license. It’s a transition ritual by which you become a normal responsible adult. When a family member, friend or colleague buys a car, we also congratulate them and maybe admire their new vehicle. You don’t get any negative legal or social sanctions if you by and drive a car. Nobody forbids you to do it. On state level in Sweden, you can even be rewarded with a bonus, a “miljöbilspremie”, if you buy a car, but you don’t get a bonus if you walk or bike (cf. Azar 2008). Still it’s often cheaper to take the car then bus or train (only counting the direct costs).

Of course socialization through cultural representations and practices is important, expressed in children’s literature, films, toys and magazines (for example the whole industry around the films Disney/Pixar-films *Cars* I, 2, 2006; 2011), where the car also almost always is connected to the construction of boyhood and masculinity (About gender, masculinity and cars, see for example Mellström 2005, Dennis & Urry 2009, Balkmar 2012, Joelsson 2013).

Today we more often see two cars in Swedish households, but statistically cars are still most often owned and driven by men, and men drive more and longer (Polk 1998, 2008, Andréasson & Hagman 2006, SIKI 2002).

One important cultural and socio-psychological aspect is the car as “a room of one own” (Andréasson 1998; 2000). This can of course also be linked to emotions, moods, and feelings of individuality, freedom, control, and flexibility. In his qualitative interviews with drivers in Gothenburg, Sweden, Andréasson points to that the car often is used as space for relaxation and meditation, for listening to music, radio, etc., in a break - a mo(ve)ment away - from both work and family. As Dennis & Urry puts it (2009): “The car is a sanctuary, a zone of protection, however slender, between oneself and that dangerous world of other cars, and between the places of departure and arrival. The driver is strapped into a comfortable, if constraining, armchair and surrounded by micro-electric informational sources, controls and sources of pleasure. Once in the car, there is almost no movement from the driver. So although automobility is a system of mobility, it necessitates minimal movement once strapped into the driving seat. Eyes have to be constantly on the look-out for danger, hands and feet are ready for the next manoeuvre, the body is gripped in a fixed position, lights, and noises may indicate that the car driver needs to make instantaneous adjustments, and so on. The other traffic constrains how each car is driven, its speed, direction, its lane and so on. The driver’s body is disciplined to the machine, with eyes, ears, hands and feet all trained to respond instantaneously and consistently, while desires even to stretch, to change position, to doze or look around are suppressed.” (pp. 37-38)

So, this strapped situation can both be understood as freedom but also as the opposite.⁴ In Sweden we have for long time used the concept “bilburen” (car-borne) but we could as well use the concept “bilbunden” (car-(s)trapped/car-bound)). In a qualitative study ethnologist

⁴ In an article about road-rage, Deborah Lupton describes drivers as cyborg-bodies and “monsters in metal cocoons” (1999).

Vera Gran interviewed families that have chosen to live without car, and these people recognize/confirm this understanding of cars as un-freedom, both bodily and in other aspects. One interesting conclusion is that the children in those families learn to use their bodies in more complex ways than their car-riding friends, and develop an embodied knowledge about how to move, use and feel their bodies in various landscapes and spaces, which of course also is interesting in a health and public health-perspective. The study also showed that cars were experienced as less comfortable than other forms of transports, especially for the children, and that they were not less mobile than families with car (Grahns 1997).

EXTERNAL SHOPPING MALLS

One important aspect of the material-semiotic car-normativity is external shopping malls, which of course lead to more car-driving and expensive roads⁵, and also discriminates people who don't have car; young, old, disabled etc. Sweden, with US as model, have since 1970 a lot of them and since the 1990's the trend have exploded and we still see a boom in establishments so that in 2009, 60 % of all purchases was performed with car (Andersson 2009)⁶. People in Sweden seldom problematize this, but if we compare with other countries, for example Denmark, Norway and Germany, their laws make it much more difficult to establish external malls (Edman 2005).

THE GAP BETWEEN SCIENCE, GOVERNMENT AGENCIES AND POLICY

For decades science in all disciplines have problematized increased motoring⁷, and with the "climate goals" to reduce emissions of carbon dioxide, most government agencies says that changes in technology and fuels are not enough: driving need to reduce.⁸ Researchers like Jonas Åkerman at The Royal Institute of Technology (KTH), Stockholm, have pointed to this and also that the increase in other fossil based transport systems like flying has to be curbed.⁹ In spite of this, society on national, local and global level plans to reinforce the "car system". On global level, this is confirmed in the studies by peace- and development-researcher Marie Thynell, who have studied and compared urban/traffic planning around the world including so called developing countries.

CHANGES AND POSITIVE EXAMPLES

However, there are changes on local levels to change car-normativity. Dennis & Urry points to important components in "post-car-systems":

⁵ See also the EU-report *SCATER: Sprawling Cities and Transport: from Evaluation to Recommendations*, that shows that sprawl is both bad for environment and economy. <http://www.casa.ucl.ac.uk/scatter/> (summary at <http://www.alternativstad.nu/Dokument/eu-rapport.html>). According to SOU 2005:051 *Bilen, Biffen, Bostaden. Hållbara laster – smartare konsumtion*, Norway, Denmark and Finland have laws that basically puts an end to establishment outside the centers.

⁶ Andersson, "Bilen styr", Svenska Dagbladet Jan 25 2009, Refers to studies by SIKa and HUI (Handelns utredningsinstitut).

⁷ See for example Tengström 1991, Stureson (ed.) 1998; Andersson (ed.) 1997, Thynell 2003, Åkerman 2006, Feathersone, Thrift & Urry (eds.) 2005, Lundin 2008, 2011.

⁸ See for example the report from the Swedish Transport Administration 2009: *Vägverkets handlingsplan för begränsad klimatpåverkan*, 2009: 82.

⁹ *Infrastrukturplanering: på väg mot klimatmålen?* (2012).

- More collective forms of owning and sharing, like car- and bike pools, which is simplified with digital information (and they talk about “from economics of ownership to economics of access”)
- Changes in policy away from predict-and provide-policy models, which functions as self-fulfilling prophecies.
- “From sprawl to small”, that is to shorten the distances between societal functions home-work-leisure shorter (in Swedish “Förtätning”)
- Technological development, experiments and local activism.
- Of course also raised awareness and changes in values (Dennis & Urry 2009: 94-106).

In for example Barcelona, the project *Bicing* mean that the citizens have access to bicycles nearby all train- and subway stations, connected to wider network of collective transport and webb information. In just some months Bicing had 300 000 users.

The neighborhood *Vauban*, Freiburg (in southern Germany) is planned for bicycle and trams and has very few cars. One of the architects, Wolfgang Heinze, thought about land use, costs and resources: cost of parking spaces and other surfaces for cars becomes a cost for everyone, car-owner or not, and is thus not fair. Whether or not a car is so called environmental friendly it still requires an unsustainable mass of resources, land and space to produce, park and drive¹⁰. The example also points to increased social meetings/encounters when people walk and bike instead of stepping out of the house into the car. People care more about their neighborhood.

Bremen has an integrated transport system, *Intermodal Integrated Transportation System*, with carpool, tram and cycling. An umbrella-organization for all transport companies in the region enables easy changes trough a “smart card”, with which you also can book car from the car-pool 24 hours in forty stations around the city, which have replaced 700 private cars and parking spaces. Over 60 % trips in Bremen are performed without car (bike 23 %, walk 20 %, and public transport 17 %) Also in old bicycle cultures like Amsterdam and Copenhagen where dominant parts of vehicle transports is by cycle, there are still ongoing projects to improve biking infrastructure and conditions for bikers¹¹.

In the Swedish Public-radio-series “Bortom Bilen” (Beyond the Car) summer 2013, the Swedish radio audience got introduced to the concept and phenomena of “Peak car”; that the use of cars against all expectations, has peaked in many western countries. The program also discussed with different actors in urban planning and research and explored younger persons attitudes; that the car no longer as before is desired as sign of status and mobility.¹²

BIKES AS ANOMALY OR NORM AND THE WALK/CAR-DICHOTOMY

In a comparative perspective we can see that bicycles and cycling have been an anomaly in Swedish (and US) planning. Everyone that has tried to bike in the Swedish car-landscape have experienced the feeling of not being welcomed neither on the car-road nor on the walking-

¹⁰ Car-owners have to buy a parking lot outside the neighborhood for SEK 170 000, a circumstance which makes the real costs visible.

¹¹ In Amsterdam 6 of 10 residents cycle through a network of wide bike lanes on a total of 400 kilometers. A referendum in 1994 gave a majority for a proposal to promote alternatives to the car. In Copenhagen one third of all transports are by bike.

¹² <http://sverigesradio.se/sida/artikel.aspx?programid=4496&artikel=5568101> (2013).

pavement.¹³ This can be contrasted with Copenhagen where one third of all transports is by bicycle, and where the infrastructure since long have been planned according to this. The bike is seen as important and serious as the car, not to say more, and thus have their separate, wide, painted lanes and clear rules.¹⁴

Movements in Copenhagen: http://www.youtube.com/watch?v=FXw_t172BKY.

Although people inhale car fumes, the general health is also much better with bicyclists than with car-drivers.

But still, the bike is not taken seriously in Swedish discourse and practices. Since the “planner-bible” SCAFT 1968 (Riktlinjer för stadsplanering med hänsyn till trafiksäkerhet/The SCAFT Guidelines 1968 Principles for urban planning with respect to road safety), we have been trapped in a “walk/car-dichotomy”, where the bike was expected to drive at the walkways, and they (not the cars) have mostly been seen as safety problems. The bike has been associated with a poor state in development both for individuals and societies. Earlier images of the hordes of bikes in Peking, China are as icon for this discourse.

THE NECESSITY OF POLITICAL STRUCTURAL DECISIONS

Earlier research has stressed the importance of political, structural decisions, in contrast to the dominating individualistic discourse of Ecological modernization. There are many historical examples of the need and impact of such decisions, such as the law that made the catalyst mandatory (from The Clean Air Act Amendment of 1970, see Mauro 1998¹⁵) and the tax on carbon dioxide in Sweden 1991, which led to that coal and oil almost disappeared from the district heating plants (Azar 2007).

In Sweden the mediated political debate has predominantly revolved around new technology and fuels versus higher taxes and other economical tools, but like other researchers, for example Lundin, I want to stress the importance of urban and traffic planning. Many researches talk about the need to integrate the planning of traffic and the built environment and the need to move away from the sprawled to the dense or compact city. This relates to *The New Urbanism Movement* that was influenced by Jane Jacobs’s critique of the modern/modernist city-ideals, with segregation and separation of functions and people (Also see Berman 1988). I want to stress the meaning and importance of walking and bikes. Just

¹³ See Emanuel (2012), "[Constructing the cyclist: Ideology and representations in urban traffic planning in Stockholm, 1930–70](http://www.academia.edu/1781917/Cykelplanering_-_En_fraga_om_makt_och_politik)" *The Journal of Transport History*. See also Koglin's study [http://www.academia.edu/1781917/Cykelplanering - En fraga om makt och politik](http://www.academia.edu/1781917/Cykelplanering_-_En_fraga_om_makt_och_politik)

¹⁴ Although 37 % cycle to work and study, 50 % is the city's goal within five years. The bicycle ambitions are associated with the Copenhagen climate goals, a 20 % reduction in carbon emissions by 2015, while the city will be the world's best cycling city. - It must become faster to get around by bicycle. Therefore we want to build more bike roads, create shortcuts so that the travel time will be even more competitive against the car. Gustafsson (2010): http://www.svd.se/nyheter/inrikes/i-kopenhamn-kor-cykeln-i-graddfilen_4803535.svd.

¹⁵ The law, also called the “Muskie Act” was preceded by a series of investigations of air pollution in California from the mid -1960s. It prescribed a 90 percent reduction in hydrocarbon and carbon monoxide from 1970 levels by 1975 and a 90 percent reduction in nitrogen oxide emissions from the 1971 level until 1976. Legislation intended to force the car industry to accelerate the development of emission control technology. Industry reacted very negatively and warned about mass-unemployment and chaos. Volvo introduced the three-way catalyst in the market in 1976 in California, but Sweden had to wait until 1989 because of resistances of the Swedish oil industry, motoring organizations and some motoring journalists. The metaphor “unfinished catharsis” refers to how the catalyst is an “end - of-pipe solution” that not really solve the problems of emissions in the long run. They reduce emissions of certain substances - not carbon dioxide - but increase others. There was a “rhetorical closure” around the three-way catalyst as a solution, which gave the impression that the problems of emissions were solved (p. 138).

like in the energy crisis the 70ties was part of the progress of biking in Copenhagen, the peak oil crisis can be part of the progress of biking globally.

ARE WE ALLOWED TO DO LIKE THAT?

I want to end with an image, a comic from a daily Swedish newspaper, commenting on the situation, which also summarizes many points about gender, generation, norms, culture, socialization and change. The little girl asks the grown-up man, playing with a large toy-car that exhausts a lot of fumes: "Are you allowed to do like that? - Sure, absolutely, until someone clearly tells me not to do like this."

We have to seriously ask each other in dialogues research-politics-people: What is sustainable mobility; socio-culturally, ecological-economically? What is sustainable movement(s)? (wider then "transport", rather embodied every-day-practices). What kinds of mobility and movements are sustainable for humans, other beings and the world?

REFERENCES

- Andersson, Hans E. B. (1997) *Trafik och miljö. Forskare skriver om kunskapsläge och forskningsbehov*. Kommunikationsforskningsberedningen (KBF). Lund: Studentlitteratur.
- Andréasson, Håkan (1998) "Göteborgarna och kollektivtrafiken" och "Ensam i bilen", i Sturesson, Lennart (red) *Den attraktiva bilen och den problematiska bilismen*. Kommunikationsforskningsberedningen, KFB-rapport 1998: 39.
- Andréasson, Håkan (2000) *Resenärer i bilsamhället: vardagligt resande i kulturell belysning* (diss.). Göteborg: Skrifter från Etnologiska föreningen i Västsverige nr 30. Etnologiska institutionen, Göteborgs universitet.
- Andréasson, Håkan & Hagman, Olle (2006), *Vägvisare mot en hållbar stad? En intervjustudie i tre bostadsområden i samband med Stockholmsförsöket 2005-2006*. STS Research Reports 14. Göteborg: Avdelningen för teknik- och vetenskapsstudier, Göteborgs universitet.
- Azar, Christian (2008) *Makten över klimatet*. Stockholm: Albert Bonniers förlag.
- Balkmar, Dag (2012). *On men and cars: an ethnographic study of gendered, risky and dangerous relations*. Diss. Linköping: Linköpings universitet, 2012.
- Berman, Marshall (1988) *Allt som är fast förflyktigas: modernism och modernitet*. Lund: Arkiv.
- Blomkvist, Pär (2001) *Den goda vägens vänner: väg- och billobbyn och framväxten av det svenska bilsamhället 1914-1959*. Eslöv: Brutus Östlings bokförlag Symposion.
- Butler, Judith (2006 [1999]). *Gender trouble: feminism and the subversion of identity*. New York: Routledge.
- Edman, Stefan (2005) *Bilen, biffen, bostaden: hållbara laster – smartare konsumtion: slutbetänkande av utredningen om en handlingsplan för hållbar konsumtion - för hushållen*. Fritzes offentliga publikationer, Stockholm 2005. Statens offentliga utredningar, 2005:51
<http://www.regeringen.se/content/1/c6/04/59/80/4edc363a.pdf>
- Emanuel, Martin (2012). *Trafikslag på undantag: cykeltrafiken i Stockholm 1930-1980*. Diss. Stockholm: Kungl. tekniska högskolan.
- Emanuel, Martin (2012), "Constructing the cyclist: Ideology and representations in urban traffic planning in Stockholm, 1930–70", *The Journal of Transport History*. Volume 33, Number 1.
- Featherstone, Mike, Nigel Thrift & John Urry (eds) (2005) *Automobilities*. Sage Publications.
- Grahn, Wera (1997) "Liv utan bil", i Bursell & Rosengren (eds) *Drömmen om bilen*. Stockholm: Fataburen, Nordiska museets årsbok.
- Gålmark, Lisa (2005) *Skönheter och odjur. En feministisk kritik av djur-människa-relationen*. Göteborg, Stockholm: Makadam förlag.
- Hagman, Olle (1997) "Bilen som kulturfenomen – dess symboliska betydelse för människor", 145-156 i Andersson, Hans E. B. (red.) *Trafik och miljö. Forskare skriver om kunskapsläge och forskningsbehov*. Lund: Studentlitteratur.

- Hagson, Anders (2004) *Stads- och trafikplaneringens paradigm – en studie av SCAFT 1968, dess förebilder och efterföljare* (diss.) Chalmers tekniska högskola. Göteborg: Tema stad & trafik.
- Infrastrukturplanering: på väg mot klimatmålen?* (2012). Stockholm: Riksrevisionen.
- Joelsson, Tanja (2013). *Space and sensibility: young men's risk-taking with motor vehicles*. Diss. Linköping: Linköpings universitet, 2013.
- Lundin, Per (2008) *Bilsamhället. Ideologi, expertis och regelskapande i efterkrigstidens Sverige* (diss.). Stockholm: Stockholmia Förlag.
- Lundin, Per (red.) (2011) *Bilstaden*. Stockholm: Stockholmia förlag, (kommenterad nyutgåva av *Bilstaden*, Institutionen för stadsbyggnad vid Tekniska högskolan, 1960).
- Lupton, Deborah (1999), "Monsters in Metal Cocoons: 'Road Rage' and Cyborg Bodies", *Body & Society*, vol. 5 no. 1 57-72.
- Mauro, Kanehira (1998) "Den ofullbordade katharsisen. Historien om hur trevägskatalysatorn segrade", i Sturesson, Lennart (red) *Den attraktiva bilen och den problematiska bilismen*. Kommunikationsforskningsberedningen (KFB) rapport nr 1998:39.
- Mellström, Ulf (2005) "Machines and Masculine Subjectivity: Technology as an Integral Part of Men's Life Experiences", *Men and Masculinities* 6: 368–382.
- Mellström, Ulf (1999) *Män och deras maskiner*. Nora: Nya Doxa.
- Polk, Merritt (1998) *Gendered mobility: a study of women's and men's relations to automobility in Sweden*. Göteborg: Humanekologiska skrifter 17, Institutionen för tvärvetenskapliga studier av människans villkor, Göteborgs universitet.
- Polk, Merritt (2008) "Gender mainstreaming in Swedish transport policy", 229-241 in Tanu Priya Uteng and Tim Cresswell (eds) *Gendered mobilities*. Aldershot: Ashgate.
- Polk, Merritt (2001) *Gender equality and sustainable development: the need for debate in transportation policy in Sweden* (Serie: Transportpolitik i fokus). Stockholm: VINNOVA.
- SIKA (Statens institut för kommunikationsanalys) (2002), *Jämställda transporter? Så reser kvinnor och män*. http://www.sika-institute.se/Doclib/Import/106/sr_2002_5k.pdf
- Sturesson, Lennart (red) (1998) *Den attraktiva bilen och den problematiska bilismen*. Stockholm: Kommunikationsforskningsberedningen, KFB- rapport nr 1998:39.
- Tengström, Emin (1991) *Bilismen – i kris? En bok om människan, samhället och miljön*. Stockholm: Rabén & Sjögren.
- Tengström, Emin & Thynell, Marie (1995) *Sustainable Mobility in Europe and the Role of the Automobile – a critical inquiry* (KBF-rapport 1995: 17).
- Thynell, Marie (2003) *The Unmanageable Modernity. An Explorative Study of Motorized Mobility in Development* (diss.) Göteborg: Department of Peace and Development Research, Göteborgs universitet.
- Thynell, Marie (2013) "Massbilismens gränser", Mats Friberg & Johann Galtung (red.), *Krisen, Rörelsen och Alternativen* (forthcoming).
- Urry, John & Kingsley Dennis (2009) *After the Car*. Cambridge: Polity Press.
- Urry, John (2005), The 'System' of Automobility, 25-41 in Featherstone, M., Thrift, N. & Urry, J. (red.), *Automobilities*. London: Sage.
- Vägverket (2009) *Vägverkets handlingsplan för begränsad klimatpåverkan*. Publikation 2009: 82.
- Åkerman, Johan & Höjer, Mattias (2006), How much transport can the climate stand? Sweden on a sustainable path in 2050, *Energy Policy* 34 1944–1957.
- Newspaper articles*
- "Koldioxid når rekordnivå" (2013), Dagens Nyheter, 11 May.
- Andersson, Elisabet (2009) "Bilen styr", Svenska Dagbladet, 25 Jan.
- Gustafsson, Anna (2010), "I Köpenhamn kör cykeln i gräddfilen", Svenska Dagbladet, 1 Jun.
- Documentaries and Films*
- Bortom bilen (Beyond the Car) (2013). Swedish public radio: <http://sverigesradio.se/sida/artikel.aspx?programid=4496&artikel=5568101> (2013-07-18)
- Cars I, II, Disney/Pixar 2006, 2011.