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## Transport consumers' long-term mobility — a Gender Perspective on mobility and transport policy

Early transport infrastructure networks were apparently created predominantly for men's needs. They travelled long distances. But it was not only for fun. It served the important functions of making a living and protecting the home base. There is nothing about women's mobility and transport systems in transport history books, but in present-day transport policy they are crucial. Transport infrastructures dominate the formation and structure of habitation, and behaviour as well, in both rural villages and in cities. To be gender sensitive in analysing the future needs of transport consumers means better transport planning and policy.

The concept of gender, developed in women's research, ties together biological sex and the social role expected from a human being belonging to either sex. Even segregated spheres of societal life can be distinguished, where one role or the other is predominant. This division has been useful in the study of many social and cultural phenomena. In this article it is applied to the study of mobility and traffic. What kind of new information can gender analysis provide in the study of long-term mobility needs of transport consumers? To study this in more depth it is useful to have a look at history, to ask how this all happened. The gendered society can be best studied in a situation where the gender roles are clearly segregated, but where the women's sphere and the men's sphere are of equal importance to society, in a balanced situation.

Finnish social anthropologist Matti Sarmela gives an excellent description of this kind of situation. He has studied the Finnish agrarian society during the phase of slash-and-burn agriculture. The slash-and-burn technique represented movable use of arable land. An area of forest was burned down and used for cultivation for a few years, as long as it gave a rich harvest. Then it was left to rest and it

was next used when the forest had grown again. Settlements were already fairly permanent and distant land was cultivated on a camping-out basis. The slash-and-burn way of life required two kinds of mobility: the repetitive move of the whole of the family or some of its members from the permanent place of habitation to the campsite near cultivated fields and the everyday short distance mobility in either place.

The slash-and-burn economy gave a relatively safe basis for everyday survival and even produced some surplus value to be exchanged. Though it was a mixed economy, where more ancient ways of livelihood, new agriculture and more modern commerce formed an economic whole, men and women had their segregated, complementary roles. The division of labour between the sexes was clear. Women took care of the close economy as well as the maintenance of the social community. The men's job was to take care of the distant economy, to hunt and fish, trade with distant people and to shelter the community against outside threat.

This division of labour produced different mobility needs. Women moved predominantly on a daily routine basis in the inner circle, over short distances. Men's mobility needs were more in distant travelling. Thus in this society women were specialised in micro mobility, and men in macro mobility.

The division of labour between men and women in this model has been shown to be the dominant mode throughout patriarchal-hierarchical societies. Women's inner circle is the sphere of reproduction and the private, a close economy or local economy. Men's outer circle is the sphere of production and the public, including commerce with distant people and foreign relations, even warfare, a distant economy or global economy. As can be seen later, the gender-based differences in mobility needs are still relevant even in modern societies.

In figure 1, the traffic modes of men and women in the early agrarian era are shown as circles lying one within the other. In this phase women's mobility was not significantly less important than men's, a balance ruled. With time, however, the development of men's mobility and men's needs became emphasised, so that in the industrial era the balance had been deeply shattered; the men's outer circle had become far more important, and even predominant (figure 2).

Figure 1: Early Agrarian era

Figure 2: Industrial era

## **The problem of the dominance of commerce**

The interesting thing is, that commerce, traffic and communications are so closely connected, at least in the English language, that the word traffic also carries meanings of commerce and communication. It seems that interpretations of the concept of traffic itself originate from the men's outer circle of society. The masculine dominance of traffic has been clear, it has been the visible part of traffic and has remained so until very recently. It has been at its sharpest in the industrial era and as a result, it has been predominant in transport policy decisions, too.

Jacques Attali, the well-known adviser of the French President, forecasts in his book 'Lignes d'horizon' (1990), that the power of force will be replaced by power of commerce.\*2 The dominance of commerce is, in his opinion, a determined, unavoidable future. The only thing for people and societies to do is to adjust. According to this logic, there is no alternative for the transport system but to strive to serve all-powerful commerce as well as it can.

Commerce is also high-lighted in a classic division into types of society, namely in the theory of the nineteenth century German social philosopher Ferdinand Tönnies. He described two kinds of societies 'Gemeinschaft' and 'Gesellschaft'. The terms are usually translated in English as community and society.\*3 In a way 'Gemeinschaft' is an extended family household where all the members are to participate organically in a common effort to survive and flourish. The main source of livelihood in 'Gemeinschaft' is agriculture. 'Gesellschaft', on the contrary, is a playground of hunter-warriors competing and fighting with each other. The main industry is commerce. In the Tönnies theory, 'Gesellschaft' tends to subjugate and dominate 'Gemeinschaft'. Tönnies does not give any forecast on the future of the contradiction between 'Gesellschaft' and 'Gemeinschaft'. Attali, instead, gives a clear opinion: 'Gesellschaft' is going to win.

If this forecast of the future dominance of commerce is made into a belief on which decision making is based, the results in transport policy are obvious: the policy will favour the masculine macro mobility that serves the needs of commerce and subjugate the feminine micro mobility and the needs of people. The Tönnies theory instead gives another basis for decision making.

In the Tönnies theory, competing and contrasting modes of society exist simultaneously, intertwine, balance and complement each other. The question Tönnies does not answer is this: can one actually exist without the other? Are they preconditions for each other? Feminist economics gives an answer: the masculine sphere of commerce could not exist without the feminine sphere of non-monetary economy, remaining invisible.

Patricia Thompson (1992) has developed a feminist theory of home economics.\*4 She divides society into two spheres, the 'hestian', the home and the close surroundings, and the 'hermean', society and its institutions. Without the 'hestian' sphere, the maintenance and continuity of life would be impossible which is why, in her theory, it is the centre of society, its core. From this point of view the 'hermean' sphere has only an auxiliary function. This is an opposite view to the dominant view in economy, politics and science. In Thompson's view there is a conflict between these two spheres in our societies, which at the moment is resolved by the 'hermean' sphere powerfully dominating the 'hestian'.

In transport policy this is expressed as the dominance of commerce. In modern discussion the symbiosis of transport and dominant commerce, representing the masculine 'hermean' sphere, is no longer held to be so self evident. The widest discussion defending different values is led in terms of sustainable development, sustainable transport and the idea of balance. The concept of sustainable development was developed in a UN programme. As a result, the report 'Our Common future' (1987), became a basic handbook of argumentation for sustainable development.\*5 The report stated that current generations should "meet their needs without compromising the ability of future generations to meet their own needs".

The Finnish report by the Academies of Technological Sciences applied the definition. The formulation of the Finnish report was that sustainable development came to mean activity by which we ensure that future generations will be able to survive, and that the present generation does not exhaust the natural resources.\*6 The Finnish Commission for Environment and Development extended the definition to (1) ecologically viable, (2) socially just, and (3) spiritually creative and reformatory development.\*7

The World Bank published a programme for sustainable transport in 1996, 'Sustainable Transport. Priorities for Policy Reform'. In this report the concept of sustainability is divided into economic and financial sustainability, environmental and ecological sustainability and social sustainability. In case of economic sustainability the basic value expressed in the report is that a sound economic base is fundamental to sustainability, and thus the transport infrastructure has to be well established and maintained. However, the emphasis seems to be on the requirements of global trade and competition as tools of sustainability. In the case of environmental sustainability the emphasis is on promoting more liveable settlements and reducing adverse – social and environmental – external effects. In case of social sustainability the main goal is reducing poverty. This is done by increasing access to markets, employment and social facilities. The problems of women are especially mentioned: many of the trips by women are in categories conventionally and often incorrectly regarded as inessential. As a result, these needs have received inadequate attention, both in the planning and in the financing of public transport.\*8

The tension between the requirements of commerce and the rich, versus the needs of the poor and global sustainability, is explicitly discussed in the report and the policy requirements compromise these two sets of values.

The World Bank Sustainable Transport report, as well as other sources referred to in this connection, follow the point of view of international, national and local policy making. Other sources also emphasise the role of the consumers. The UNDP 1998 Human Development Report focuses on production and consumption. According to the report, consumption clearly contributes to human development when it enlarges the capabilities and enriches the lives of people without adversely affecting the well-being of others. This kind of consumption should be 2 "Shared". Ensuring basic needs for all. 'Strengthening'. Building human capabilities. 'Socially responsible'. So the consumption of some does not compromise the well-being of others. 'Sustainable'. Without mortgaging the choices of future generations."\*9

The European Commission has given community guidelines for the development of the trans-European transport network in 1996. The decision specifies that the network must: "Ensure the sustainable mobility of persons and goods within an area without internal frontiers under the best possible social and safety conditions while helping, at the same time, to meet the objectives of other Community policies (particularly with regard to the environment, competition and economic and

social cohesion)."\*10 In the Fifth Framework Programme (1998) for research and development "Sustainable mobility and intermodality" is defined as a key action. A special project has been completed in the field of socially necessary rail services, which is characterised by the following definition: The SONERAIL definition characterises a socially necessary rail service as one where the social benefits are larger than the social costs. In this way financial profitability will not influence whether a rail service is characterised as socially necessary. \*11

The discussion on sustainable transport policy and the needs of consumers reflects the rising consciousness of the needs of all people in transport policy. The last fifteen to twenty years have shown more balanced choices between the mobility of the genders in traffic, for example. While the emphasis has moved in some measure to the micro mobility of women, at the same time the concept of transport has been extended even to pedestrians, and the macro and micro traffic spheres have been evaluated within the same framework. A consciousness of spheres of traffic and transport other than the commercial one has in some measure started to influence transport policy in the spirit of socially sustainable development in late industrial societies like Finland, and thus extended the importance of the feminine sphere and paid attention to the overlapping of the spheres (figure 3).

Figure 3: Late industrial era

### **Segregation in today's traffic**

The echoes of consumption models of women's inner circle can still be traced in men's and women's different mobility needs and their different behaviour in traffic. The fascinating task of studying whether men's outer circle still dominates traffic at the cost of women's inner circle, and in which way, is not an easy one. In most cases even the statistics do not show gender differences. In Finland, for example, gender was not included in traffic accident statistics until 1980. It is not possible in this paper to go thoroughly into the research done in this area, only to show some interesting data on the subject.

The main hypotheses in the following descriptive analysis of data are, 'first', that the segregation of men's outer circle and women's inner circle even today is reflected in the different modes of mobility of men versus women. 'Second', that the traffic behaviour of women is different from the behaviour

of men, women following a more feminine mode of behaviour and men a more masculine one. The main distinctive factors, drawn from the historical and theoretical analysis presented above are:

1. women use more micro mobility, short distance mobility (mode of mobility),
2. men have better access to transport technology (access to technology),
3. women use lighter and more collective modes of transport than men (transport type),
4. women follow a more social type of behaviour in contrast with men's achievement-based behaviour. This implies that women pay more attention to safety and equality in traffic, and that the purpose of women's trips is more often connected with everyday needs and social contacts (traffic behaviour), and
5. the disadvantages of transport hit women more than men (disadvantages).

Each of these factors is illustrated here by data drawn from the available research.

'Mode of mobility'. In a study performed in 1994 by the Department of Psychology at the University of Turku, data was collected on the amount of driving done in kilometres, their quality (purpose) and traffic accidents.\*12 The results showed that men drove more than double the number of kilometres that women did. Other studies have shown, that the length of each trip in kilometres is substantially more for men than women, the difference being most marked in the 30-59 age range.\*13 In the study reported by Laapotti, it was also observed, that transport professionals were predominantly middle-aged men, which is probably one factor explaining the length of the trips.

'Technology access'. In Finland in 1986, 60% of men had a car available all the time, and 20% of women, in 1992 the figures were 80% and 40% (age groups 18–64 years). The authors of the study point out that gender differences have almost disappeared in terms of the length of travels.\*14 Technology access is a resource in itself. Hamilton and Jenkins comment thus; "Since travel is rarely an end in itself, but almost always a means of reaching particular facilities, it follows that car ownership dramatically increases the level of access to resources. The extent of travel generally, and car travel in particular, is strongly related to income and socio-economic status."\*15

'Transport type'. In studies in England, reported by Hamilton and Jenkins (1992), it appeared that the transport used by women was different from that used by men. The distribution of different modes of transport in the study shows that men act as car drivers over three times more often than women, while women are pedestrians nearly twice as often as men. The figures for car passengers and bus

users only strengthen this picture, men being more often professional drivers. The gender difference in modes of transport probably shows differences in access to technology on the one hand, and on the other the gender role scripts of men and women both in division of labour, and in mobility. \*16

An interesting detail of the study reported by Laapotti is that, as a result of the economic recession in the early 1990s, the proportional number of kilometres driven by young women decreased most, followed by young men and then middle-aged men. The amount of driving by middle-aged women did not decrease at all. One possible interpretation of these figures might be, that for middle-aged women who had the least free-time driving and the fewest kilometres of driving for fun, the number of kilometres consisted of essential driving for everyday needs. Young women were more willing to cut out surplus kilometres than young men, showing feminine solidarity by moving their scarce financial resources to other more important purposes.\*17

'Traffic behaviour'. Gender differences in accidents – according to the evaluation of the interviewees in the study reported by Laapotti (1998) – were clear amongst young drivers: men had considerably more accidents than women. In the middle-aged group, gender difference proportional to the number of kilometres driven did not exist. The major differences in driving habits were that young men drove more in slippery conditions than women, and that middle-aged women more often drove in densely populated areas and at weekends.

The question of speed was not reported in this study, but in an English study reported by West, Elander and French (1992) it was found that men drive faster than women. Men have also been found to be more optimistic and consider risky behaviour less serious than women do. \*18 A Swedish statistical study from 1992 comments on the same problem as follows, "Nevertheless, when men and women with the same amount of driving experience, the same age and the same period of time as licensed drivers are compared, men are involved in 1.45-times more accidents per kilometre than women." The explanation for this can be found in gender/sex differences in attitudes and behaviour. According to the vast quantity of research results, newly licensed male drivers rapidly develop exaggerated confidence in their driving ability. This affects their driving style and generally leads to higher speeds, more overtaking, less inclination to yield to other road users and a higher degree of tailgating compared with the general driving style of women.\*19

Corresponding results have been obtained in other studies.\*20 This gives a clue to the differences in driving styles of men/women – which seem to decrease with experience and age: young men show the most masculine mode of traffic behaviour with competition and achievements. The purpose of women's driving was mentioned earlier: middle-aged women especially do more transactional driving than men and even young women. This means that their driving is connected with everyday routines and social functions. For them, driving serves the function of social sustainability: they do not drive for themselves but for the family and the social network.

'The disadvantages'. Judith Hanna reports research results on problems for pedestrians in the United Kingdom and shows that women experience such problems more often than men.\*21 Her list includes problems caused by infrastructure (cracked or uneven pavements, too much traffic, no pedestrian crossings, no street lighting etc.), behaviour of vehicle drivers (vehicles parked on pavements, bicycles ridden on pavements etc.), bad service (uncleared snow, ice or leaves, litter, poor street lighting, etc.) and unsociable behaviour of others (dog dirt). The gender division in problems is very clear in most of the top categories, the three most important being cracked or uneven pavements (men 39%, women 52%), dog dirt (men 39%, women 44%), and too much traffic/busy roads (men 35%, women 39%). The gender distinction also shows in the reporting of no problems (men 8%, women 5%). Other demographic factors studied show that old and poor people have more problems than younger and wealthier people.

This research material is not sufficient or sufficiently extensive to show the gender differences in mobility and traffic, but it does show that the women's inner circle and the men's outer circle still exist to some extent even in the traffic of the industrialised Western countries. Similar results could apparently be drawn in the case of other groups carrying less weight in men's outer circle policy making, such as the poor, the old, the handicapped and children.

I shall not go any deeper into the inequalities in transport policy in this study but will try to use this material to construct ideal scenarios for future consumer mobility and transport modes, taking gender division as the point of departure. Masculine and feminine principles of economy, societal order and all the dimensions of social life now form an invisible factor even in transport policy.

## **Masculine and Feminine in mobility and transport policy**

Anthropologists have extensively studied the gender scripts in societies all over the world. The main lines of gender segregation seem to be, 1. men are the warriors, hunters, and processors of raw materials into weaponry and tools, 2. there are no technological activities that are strictly female, 3. danger, long-distance travel and economics of effort are male activities, and 4. birth and care are female activities while achievements and death are male activities.\*22 Peggy Reeves Sanday (1981) concludes the focal dimensions to be: hard/soft, infertile/fertile and male/female. She extends this segregation to cultural patterns of work, societal and cultural activities and even beliefs and world-view. Feminists speak about the same division more often using the terms masculine and feminine.

Dutch researcher Geert Hofstede has studied societies in terms of feminine and masculine in fifty countries. He characterises the terms feminine and masculine as being relative, so that a man can behave in the feminine way and a woman in the masculine way, which means deviation from the norms of their culture. He summarises the basic difference as follows: "Men, in short, are supposed to be assertive, competitive, and tough. Women are supposed to be more concerned with taking care of the home, of the children, and of people in general; to take the tender roles... Masculine achievement reinforces masculine assertiveness and competition; feminine care reinforces nurturing, a concern for relationships and for the living environment."\*23

According to Hofstede, not only are the gender roles different in feminine and masculine societies, the economic principles of the whole society are different. The masculine society is competitive while the feminine society is cooperative. The emphasis in the feminine society is in the survival of the community while in the masculine it is in economic achievements. These basic characteristics are dominant throughout society from the family and school to working life and free time.

On the basis of the theoretical and empirical material referred to, feminine/masculine modes can be traced in mobility and transport, as well. The table below shows the feminine and masculine ideal types of mobility and transport.

As discussed above, the modes have had different weight in different periods, related to the general mode and phase of development of society. The values of decision making have, however, recently become less masculine in late industrial societies, but it is a question of conscious effort, not natural

law. The principle of socially sustainable development suggests more feminine values in decision making, paying more attention to the micro mobility of women and other groups, almost completely neglected during the growth period of industrial societies.

The future is not something that is imposed upon us as Attali describes the forthcoming dominance of commerce. The future is everyday choices, even in transport policy. The more conscious decision makers are at all levels of transport policy about alternative futures, the more clearly they will be able to choose between different values.

## **Five Scenarios**

Three modes of the relationships between micro mobility and macro mobility transport policies have been constructed above: 1. 'early agrarian', 2. 'industrial' and 3. 'late industrial'. On the basis of potential gender segregation, a few more can be constructed.

The absolute dominance of either masculine or feminine values seem to be impossible, at least in late industrial societies like Finland. This is because the gender roles have already become so strongly mixed. Even in ancient societies roles were known, where a woman could be treated as a man (man-hearted woman) and a man as woman (berdache). As the late industrial society metamorphoses into the information and experiential society, it seems that even in traffic more and more women are accepting the masculine, and at least a minority of men the feminine mode of mobility. So it seems, that gender segregation among consumers in mobility and traffic is decreasing.

Another impossible scenario would be complete absence of segregation. The differences of mobility of gender might decrease, but not disappear. The problems caused by non-segregation are already visible on non-vehicular traffic ways, where cyclists tend to take over the space from pedestrians. This is even more relevant in cases of certain other disadvantaged groups of transport consumers, such as the old, the sick, the handicapped and children. For example, the people in wheel-chairs or adults herding a group of small children are in difficulties with both cyclists and pedestrians.

Possible alternative scenarios for mobility and transport policy are named here as: 4. 'feminine society', and 5. 'balanced society'. In a feminine society the dominant mode of transport would be

transport for micro mobility, and macro mobility services would have a minor role. In a balanced society the overlapping of gender roles has increased and segregation has become more smoothed out and well balanced. All these modes have their advantages and disadvantages. These kinds of theoretical scenarios can, however, be useful in recognising the general characteristics of different transport strategies. If the needs of all transport consumers are taken into account, feminine principles have to be taken seriously in balancing the present-day dominant masculine global transport policy. At the moment the dreams of the decision makers and their guidelines in practical transport policy resemble the more masculine scenarios. The advantages of the more feminine scenarios are: the mobility needs of all the people are in focus, transport is planned so that it supports everyday continuity, it is safe and causes minimum harm to everybody. Access to transport is guaranteed to all and technology serves everybody. The consumption of natural resources is minimised and directed towards renewable resources. Children, the old and the handicapped are equal in terms of access and use of transport technology. Investments are moderate and traffic does not pollute or cause much damage to the natural world or to people's lives. It is not sensitive to traffic accidents or vulnerable, because it is equally distributed among different places and the majority of vehicles are small in scale.

The disadvantages of the more feminine scenarios are basically on the macro mobility side. Because everyday needs are dominant, the technological development of long-distance transport is not favoured, neither is the global organisation of transport. Low investment in heavy vehicles – still needed to some extent – causes inefficiency. This makes local communities very vulnerable in the event of natural or man-made catastrophes; it is not easy to obtain massive help when needed. Even the extremely democratic decision-making process shows its weaknesses: it is not so easy to establish new technology or change people's mobility habits.

The advantages of more masculine scenarios are the complete opposite in macro mobility. Technological development and the global transport system have good opportunities for progress. This provides incentives to develop a true 'global village'. Commerce and monetary economy are growing, the wealth of nations gives improved opportunities to solve current global problems. The 'global village' has excellent blood circulation via well-constructed terrestrial ways, waterways and airways. Even ecological sustainability is taken into account in technological development, so the long-range advantages are not completely exhausted. In man-made or natural catastrophes there are

vast transport resources available to be used for aid and the aid can be transported quickly and efficiently wherever needed.

The disadvantages of the more masculine scenarios are in the social sustainability aspect. They encourage selfish competition and dominance of the powerful and the wealthy. Inequality in access to transport and technology is sharply defined: the rich are more and more free to move – even out into space – and the poor suffer in spite of growing global wealth. Because of the basic principles of competition and dominance, societies are politically unstable and wars between nations and other groups are frequent. This makes human life enjoyable for the wealthy, the adventurous and the strong, but a disaster for the poor, the weak and the dependent.

It is apparent that in the present globalization process, socially sustainable development cannot be reached without putting as emphasis on the welfare of all, and on everyday management and policy which empowers people in this. The domination of the men's outer circle of commerce has to be balanced by policy which enables and encourages consumption in the women's inner circle of home and the close economy.

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