Transport and Sustainability
The Social Pillar

Not all three aspects of sustainability are dealt with equally in European transport. Economics is thoroughly discussed and environmental issues are well-publicised. But transport's social problems are often unclear and the social/psychological factors supporting transport patterns are often forgotten.

What is socially sustainable transport?

Sustainable transport systems enhance social inclusion, reduce environmental problems and help create a more efficient economy; raising quality of life. Socially sustainable transport means that:

▶ **Benefits are maximised and fairly distributed.** Transport policies must respect people's needs for access to goods and services – employment, education, health services and leisure activities – no matter who they are and where they live. This means that walking, cycling and public transport are real options for accessing the goods and services of everyday life.

▶ **Negative effects are minimised and fairly shared out.** People causing pollution carry the financial responsibility of their actions. If this doesn't happen, all of society has to pay for the costs caused by some: these are known as external costs and are very unfair. The revenue gained from pricing is used in socially beneficial ways and is not reserved specifically for the mode of transport where the revenue was generated: all of society can benefit.

> **EXAMPLE**
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> *The Swiss government has limited volatile organic compound (VOC) pollution based on health criteria. VOC polluters must pay a fine (this affects particularly the paint and dye business). As the general public suffers from VOC pollution, the government decided that the fairest use of the revenue would be to give the money collected from these fines directly to the Swiss people. In 2001 this meant reimbursing each Swiss citizen an equal amount on their annual health insurance payments (20 CHF, or €14, per person). The fines will continue until the VOC limit is no longer exceeded.*

▶ **Policies are future-oriented.** The risk of unforeseen side-effects of present and planned transport policies are fairly spread so that the socially disadvantaged don't suffer.

▶ **The car is just another way of getting around.** The car is no longer seen as the obvious choice of transport, providing status and other non-transport benefits: it is just a car. And a plane is just a plane. People's perceptions determine the nature of the transport system: so sustainable transport systems help people to be aware of the social consequences of their transport actions and encourage people to take individual responsibility for them.

▶ **The three pillars of sustainability are complementary.** Transport policies can only be socially sustainable if they are also environmentally sound and economically sensible.

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Europe's voice for sustainable transport

How is transport socially unsustainable?

▶ **Access.** Europe's transport systems reduce access to goods and services for large swathes of the population: those who don't want a car, or who cannot afford one. Not owning a car reduces access to employment; education/training; health; and social, cultural and sporting activities (and even those with a car can have difficulty). How? The main problems are public transport availability[1], cost[2]; and psychological distance[3].

▶ **Private car is over-privileged.** People's daily mobility needs are assumed to be met largely through one source: the private car. Planners typically believe this too. As a result, those who would prefer to use other ways of accessing goods and services – or who have no choice – can find life extremely difficult. Shopping centres, sports complexes and even new schools and other amenities are typically developed with the private car in mind. According to the UK government's Social Exclusion Unit, "Poor transport can be a **result** of social exclusion…[but] poor transport can also **reinforce** social exclusion." Although transport and social exclusion are not automatically linked, and other factors (such as poor education) may be more important, it says, poor transport can "undermine key government objectives on welfare to work, raising edu-cational achievement and narrowing health inequalities, and has costs for individuals, businesses, communities and the state".

▶ **Unfair cost burden.** Transport's external costs usually have a disproportionately large effect on the already-marginalised: the poor, the disabled, the elderly and children. This increases existing social exclusion[4]. Here are some examples of transport's costs, which have a greater impact than simply the additional financial burden on the already-marginalised[5]: the impacts of air pollution on human health; physical and mental effects of noise pollution, which are often underrated; fragmenting of communities through their physical division; road deaths and injuries through crashes.

Some transport-related problems are more evenly distributed across society. For instance, the public health effects of a sedentary lifestyle – to which motorised transport strongly contributes – are attracting increasing attention. In the US, for instance, obesity-related problems are now one of the major causes of death.

Why is transport socially unsustainable?

▶ **Change-resistant behaviour patterns.** One major reason lies between the ears. Once people have chosen a way of getting around, they usually stick to it: behaviour patterns are often highly resistant to change.

Why do people choose the car?
Motivating factors – psychological benefits. People choose to drive for two main socially valued benefits: Identity[6] and Control[7]. There are other factors, but these are less important[8]. Numerous actors help to maintain the perception of the car as providing a range of psychological benefits: together they keep the car at the top of the transport food chain. Advertising is a good example. This beer-mat, which was distributed in Brussels pubs in 2002, cleverly combines identity and power with sex (and arguably masculine identity).
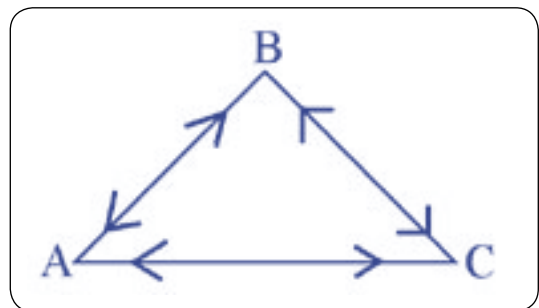

Perceptions. In addition to the motivating factors, people often make rational decisions to own and drive a car on the basis of positive perceptions; price, comfort, levels of stress. These perceptions are heavily influenced by the media, advertisements, and other 'high order sectors', and may in fact be incorrect. Choice can also be influenced by negative perceptions of the alternatives, which too may or may not be accurate.

Maintaining behaviour. But why do people continue to drive, even if it becomes a chore? The biggest factor maintaining behaviour is force of habit and social patterns. Once people have chosen a way of meeting their mobility needs, they stick to it. Patterns of individual and group behaviour, once established, change only very slowly. This is unsurprising: there are so many different decisions to be made in a day that it is tiring to make them all consciously – most decisions are made once and become part of a routine, a stable pattern of behaviour[9]. Changing a pattern takes energy – and if there is no strong impetus from the outside (legislation, death of a friend in a road accident, etc), it is unlikely that someone who has a strongly developed pattern of car-driving will change behaviour, even if presented with good information on alternatives. A certain comfortable inertia develops with repetition which is extremely hard to break, no matter how virtuous or dysfunctional. Just like people, social structures seem to develop a life of their own and are strongly resistant to change.

The diagram shows how Affect (feeling), Behaviour and Cognition (thinking) influence each other. Given the power and stability of the factors which maintain the car's position as a socially desirable object, and individuals' well-entrenched behaviour patterns, A, B and C reinforce each other to ensure that the car retains its dominant position. People keep driving. And many of those who can't drive, keep aspiring to.

What about people without a car? How many of them actively choose to live without a car? As long as the psychological benefits of owning a car remain very great, and society values the car as something more than just a way of getting around, non car-owners will typically want to own one. It is therefore no surprise that people in the lowest income groups frequently make a car their first purchase when they have some money, or that buying a 'better' car is an important symbol of success.

Social values and the car. *It is no coincidence that Switzerland, the world's richest country, is leading the world in the concept of car-sharing, whereby people do not own a car, but rather hire one as needed, for periods of an hour or longer. People joining car-sharing schemes tend to be relatively wealthy and relatively well-educated. In that part of society, car-ownership is increasingly losing its function as a marker of status or belonging, no longer gives identity benefits and feelings of control can be gained elsewhere too. It is unsurprising that Swiss public transport is of the highest quality and that using it is seen as a normal part of life for everyone.*

People's choice of transport mode also depends on how pleasant they experience its use to be: how easy, socially desirable, comfortable, safe, inexpensive, etc. Behaviourist theory provides a useful tool in understanding this:

Positive reinforcement is when a particular action is rewarded. Over time a very strong pattern of behaviour develops. Once the pattern is developed, behaviour can be quite stable even in the absence of immediate positive reinforcement (Pavlov rang his famous bell before feeding his dogs; later they salivated whenever he rang the bell, even in the absence of food). Positive reinforcement is very powerful, and all the psychological benefits mentioned earlier are positively reinforced through use.

Negative reinforcement involves actions taken to prevent a negative consequence (I drive, because I feel frustrated and powerless when I take public transport, or my friends and neighbours think it odd if I take the bus).

Behaviour is *extinguished* when it no longer elicits the desired response (I used to enjoy speeding, but it no longer excites me). A well-established pattern can take a long time to be extinguished: it may never be if the behaviour continues to be occasionally reinforced.

Punishment means 'rewarding' a particular action with an unpleasant consequence (if I need to get to an important meeting and I'm late because two busses in a row don't turn up, I won't take the bus again if I have a choice). The more powerful the punishment, the more likely I am to not repeat the behaviour (and to resent the agent associated with punishment).

So powerful factors make people and societies choose a car-based paradigm, and maintain this choice. But the side-effects of these behaviour patterns are socially disastrous: divisive, unfair and costly. We need change.

Encouraging behaviour change and public acceptance for better transport must involve psychological and behavioural insights. The alternative in a western, democratic society is policy failure. Experience in the health field suggests there are times when people are 'susceptible' to change and times when they are not. For example, the moment of purchasing a new car is a window of opportunity to reflect on whether car ownership is needed; and change can then only happen if feasible alternatives exist (public transport, car-sharing).

▶ **Institutional obstacles to change.** Policy-makers and institutional structures can be a key obstacle to change, being themselves caught up in self-perpetuating transport and policy-making patterns. The OECD reports that decision-makers often underestimate the willingness of citizens to restrict their car-use and/or promote public transport by as much as a factor of four to ten.

▶ **Complexity.** Transport's problems have a wide range of causes, millions of people contribute to them, and they are maintained by most individuals and institutions: it is not surprising that they are complex, requiring complex solutions. Yet the complexity of the issues is typically not recognised. For example, the transport sector's failure to respond adequately to climate change has two main effects: direct costs caused by the effects of climate change; and social damage through (e.g.) loss of jobs as other sectors struggle to compensate for transport's failure to bear its share of CO_2 emissions reductions. Each of these aspects of the transport and climate change problem is more intricate than generally acknowledged; and the required solutions correspondingly complex. And even when the complexity of the problems is recognised, decision-makers are institutionally unable to deal with the complexity (different departments and/or levels of competence). So partial measures are adopted which cannot possibly succeed by themselves. This leads to policy failure and continued unsustainability; leading in turn to the mistaken belief that no change is possible.

▶ **Oversimplification.** When complexity is not recognised, the result is often over-simplification. For example, it is often argued that reducing transport would harm people's right to mobility, which would infringe their human rights. People's right to move as they wish should be respected: so transport demand management initiatives must be scrapped. This is seductive, but too simple. Movement may be a right, but is not a 'trump card' with which to justify thoroughly unsustainable behaviour. It's a well-established principle that rights are limited: for example, the right to free speech does have limits. So, although people have a general right to physical mobility, the social (and other) consequences of how they exercise this right are very important, and it has limits (rights of others to more basic rights, like health). It is therefore more useful to speak of an equitable *right to access* to those goods and services which are available[10]. But this takes more time to explain than referring to the right to mobility.

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What to do in Europe? Some options

▶ **Integration.** Wherever the European Commission has competence to act, it should integrate transport's social dimension into its proposals and decisions.

▶ **Behaviour.** The underlying social causes behind motorised transport's growth need to be tackled. This will require not only information provision, such as labelling cars on their environmental performance, but also more active demand management. While this should be largely carried out by member-states, in line with subsidiarity, the European Commission has a role to play, particularly in coordinating measures to prevent competitive distortions.

▶ **Indicators.** Work on socially sustainable transport would benefit from a set of social indicators in transport, much as the European Environment Agency has developed the Transport and Environment Reporting Mechanism[11].

▶ **Targets.** The EU has recognised that environmental targets are essential to achieve environmentally sustainable transport[12]. The same is true for socially just transport. Ensuring socially sustainable transport will mean upsetting some people: although society as a whole will benefit, those presently over-benefiting will have to give up some privileges. Without a clear set of targets it will be difficult to judge what is best for society when making decisions.

▶ **Get the prices right.** Changing transport's price to make it better reflect the costs to society will help to reduce transport's social costs. It may also help to change incorrect perceptions about price and desirability of particular modes of transport. Removing unfair subsidies will help to level the playing field between transport modes. So, for example, the airlines' VAT exemption should be removed, and income tax incentives encouraging people to buy a car should be abolished.

Internalising external costs for all modes of transport will provide information through price to transport users, and encourage a re-think in behaviour as "moments of possibility" arise over time (moving house, selling car, etc.). Initiatives, such as in London, to charge for use of a specific city area, are a welcome start. A Europe-wide differentiated charge is needed which should include pricing the social effects of transport.

▶ **Use of revenues.** The public won't accept pricing unless the revenues are seen to be used transparently. At least some of the revenues from pricing could be used to directly compensate those most affected by it. The Swiss policy of redistributing VOC pollution fines is a good example. Reserving the revenue for use within the transport sector may be more acceptable, as it may seem more transparent. Under no circumstances should the revenue remain within the mode of transport which generated it: that would be socially and environmentally irresponsible.

▶ **Total Impact Assessment.** The consequences of a particular transport policy or infrastructure project should be properly evaluated before being adopted: this means a total impact assessment. If Europe takes its commitment to sustainable development seriously it will have to develop a proper 'sustainability assessment' tool eventually. International developments are moving in this direction, too. For example, the UN Development Programme is busy developing a Sustainability Impact Assessment Instrument. This instrument would aim to, "provide an integrated picture of the potential impacts that actions could have in respect to economic, environment and societal considerations, by combining in the same instrument Economic, Social and Environmental impact assessments. Hence, reflecting the wider concerns of society." The Commission also recognises the need for a full impact assessment and produced a communication in 2002 on exactly that, though there is much room for improvement[13]. A successful assessment should be a non-negotiable prerequisite for distribution of EU money.

FOOTNOTES

[1] Bad, unreliable or too distant; not to speak of being inaccessible to specific groups, such as those with a physical disability or pushing baby prams.

[2] For example, in the UK, low-income households with a car pay almost 1/4 of their expenditure on the car, and many cannot afford a car or public transport.

[3] People with low incomes tend to be willing to travel less than broader society: for example, in the UK they travel roughly one-third (3/8) of the distance to their work which the general population does.

[4] For example, homes near airports often house the more financially disadvantaged. Airport noise, particularly at night, puts residents at risk of sleep disturbance, reduced performance in cognitive tasks and ability to comprehend. Children are particularly at risk. A study in 2000 by two well-known research organisations estimated transport's external costs in the EU, Switzerland and Norway – and excluding congestion – at around €530 billion in 1995.

[5] The financial costs also include the fact that the poor pay proportionately more for publicly funded facilities like roads and airports, which they actually use proportionately less than their more wealthy counterparts.

[6] This includes particularly the following groups of people: young people, the relatively poor, those low on the socio-economic scale and those driving small (<1.2l engine) or large (>2.0l) cars. People in the richest and best educated parts of society are increasingly decoupling the car and success in their minds, but they are in the minority. A car is one of the most obvious public displays of personality, similar to clothing. In a way, therefore, the car can be seen as an extension of self. The model of car people buy, the colour they choose and the accessories they use are all important features, a fact picked up by advertisers. This explains, for example, why people can become so upset when their vehicle is involved in a car crash, even if nobody is hurt and they incur no financial costs.

[7] Especially people older than 40 (and within this group, women particularly). Unrestricted access and mobility, limitless individual agency: these are standard keywords in car advertising, not least because of the power of the symbol of the open road.

[8] These other factors include Power (feeling of power through driving); Emotional attachment (car as object of desire/love); Social cohesion (car as common interest); Territorial aspect – as private territory (an extension of my private property) and as 'sacred space' in the sense of car use being a way of participating fully in society through adherence to a socially valued action (driving); Stimulation (driving can have similar effects to narcotics); Structured time (predictable rush hour as a chance to have time alone); Protection (car acting as a second skin, offering a private and safe space); Masculine identity in men (can trigger male archetype, chivalrous/macho/ heroic/superior, even showing off/impressing).

[9] For example, Einstein reportedly bought many copies of the same shirt, so as to not have to choose each day. This freed mental energy for other things.

[10] Once people have developed patterns of behaviour, it is difficult to encourage them to change, so improving access (a carrot) may in itself be insufficient to encourage the needed change in transport behaviour in the absence of an effective disincentive to use more polluting modes of transport (a stick).

[11] The European Foundation for the Improvement of Living and Working Conditions could be tasked with developing such a set of indicators.

[12] The 6th Environment Action Programme requires the development of environmental targets for the transport sector.

[13] It seems to be little more than an extended 'inter-service consultation' which applies only to legislative proposals and specifically excludes emergencies.