

Werner Brog

Social Psychologist
Founder and managing director, Socialdata
Institute for Transport and Infrastructure Research, Munich

Reducing Car Use?

Just do it!

Between Skylla and Charybdis

The dependence on the car in everyday travel has increased enormously over the last several decades. This has serious and growing consequences for the environment and health and for many communities affected by road traffic. At the same time, these consequences are very expensive for business, environment and society. Ways must be found to overcome this car dependency so that people begin to use other modes of transportation.

The sharp increase in the use of motorized private transportation has resulted in greater transportation distances for the inhabitants of European cities but not in any substantial mobility gain. The time spent on transportation has to a large extent remained steady, approximately one hour per person per day (“active mobility”). But at the same time the consequences connected with this increase (“passive mobility”) have become much greater.

Since passive mobility takes up an incomparably greater part of our lifetime, citizens generally judge the traffic trend from the passive mobility standpoint. They therefore hope that transportation planning and policy will provide relief precisely during the period of passive mobility by an orientation towards the promotion of environmentally friendly and not (no longer) motorized private modes.

This understandable wish that environmentally friendly transportation modes will be encouraged is countered by public opinion, which is seen as “pro-car”. Accordingly, the importance of motorized private transportation is overestimated and the possibility of reducing it is underestimated.

Nonetheless, limited changes by individuals in their behavior would be possible at any time without giving rise to major problems and would have a great impact. But it is not sufficient for such behavioral changes to be possible, as they must also be considered possible. And the predominance of the car in public opinion runs counter to this requirement.

The result is, strange as it may seem, that the simple behavioral changes in active mobility, which would make an appreciable contribution to the desired improvements concerning passive

mobility, are (wrongly) considered to be so radical that any attempt to initiate them is immediately seen as an unwarranted impairment of the quality of life. Accordingly, practical measures to reduce traffic are not taken at all or not taken seriously enough, and the very trend we think we are avoiding (deterioration in the quality of life) actually occurs.

Transportation policy and transportation planning do not provide much solution to this “mental blockage”. For, first and foremost, it is not a change in basic conditions, which is necessary, but a change in people. It is not “others” who have to make a change, but we ourselves. This obviously applies not only to citizens but also to opinion-formers and decision-makers.

Old Wine in New Barrels

Behavior is a product of wanting to do something and being able to do it. In the context of mobility, “being able” is determined by individual constraints and available options, whilst “wanting” is determined by information, perception and subjective preferences. The present discussion about ways of influencing people’s choice of transportation is indeed dominated by proposals concerning options (new tramways, bicycle tracks etc.), behavioral control (road pricing, parking fees etc.) or restrictions (no-parking zones, speed limits etc.). In all of this, it is assumed that people have to be influenced “from the outside” because they are not willingly prepared to adopt a pattern of sustainable mobility by themselves.

This is disproved by the findings of numerous studies on why people choose the transportation they do, and what the chances are of changing their behavior patterns. Again and again, it has emerged that there is great potential for behavioral changes without the objective conditions needing to be changed at all. More than half of all car trips in Germany are made without any inherent necessity for choosing the car to make them, and there is at least one equally good, environmentally friendly alternative (on foot, by bicycle, using public transportation).

Note: This article was edited by Christopher Jordan from Werner Brog’s presentation at Cal Poly’s International Planning Symposium, and from his lecture at the 27th Nottingham Transportation Conference in Nottingham, UK (March 2003).

To open up this potential, therefore, does not require any costly investments or unpopular restrictions – all it takes is the deliberate use of “soft policies” (information, motivation, identification). Nor are people required to give up their cars entirely, but simply to give more thought to their choice of transportation. If every car driver in Germany were to make only two journeys a week (just one round trip) by a more environmentally friendly means of transportation than the car, the volume of car traffic would be reduced by a significant 15 to 20 %.

The potential for soft policies is especially great for the simple reason that people are swayed in their choice of transportation by severe miscalculations and lack of information. About half of the German citizens for whom public transportation is a genuine alternative are not in possession of the facts; if they do know of the alternatives, they heavily overestimate the traveling time and the fares involved. In other words, people’s subjective perception of alternatives to the car is considerably worse than the true state of affairs. However, since it is subjective perception, which controls behavior patterns, this is the key to effective and sustainable influence.

The Homeopathic Way to a Healthier Transportation System

In a business context, problems of this type are solved with differentiated marketing concepts. In the case we are examining, it would make sense to use a dialogue marketing process. This enables mobility patterns to be changed in a quasi-homeopathic way by strengthening existing resources. Citizens are taken seriously as active partners in solving a shared problem. They are motivated to make their own contribution and given all the help and information that they need. “Dialogue” means that they actively join in, decide for themselves what information they need, and are served individually instead of being the passive recipients of unwanted advertising material.

Dialogue marketing of this kind is particularly successful when it happens in a communal context, the dialogue (with all inhabitants) taking place in several phases.

First, all households are personally addressed and invited to reflect on their choice of transportation. Then – depending on how willing they are to change their behavior patterns – they are segmented into different groups and drawn into a dialogue, which will vary from group to group. In this

dialogue they receive not only information and advice tailored to their needs, but also reassurance and rewards. Measures range from providing a bus-stop timetable to making a house visit. In all cases, the dialogue is kept as individual as possible and only maintained for as long as necessary, so that the targeted persons do not feel burdened or pressurized (help to self-help). This concept has so far encountered thoroughly positive reactions, achieving not only sustainable changes in behavior patterns, but also definite improvements in motivation and attitude. Their numerous letters and comments prove this point.

Private households are the classic field of application for individualized dialogue marketing (behavioral changes “at source”). There are, though, two useful and effective areas where this can be complemented: schools and businesses (behavioral changes “at destination”). In both cases, applying a slightly modified process can reinforce the effect, particularly where peak traffic is concerned, and gain additional important partners.

Individualized Marketing: An Effective Tool for Reducing Car Use

Individualized Marketing (IndiMark) is a dialogue-based technique for promoting the use of public transportation, cycling and walking as alternatives to car travel developed by Socialdata. It is a program based on a targeted, personalized, customized marketing approach, which empowers people to change their travel behavior. Using these “soft policies” to make people think about their travel behavior has proven to be highly successful in achieving shifts in mode from the car; shifts that are proving to be sustained in the longer term.

In the 1990s Socialdata undertook a series of projects of an experimental nature, in order to prove the effectiveness of so-called “soft policies” for public transportation. The starting point of these experiments was the recognition that much opposition to the use of public transportation is due to a lack of information and motivation. Potential users of public transportation were contacted directly, to motivate them to think about their travel behavior. They were then thoroughly informed about the availability of public transportation to meet their specific needs. As an added incentive, selected test candidates were given a special ticket to use the public transportation system free of charge for one month.

The development of this method was supported by an International demonstration project called “Switching to

Public Transportation”, initiated by the UITP (International Association of Public Transportation) – the world-wide association of urban and regional passenger transportation operators, authorities and suppliers, with scientific leadership from Socialdata. In 13 European countries 45 projects were carried out which were very successful. This demonstration project showed that personalized encouragement, motivation and information could lead to considerable increase in public transportation use, that the approach could be applied on a large scale and that it was relevant for many very different, countries. Since then about 100 large-scale projects in Europe have promoted public transportation by IndiMark®. It has proven to be highly successful in achieving mode shifts from car to public transportation.

Following from this, the approach of IndiMark was extended to all environmentally friendly modes in order to reduce car use. It has been very successfully implemented on a large scale for the first time in Perth, the Australian metropolis said to have been built for and around the automobile. In a local council area (South Perth) with 35,000 inhabitants, without introducing any special measures as restrictions, the project succeeded in reducing the number of car trips by 14 % and the kilometers traveled in cars by 17 %. The share of trips made on foot rose by one third, bicycle trips increased by two thirds, public transportation trips by one sixth (bus only by one quarter) and 10 % more trips were made as car passengers.

An analysis by the Department of Transportation revealed a cost-benefit ratio of 1:30. These findings have induced the Government of Western Australia to extend the application of IndiMark® to half of Perth over the coming years.

A Global Approach for a Global Problem

Mode Choice

Since this successful application in Perth a number of other cities have tested and applied IndiMark® to reduce car trips. Pilot projects are under way in Paris, London, Townsville (Australia) and completed in Australia (Perth, Brisbane), Germany (Viernheim), UK (Gloucester, Frome), and in the US. They show a reduction of car trips between 6 % and 10 %.

There are at present large scale projects completed and evaluated in Perth, Viernheim and Gothenburg. In Perth and Viernheim, the success of the large scale application succeeded the result of the pilots; in Perth repeated evaluation surveys suggest that the behavioral changes achieved were sustainable.

In addition to this, there are presently five large-scale projects in Perth and five in the UK under way or close to completion. A large scale application is in the planning stages for an area in Portland and is scheduled to begin September 2004.

The results of all projects in Europe, Australia and the United States which have been conducted so far show that IndiMark® has a great potential as a tool for promoting use of public transportation, cycling and walking as alternatives to car travel.

The modal shift achieved makes a significant contribution to the aims of local transportation policies and also other policies. The reduction of car use would help to reduce traffic congestion, improve air quality and cut road crash casualties. The associated increases in walking and cycling alone would make a significant contribution to health promotion purposes.

Extended Possibilities

The key to the success of the process explained is personal contact. Once the requisite personal contact has been established, the dialogue is not restricted to a discussion of alternative means of transportation that are kinder to the environment. On the contrary: it would be worthwhile, helpful and scarcely any more trouble to extend the dialogue. This might include promoting other ways of using transportation (such as “car-sharing” or “car-pooling” schemes) and encouraging a more environmentally sound use of the car. (There are journeys for which it is extremely difficult to replace the car by a more environmentally friendly means of transportation. In such cases it is often possible at least to encourage a more environmentally friendly use of the car. Automobile clubs offer successful programs in this area, providing a valuable addition to the actual change of transportation).

The concept also touches on other topics that are of importance in regards to sustainable development:

Health - the increase of walking and cycling is entirely in line with the World Health Organization recommendation of “30 minutes exercise per day”;

Road safety - the introduction of driving habits that are kinder to the environment has brought about a considerable increase in road safety;

Energy consumption - the motivation to adopt sustainable behavior patterns in the choice of transportation combines very well with changes to energy consumption behavior.

Clearly, a project of this nature should be implemented in a partnership of all social institutions. This is a particular benefit of the concept, for truly sustainable behavior patterns can only be achieved where there is a wide consensus between all the players (“social marketing”), including politicians, decision-makers, opinion leaders, media, user’s associations (walking, cycling, driving clubs etc.); providers in the transportation market (public transportation companies, car-sharing organizations, bicycle dealers etc.); businesses, chambers of commerce, professional associations; other players (medical insurance companies, energy providers) and (local) initiatives (Agenda 21, citizens’ initiatives etc.).

In Control or Under Control of Traffic

The insights at the root of this concept are neither new nor revolutionary. They have been proven effective. Nevertheless, they have not attracted the public attention they deserve. Instead, they meet widespread disbelief, skepticism, and rejection by many transportation professionals. This unveils the fundamental dilemma faced by the transportation world.

Transportation policy, transportation planning and transportation sciences have been greatly influenced in the last few decades by the rapid development of car traffic. In only a few dozen years the car has left an indelible mark on social life in the Western countries. It has become mankind’s symbol for the technical conquest of nature, for freedom and affluence, for status and individuality. The slogan “open roads for free citizens” came to reflect the spirit of a generation who for the first time in history felt they were able to cast off their fetters and enjoy virtually unlimited mobility.

Those who produced cars or carried out the necessary infrastructure planning work were also held in equally high esteem and they succumbed to the universal euphoria; the (planning) techniques and instruments developed by them clearly reflected an emphasis on car traffic. With such planning methods and their planning action, they have left their mark on people’s thinking and their environment.

But since mobility on the part of the “mobile” at the same time leads to considerable disturbances for those who are “non-mobile”, which no disturbance is greater than that caused by the car, this increasing mobility necessarily raises the disturbance level. This did not seem to matter as long as the consequences of mobility were seen as the inevitable (and appropriate) price to be paid for “personal freedom”.

A change in thinking has slowly taken place: the detrimental effects of mobility are judged as negatively as the benefits of acquired mobility are positively. Along with the growing insight into finite nature of resources, a singular kind of conflict has arisen: the more people believe the message that mobility can be increased ad infinitum, the more self-defeating this message becomes. Maximizing individual benefits on a massive scale has an overall detrimental impact that, in turn, neutralizes these benefits.

And yet another change can be made particularly clear by using transportation as an example. While after the Second World War the car symbolized with such striking effect the conquest of nature and personal freedom, it now epitomizes the necessity of subordinating personal development, which is theoretically possible, to the paramount interest of environmental conservation.

It is precisely everyday mobility that makes it possible to achieve considerable overall improvements by means of numerous, minor changes in individual behavior and to test a change in thinking that is very important for the survival of humanity.

Unfortunately, this opportunity is scarcely perceived by transportation policy decision-makers, transportation planners and transportation theorists. Those who are so often themselves the staunchest advocates of “automobile freedom” find it extremely difficult to accept the idea that transportation modes, which are more tolerable than the car, have to be promoted.

It is here that the transportation professionals themselves could provide the inspiration for a major change in the transportation field. However, they would first have to realize that it is possible for them to change their own behavior too.