

Social Marketing in Travel Demand Management

John Thøgersen

Introduction

The growing car traffic worldwide is not sustainable, creating both global and local environmental problems. Countries, regions, and municipalities all over the world therefore search for and experiment with ways to reduce car traffic (European Environment Agency [EEA], 2012). The Travel Demand Management (TDM) toolbox contains both “hard” measures, such as economic penalties and infrastructure changes that favours non-motorized travel (Pucher, Dill, & Handy, 2010), and “soft” measures, such as the marketing techniques discussed in this chapter and various information-based measures (Richter, Friman, & Gärling, 2010, 2011). “Harder” measures are generally viewed as more effective, but they also tend to be met with widespread and persistent political and public resistance (Gärling & Loukopoulos, 2007; Schuitema, Steg, & Rothengatter, 2010). This is an important reason why TDM researchers and, particularly, practitioners are searching for effective techniques for inducing voluntary behaviour change (e.g., Brög, Erl, Ker, Ryle, & Wall, 2009; Gärling & Friman, 2012; Möser & Bamberg, 2008). In this chapter, examples of skillfully implemented marketing interventions are reviewed, some of which have shown quite impressive results in terms of reducing car use and shifting travellers to other travel modes, particularly when combined with “hard” measures (Brög et al., 2009; Pucher et al., 2010).

Attempts to reduce car use are usually motivated by social goals, such as reducing congestion and the emission of greenhouse gases (GHG), which means that marketing campaigns in this area can be classified as social marketing. Below the social marketing concept is defined and how social marketing techniques have

J. Thøgersen (✉)

Department of Business Administration, School of Business and Social Sciences,
Aarhus University, Bartholins Allé 10 – bld. 1327, 8000 Aarhus C, Denmark
e-mail: jbt@asb.dk

been used in TDM is briefly summarized. Next, three specific applications of social marketing in this area are described. Finally, perspectives and limitations of this approach are discussed.

What Is Social Marketing?

Marketing techniques have been used to promote public transport services for a long time (Deka, 1996). Experiences from these commercial applications can be useful also in a TDM context, but here the perspective extends what is commercially profitable. When marketing is used to promote social objectives, rather than for private ends, it is called *social marketing* (e.g., Andreasen, 1994; Donovan & Henley, 2010; Kotler & Zaltman, 1971; McKenzie-Mohr, Schultz, Kotler, & Lee, 2012).

Kotler and Zaltman (1971) introduced the social marketing concept. Currently, the main application areas for social marketing are health, safety, the environment, and community involvement (Donovan & Henley, 2010; McKenzie-Mohr et al., 2012). Social marketing programmes have also been applied to travel mode choice (see below) and to a variety of other transportation-related behaviours, such as preventing drunken driving and speeding and promoting the use of seat belts (e.g., Hastings, Stead, & Webb, 2004). Social marketing belongs to the “soft” policy measures of intervention, together with, for example, communication and education (Bamberg, Fujii, Friman, & Gärling, 2011; Möser & Bamberg, 2008; Richter et al., 2010, 2011). However, social marketing differs from other “soft” measures as the ultimate goal is always to influence behaviour, not only people’s knowledge or attitudes (Andreasen, 1991, 1994).

Social marketing principles and techniques have been tested in a large number of empirical studies, many of which have been published in widely circulated international journals, including *Journal of Marketing*, *European Journal of Marketing*, *Social Marketing Quarterly*, *Journal of Social Marketing*, and *Journal of Public Policy and Marketing*. In spite of this, and in spite of the publication of widely cited conceptual papers (e.g., Andreasen, 1993, 1994; Kotler & Zaltman, 1971) and book-length treatments of social marketing (e.g., Andreasen, 1995; Donovan & Henley, 2010; Kotler & Lee, 2008; McKenzie-Mohr et al., 2012), what constitutes a social marketing approach to social change is still in dispute (Andreasen, 2006; Lefebvre, 2011).

Andreasen (1994, p. 110) proposed the following widely cited definition of social marketing: “Social marketing is the adaptation of commercial marketing technologies to programmes designed to influence the voluntary behaviour of target audiences to improve their welfare and that of the society of which they are part.” Like other influential definitions of social marketing (e.g., the one proposed by Kotler & Zaltman, 1971), this one emphasizes that social marketing is more than advertising or communication. Communication is needed in social marketing campaigns in order to create or increase awareness about a (new) social idea and

perhaps even to persuade people to accept it, but the bottom line of marketing programmes is to change behaviour, and awareness or attitudes do not always transform into behaviour. The idea that people can be persuaded by communication alone to accept a behaviour that conflicts with their own felt needs and wants is rejected as futile by social marketers. Instead, social marketers are concerned with designing solutions to the targeted social problem (i.e., “products”) that are perceived as desirable and gratifying by their potential adopters. They are also concerned with providing convenient distribution channels and offering solutions that are generally characterized by a favourable balance between perceived costs and benefits. Market research is used to ascertain the needs, wants, and perceived barriers of those targeted by the programme and to monitor and evaluate their satisfaction and the needs for adjustments after implementing the programme.

Traditionally, social marketing has been limited to voluntary behaviour change, as expressed in Andreassen’s definition cited above. However, in recent years prominent social marketing researchers have begun extending social marketing beyond voluntary behaviour change (Andreassen, 2006; Donovan & Henley, 2010). Acknowledging that the context is often a stronger determinant of peoples’ choices than their own motivation, Andreassen and others have proposed that a traditional “downstream” approach, targeting individual actors, need to be supplemented by interventions “upstream,” targeting possible constraints and facilitators shaping people’s behaviour.

“Upstream” approaches are, of course, well known in transportation where they are often referred to as “hard” measures (Richter et al., 2011), including changes in infrastructure that are “forced upon” travellers, such as road closures, car-free zones, bike lanes, and usually less coercive pricing measures (Gärling & Loukopoulos, 2007). When social marketing moves upstream, it means developing and implementing campaigns targeting policy makers, community leaders, the media, or others with power to determine important contextual determinants of peoples’ behaviour (Andreassen, 2006). The development of upstream social marketing is still in its infancy and there is a lack of reported upstream social marketing campaigns related to TDM. Hence, the following discussion is limited to research on the use of social marketing for influencing voluntary changes in travel mode choice.

How a social marketing programme should be designed in order to maximize the chances of success in terms of voluntary behaviour change depends on the targeted behaviour. Andreassen (1991) suggests that three characteristics or dimensions are particularly important when assessing behaviour in this context: (1) The involvement of the actor (low-high), (2) whether it is an one-short or continuing behaviour, and (3) whether it is performed by individuals or groups. For instance, a social marketing campaign with the purpose of reducing harms produced by car traffic may focus on persuading people to buy a more energy efficient car (e.g., Gallagher & Muehlegger, 2008; Kurani & Turrentine, 2002). In this case it would target a high-involvement decision made infrequently by individuals (or individual families). Although most people would undoubtedly like their car to be energy efficient, buying one can be impeded by lack of knowledge and understanding of

what makes a car energy efficient, which cars are energy efficient or the advantages of having an energy efficient car. Actually buying one may also be impeded by a higher price, lower capacity for carrying passengers and luggage, less comfort and safety, and a less powerful engine (e.g., Gärling & Thøgersen, 2001; Kurani & Turrentine, 2002). In order to change behaviour successfully, the social marketing campaign needs to target important impediments, be they misperceptions or real disadvantages of the promoted behaviour.

Other social marketing campaigns may aim to persuade car users to increase their use of alternative travel modes for commuting, such as walking, cycling, or public transport (Brög et al., 2009). Such campaigns would target a continuing behaviour performed by large groups of people every day, but usually on an individual basis, and normally with little involvement in the choice of travel mode (unless something interferes with their chosen mode). Changing continuing behaviour involves breaking old habits, learning new ones, and freezing the new pattern of behaviour, which is often more difficult than changing a one-shot action (e.g., Møller & Thøgersen, 2008; Verplanken, Aarts, & Van Knippenberg, 1997; Verplanken, Aarts, Van Knippenberg, & Van Knippenberg, 1994). Low involvement means that people are usually not interested in information about the issue, although it may help them to make better choices (Aarts, Verplanken, & Van Knippenberg, 1997; Verplanken et al., 1997). Particularly the disinterest in information reduces the effectiveness of mass communication. Hence, a special effort is needed to create sufficient situational involvement to make targeted commuters receptive to information about alternative travel modes and willing to try alternatives. Further, mechanisms that enable and make it convenient for people to translate their motivation into action are particularly important for changing this type of behaviour (e.g., Andreasen, 1991; Thøgersen, 1997).

As already indicated, social marketing campaigns purporting to reduce the harms from car traffic may target different behaviours. One suggested approach is de-marketing of the car, that is to attempt to reduce the car's attractiveness (Wright & Egan, 2000). Another approach would be to promote alternatives to travelling, for example, stay home and watch TV instead of going to the theatre or teleworking instead of commuting (e.g., Gärling, 2005; Møller-Jensen, Jensen-Butler, Madsen, Millard, & Schmidt, 2008). However, the most common approach – and probably also the most feasible in most cases – is to promote alternative modes of travel. Below, I focus especially on the latter approach.

Review of Social Marketing Applications

The last couple of decades have witnessed an increasing number and a wide variety of applications of social marketing principles in TDM. In some cases, a social marketing programme has been designed to promote a specific alternative to single occupancy car-driving, such as ridesharing or carpooling (e.g., Chan & Shaheen, 2011; Glazer, Koval, & Gerard, 1986; Kearney & De Young, 1996; Smith &

Beroldo, 2002), cycling (for a comprehensive review, see Pucher et al., 2010), or public transport (e.g., Bachman & Katzev, 1982; see also Deka, 1996; Enoch & Potter, 2002; Stradling, 2002). In other, more ambitious cases the goal has been to match available alternatives (individual travel modes or a combination) to the individual driver's needs (e.g., Brög et al., 2009; Lohmann-Hansen, Lahrmann, & Madsen, 2001). Often, special events are organized – or the campaign is linked to one – in order to create public interest and situational involvement (e.g., Rose, Marfurt, & Harbutt, 2003; Thayer, 1992). Events may be planned (e.g., a bike-to-work week) or unplanned but foreseen (e.g., smog alert days), and they may be one shot (e.g., marking the end of a period with sub-standard service, for instance due to the renovation of a railway line) or recurrent (e.g., a yearly car-free day). In order to create public interest, event-based social marketing may rely mostly on a single marketing parameter, usually a special offer (e.g., Tetraplan, 2004), or the campaigners may create a package of propositions for broader appeal, often including a strong social element (Rose et al., 2003).

Below, three cases are described in some detail. The cases are chosen to illustrate the breadth of social marketing campaigns in TDM. The effects of each campaign are reasonably well documented and publicly available.

Case 1: Individualized Marketing

The “individualized marketing” approach was developed by the German consultant company Socialdata GmbH (Brög et al., 2009). After preliminary tests in the early 1990s in Kassel and Nuremberg, Germany, followed by an international demonstration project consisting of 45 local projects in 13 European countries, the first large-scale application of this approach was carried out in South Perth, Australia, in 1997 (the ‘TravelSmart’ campaign).

The approach is marketing oriented as it is based on a thorough customer survey aiming at uncovering the reasons for an individual's travel mode choice for every trip, awareness of alternatives, and perceptions of barriers that prevent the individual from choosing alternative modes of travel. Another marketing-oriented characteristic is that the “customer base” is segmented, and different segments are targeted differently. Further, the approach utilizes a number of techniques from the marketing toolbox, notably personal communication and sales promotion (in the form of a free “sample”), in addition to information material. An important limitation of the approach is, however, that it focuses on promoting existing solutions only. It contains no element of “product development” where the marketer is open to the possible need for new solutions that are adapted to customer needs and wants. In this respect, it is sales, rather than marketing oriented (Andreasen, 1991; Donovan & Henley, 2010).

A unique feature of the “individualized marketing” approach is that it includes an attempt to reach *all* households in the targeted area with direct and personal communication. Contacted households, who are willing to participate, are

segmented based on behaviour (use of various travel modes), interest (in the promoted travel modes), and knowledge. No further resources (except for a small gift to participants) are wasted on those not interested or those already using alternative travel modes to the car and having sufficient knowledge about such alternatives. Those already using alternative travel modes, but expressing a need for further information, receive the required information. Those *not* using alternative travel modes, but being interested in doing so, receive requested information and are offered a home visit by a specialized advisor regarding the use of public transport, bicycling or walking. If relevant, they also receive a free “test ticket” for a month so that they can familiarize themselves with public transport in the area.

In the South Perth case, 40 % of contacted households fell in the “not using, but interested” category.¹ About 10 % of these (i.e., 4 % of contacted households) received a home visit by Perth bus staff offering advice about public transport as well as free tickets, and 42 % (i.e., 17 % of contacted households) received home visits by an advisor regarding cycling or walking. Eight per cent of contacted households received personalized timetables to public transport and about 40 % received packages of more general information about alternative travel modes. Based on all residents in the area (not only the participants) the programme achieved a 14 % reduction of car-as-driver trips, with the total number of trips remaining constant. Car-as-passenger trips (i.e., car-sharing) increased by 9 %, public transport by 17 %, cycling by 61 %, and walking by 35 %. Moreover, these changes were still sustained more than 2 years after the programme ended. The programme has since been extended to over 400,000 residents in the Perth area, achieving a reduction of car trips by 11 % overall (Brög et al., 2009).

The “individualized marketing” approach is obviously not cheap. However, based on the South Perth pilot study, it was calculated that the individualized marketing approach had a cost-benefit ratio of 1:13 (James, 2002). Hence, there is reason to believe that it may be well worth the costs, also in other contexts.

By now, the “individualized marketing” approach has been applied in more than 100 pilot and nearly 150 large-scale projects, targeting a total of more than three million people on three continents (Brög et al., 2009). Reported short-term results of these other applications are similar to those reported from South Perth, although they vary substantively between countries and applications. Long-term results, 5 years after the campaign, have been reported for one other application, in the Swedish city of Dalvik, and also these are similar to what was achieved in South Perth (Socialdata Sverige, 2002, reported in Brög et al.).

¹ The presentation of the South Perth case is based on Brög et al. (2009), Brög, Erl and Mense (2005), James (2002), and the web site of Department of Transport, Western Australia, retrieved from <http://www.transport.wa.gov.au/activetransport/24605.asp>

*Case 2: The Nottingham Cycle-Friendly Employers' Project*²

The Nottingham Cycle-Friendly Employers' (NCFE) project was one of the major projects implemented in the late 1990s as part of the UK Department of Transport's Cycle Challenge project.³ Although comparatively ambitious, the project shares elements and experiences with a large number of other projects aimed at promoting cycling, especially for commuting to work. Although it was not conceptualized as such, the NCFE project contains many of the defining characteristics of a social marketing campaign.

The NCFE project commenced in 1996 and was scheduled to run for 2 years (but both the implementation and the evaluation took longer than envisaged). Its objective was to increase cycling for commutes and official work trips. Eight large employers in the Greater Nottingham area were involved as project partners, four of which were institutions of higher education. Between them, they employed over 32,000 people, and if students were included the numbers using the sites increased to around 77,000. The project was partly financed by a grant from the UK Department of Transport.

The project was essentially a (social) marketing campaign as important "offers" provided as part of the project were based on consultations with potential "customers" – that is, employees of the project partners – about their needs, wants, and barriers, using a combination of travel surveys, e-mails, and discussion groups. However, not all project partners planned such consultations from the outset, which was pointed out in the campaign evaluation as a major source of delays (Cleary & McClintock, 2000). The campaign combined a number of means, including substantive changes in facilities for cyclists, publicity and information material, promotional events, and social interventions.

According to interviewed cyclists, the most important substantive changes were improved workplace showering and changing facilities for cyclists and secure cycle parking. The publicity and information material endorsed environmental and health benefits of cycling as well as the usefulness and appropriateness of this means of transport for local journeys. Among the promotional events were bike-to-work days and bikers' breakfasts. The promotional events functioned both as means for catching attention and as social events. Most of the participating employers also organized Bicycle User Groups, that is groups of enthusiastic cycling employees, which were viewed both as a means of social influence and a source of advice and feedback about the programme.

²This summary of the Nottingham Cycle-Friendly Employers' (NCFE) project is based on Cleary and McClintock (2000) and Department for Transport, Local Government and the Regions (2001).

³Another, more recent Cycle Challenge case from Southampton, UK, is reported at www.toolsforchange.com/en/case-studies/detail/654

As concluded by Cleary and McClintock (2000, p. 122), it is “not altogether clear cut . . . [which] . . . precise number of new cycle commuters was generated directly as a result of the project.” Cleary Hughes Associates was contracted to evaluate the project in 1999 by means of a questionnaire survey, which was sent to samples of cyclist and non-cyclist commuters at each of the partner employers. Below, the most important results from the survey are summarized (Department for Transport, Local Government and the Regions, 2001), with the reservation that behavioural self-reports, and especially retrospective ones, may not be reliable. Self-reports about awareness and opinions are much less error-prone.

- 42 % of cyclists reported that they cycled to work more frequently after the NCFE project than before. Forty-nine percent cycled the same amount and 9 % less. Amongst those who said they cycled to work more frequently, 30 % said this was as a result of the new facilities, 30 % as a result of moving house or job and 30 % for health reasons.
- 67 % of cyclists were aware of the improved facilities that resulted from the NCFE project.
- Newsletters and promotional events were by far the most successful ways of spreading information about the improvements.
- 16 % of bicycle owners said that they used their bicycles for journeys at work (short official journeys), with 7 % doing so on a weekly basis.
- For cyclists, provision of showers and lockers was seen as the most important worksite improvement to encourage cycling by 46 % of respondents, followed by cycle parking (36 %) and financial incentives (10 %). For non-cyclists, cycle parking is most important for 36 % of respondents, followed by showers/lockers (29 %) and financial incentives (25 %).
- 32 % of non-cyclists would consider commuting by bicycle in the future. Of these, 38 % said that they did not cycle to work because of a lack of facilities.

Case 3: Zero Fare Svendborg Line Project

Occasionally, users of public transport experience periods of substandard service due to renovation or maintenance work. Delays, cancellations, and substitution of the regular travel mode with an inferior one (e.g., bus instead of train) inevitably lead to customer dissatisfaction, and some dissatisfied customers may change to private car. This was the situation facing the Danish Railways Company (DSB) running the Svendborg-Odense line (Svendborg line for short) in late 2003 (Høberg, 2003). For months, a major modernization project had led to irregularities in the service and to the use of buses instead of trains on the line. Hence, DSB made an extra effort to promote the new and modernized Svendborg line. They decided to offer their customers a zero fare in the whole month of January 2004.

DSB management hoped that the free month would make customers feel compensated for the substandard service they had had to put up with the year

before, and that lost customers in this way would be won back (Ellesøe & Flensburg, 2004). They also hoped that the initiative would attract much public attention, create interest and curiosity, and convince new customers to try the Svendborg line. Furthermore, they hoped that some of these new customers would continue using the line after the promotion period (Ritzau, 2004). All these expectations were borne out, according to a thorough evaluation of the campaign issued by the Danish Ministry of Transport and Energy (Tetraplan, 2004).

In addition to DSB's regular passenger counts, a questionnaire survey was carried out covering a random sample of about 2,500 passengers on the Svendborg line in the second half of January 2005, and those who gave their permission and their e-mail addresses were contacted again 2 months later for a re-interview. According to the passenger counts, the number of passengers on the Svendborg line in January 2004 (the free month) more than doubled compared with the months of January the previous 2 years. It was estimated that the number of new (i.e., "trial") users amounted to 8 % of the population in the region where the line is located. In February 2004, when the fare was back to normal, the number of passengers was 25 % higher than in February the year before and 15 % higher than 2 years before. It was estimated that about a third of the increase could be attributed to the free month while two thirds were due to improved service on the new and modernized Svendborg line. Eighteen per cent of the passengers in the free month said they would have taken the car had the train not been free. Consistent with this, the Danish Road Directorate registered a (small) decrease in the traffic on the Odense-Svendborg highway on Fridays to Sundays in the free month. Eighty per cent of those passengers only trying the line in the free month reported that they travelled to destinations serviced by the Svendborg line less than once a week. Hence, they used the line for an occasional journey or only out of curiosity. Still, offering these passengers a free trial is not necessarily a waste. Due to the experience, they may be more inclined to use the line regularly, should their circumstances change in the future. Generally, trial users were more satisfied with the service on the modernized Svendborg line than the regular users, indicating a positive trial experience.

DSB's communication to their customers about the issue was multiplied by good press coverage, in local as well as national media, and this is part of the reason for the high interest and trial created by the zero fare month. Due to the novelty and conspicuousness of the approach, the free month was seemingly perceived as newsworthy by the news media, as expected by DSB management.

The most important results from the re-interviews 2 months after the campaign, in March, are the following. The passengers in January who did not travel with the Svendborg line in March were mainly people who rarely travelled to the destinations served by the line. They travelled in January either because of the free fare or because of incidental circumstances. Generally, the 10 % of the re-interviewed who were new customers, using the line in March as well as in January, on average used the line less frequently than the regular users. The reason was partly that they used the line for less regular travel purposes, partly that they used the line for commuting to work less often than the regular customers. Hence, the new customers

tended to use the train as a supplementary travel option, or they were still in a trial phase 2 months after starting using the line. However, it is a promising observation that, except with regard to the number of departures, new customers in general expressed greater satisfaction with the service than the regular users.

Because of the success of the zero fare campaign, DSB decided to repeat it on the modernized Grenaa-Aarhus line in May 2005, with the same short-term effect as on the Svendborg line in terms of the number of passengers in the free month (Plougsgaard, 2005).

Based on these positive experiences, the use of sales promotion in the form of a zero fare for a limited time to promote a new or improved product seems to have become a standard tool in Danish public transport companies' marketing toolbox. For example, in August 2011, Danish public transport company Sydtrafik offered a free 10-trips ticket to its customers in five local areas where the bus system had been substantially improved.⁴ In December 2012, the Danish public transport company Midttrafik celebrated the integration of two local train lines by offering travellers a zero fare in the last three weekends before Christmas (Midttrafik, 2012).

Discussion of Case Study Findings

As illustrated by the three cases, social marketing can be an effective approach to voluntary behaviour change, also in the area of travel mode choice. The core distinguishing characteristic of this approach is its foundation in the conviction that fulfilling the target "customer's" needs and wants is a prerequisite. Hence, the collection of information about actual and potential customers' needs and wants is crucial for designing a successful marketing campaign. Usually, information is collected by means of market research, but as illustrated by the third case feedback from customers to front personnel or the customer services department is an additional, important source of information.

Social marketing differs from commercial marketing in several important ways. For instance, there are often fewer opportunities to modify offerings (Andreasen, 1991). This means that the possibilities of designing offerings that are desirable to target adopters can be severely restricted. It has hence been suggested that an important reason why fewer and fewer people use public transport is its low status and that the solution therefore is to develop public transport offerings that appeal to status-conscious commuters (e.g., Everett & Watson, 1987). Although there is substantial evidence backing the first proposition (e.g., Steg, Vlek, & Slotegraaf, 2001), there are obvious limits to how far one can go to remedy this without compromising (some of) the social goals that motivate the promotion of alternatives to car use (e.g., the need to reduce the emission of GHG).

⁴Retrieved from <http://www.sydtrafik.dk/Default.aspx?ID=33&M=News&PID=613&NewsID=2405>

This is not to say that it is impossible to make alternative travel modes more appealing within the given constraints. As demonstrated by campaigns such as the NCFE project, it is often possible to improve the balance between perceived costs and barriers for alternative travel modes. Sometimes the most important improvements may concern peripherals of the travel (e.g., lockers and shower facilities and safe cycle parking in the NCFE case) rather than the travel mode itself (Pucher et al., 2010).

Still, considering the restrictions that exist when it comes to developing more appealing, but still sustainable, travel options, it is a valuable lesson from the “individualized marketing” campaigns that it is at least sometimes possible to obtain substantial changes in the modal split away from the car, although the campaign is limited to promoting already existing alternatives only.

Another important lesson from the “individualized marketing” campaigns is that impressive results in terms of travel mode changes can be produced by combining a number of specific measures, none of which have proven particularly successful when applied individually. For instance, the general results from studies which have systematically evaluated the use of sales promotion in the form of a free month test ticket for public transport (e.g., Fujii & Kitamura, 2003; Thøgersen, 2009; Thøgersen & Møller, 2008) is that the use of public transport by car users increases when the free ticket is in effect, but that most of the effect disappears when they have to pay the normal fare again. Another element included in the “individualized marketing” approach, providing personalized timetables, has proven to be ineffective even in the short run when given alone to randomly assigned drivers (Østergaard & Schougaard, 1997; Thøgersen & Møller, 2008), and so have general appeals (Hutton & Ahtola, 1991) and information about the societal benefits from using alternative options (Staats, Wit, & Midden, 1996).

Especially two things distinguish campaigns based on the “individualized marketing” approach from these latter case study campaigns and tests. Firstly, the “individualized marketing” approach combines various means of influencing behaviour rather than relying on a single one. It is well documented that the combined effect of influence means, such as information and an economic incentive, can be much larger than the additive effect of the individual means (e.g., Stern, 1999). Secondly, the “individualized marketing” approach tailors the offering to the situation and wants of individual “customers.” A major advantage of tailoring the offering is that it is much more cost effective to allocate (costly) incentives and customized information to households that actually need and want them. In addition, by tailoring the offering one reduces the risk of overloading targeted people in superfluous information.

As mentioned in the introduction, producing situational involvement – and the use of attention-catching techniques for this purpose – is a necessary component of a social marketing campaign targeting a low-involvement continuing behaviour, such as everyday travel mode choice. It is an important common property of the three cases described here that they all involved the application of special (but different) techniques for catching the audiences’ attention. The “individualized marketing” approach uses direct communication to catch attention (Seethaler &

Rose, 2004). DSB's zero fare campaign relied on a conspicuous special offer, and the NCFE campaign organized special events such as bike-to-work weeks and bicyclers' breakfasts, among other things. The fact that everyday travel mode choice is collective behaviour means that there are often opportunities for organizing social events, which may be instrumental in catching attention, and which may, in addition, initiate and build on social dynamics to spread word of mouth that support and reinforce individuals' decision to use alternative travel modes (Rose & Marfurt, 2007).

Everyday travel mode choices are often made habitually and like other habitual choices they are usually reinforced by contextual factors (e.g., Thøgersen & Møller, 2008; Verplanken et al., 1994). Verplanken and Wood (2006) argue that the context dependency of habitual choice is not only a limitation, but also a source of opportunities. Specifically they suggest that changes of context, due to contextual factors, such as road closures, or personal, such as when people change residence or job, create opportunities to effectively influence transport habits. For example, Fujii, Gärling, and Kitamura (2001) found that a temporary highway closure was instrumental in breaking car-commuting habits in Osaka, Japan. Furthermore, Thøgersen (2012) found that also the effects of an intervention designed to break travel habits – a temporary price promotion in the form of a free month's travel pass – depended on context change. On average, the free travel pass made car users double their commuting by public transport, but the effect was limited to those that had changed residence or workplace within the last 3 months. Based on evidence such as this, Verplanken, Walker, Davis, and Jurasek (2008) and Verplanken and Wood (2006) suggest that a context change opens a "window of opportunity" for effectively influencing habitual transport behaviour by means of voluntary measures. Probably based more on intuition than on research, municipalities around the world, including State College⁵ in Pennsylvania, USA, and Munich in Germany (Bamberg, 2006), already take advantage of such "windows". They entice new residents to try out local public transportation by including a free ticket or pass for the city's public transport in their welcome package.

Conclusions and Discussion

There is an abundance of evidence documenting the effectiveness of social marketing techniques in TDM. Social marketing campaigns in this area vary much in scope and in level of ambition. Successful social marketing is based on a thorough understanding of "customers" needs, wants, and perceived barriers, it uses a combination of means to create an attractive offering tailored to these needs,

⁵ Retrieved from <http://www.catabus.com/ServiceSchedules/CATABUS/Fares/AptPass/index.html>

wants, and perceived barriers of individual segments of consumers, and it applies proven techniques for catching attention to the offerings.

Yet, there are limits to what social marketing can accomplish. There may be individuals or communities for whom private car use has a strong symbolic value and therefore the norms dictate that a private car is “the only proper travel mode for a decent person.” Social marketing is not particularly well suited to change values and norms (Andreasen, 1991). Here, persuasive massmedia messages aimed at de-marketing the car may be required (perhaps for a long time) before it is meaningful to implement a campaign promoting alternatives. Also, social marketing is limited to cases where only perceived barriers prevent people from using alternative travel modes. A study in Germany found this to be the case for about 25 % of car trips (VDV & Socialdata, 1993; cited in Brög et al., 2009). For another quarter of car trips, there were constraints to using alternative modes, such as using the car for business purposes or to carry a heavy load, and for about a third of the trips using public transport would have required system improvements, such as the provision of an adequate bus connection or improved service frequencies. On this backcloth, and according to previous experiences, it is unlikely that even best-practice social marketing campaigns alone should be able to reduce car driving by more than at most 10–15 %. If larger reductions are desired, more fundamental structural changes are needed, either in the form of improvements for alternative travel modes or restrictions on or penalties for car driving (e.g., EEA, 2012; Frederick & Kenyon, 1991; Pucher et al., 2010). On the other hand, even such “hard” measures have limited impact on travel mode choice. For example, a study of nine cases of transport (rail) system improvements in Germany found an impact on the number of public transport trips per person per year of the same magnitude as that obtained by means of the individualized marketing approach (Brög et al.). In eight cases where system improvements and individualized marketing were combined, the impact in terms of the number of public transport trips per person per year was approximately equal to the sum of the impacts of the two types of interventions when each of them was used separately. Hence, when bigger changes are desired, “hard” and “soft” types of interventions may be beneficial to combine (Bamberg et al., 2011; EEA, 2012; Maibach, Steg, & Anable, 2009; Pucher et al., 2010).

Acknowledgements The chapter is an update of Thøgersen (2007).

References

- Aarts, H., Verplanken, B., & Van Knippenberg, A. (1997). Habit and information use in travel mode choices. *Acta Psychologica*, 96, 1–14.
- Andreasen, A. R. (1991). Social marketing. In P. Kotler & A. R. Andreasen (Eds.), *Strategic marketing for nonprofit organizations* (4th ed., pp. 402–429). Englewood Cliffs, NJ: Prentice Hall.

- Andreasen, A. R. (1993). Presidential address. A social marketing research agenda for consumer behavior researchers. In M. Rothschild & L. McAlister (Eds.), *Advances in consumer research* (Vol. 20, pp. 397–404). Provo, UT: Association for Consumer Research.
- Andreasen, A. R. (1994). Social marketing: Its definition and domain. *Journal of Public Policy & Marketing*, 13, 108–114.
- Andreasen, A. R. (1995). *Marketing social change: Changing behavior to promote health, social development, and the environment*. Washington, DC: Jossey-Bass.
- Andreasen, A. R. (2006). *Social marketing in the 21st century*. Thousand Oaks, CA: Sage.
- Bachman, W., & Katzev, R. (1982). The effects of non-contingent free bus tickets and personal commitment on urban bus ridership. *Transportation Research Part A*, 16, 103–108.
- Bamberg, S. (2006). Is a residential relocation a good opportunity to change people's travel behavior? Results from a theory-driven intervention study. *Environment and Behavior*, 38, 820–840.
- Bamberg, S., Fujii, S., Friman, M., & Gärling, T. (2011). Behaviour theory and soft transport policy measures. *Transport Policy*, 18, 228–235.
- Brög, W., Erl, E., Ker, I., Ryle, J., & Wall, R. (2009). Evaluation of voluntary travel behaviour change: Experiences from three continents. *Transport Policy*, 16, 281–292.
- Brög, W., Erl, E., & Mense, N. (2005). *Individualised marketing changing travel behaviour for a better environment*. Paper presented at the TRIP research conference: The economic and environmental consequences of regulating traffic, Hillerød, Denmark.
- Chan, N. D., & Shaheen, S. A. (2011). Ridesharing in North America: Past, present, and future. *Transport Reviews*, 32, 93–112.
- Cleary, J., & McClintock, H. (2000). Evaluation of the Cycle Challenge project: A case study of the Nottingham Cycle-Friendly Employers' project. *Transport Policy*, 7, 117–125.
- Deka, D. (1996). Public transit in the social marketing framework. *Journal of Public Transportation*, 1, 65–86.
- Department for Transport, Local Government and the Regions. (2001). *The Nottingham cycle friendly employers project*. London: Department for Transport, Local Government and the Regions, Traffic Advisory Unit.
- Donovan, R. J., & Henley, N. (2010). *Principles and practice of social marketing: An international perspective*. Cambridge, UK: Cambridge University Press.
- Ellesøe, M., & Flensburg, T. (2004, January 19). Trafikøkonom: Gør busserne gratis (Traffic economist: Make the busses free). *Politiken*.
- Enoch, M., & Potter, S. (2002). Marketing and the British bus industry. *Municipal Engineer*, 151, 49–56.
- European Environment Agency (EEA). (2012). *Consumption and the environment – 2012 update. The European environment — state and outlook 2010*. Copenhagen, Denmark: European Environment Agency.
- Everett, P. B., & Watson, B. G. (1987). Psychological contributions to transportation. In D. Stokols & I. Altman (Eds.), *Handbook of environmental psychology* (Vol. 2, pp. 987–1008). New York: Wiley.
- Frederick, S. J., & Kenyon, K. L. (1991). Difficulties with the Easy Ride project: Obstacles to voluntary ridesharing in the suburbs. *Transportation Research Record: Journal of the Transportation Research Board*, 1321, 94–101.
- Fujii, S., Gärling, T., & Kitamura, R. (2001). Change in drivers' perceptions and use of public transport during a freeway closure: Effects of temporary structural change on cooperation in a real-life social dilemma. *Environment and Behavior*, 33, 796–808.
- Fujii, S., & Kitamura, R. (2003). What does a one-month free bus ticket do to habitual drivers? An experimental analysis of habit and attitude change. *Transportation*, 30, 81–95.
- Gallagher, K. S., & Muehlegger, E. (2008). *Giving green to get green: Incentives and consumer adoption of hybrid vehicle technology*. Unpublished paper, Harvard University, John F. Kennedy School of Government, Cambridge, MA.

- Gärbling, T. (2005). Changes of private car use in response to travel demand management. In G. Underwood (Ed.), *Traffic and transport psychology: Theory and application* (pp. 551–572). Amsterdam: Elsevier.
- Gärbling, T., & Friman, M. (2012). A behavioural perspective on voluntary reduction of private car use. In B. Van Wee (Ed.), *Keep moving, towards sustainable mobility* (pp. 109–134). The Hague, The Netherlands: Eleven International Publishing.
- Gärbling, T., & Loukopoulos, P. (2007). Effectiveness, public acceptance, and political feasibility of coercive measures for reducing car traffic. In T. Gärbling & L. Steg (Eds.), *Threats to the quality of urban life from car traffic: Problems, causes, and solutions* (pp. 313–324). Oxford, UK: Elsevier.
- Gärbling, A., & Thøgersen, J. (2001). Marketing of electric vehicles. *Business Strategy and the Environment*, 10, 53–65.
- Glazer, J., Koval, A., & Gerard, C. (1986). Part-time carpooling: A new marketing concept for ridesharing. *Transportation Research Record: Journal of the Transportation Research Board*, 1082, 6–15.
- Hastings, G., Stead, M., & Webb, J. (2004). Fear appeals in social marketing: Strategic and ethical reasons for concern. *Psychology and Marketing*, 21, 961–986.
- Høberg, J. (2003, October 31). DSB er i krise på Fyn (DSB is in a crisis at Funen). *Jyllands-Posten*.
- Hutton, R. B., & Ahtola, O. T. (1991). Consumer response to a five-year campaign to combat air pollution. *Journal of Public Policy & Marketing*, 10, 242–256.
- James, B. (2002). TravelSmart—large-scale cost-effective mobility management. Experiences from Perth, Western Australia. *Municipal Engineer*, 151, 39–48.
- Kearney, A. R., & De Young, R. (1996). Changing commuter travel behavior: Employer-initiated strategies. *Journal of Environmental Systems*, 24, 373–393.
- Kotler, P., & Lee, N. (2008). *Social marketing. Influencing behaviors for good* (3rd ed.). Thousand Oaks, CA: Sage.
- Kotler, P., & Zaltman, G. (1971). Social marketing: An approach to planned social change. *Journal of Marketing*, 35, 3–12.
- Kurani, K. S., & Turrentine, T. S. (2002). *Marketing clean and efficient vehicles: A review of social marketing and social science approaches*. Davis, CA: Institute of Transportation Studies, University of California, Davis.
- Lefebvre, R. C. (2011). An integrative model for social marketing. *Journal of Social Marketing*, 1, 54–72.
- Lohmann-Hansen, A., Lahrmann, H., & Madsen, J. C. O. (2001). *Cykelbus' ter projektet i Århus: fra bil til cykel eller bus med positive virkemidler – projektevaluering (The Cyclebus' ter project in Aarhus: From car to bicycle or bus with positive incentives – project evaluation)*. København, Denmark: Transportrådet.
- Maibach, E., Steg, L., & Anable, J. (2009). Promoting physical activity and reducing climate change: Opportunities to replace short car trips with active transportation. *Preventive Medicine*, 49, 326–327.
- McKenzie-Mohr, D., Schultz, W., Kotler, P., & Lee, N. (2012). *Social marketing to protect the environment*. Thousand Oaks, CA: Sage.
- Midtrafik. (2012). Aarhus Nærbane: Tofusion fejret med gratis kørsel – Farvel til “Oddergrisen” (Aarhus commute train: Coordination promoted by free tickets – Goodbye to the “Oddergris”). *Midtrafik Nyhedsbrev – busselskaber og vognmænd*, (12), 2.
- Møller, B. T., & Thøgersen, J. (2008). Car-use habits: An obstacle to the use of public transportation? In C. Jensen-Butler, B. Madsen, O. A. Nielsen, & B. Sloth (Eds.), *Road pricing, the economy, and the environment* (pp. 301–314). Berlin, Germany: Springer.
- Møller-Jensen, L., Jensen-Butler, C., Madsen, B., Millard, J., & Schmidt, L. (2008). A web-based study of the propensity to telework based on socio-economic, work organisation and spatial factors. In C. Jensen-Butler, B. Madsen, O. A. Nielsen, & B. Sloth (Eds.), *Road pricing, the economy and the environment* (pp. 395–409). Berlin, Germany: Springer.

- Möser, G., & Bamberg, S. (2008). The effectiveness of soft transport policy measures: A critical assessment and meta-analysis of empirical evidence. *Journal of Environmental Psychology*, 28, 10–26.
- Østergaard, S., & Schougaard, J. (1997). Direkte markedsføring i HT (Direct marketing in HT). In H. Lahrmann & L. H. Pedersen (Eds.), *Trafikdage på Aalborg Universitet 1997* (pp. 567–572). Aalborg, Denmark: Aalborg Universitet, Transportrådet og Trafikforskningsgruppen.
- Plougsgaard, H. (2005, May 2). Gratis nærbane er populær (Free local rail is popular). *Jyllands-Posten*.
- Pucher, J., Dill, J., & Handy, S. (2010). Infrastructure, programs, and policies to increase bicycling: An international review. *Preventive Medicine*, 50(Supplement 1), S106–S125.
- Richter, J., Friman, M., & Gärling, T. (2010). Review of implementations of soft transport policy measures. *Transportation: Theory and Application*, 2, 5–18.
- Richter, J., Friman, M., & Gärling, T. (2011). Soft transport policy measures: Gaps in knowledge. *International Journal of Sustainable Transportation*, 5, 199–215.
- Ritzau. (2004, July 11). Gratistog gav gevinst (Free train successful). *Politiken*.
- Rose, G., & Marfurt, H. (2007). Travel behaviour change impacts of a major ride to work day event. *Transportation Research Part A*, 41, 351–364.
- Rose, G., Marfurt, H., & Harbutt, P. (2003). *Using a ride to work day event to promote travel behavior change*. Paper presented at the 26th Australasian Transport Research Forum, Wellington, New Zealand.
- Schuitema, G., Steg, L., & Rothengatter, J. A. (2010). The acceptability, personal outcome expectations, and expected effects of transport pricing policies. *Journal of Environmental Psychology*, 30, 587–593.
- Seethaler, R. K., & Rose, G. (2004). Application of psychological principles to promote travel behavior change. *Transport Engineering in Australia*, 9(2), 67–84.
- Smith, V., & Beroldo, S. (2002). Tracking the duration of new commute modes following service from a ridesharing agency: Longitudinal study. *Transportation Research Record: Journal of the Transportation Research Board*, 1781, 26–31.
- Socialdata Sverige. (2002). *Individualiserad marknadsføring i Dalvik (Individualized marketing in Dalvik)*. Jönköping, Sweden: Socialdata Sverige.
- Staats, H. J., Wit, A. P., & Midden, C. Y. H. (1996). Communicating the greenhouse effect to the public: Evaluation of a mass media campaign from a social dilemma perspective. *Journal of Environmental Management*, 45, 189–203.
- Steg, L., Vlek, C., & Slotegraaf, G. (2001). Instrumental-reasoned and symbolic-affective motives for using a motor car. *Transportation Research Part F*, 4, 151–169.
- Stern, P. C. (1999). Information, incentives, and proenvironmental consumer behavior. *Journal of Consumer Policy*, 22, 461–478.
- Stradling, S. G. (2002). Transport user needs and marketing public transport. *Municipal Engineer*, 151, 23–28.
- Tetraplan. (2004). *0-takst på Svendborgbanen. Effekten af at gøre brugen gratis i januar 2004 (0-fare on the Svendborg line. The effect of making the use free in January 2004)*. København, Denmark: Trafikministeriet.
- Thayer, M. (1992). Effectiveness of a statewide ridesharing promotion: California rideshare week. *Transportation Research Record: Journal of the Transportation Research Board*, 1338, 94–101.
- Thøgersen, J. (1997). Facilitating recycling. Reverse-distribution channel design for participation and support. *Social Marketing Quarterly*, 4(1), 42–55.
- Thøgersen, J. (2007). Social marketing of alternative transportation modes. In T. Gärling & L. Steg (Eds.), *Threats to the quality of urban life from car traffic: Problems, causes, and solutions* (pp. 367–381). Oxford, UK: Elsevier.
- Thøgersen, J. (2009). Promoting public transport as a subscription service: Effects of a free month travel card. *Transport Policy*, 16, 335–343.

- Thøgersen, J. (2012). The importance of timing for breaking commuters' car driving habits. In A. Warde & D. Southerton (Eds.), *The habits of consumption* (pp. 130–140). Helsinki, Finland: Helsinki Collegium for Advanced Studies.
- Thøgersen, J., & Møller, B. (2008). Breaking car-use habits: The effectiveness of a free month travel card. *Transportation*, 35, 329–345.
- Verband Deutscher Verkehrsunternehmen (VDV), & Socialdata. (1993). *Chancen für Busse und Bahnen (Opportunities for buses and train)*. Köln, Germany: Socialdata.
- Verplanken, B., Aarts, H., & Van Knippenberg, A. (1997). Habit, information acquisition, and the process of making travel mode choices. *European Journal of Social Psychology*, 27, 539–560.
- Verplanken, B., Aarts, H., Van Knippenberg, A., & Van Knippenberg, C. (1994). Attitude versus general habit: Antecedents of travel mode choice. *Journal of Applied Social Psychology*, 24, 285–300.
- Verplanken, B., Walker, I., Davis, A., & Jurasek, M. (2008). Context change and travel mode choice: Combining the habit discontinuity and self-activation hypotheses. *Journal of Environmental Psychology*, 28, 121–127.
- Verplanken, B., & Wood, W. (2006). Interventions to break and create consumer habits. *Journal of Public Policy & Marketing*, 25, 90–104.
- Wright, C., & Egan, J. (2000). De-marketing the car. *Transport Policy*, 7, 287–294.