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Mobility Management campaigns as part of the transition towards changing social norms on sustainable travel behavior

Lena Winslott Hiselius [a, *], Lena Smidfelt Rosqvist [b]

[a] Lund University, Department of Technology and Society, Box 118, SE-221 00 Lund, Sweden
[b] Trivector Traffic, Åldermansgatan 13, SE-222764 Lund, Sweden

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ABSTRACT

In the transition towards a low-carbon society, changes of attitudes and social norms are needed to support new ways of implementing technical solutions and new behaviors and lifestyles. Mobility Management (MM) campaigns have been shown to contribute to changing of mind sets, but to date these campaigns have not been recognized as important parts of a strategic transport policy plan on an overall level. A brief overview of the literature concerning MM campaigns being carried out in Sweden today indicates that the full potential of these campaigns is not being used. To make these campaigns more effective, we suggest that the campaigns should focus on social motivation and normalizing sustainable transport behavior and should explicitly express holistic views regarding climate effects. Most importantly, however, we argue that the effectiveness could be increased through more strategic and systematic use, which might require national coordination.

1. Introduction

Research has shown that technical or economic factors and interventions alone will not be enough to achieve the carbon dioxide emission goals set worldwide or to contribute to other sustainability issues such as traffic safety and traffic congestion (Chapman, 2007; Nilsson and Khan, 2013). The needed transition also calls for behavioral changes, including reductions in car use.

Various studies have revealed that awareness of climate change is reasonably high, (DEFRA, 2002; Lorenzoni and Pidgeon, 2006). This also includes the link between transport and climate change at the conceptual level. However, as pointed out by a number of researchers (Anable et al., 2006; Lane and Potter, 2007; Lukman et al., 2013), there seems to be an attitude-behavior gap between concern about the relationship between climate change and transport and the actions that need to be taken to mitigate its effects. According to these researchers, it is the translation of awareness and concern into action that is most pressing.

Various transport policy measures are available to reduce people's car use and/or to increase the use of more sustainable transport modes. Such actions are sometimes referred to as Mobility Management (MM) measures (Rye, 2002), and these have been explored in a number of joint European projects such as TAPESTRY (Travel Awareness, Publicity and Education supporting a Sustainable Transport Strategy in Europe, http://www.eu-tapestry.org), CATCH (Carbon Aware Travel Choice, http://www.carbonaware.eu), MOST (Mobility Management Strategies for the Next Decade, http://mo.st), and MAX-SUCCESS (Successful Travel Awareness Campaigns and Mobility Management Strategies, http://www.max-success.eu). These measures can be divided into 'hard' and 'soft' transport policy measures. Examples of hard transport policy measures are physical improvements of the infrastructure, congestion charges, and restriction of parking spaces. Soft transport policy measures, on the other hand, focus on voluntary changes and include things like information campaigns or providing assistance with personal travel plans.

MM has no well-developed methodology of its own, and it uses interventions based on different theories on how to influence mobility choices. Soft measures aim to motivate individuals to voluntarily change their modes of transport to more sustainable ones (Cairns et al., 2008), and such measures have been implemented in a number of countries. A recent review of the effectiveness of interventions aiming for a shift from cars to more physically active transport modes reported positive results in nearly all studies (Scheepers et al., 2014). Evaluations of these programs show that car journeys have been reduced, the use of

* Corresponding author. Tel.: +46 46 2229748.
E-mail addresses: lena.hiselius@tft.lth.se (L.W. Hiselius), lena.smidfeltrosqvist@trivector.se (L.S. Rosqvist).

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other modes of transport has increased, and carbon dioxide emissions have been reduced (Cairns et al., 2008; Chatterjee, 2009).

Although it would be naive to believe that voluntary (soft) instruments alone can solve substantial energy and transport problems, it is fair to assume that voluntary policy instruments – in combination with stricter regulations, green taxes, and so forth – are needed and will be crucial for future reductions in greenhouse gas emission (Boström and Klintman, 2009).

According to Möser and Bamberg (2008), different types of personal travel planning and measures promoting sustainable transport modes are the most frequent MM measures that have been implemented over the last ten years. In Sweden, MM measures consist mainly of two types:

- Personal-travel campaigns where participants are encouraged to try a new travel behavior, sometimes with incentives like the provision of various types of equipment.
- MM campaigns on various levels, such as awareness-raising campaigns at the regional and city level and at the individual organization or group level where individuals are provided with information and arguments on the benefits of sustainable travel behavior.

Because each single transport behavior can be argued to influence some aspect of sustainability, it is valuable to consider behavioral changes regardless of attitudinal changes. As identified by many researchers, numerous countries struggle with the gap between people's attitudes and concern regarding climate change and the behavioral changes that need to take place. In this paper, we argue that a change towards more sustainable attitudes could lead to higher problem-solving capacity regarding sustainability aspects on the individual level and that this should also be taken into consideration in transport planning. This could in turn support new ways of implementing technical solutions as well as new behavior or lifestyles. A more systematic use of MM-campaigns could thus contribute to the necessary transition towards changing attitudes towards travel.

Because it is of critical importance to close the gap between attitudes and behavior, more research is needed in different countries and contexts. The aim of this study is to discuss whether there is potential for MM campaigns to contribute to the cultural politics of a low-carbon society based on a case study of the present design of MM campaigns being carried out in Sweden. We also ask the question of what would make MM campaigns that aim to change social norms on travel behavior more effective. Based on research in the area of behavioral and attitudinal changes and a case study of the design and use of MM campaigns, a more strategic use of MM campaigns is discussed in the final section of this paper. Because the series of EU projects on MM measures such as TAPESTRY and MAX-SUCCESS indicate similarities in the way these measures are implemented and used in Europe, there are indications that the results of this study might be transferred to other European countries.

2. Research related to changes in norms, attitudes, and behaviors

There is a growing body of literature covering frameworks and theories that can be used to examine the link between attitudes and behaviors. Ajzen's (1991) Theory of Planned Behavior is, according to Armitage and Conner (2001), one of the most frequently used theories to explore the attitude-behavior gap for behaviors within the social, environmental, and health psychology fields (see, for instance, Yazdanpanah and Forouzani (in press) for a recent application of the theory). The theory predicts that attitudes do not determine behavior directly. Rather, in combination with social norms and perceptions of control, attitudes influence behavioral intentions. The Transtheoretical Model (TTM) developed by Prochaska and DiClemente (1983) is a framework with an explicit temporal dimension. Its strength is in the recognition of the gradual nature of change and the fact that individuals progress in stages and not in a single large step. MAX-SEM, developed within MAX-SUCCESS, diagnoses individuals' modal choice decisions by focusing on their attitudes towards current and future car use (Van Acker et al., 2013; Bamberg et al., 2011; Bamberg, 2013). According to their responses to six statements indicating the most preferred one, and their answers to questions on travel behavior, the respondents are defined as belonging to one of the following four stages in the process of changing from car use to more sustainable transport modes:

- The pre-contemplation stage, where the desire arises to change a behavior that is recognized as problematic.
- The contemplation stage, where people select and validate different behavioral alternatives.
- The preparation/action stage, where people initiate and execute the selected new behavior.
- The maintenance stage, where people validate the experiences with the new behavior and decide whether to continue with this new behavior or not.

Following the The Transtheoretical Model and the process of behavioral change in MAX-SEM, personal travel campaigns where a new travel behavior is tested might thus be argued as focusing on the stages of contemplation and preparation/action (Bamberg, 2014). According to the literature, it might also be argued that people's attitudes towards the sustainable travel behavior can change through the experience of the new travel behavior, and this attitudinal change is related to the process of cognitive dissonance whereby people tend to favor attitudes that support the decision they have made (Van Vugt et al., 1996; Anable el al. 2006).

Travel-awareness campaigns that provide information and arguments for sustainable transport behavior can be regarded as another type of measure working in other stages of behavioral change than personal-travel campaigns. Travel-awareness measures might be argued as representing a “pure” downstream intervention following the terminology of Verplanken and Wood (2006) who propose two potential habit-changing interventions. “Downstream-plus” interventions are those that provide informational input and self-help programs designed to change the occurring behavior, and “Upstream” interventions are those that occur prior to habit performance and seek to disrupt old environmental cues and to establish new ones.

There are also studies, for instance, Wundersitz et al. (2010), that argue that information campaigns such as those through mass media are more successful at altering attitudes than changing behavior. This is also in line with Verplanken and Wood (2006) who argue that interventions changing beliefs and intentions (such as travel-awareness campaigns) are unlikely to be an effective means to change behaviors that people have formed into habits. They argue that successful habit change interventions involve disrupting the environmental factors that automatically cue habit performance.

The efficiency of awareness-raising campaigns can thus be vague although still showing effects (Scheepers et al., 2014). Recent theoretical and empirical insights into behavioral change provide new insights into the role of information in reducing transport-related emissions and in making the information more effective (Waygood et al., 2012; Bamberg, 2014). According to the European Platform of Mobility Management (EPOMM) website, the success of

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the Travel Awareness Campaign can be judged by the level of awareness about the campaign, support for traffic reduction, and recognition of press coverage/campaign information, as well as by increased knowledge and awareness of transport issues among the target groups. In other words, there is a move from the pre-contemplation stage to the contemplation stage following the MAX-SEM model. Waygood et al. (2012) show that traveler information offers many benefits to the user and could be influential in affecting travel behavior change when considering the 'stage of change' people are at in relation to a change in behavior.

According to Stripple and Bulkeley (2013), there are measures and ensuing policies and technologies aiming for decarbonization that involve reshaping the sorts of people we are, our desires and fears, and the daily practices associated with these desires and fears. Also, according to the EPOMM website on the first steps in MM: 'Behavioral change is usually a long term process; thus campaigns should not be seen as quick fix solutions, but can help to provide the changes in attitudes and perceptions which are an essential precursor to shifts in actual travel behavior'.

Seen in this perspective, travel-awareness campaigns could be argued as contributing to an overall increased awareness on more sustainable lifestyles and the way we think, which is an important prerequisite for long-term sustainable development (Nilsson and Khan, 2013). Parallels can be drawn to national campaigning strategies aiming for attitudinal changes within areas connected to personal risks such as seat belt and bicycle helmet use, alcohol, drugs, and smoking (NCI, 2008; Anderson et al., 2009; Wundersitz et al., 2010).

Klintman (2013) highlights social motivation as being essential for a shift in a more sustainable direction within the transport and other sectors. Parallels can be made to how attitudes and social norms defined as standards of behavior that are based on widely shared beliefs of how individual group members ought to behave in a given situation (Fehr and Fischbacher, 2004; Griskevicius et al., 2008) towards, for example, cigarette smoking have changed in incremental steps from being an integral part of our lives to being banned in many public places outdoors. According to Cialdini et al. (2006), after decades of debate concerning their causal impact it now seems well established that social norms can both spur and guide human behavior. Griskevicius et al. (2008) state that it is surprising how little people are aware of the power of social norms on their own behavior, including many behaviors that can contribute to global warming. This knowledge can be used for persuasive purposes (Cialdini et al., 2006).

This line of research also points out the importance of distinguishing between descriptive norms (sometimes called the norms of "is"), which refer to what is commonly done, and injunctive norms (sometimes called the norms of "ought"), which refer to what is commonly approved/disapproved. Descriptive norms are said to inform behavior via example, and injunctive norms are said to enjoin it via informal sanctions. Research suggests that activating one or the other of the two types of norms produces significantly different behavioral responses (Reno et al., 1993). For instance, according to Cialdini et al. (2006) there is a misguided tendency of public officials to try to mobilize action against socially disapproved conduct by depicting it as regrettably frequent, thereby inadvertently installing a counterproductive descriptive norm in the minds of their audiences.

Klintman (2013) argues that for a change in norms to occur, we must first believe in the rational arguments (facts), but then we also need to be convinced or feel that the change will benefit us *socially*. According to Klintman, there are two types of trust affecting people's social motivation to various degrees – Apollonian and Dionysian. Apollonian trust refers to trust based on the substantive quality of the data and the analyses on which recommendations are grounded. It focuses on optimal and obtainable results that serve as the basis for generating trust among people, and in turn such trust influences people to adapt their behaviors and motivates them to change their daily routines. An individual holds Dionysian trust when they sense consciously or subconsciously that adopting the prescription of a group or becoming involved in changing these prescriptions will allow them to do well in the social game.

Klintman (2013) argues that rational facts and arguments (Apollonian trust) are often mistakenly seen as sufficient, while in fact Dionysian arguments will also be needed for any norm-changing process to be effective. This is line with results in, for instance, Schultz et al. (2007) showing that the provision of information on how other people in similar social position behave is supportive of pro-environmental household practices. Simple experiments with messages to encourage hotel guests to save laundry show considerably better effects when using arguments like "Do you know most of your fellow guests hang their towels on the rack" than when using environmental arguments (Goldstein et al., 2008). Similar results have been found in other areas (Allcott, 2011; John et al., 2013). Within the transport area, Sherwin et al. (2014) present results suggesting that social factors (defined as the process by which an individual's thoughts and actions are changed by the thoughts and actions of others) could be used to improve the efficiency of bicycling promotion programs.

For social factors, identity plays an important role and can be defined as any category label with which a consumer self-associates what a person in a category looks like, thinks, feels, and does (Reed et al., 2012). Reed et al. (2012) provide a typology with examples and illustrative features of various roles and identities.

- Actual individuals with whom the person has personal contact and wishes to maintain a relationship, e.g. a supervisor or other individual role models.
- Actual individuals with whom the person has no personal contact, but wishes to emulate in certain ways, e.g. athletes, musicians, and artists.
- Membership groups characterized by various degrees of interaction.
- Fictitious characters with imaginary social constructions created by marketers, culture, and the popular media, e.g. cartoons and film characters.

According to research, these different roles are also related to the power of influence. The power of *liking* (that people are more likely to be influenced by people we like) is one of the six principles of influence developed by Cialdini (2001). The importance of social factors is also in line with the framework of conspicuous consumption developed by Veblen (1994). According to this philosophy, conspicuous consumption occurs when people care about their standard of living in relation to their peers. Conspicuous goods differ from many frequently purchased goods because they satisfy not just material needs but also social needs such as prestige (Belk, 1988).

For sustainable transport modes, there consequently lies a huge challenge in the status of the car. Research has shown that there are important symbolic and affective functions of the car, especially for frequent drivers, those with a positive attitude towards cars, males, and younger people (Ellaway et al., 2003; Steg et al., 2001; Steg, 2005). There are also studies that have shown that car users deciding to use public transport also include affective aspects in that choice (Redman et al., 2013).

In order to support Dionysian trust, Andreasen (2005) argues that social marketing (the systematic application of marketing concepts and techniques to achieve behavioral goals relevant to the

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social good) can be used. The Transtheoretical Model can, for instance, be applied at the organizational level to show how organizations progress from one stage to the next. Indeed, this model has influenced methods of social marketing that gradually build people's willingness to take on large-scale changes. Social marketers also stress the importance of a durable relationship – based on trust – that will enhance confidence to change rather than a one-off intervention (Halpern et al., 2004). The lion's share of social marketing deals with personal health, but campaigns have also concerned recycling and reduced consumption (Peattie and Peattie, 2009). However, according to Klintman (2013) few marketing efforts have been directed towards the development of Dionysian trust among consumers in reducing negative environmental impacts.

The organizational level also matters for social transitions to take place. According to Halpern et al. (2004), there is some evidence that more community-led approaches (changing travel behavior using largely voluntary, information-based tools at the social, organizational, and community level) can be advantageous in the long term due to the fact that the changed behavior of individuals and communities interact, thereby establishing new social norms.

Research also shows that the style of a campaign is of importance. In studies by Delaney et al. (2004) and Ulleberg and Vaa (2009) that analyzed the effect of mass media campaigns on road safety, it was concluded that persuasive or emotional campaigns are more effective than rational or informational-style campaigns. In line with Klintman's (2013) discussion on the importance of Dionysian trust as a driving force for our decisions, results from Waygood and Avineri (2013) suggest that rational analytical information has less influence on a potential change in travel behavior than a more emotional format.

It is also interesting to mention here research on framing and behavioral change. Lindenberg and Steg (2007) have introduced a goal-framing theory that postulates that goals 'frame' the way people process information and act upon it. According to these authors, there are three goal frames: normative (societal), gain (personal), and hedonic (emotional). In the environmental context, normative goal frames (e.g. reduction in carbon dioxide emissions) imply acting pro-environmentally, while personal gain (e.g. better personal economy) and hedonic goal frames (e.g. feeling healthier) often result in not acting in an environmentally sound manner.

From an economic perspective, pro-environmental behavior is an example of an individual's voluntary effort to provide an environmental public good (Clark et al., 2003). A general result of theoretical models that examine different external conditions for the private provision of public goods is that individuals have little incentive to provide a public good privately (Olson, 1965). There are, however, empirical studies showing that individuals are willing to contribute to public goods due to various forms of altruism (Andreoni, 1990).

Research has also shown that there are different types of motivation for pro-environmental behaviors affecting the response to implemented actions and interventions. For instance, Goplen (2014) and Glaeser (2014) make use of internal or intrinsic motivation (i.e., motivation rooted in a personal concern for the environment or performing an activity for its own sake rather than the desire for some external reward) and external or extrinsic motivation (i.e., motivation rooted in concerns about one's reputation or in order to earn a reward or avoid a punishment). Goplen (2014) analyzed social pressures for pro-environmental behavior and showed that the type of motivation matters and needs to be considered when designing actions and interventions. Backlash in response to an intervention that encouraged valuing the environment and that promoted autonomous pro-environmental behavior was found among people high in external motivation, particularly if they were also low in internal motivation.

According to Winslott Hiselius (2014), environmental imperatives cannot be ignored when aiming for a low-carbon society. The climate goal highlights the importance of a holistic view in policies and measures taken involving pro-environmental awareness in general (Nilsson and Khan, 2013; Winslott Hiselius, 2014). Thøgersen and Crompton (2009) speculate – for want for empirical evidence – "it seems likely that individuals who are persuaded to adopt a specific pro-environmental behavior in order to save money (e.g. change to energy-efficient light bulbs) will be less likely, as a result of this, to come to see themselves as 'people who engage in environmental behavior', and will therefore be less likely to respond positively to a subsequent request to adopt a pro-environmental behavioral change that does not confer some direct financial benefit". According to Thøgersen and Crompton (2009), it is important to focus exclusively on the environmental imperatives when striving for clarity about the reasons for advocating a particular behavioral change.

3. Case study: MM campaigns in Sweden

Research has shown that social motivation plays a significant role in changing behaviors and the prevailing norms, and it has been argued that it is important to also focus on environmental imperatives when transitioning towards consistent sustainable behavior. Other factors are, for example, the style and framing of goals. An important question, therefore, is whether this knowledge is used in the design and implementation of MM campaigns today. We have found no studies actually investigating the practical applications of the use of norm-changing potential in practice. Among the most relevant literature, neither Atterbrand et al. (2005), focusing on MM measures in the Nordic countries, nor Friman et al. (2010), focusing on MM measures in Sweden, present or classify the goal frame and style used in the campaigns. In addition, reviews of the effects of these campaigns fail to present any mapping or analysis of the characteristics of the campaigns. As part of MAX-SUCCESS, a survey was conducted with regard to features of the campaign such as sender, positive/negative messages, and emotional/rational messages as well as arguments on the environment, economy, and health (MAX SUCCESS, 2009), but the survey did not analyze the effects on travel behavior usage and only investigated the respondent's stated preferences for the different arguments.

3.1. Collection of case data

For the purpose of this paper, we wanted to obtain a systematic mapping as the basis for our discussion. In order to get such an overview, a small-scale study was carried out aiming to give a broad picture of MM campaigns that seek to promote more sustainable travel behavior. Obtaining detailed information on MM activities is difficult, and personal contacts are often needed. Trivector is the manager of the Swedish network MMMiS (Possibilities for using Mobility Management in Planning), which is operated based on funding from The Swedish Energy Agency and municipalities, and this allowed us to gather information on MM campaigns performed in Sweden from 2007 to 2013. Most campaigns, whether in Sweden or elsewhere, are designed for a specific time and purpose. However most types are repeated in different regions and countries because examples of effective campaigns are spread through networks such as EPOMM or CIVITAS, and thus there is reason to assume that most MM campaigns are built from the same arguments.

A total of 30 different MM campaigns were identified. The material used for the target group(s) of each campaign was collected,

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and an analysis was carried out mapping the studied campaigns in terms of the kinds of messages and arguments that were used to address the direct target groups, what kind of sender the different campaigns used, etc. The structure of the mapping came from research reports related to changes in norms, attitudes, and behavior. The material used in the campaigns typically consisted of posters, ads, leaflets, information brochures, and even in one case live cyclists in the city labeled with messages such as "*This a motorist cycling*". The information was categorized based on a number of different aspects identified in the literature as important for influencing social norms, and the hypothesis was that changes in social norms would improve with the use of celebrities and the inclusion of emotional aspects and societal benefits, as well as by having a strategic legitimacy, preferably at the national level. Twenty of the campaigns were run by municipalities, and 15 campaigns had some sort of cohesive organization that was at least partially transmitted in the campaigns. Only seven of the promotions were run by regional authorities, and we found no campaigns that were state run.

There was great diversity among the objectives identified for the campaigns. Some campaigns were addressing the objective of increasing cycling both for specific errands such as commuting to work or sports activities and for year-round transport. Others had similar target groups but aimed at increasing the use of public transport. Some campaigns were targeted at informing habitual motorists of alternative kinds of transport behaviors. Some of these targeted specific age or gender groups and some targeted motorists generally. Some campaigns were connected to major specific infrastructure packages such as the reshaping of motorways, railway links, and the recent introduction of congestion charging in Gothenburg. Other campaigns were directed towards companies and worked with them on their transportation systems or commuter traveling. There were also campaigns addressing general city issues such as adopting a healthier and more sustainable lifestyle as well as campaigns on driving behavior, fuels, carpools, and congestion.

The campaigns were mapped against a list of characteristics/factors, including the messages/arguments used, the focus on wanted or unwanted behavior, the sender of the message, and the target group.

3.2. Messages and arguments addressed to specific target groups

Table 1 presents the distribution of the main types of messages/arguments used in the studied campaigns. The sum in Table 1 exceeds the number of studied campaigns because one campaign often contained more than one type of message/argument. The arguments used for more sustainable travel behavior are fairly well distributed across different areas like economic effects, better health, and various environmental/societal effects – possibly with some emphasis on various forms of environmental claims. The environmental effects brought up in the campaigns were divided into climate/carbon dioxide/emission effects and noise, traffic safety, and the use of space for different modes. Factors related to health effects were divided into fitness, weight/calories, and quality of life aspects such as stress. The economic effects focused solely on private economy benefits.

Table 1
Distribution of types of messages/arguments used in the studied campaigns.

Type	Number
Environment/societal (total)	25
– Environment/Climate/CO_2	14
– Environment/health-impacts of emissions and noise	6
– Traffic safety	3
Decreased need for traffic surfaces (e.g. parking and congestion issues)	2
Economic benefits	11
Better Health (total)	16
– Increased fitness due to increased physical activity	7
– Reduced weight	1
– Less stress	5
– Better quality of life in general	3

As mentioned earlier, the messages and arguments are often mixed in the information given in the campaigns. The environmental effects are rarely if ever clearly expressed as the aim but rather are described as "*a more healthy environment to live in*" and "*Making active choices is important, for your own health, wallet and for our shared environment. Increasing overweight and lack of physical activity are developing into a major public health problem. By setting aside the car and taking the bicycle, you get good exercise while the environment is being spared*".

All arguments that we have found are positively addressed with a slight predominance of public benefits (20 campaigns), e.g. in terms of reduced emissions compared to individual benefits (15 campaigns).

The arguments used were more often linked to rational (quantifiable) effects (19 campaigns) than emotions, experiences, and feelings (11 campaigns). Typical rational arguments included *economic benefits*, *less congestion*, and *burning more calories*, whereas typical emotions mentioned were being *happy*, *alert*, and *healthy*. Even if both types were used, the rational quantifiable arguments predominated. The pervading tone in all campaigns was positive. Our analysis indicated that the MM campaigns have focused largely on individual rational consequences and the advantages of changed travel behavior and do not stress holistic benefits for society by including specific environmental effects such as reducing emissions and the use of resources.

Focus on the wanted or the unwanted behavior: Many of the campaigns focused on cycling (15 campaigns), which means they were targeting a wanted more sustainable behavior. However, quite a few of the campaigns targeted and took their starting point from the prevailing norm of car use (9 campaigns). The campaign to most clearly – and spectacularly – do so was one that used the message 'Treat your children to the joy of driving. Save a splash of gasoline for them, too!' Another emphasized the phrase 'The challenge – Get to work without a car', which recognized the difficulty of letting go of what is normal to most people. There was also one slogan that promoted cycling using car and road vocabulary by saying, 'The bike – driving pleasure and road presence beyond the ordinary' – thus mimicking the kinds of phrases often used by car commercials.

3.3. The sender of the message

In the design of the campaigns, the majority of those having a clear messenger made use of the typical audience consumer that the campaign was aiming at as a sender (8 campaigns). In one case a local celebrity was used and in one case a cartoon character was used as the sender. However, the remaining 20 campaigns did not use any specific or clear messenger. The campaigns were all distributed through ads (digital and non-digital), leaflets, and in some cases film clips.

3.4. Target group

Most of the campaigns were widely targeted towards the population of a city or local region (18 campaigns), and significantly fewer were location-based such as company focused (8 campaigns) or individually oriented (4 campaigns).

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4. Discussion

In the transition towards a low-carbon society, changes of attitudes and social norms are needed in order to support new ways of implementing technical solutions and new behaviors or lifestyles while at the same time challenging prevailing policy structures and agendas. As Shove (2010, p. 1278) argues when discussing actions and policies for a social transition:

> … *transitions toward sustainability do not depend on policy makers persuading individuals to make sacrifices, specified with reference to taken-for-granted benchmarks of normal nonsacrifice; or on increasing the efficiency with which current standards are met. Instead, relevant societal innovation is that in which contemporary rules of the game are eroded; in which the status quo is called into question; and in which more sustainable regimes of technologies, routines, forms of knowhow, conventions, markets, and expectations take hold across all domains of daily life*.

Based on existing knowledge on norms, motivation, and behavior, there are factors suggesting that MM campaigns can contribute to this social transition towards more sustainable behavior, starting with travel patterns and mode choice. However, in order for this to take place a number of factors should be considered. In the overview of MM campaigns carried out in Sweden, there are indications that the full potential of MM campaigns to change social norms and attitudes in a more holistic manner is not being used. Based on existing knowledge, we believe that MM campaigns could be used more effectively from a social norm change perspective by not merely focusing on the individual effect of the specific campaign and by.

- using high-profile individuals to increase social motivation,
- including environmental effects as part of the message,
- focusing on the socially approved conduct, and
- considering MM campaigns as part of a larger action plan.

Sociological research has shown that for a norm change to occur, people must first believe in the rational arguments (facts) but then need to be convinced or feel that the change will benefit them socially and give them social status. In the marketing of products, arguments based on 'do what famous and successful people do' are widely used, but such techniques are mostly absent in MM campaigns.

Our analysis of MM campaigns showed the use of somewhat 'known' people rather than high-profile celebrities. This minor use of celebrities is noteworthy considering that the drive to mirror high-status people seems to be an ever-increasing tendency, and this is clear when looking at young people's interest in how their idols live and how they can emulate them. This result indicates that those seeking to influence behavioral change could do much more to include celebrities and persons that different segments of the population look up to and who have been successful in reducing their negative environmental impact.

A study carried out on 2500 Swedish high school students gives an indication on type of famous and successful people to be used in campaigns. In this study students were asked about who their role models are (West Sweden Chamber of Commerce, 2009). The result is presented in Table 2 and indicates a preference for strong male models figuring on the international arena.

This list gives a view of the type of persons, if not the persons themselves, that could be interesting to use in campaigns. Within marketing, using famous and popular people in order to spread a message and affect preferences is hardly new. In a recent (2014) ad from a car brand, football player Zlatan Ibrahimović appears in which he not only can be seen driving a specific car model but also seen hunting in a magnificent winter landscape. The strength of using his brand can be illustrated by not only that the sales figures for the car model went up but also that Swedish hunting associations saw a strong increase in course registration for hunting licenses after the launch of that specific ad (Svensk Jakt, 2014).

Table 2
Responses to 'Who are your role models?'

Ranking	Name
1.	Jesus
2.	Nelson Mandela
3.	Bill Gates
4.	Albert Einstein
4.	Zlatan Ibrahimović (Swedish star football player)
6.	Ingvar Kamprad (Founder of IKEA)
6.	Martin Luther King
8.	Mahatma Gandhi
9.	Christiano Ronaldo

We also believe that MM campaigns can be more effective by appealing to peoples' feelings. Looking at the magnificent winter landscape and the feelings mediated in the ad by Zlatan, it certainly seems like social marketing measures within the area of sustainable transport have something to be inspired by.

Furthermore, in the overview of the MM campaigns it was noted that the arguments used were often mixed and the environmental effects were often mentioned as side effects. Thøgersen and Crompton (2009) speculated that individuals persuaded to adopt a specific pro-environmental behavior in order to save money will be less likely to see themselves as people who engage in environmental behavior, and this was also identified in Winslott Hiselius et al. (2011) when analyzing the effects of a mobility campaign encouraging people to substitute car commuting by public transport or bike trips. The follow-up showed that in 20% of the households where the car was no longer used by the person taking part in the campaign, the car was used by someone else in the household. This clearly indicates that the climate goal had not been communicated to these people.

We argue, therefore, that the tendency to refrain from clearly expressing the environmental effects in public messages counteracts attempts to develop holistic views and carbon-conscious individuals. In order to generate much needed and lasting change towards sustainable travel behavior, it is important to start focusing on environmental imperatives. Even with the focus on environmental gains, there are sufficient links between sustainable transport modes and higher life satisfaction to encourage such a transition. Transport by public transport, cycle or by walking means more physical activity, which is an undisputed factor in improving health and well-being. Life satisfaction has also been reported to be higher among commuters who engage in physically active forms of transport such as cycling and walking (Friman et al., 2013; St-Louis et al., 2014). Moreover when people act more in accordance with what they know or think is right, they tend to regard traveling in a more sustainable way as important. We argue that the general public needs to be better informed about these aspects of transport in order for the needed transition toward sustainable development to occur.

Our next point of discussion for increasing the norm-changing potential of MM campaigns regards the behavior that the campaigns focus on. In line with previous research, we found a tendency in the studied MM campaigns to emphasize socially disapproved conduct, for example, by expressing unsustainable transport behavior as a *non-sacrificial* social norm today that (regrettably) needs to be broken. However, research has shown that

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this way of campaigning is often counterproductive because it tends to establish a mindset where the negative behavior becomes the norm. We argue that the designers of MM campaigns could certainly learn from this and focus on sustainable transport behavior as the given norm and not something sacrificing, heroic, and a bit geeky.

Our last point regards the strategic use of MM campaigns. Processes of change in companies or organizations have elements of action plans where all actions are linked together to form a comprehensive plan aiming for the target. However, in the overview of MM campaigns we could not find any trace of the studied campaigns being part of a larger scheme in Sweden. In order to increase the total effect of MM campaigns on social transition, we argue that strategic planning could be applied to MM campaigns in the same way that it is applied to present actions and campaigns for increased traffic safety that are designed and carried out by the Swedish Transport Administration. In order for campaigns in the area of sustainable transport to be more successful, there is a need for national coordination among such campaigns. However, initiating national information/awareness campaigns towards the public is not the prevailing way in Sweden. In order to conduct national information campaigns on the relationship between travel behavior and environmental or health effects, agencies like the Environmental Protection Agency, the Energy Agency, and the Swedish Transport Administration must get clear instructions from the Government to work together. However, so far they have never received such instructions. Even a campaign on information on the climate effects of different foods was forced to be withdrawn in 2014 due to political resistance. This is particularly interesting regarding transport and sustainable development because such information is included in Swedish school curricula and often the subject of exhibitions, etc. As a society, we seem to want this education for some but not for all of the population. When considering the huge effect transport has on both communal effects such as climate change as well as on individual benefits such as heath or economy, it seems to be a strange position to oppose informed personal decisions.

5. Conclusions

Most politicians and planners today agree that we cannot continue using the car as before, but the norm in terms of planning and usage has not yet changed. There are some individual bold initiatives, but a powerful policy change at the national level is still absent. In line with Nilsson and Khan (2013), we argue that it is possible to make this change in norms towards more sustainable behavior including travel patterns and mode choice. It will, however, require long-term strategies in the use of MM campaigns.

Based on existing knowledge, we believe that MM campaigns can be used more effectively as a part of this transition process scheme. Such campaigns can constitute the cement that glues together the effects of individual measures in order to reach a holistic change. However, as this article has shown, the full potential of MM campaigns to change social norms and attitudes in a more holistic manner is not being fully utilized. In order to maximize the effect, we present a set of changes both in the design of the campaigns as well as in their strategic use.

MM campaigns should not focus solely on the individual effect of specific campaigns in terms of economic or health factors – as recommendations often do, for instance TemaNord (2005) – but they should recognize the potential of being part of a larger scheme.

Travel-awareness campaigns are carried out on a regular basis on the local level, but the interest and knowledge level on how such measures can contribute to generally sustainable behaviors, planning policies, and agendas in a broader sense seems to be low. Thus, there is a need to initiate a discussion on the current practices on the local as well as the national level.

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