Chapter 9

The Use of Social Marketing in Promoting Cycling

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Introduction

This chapter explores the use of social marketing to increase the use of the bicycle as a mode of everyday travel. The most significant component of cycling provision is infrastructure that is suitable and fit for purpose for cycle traffic. Promoting the use of the bicycle can also include the encouragement of cycling through education, training and economic levers such as the pricing of alternative forms of mobility. In this chapter we contend that social marketing should be added to this list of tools and techniques.

The popularity and level of use of a particular transport mode will broadly result from two factors: the quality of experience of that mode and the clarity of understanding of these qualities by potential users. On this basis, capital investment in networks for cycle traffic may be a necessary but insufficient condition to bring more cycling 'to the market'. Additional investment in behaviour change programmes may be needed to increase the quantum of change.

To be effective, we argue that programmes to promote cycling should adopt social marketing principles, and we define these in the next section. In the next step, we discuss behaviour change theories and evidence from the literature on behaviour change in relation to cycling. Based on this, we provide an example of an approach that applied social marketing to cycling in Bristol. The final section provides a conclusion with recommendations for policy makers.

Social Marketing Principles and Cycling

Principles

Marketing is concerned with understanding what customers would like, and then creating products and services that suit their needs. Thus, marketing is a management process, typically involving extensive customer research, segmentation of markets, product and service development, the creation of brands, consideration of issues around location and accessibility, and finally,

communication designed to maximize their motivational and persuasive potential. Social marketing is the application of these marketing principles to influence behaviour in such a way as to benefit individuals and society. Social marketing creates a blend of interventions to create a tangible proposition, or offer, to the customer or potential customer. A proposition might contain products, services, support structures, and motivational incentives, all supported by a communication strategy (Andreasen 2006). As far as cycling is concerned, this could be physical infrastructure such as a cycle network or cycle hire scheme, or other activities such as bicycle repairs services, employer support for cycling at the workplace, competitions, and the provision of more general information related to cycling.

However, marketing is as much a philosophy as a management process. Peter Drucker's (1954) famous quote about marketing is useful to recall:

> Marketing is not only much broader than selling, it is not a specialized activity at all, it encompasses the entire business. It is the whole business seen from the point of view of the final result, that is, from the customer's point of view. Concern and responsibility for marketing must therefore permeate all areas of the enterprise.

Drucker introduced the idea of marketing as a philosophy that places the customer at the heart of the activities of a company. Further, he suggested that this customer focus should be of central concern to everyone in the company, not just a 'marketing department'.

This idea of a comprehensive proposition, which is underpinned by a philosophy of different departments and professionals all working together to place the citizens' needs first, is infused within the field of social marketing. This means that, in practice, social marketers will typically need to work with other professionals to bring about change. One possible example includes how transport planning research may reveal that potential cyclists are discouraged from cycling because of motor traffic speed. To be effective, a solution involving a lower speed limit (a change to the way the infrastructure is, and can be, used) would need to be developed (by policy makers, the police, and so on) and delivered within an overall approach that positively frames the measure in social terms. This positive framing of the proposition is where social marketing becomes particularly important. Social marketers use a process that involves a series of steps, which we have summarized as shown in Figure 9.1.

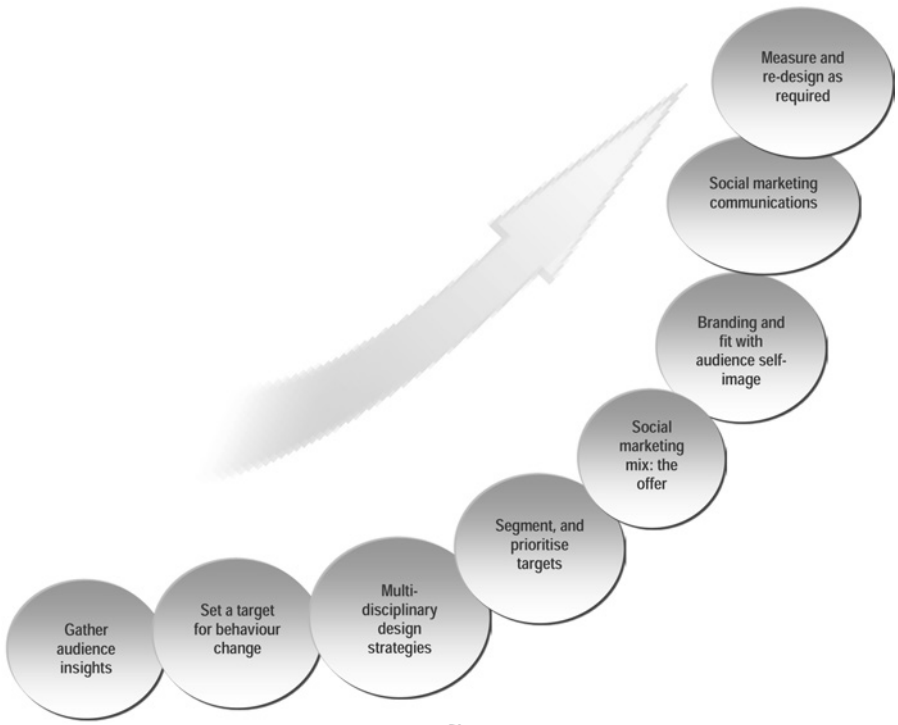

Figure 9.1 Stages in a social marketing intervention

Source: Authors, based on Kotler et al. 2002: 35.

Qualitative research provides insights into the psychology, socio-cultural influences, and motivations of the target audience. An overall target for behaviour change may then be set and this will inform the development of strategies designed to create behaviour change. The audience may be segmented into the usual categories of gender, age and other socio-economic variables. In addition, segmentation may also be usefully undertaken based on an individual's readiness to change his or her behaviour. The proposition, described in Figure 9.1 as the 'marketing mix' (or the offer), is then defined. Decisions are made about how to develop a brand that is attractive to the audience, and then social marketing campaigns can take place. The measurement of outcomes is an important final stage that allows for re-designing as required.

Application to Cycling

An intention to create behaviour change in transport presents complex issues. These issues include addressing perceptions, infrastructure, and other

inadequacies in services, including support services. A cycling proposition needs to encompass the sum total of the components of a bicycle system, along with the messaging that accompanies that system. In addition to infrastructure, other aspects which create the overall social marketing proposition may include the following:

- Marketing involvement and influence in wider policy issues, such as lowering speed limits.
- Product support, including sales and maintenance. This may be provided by the private sector on a for-profit basis and supplemented as required by public sector activities such as maintenance checks.
- Making cycling as easy as possible. This may be targeted through personalized approaches located at home, and include the provision of maps to aid navigation, for example, or provision or support for cycle training.
- Service/support. Cycling 'buddy schemes' for example, in which an experienced cyclists escorts new cyclists from a convenient point near their home to their workplace using 'cyclist friendly' routes.
- Incentivization activities, for example, based around friendly competition formats such as inter-company 'cycling miles' leagues.
- Communication programmes with a variety of objectives ranging from simple awareness-raising (for example, of a new cycle-route or the health benefits of cycling) to more comprehensive brand building.

Clearly, a heightened level of awareness brought about by communication programmes does not equate with changed motivation to participate in cycling. Brand building (the creation of motivational images that reside in the mind of the target audience) will need to include a very significant array of activities including, but not limited to, the following: information and leaflet dissemination, promotion of and support for social groups, public events on a range of scales, promotion through local media, web-based activities such as blogging and tweeting, work place travel planning and work with employers, school travel planning and work in schools and colleges, and personalized travel planning including with new residents. Social marketers might use a variety of media and communication techniques to build a brand around general concepts that may be linked to, for example, freedom, enjoyment, or health.

More strategically, social marketers can adopt the broad approaches of commercial marketers in seeking to 'normalize' cycling while possibly de-normalizing alternatives (Wright and Egan 2002). Such wholescale development of social norms for sectors of society is challenging, and requires action in a

range of domains in the marketing mix, as determined by research on current motives and behaviour.

In summary, social marketers seek to understand the citizens' viewpoint, and then to use that knowledge to create, with other professionals, attractive measures to influence behaviour towards actions that benefit both the individual and society.

For a range of transport modes, but especially for cycling, important additional factors relate to population segmentation-based propensities to change behaviour. The processes of social marketing provide the approaches to 'customer management' that underpin programmes of behaviour change. For example, such customer management will need to separate the phase of acquiring new cycle users from the phase of retaining those cyclists. Figure 9.2 illustrates this point, with some suggestions about the different sorts of messaging that might be appropriate at each stage.

A common misconception in most countries has been that social marketing is a form of communication without any relationship to the nature of the proposition. With this approach, activity would only be communication-based,

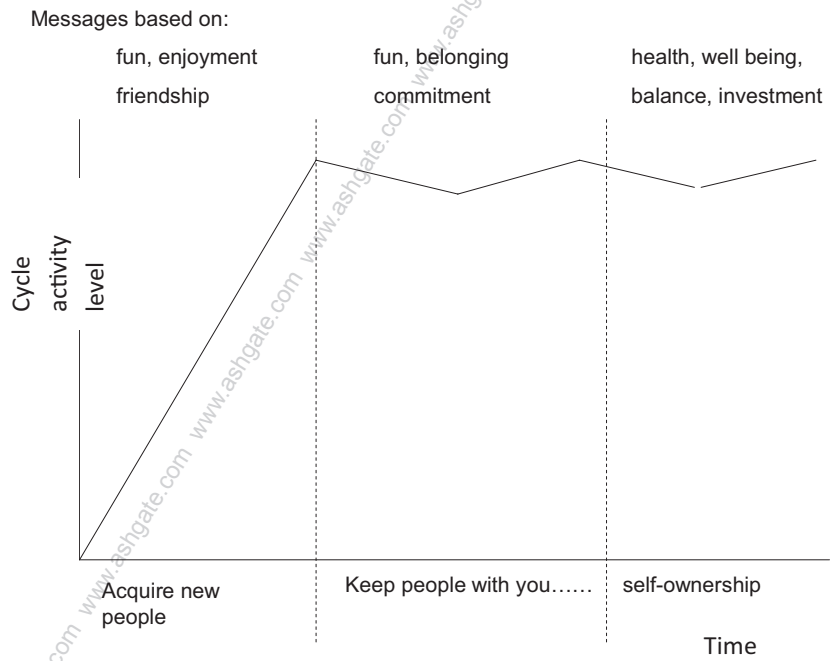

Figure 9.2 Acquisition and retention programmes over time against cycling activity level

such as posters, leaflets and advertisements.[1] This may happen due to a generally low level of knowledge of and skill concerning what cycling is, and how it should be catered for. The natural tendency is to focus on the most visible component of marketing: advertising. There is a corollary here with engineering for the bicycle: the most obvious way of demonstrating that you have provided for cycling is to paint a cycle lane. Neither of these approaches is likely to be effective. Such a communication-based approach is often seen in marketing campaigns in the cycling sector, where posters typically promote cycling as 'fun' and 'healthy' while suggesting one should 'try it'. While enjoyment and healthiness, as noted above, may be important constituents in building a brand, a holistic approach to the creation of the brand is required that goes beyond the communication strategy.

Researching such general promotion campaigns with a target audience typically elicits responses that suggest they are 'unconvinced' or 'not motivated' to change their behaviour. The reason these approaches are weak is that they do not address directly the barriers to greater uptake that cycling suffers from. These include the following (Davies et al. 1997): lack of status; danger from traffic and traffic fumes; personal safety fears and sexual harassment; cycle theft and vandalism; weather and hills; personal image; cycle technology; and purchase and maintenance difficulties. At a more systematic level, but linked only to commuting, Heinen et al. (2010) identify the following issues: trip distance, network layout, mixture of land uses, type of cycle facility and its continuity, on-road car parking, forms of control and priority, surface quality, bicycle parking provision, hilliness, weather and daylight, sex and a variety of socio-economic factors, the effect of which can be heterogeneous between countries.

Where promotional programmes have existed for cycling, they have often been part of Smarter Choices programmes.[2] Often different behaviour change activities are bundled together. For example, Cairns et al. (2008) identified 10 types of measure to create behaviour change in relation to transport as follows: workplace travel plans, school travel plans, personalized travel planning, public transport information and marketing, travel awareness campaigns, car clubs, car sharing schemes, teleworking, teleconferencing and home shopping. The promotion of cycling is merely one strand in an overall focus to reduce motor car use. As far as cycling in particular is concerned though, these comprehensive

1 One author (Tapp) calls this the SPLAT effect 'Some Posters, Leaflets, Adverts and Things'.

2 Smarter Choices are techniques for influencing people's travel behaviour towards more sustainable options, such as walking, cycling, travelling by public transport and car sharing. They include: information provision, marketing; improving services and how they are organized; providing new services focussed on a target market; providing options that reduce the need to travel (Sloman et al. 2010).

programmes of transport change would need to be unbundled in order to provide a clear analysis of their effect on cycling.

Behaviour Change and Cycling

In this section, we present and discuss theories of behaviour choice and behaviour change. We then go on to discuss research on behavioural choice in relation to cycling.

Theories of Behaviour Choice and Behavioural Change

There are many possible ways of creating a 'behaviour change intervention'. Therefore, a good place to start is with the insights that theory offers. Donovan (2011) divides behavioural theory broadly into two domains: cognitive decision models and social change models. However, we report theory and its development broadly as a continuum over time, recognizing that the latest developments are merging aspects from these two domains.

A common method of understanding behavioural choice in the context of transport has been based on Utility Theory drawn from economics. The theory suggests that individuals maximize their utility within their budget constraints and their demands depend on prices, income and their preferences (or 'tastes') (McFadden 2002). Utility Theory cannot measure the overall utility of travel, but it can compare choices between discrete options. Utility for a particular option is reduced by the monetary costs of travel, travel time (which is typically weighted based on whether it is time in a vehicle, time walking, or time waiting), and other factors relating to preferences. The unit typically used to measure transport utility is the 'generalized cost minutes' of travel time in a vehicle. Monetary costs are converted into generalized cost minutes using a 'value of time'. The simple assumption in utility theory is that a policy intervention that changes a person's utility towards two competing modes to a great enough extent will result in that person switching modes. Social marketers conceptualize these arguments as 'exchange theory', and this idea of 'exchanging' one behaviour for another is one of the underpinning principles of social marketing (Kotler et al. 2002).

However, simple exchanges remain far from the whole story on behaviour change influenced by marketing. Tversky and Kahneman (1981) report from a variety of experiments that outcomes which are positively framed as gains will lead to respondents selecting courses of action that are risk averse, even when there is a probability of even larger gains by taking other actions. Conversely, outcomes that are framed as losses lead respondents to select courses of action that are risk taking, even when alternative courses of action are certain to result

in fewer losses. They note, therefore, the importance of the decision frame: the same outcomes may be presented as gains or losses from a neutral starting point.

Tversky and Kahneman developed Utility Theory into Prospect Theory by applying what they call 'decision weights' to these probabilities, in order to account for the two different approaches to risk resulting from the nature of the outcome. In addition, Prospect Theory associates values to outcomes to account for responses to losses being more extreme than responses to gains. Tversky and Kahneman also make the point that the positioning of the neutral reference point is important.

Tajfel (1981) developed Social Identity Theory, which suggests that comparisons between social groups become a dominating feature of interaction between individuals in these different groups. Extending on this basis, Cialdini et al. (1991) developed Social Norm Theory which suggests that we shortcut decision making by choosing behaviours based on social norms. They define three types of social norms: a descriptive norm, based on the perception of how others behave; an injunctive norm, based on the perception of the approval or otherwise of an individual's conduct by others; and a personal norm, based on how an individual would assess his or her own conduct. Social norms are the expected behaviours of a group of people to which an individual considers they belong. Norms act as cognitive by-passes, that is, mental heuristics that enable people to make rapid decisions without the effort of considerable cognitive processes (Cialdini 2007). Norms create pressures to behave in a certain way: it is easier to 'go with the flow', than to resist social pressures and behave contrary to the norm. Someone cycling in a car dominant society is, by definition, resisting the social norms of that society.

It is possible to influence social norms though. Sometimes a 'false consensus' can build up in which only a minority hold a view, but they mistakenly think they are the majority. A classic example is the case of college drinking in the US, in which new students mistakenly believe that they 'should' get drunk numerous times in order to 'fit in'. Social marketers countered this misperception through the use of 'social norm campaigns' (Berkowitz 2004) with messages such as '80 per cent of students have less than four drinks on a night out'. In car dominant societies, such as the UK, a 'consensus' of opinions may build amongst minorities, for example, that 'roads are for cars' and bicycles are for leisure rather than transport. Marketing techniques can thus help to counter such misconceptions.

Ajzen (1985, 1991) provides a rather more encompassing approach which he called the Theory of Planned Behaviour (TPB). He suggests that intention and subsequent behaviour are determined by three variables. The first variable is the attitude to a behaviour and is measured as the sum of beliefs about an outcome and the value of the outcome. In the context of transport, the beliefs

about an outcome may be about likelihood of expenditure in money and time, as well as risk.

The second variable of TPB is the subjective norm, providing an operationalization of parts of Social Norm Theory. This is the sum of the products of beliefs of 'significant' other people and an individual's motivation to comply with the beliefs of others. The result of this product is a variable that expresses the extent to which a person may think the people who matter to her or him would expect her or him to travel in a certain way. The final variable is termed the perceived behavioural control and is the sum of individual measures of control. In the context of transport this may include limits on time and money, or car availability.

Wider social and cultural influences are also important. A particular type of influence may be explained by 'diffusion theory' or the 'innovation model' (Rogers and Shoemaker 1971; Rogers 1983). In this theory, the market is divided into categories as follows:

- innovators: the venturesome, maverick, experimental minority;
- early adopters: like to be in established forefront of ideas, trendsetters;
- early majority: will follow a trend but need peer leaders (early adopters);
- late majority: will come on board when it is clear that most people are going along; and
- laggards: resist change, suspicious and may never change at all.

In theory, for example, cyclists and non-cyclists across the population as a whole may be placed within each of these categories, and marketed to accordingly.

Thinking in a similar way, a 'stages of change' model was developed by Prochaska and DiClemente (1983; see also Prochaska et al. 1992; Prochaska and Velicer 1997). Their Trans-Theoretical Model (TTM) of behavioural change arose from work in the health field. The model is constructed in five stages as follows: pre-contemplation (no intended action); contemplation (awareness that change may be necessary); preparation (intention to take action created); action (behaviour is changed); and maintenance (work to prevent relapse). A further model that postulates stages is the Health Action Process Approach (HAPA; Schwarzer 2008) which has a motivational phase and a volitional phase. The volitional phase is divided into the stages of planning, action, and maintenance.

Bamberg (2013a, 2013b; see also Bamberg et al. 2011) has developed a 'stage model of self-regulated behavioural change' which usefully brings together the powerful contribution of the Theory of Planned Behaviour (which in Donovan's terms is a cognitive decision model) with models of the stages-of-change type (a model of the social change type). He uses Heckhausen and Gollwitzer's (1987) model of action phases (MAP) in a study of car use and future car use, which comprises the following four stages: pre-decision, pre-action, action and

post-action. In addition to the TPB, he uses Schwartz and Howard's (1981) Norm-Activation Model (NAM) to investigate these three transitions. The NAM interprets behaviour that has environmental consequences as pro-social, or even altruistic, and assumes these acts have as their initiation a personal moral norm. His results confirm the view that 'goal intention' is required to lead into the pre-decision stage, 'behavioural intention' is required to lead into the pre-action stage, and 'implementation intention' is required to lead into the pre-action stage. Bamberg also notes that a greater theoretical under-pinning and more (particularly non-cross-sectional) studies are required to help confirm his initial findings.

Importantly, the results suggest that behavioural change interventions, social marketing, or otherwise need to match the stages: pre-decision activities may include awareness raising and personal responsibility; pre-action activities might be concerned with information about carrying out specific actions; and the action stage may need no additional intervention.

In addition, Bamberg (2012) provides an extension to the Theory of Planned Behaviour by suggesting a model that would need to be empirically tested on the decision about whether to cycle or not. This model, as TPB models relating to transport tend to do (e.g. Forward 1998), accounts for the impact of habit.

The Health Belief Model assumes an action is undertaken because it will reduce the threat of poor health. The model is over 50 years old (see for example Hochbaum 1958) and the idea is simple: people are motivated to act in order to maximize their health, and the more susceptible they are, or the more severe the possible consequences, the more they are motivated to behave in healthy ways. In reality, there are often confounding factors: people often do not monitor their own health; short-term pleasures often override long-term health concerns; there may be doubts about causal links between behaviours and health consequences; and so on. With a rather different emphasis, Protection Motivation Theory (Rogers 1975) stresses the importance of self-efficacy, implying that personal confidence, skills and control are crucial in being able to undertake the healthy behaviour.

Social Learning Theory (Bandura 1977) assumes actions are undertaken because they are learned behaviours derived from observing family or friends. The idea of social learning theory is that new behaviour can be learned by both experiencing social reinforcement and approval when the behaviour is enacted, and by observing the approval given to other people's similar behaviour. Compare, for example, how responses may vary amongst different groups of work colleagues to someone arriving in an expensive new motor car, as compared with someone arriving by bicycle.

Social marketing has tended towards theories based on individual decision making, as noted above. However, such models tend to underplay the importance of social, cultural and environmental factors on behaviour. Social Practice

Theory begins to fill this gap, with Reckwitz (2002), for example, who provides the basis of a so-called three-elements model where behaviour is described in relation to the following: materials, which includes 'things', technologies and tangible physical entities; competences, which include skill and know-how; and meanings, which include symbolic meanings as well as ideas and aspirations. Shove et al. (2012) emphasize the importance of the relationship between these three elements and suggests that practices change or develop based on the nature of the relationship between the elements. Williams (2015) uses the theory as part of the basis for understanding change in the transport market as part of the UK-wide Local Sustainable Transport Fund investment of £1.2 billion (capital and revenue), which was designed to create population level shifts to more sustainable travel.

The Social Ecology Model (Collins et al. 2010) is a similar sociologically-oriented model that adds to the theory and practice of social marketing. It proposes a multi-level framework that operates at both the micro-social and the macro-cultural level. In relation to cycling at the micro-social level, for example, adolescents may behave anti-socially to passing cyclists in response to peer pressure. At the macro-cultural level, a country wide 'car culture' generates an unspoken expectation concerning the normality of owning and using a car (even for short journeys), while using a bus is seen as a 'poor man's transport'.

The notion that social marketers should concern themselves with behaviour in social contexts rather than in isolation is gaining momentum in the literature (Andreasen 2006). In particular, Bronfenbrenner's (1974) original ideas for social ecology have been increasingly considered, particularly in health fields. He envisioned that the social environment has a set of four structures nested around the developing individual, similar to Russian dolls (Bronfenbrenner 1994). The innermost level, the *microsystem*, consists of all the activities, social roles and interpersonal relations that the individual experiences in a particular face-to-face setting. Examples include interactions with family, friends, peers and colleagues. The second level is the *mesosystem*, which he characterized as the 'systems of microsystems', and includes the links and processes that occur between the settings containing the individual. Examples include school, workplace, church, club or neighbourhood. The third level, *exosystem*, includes systems that indirectly influence processes within the individual's immediate settings. Examples include the media, local government policy, or transportation facilities. Finally, the *macrosystem* is the overarching configuration of a given culture (or subculture) incorporating 'belief systems, bodies of knowledge, material resources, customs, lifestyles, opportunity structures, hazards, and life course options' (Brofenbrenner 1994: 40), which all form the cultural blueprint for structures and activities at the other levels.

Behaviour Change in Relation to Cycling

Yang et al. (2010), in a systematic review of research into the promotion of cycling, found six studies that met their inclusion criteria: four were controlled studies and two were randomized controlled trials. Of these six, four found increases in levels of cycling. One intervention was targeted at women with abdominal obesity and one at school children. Of the four aimed at the level of the population, the highest increase in the prevalence of cycling in the population, or the proportion of trips made by bicycle, was found to be 3.4 per cent points. None of the population level studies was based on the testing of any particular theory of behaviour change though. A further 19 studies were targeted at behaviour change more generally, but none was found to create an increase in levels of cycling.

The approach to interventions to date appears to have been based on the general assumption that a wide range of initiatives may increase the use of cycling. Evidence from monitoring the Cycling Demonstration Towns investment in England (one of the studies included by Yang et al.) concludes that 'sustained and well-designed' investment is sufficient to increase cycling. These investments included both infrastructure provision and a range of other social marketing initiatives. Based on available evidence, it was not possible to conclude which interventions were most successful (Sloman et al. 2009). If the contribution of individual interventions cannot be proven, then nothing can be said about the most appropriate combination of interventions.

By specifically employing the trans-theoretical model of behaviour change (Prochaska and DiClemente 1983), Gatersleben and Appleton (2006) found that university staff and students' attitudes to cycling became more positive as they progressed from pre-contemplation to action and their perception of barriers changed. They concluded that different strategies of promotion are needed for people at different stages of the process.

Handy et al. (2014) provides a useful summary of current research needs and challenges in relation to cycling promotion. Inter alia, they note the lack of knowledge about the relative importance of such support structures such as shops and repair facilities. They point out that despite a significant increase in cycle-related research, we still know little about individual factors such as attitudes and preferences in relation to cycling, or factors relating to the households or larger aggregations such as community or city. The most significant point made is that there remains a dearth of studies directly evaluating the effectiveness of strategies to change travel behaviour.

Taking a slightly different and longer term view, Jones (2013) researched change and continuity in individual cycling behaviour over the life course. She found that behaviour change often accompanied changes in residence, employment, family structure and mobility resources, and that there is potential

for behaviour change throughout the life course for adaptive and restorative changes in behaviour. An adaptive behaviour is a behaviour change resulting from the need to account for a different set of circumstances (different journey length required, different journey purposes). A restorative behaviour change allows for the re-commencement of a behaviour that has been prevented for some time (for example, an inability to cycle due to an intervening need to escort children). Early cycling experiences were found to be very influential. Differences based on gender and between age cohorts suggest that different behaviour change mechanisms may be required to influence restorative behaviour. The understandings arising from this work may help in the analysis of models of behaviour change based on the Theory of Planned Behaviour.

Chatterjee et al. (2013) used in-depth interviews to find out why people start, stop or significantly change the amount they cycle. They found that life events were usually the trigger for a change in cycling but external changes to the bicycle environment played a facilitating role in enabling change. This suggests that any support provided by transport planning professionals should be targeted at those who are in the throes of life changing events. Adopting a quantitative approach, Clark et al. (2014) used longitudinal UK household data and found a strong association between changes in car ownership and commute mode, and the following life events: employment changes, residential relocations, retirement, child birth and changes in household structure. The data showed, for example, that urbanizing and ruralizing moves have contrasting effects on travel behaviour.

Conclusion

Despite the lack of empirical evidence in relation to interventions and cycling, it is important for transport planners and social marketers to apply relevant and tested theory, and to ensure that interventions are designed in an effective way to address the issue at hand. As far as cycling is concerned, factors relevant in the creation of an overall proposition include the following: appropriate provision of infrastructure, support for personal efficacy at cycling and hence educational and perhaps social support, the need to alert potential users to the benefits of cycling, and the requirement for equipment and support structures (for example, secure parking and maintenance support). 'Social norming' communication campaigns or brand building programmes may also be needed; these help to create an image of cycling that accords with the desired self-image of the target audience.

Social Marketing in Practice

Using the approach of a 'stages of change' model, non-cyclists will be pre-contemplators, contemplators and preparers, and then if they take up cycling they will become actors and then maintainers (Trans-Theoretical Model of behaviour change; Prochaska and DiClemente 1983). Each of these stages requires different offers in order to lead the individual to the next stage. A first-time cyclist may find routes that are free from motor traffic attractive; a person who was previously a cyclist and who is returning to cycling (restorative behaviour as per Jones 2013) may need something different, such as a work colleague as a 'cycling buddy'.

The specific actions and communications that form the social marketing 'mix' are a response to the variability in individual characteristics. Importantly, the mix needs to provide the materials, the competences, and the meanings (following Reckwitz 2002) that would provide what may be called the 'social freedom' to make a choice different to their current choice.

Let us now consider social marketing principles 'in action'. One of the authors (Tapp) developed a social marketing strategy for Bristol between 2008 and 2012, which was the largest urban area (population 440,000) to take part in the UK-wide Cycling Cities and Towns (CCT) programme that ran from 2009 to 2012. The strategy (Tapp and Bird 2009) was developed from a series of research projects (see Tapp et al. 2010; Leonard and Spotswood 2010; Leonard 2010). The research, and subsequent strategies adopted were based on addressing the following problem: persuading those who had not cycled before to try cycling. Each step is discussed in turn below, as per Figure 9.1.

Gathering Audience Insights

Non-cyclists who are contemplating cycling will think about, and react very differently to, the idea of cycling compared to existing cyclists. In the early days of the CCT programme, there were a considerable number of consultative sessions with the public, but these were often attended and dominated by cycling activists, some of whom had particular interests that may or may not have aligned specifically with the overall objective of increasing levels of cycling, particularly amongst current non-cyclists. This meant that it was particularly important to reach the target audience of current non-cyclists through the wider range of qualitative research. We found that the attraction of cycling to non-cyclists was linked with personal freedom, which people defined as a 'space' in the day that people could call their own, and which was relaxing and pleasant. It was also noted that opportunities for change arose from disruptions to habits, for example, switching a job, moving, or health scares. Of course, a decision for modal change is unlikely to be at the top of someone's mind during

such disruptions. This suggests that marketing might need to be quite assertive in order to *interrupt* automatic behaviour.

The first part of our research was a qualitative project that explored the barriers and motives of non-cyclists with respect to cycling (Leonard and Spotswood 2010). We found that some of the non-cyclists' barriers to cycling were actually quite weak, not particularly deep seated, and hence not difficult to overcome. Attitudes that we recognized as being vulnerable to counter-persuasion included the following: 'It takes too long to get to work', 'I get sweaty', and 'It's all busy roads'. We decided that changing the perceptions about these attitudes may best be achieved through personal discussions; for example, through workplace talks from travel planners, or through personalized travel planning initiatives. Similarly, we found that positive attitudes and beliefs about the benefits of cycling that were created in childhood were often buried or forgotten (see Figure 9.3) and we considered how there would be value in stimulating their re-emergence – particularly feelings of wellbeing, or the satisfaction felt on achieving goals.

Figure 9.3 Qualitative research findings with non-cyclists: Possible benefits of cycling

Setting Targets for Behaviour Change

Targets may be best set by splitting the problem into two parts. The first part is about 'acquisition', or attracting non-cyclists to cycle for the first time, and the second part is about 'retention', or ensuring that cycling becomes a habit. Based on the requirements of the bidding to fund the investment, Bristol City Council had a target to double the number of cycling commuters within three years, which meant attracting 20,000 new cyclists, and of course keeping these new cyclists cycling. It should be noted that a target set for external funding reasons is likely to be less achievable than a target derived from analysis of the audience.

Creating Multi-Disciplinary Strategies

The relevant professions in relation to cycling as transport are transport planners, highway engineers and traffic engineers, cycle trainers, workplace travel planners, and third sector professionals in charities and advocacy groups. These professionals act within a decision-making and administrative regime that is supported by a much wider range of individuals, such as politicians, lawyers and administrators. Input into the design of networks for cycle traffic is based on a range of factors including factors linked with physical geography and socio-demographics. The team within Bristol worked very well together to create suitable infrastructure improvement, and a basis for communicating the benefits of that investment.

Segmenting and Targeting

Segmentation may be as straightforward as simply using gender, age, income, and social class relative to current and possible future frequency of cycle use. More detailed data is also available on spending behaviour, time use, and so on from organizations that collect and sell such data to marketers. Such data can help in the development of the overall cycling offer, including infrastructure planning and promotional campaigns. Research insights into market segments help marketers communicate the benefits of cycling in the most appropriate way to each geo-demographically defined audience.

Bristol Cycling City utilized a geo-demographic approach to segmentation (Tapp and Bird 2009) using various public data (e.g. the UK Census) linked to household addresses in order to map segments according to where people live (Tapp 2008). A number of priority target segments were identified by overlaying known cycling data onto the geo-demographic map and identifying those segments with high existing cycling levels. These provided the most promising target areas. However, other priorities and consequent message platforms were also identified. Examples of groups to be targeted included:

- 'Well-off executives'. This group's characteristics include a sense of social competitiveness and an awareness of health and fitness benefits over the long term.
- 'Young families with large mortgages'. These families may be quite materialistic, with high outgoings and few savings. Promoting cycling was difficult in areas without segregated paths. Message platforms identified through qualitative work included economic reasons such as guaranteed time to work, saving fuel for adults or riding to school for children.
- 'Students and young graduates in central city areas'. These offered major opportunities for cycling, using concepts such as 'freedom', 'lifestyle', 'green living' or 'fitness'.

The Social Marketing Mix

As discussed above, social marketing is concerned with products, services, support structures, motivational incentives, and communication. We developed a wide range of service and support functions for Bristol which included workplace schemes such as cycling 'buddy' systems (where new cyclists ride with volunteer experienced cyclists for a while), and BikeDoctor (free or low-cost bike repair schemes). Motivational incentive schemes are many and varied, but an example could be workplace challenges with competitions or personal challenges based on recording journeys, perhaps using electronic devices, and/or using web page listings for performances.

Communications

Marketing communication works best when undertaken through face-to-face activity, offers, products, events, and services. Cycling promoters can use marketing communication in the following ways:

- to develop an awareness of and information about *specific offers* such as a free service (but not for *general messages* such as 'cycling makes you healthier');
- to provide 'emotional hooks' in order to trigger new behaviour or to break habits by raising an awareness of complex issues such as, for example, health benefits;
- to improve brand image;
- to re-educate about actual rather than perceived social norms;
- to engender excitement, a sense of occasion and a sense of identity and belonging; and
- to change the nature of public discourse, for example, about congestion, through public meetings.

The key to success is likely to lie in the integration of appropriate communication strategies in the overall strategy, and in ensuring that communication activity is aligned with the appropriate stage in the programme and with the needs of the target audience. In Bristol, work that concentrated on raising basic awareness and interest in the new cycling pathways created by the Cycling City project, and also improving the 'brand image' of everyday cycling amongst non-cyclists, is discussed next.

Brand Building

Brands could be built around functionality or symbolism. Functional branding communicates the value to the user in terms of what of the product or service 'does' for the user, while symbolic branding communication is concerned with what the product will allow the user to 'say' about themselves (de-Chenatony et al. 2011). Hence, for cycling, symbolic branding may communicate that 'cycling is cool', while functional branding may portray cycling as cheaper, faster or more convenient. As discussed above (Leonard and Spotswood 2010), our work in Bristol suggested the importance of freedom, well-being, personal space, and cycling for a 'better world', which emphasized the need for symbolic branding. These 'message platforms' enabled some brand concepts to be created and tested (Leonard et al. 2010), and campaigns used outdoor media aimed at the city as a whole, as well as door-drops targeted to specific different segments as discussed above. The concepts that were received most positively within the research are illustrated in Figure 9.4.

Figure 9.4 Cycling Brand campaign execution (left and above)

Source: The authors would like to thank Bristol City Council and Stuff Advertising for their kind permission to reproduce these images.

Measure and Re-Design

Evaluation of the outcomes of the programme should be undertaken as time progresses. In addition, adjustments should be made to the approach in the light of the results.

Conclusion and Recommendations

In this chapter, we have made the case that social marketing of cycling for travel purposes should form an integral part of the overall cycling promotion strategy. We reviewed a range of economic, social-psychological and sociological theories that are relevant in relation to behaviour change. We note, however, that there is still relatively little research on the efficacy of different behaviour change interventions in relation to transport, and fewer still in relation to cycling. There is, however, an increasingly strong evidence base, mainly in health-related fields, which supports the use of social marketing to influence behaviour (see, for example, Eagle et al. 2013). On this basis, though the question about how best to develop social marketing campaigns for promoting cycling remains relatively open, there is a good case for increasing its use and evaluation.

Notwithstanding these debates and based on experience in social marketing cycling in Bristol, we have presented suggestions about the way that social marketing as a technique needs to be embedded at a strategic level in the development of programmes to promote cycling. We have also presented suggestions on specific tactics that may be employed to promote cycling.

We recommend that policy makers recognize that to be successful, cycling promotion needs social marketing to be integrated as a function alongside other functions such as transport planning and engineering design. We also recommend that policy makers ensure that programmes to engender transport behaviour change include, as part of their funding, independent research to evaluate the efficacy of different behaviour change approaches. This will help to build a strong evidence base and to further develop theory in relation to transport behaviour change.

References

Ajzen, I. 1985. *From Intentions to Actions: A Theory of Planned Behaviour in Action Control from Cognition to Behaviour*. Kuhl, J. and Beckmann, J. (eds). Berlin: Springer Verlag.

——— 1991. The Theory of Planned Behavior. *Organizational Behavior and Human Decision Processes*, 50, 179–211.

Andreasen, R.A. 2006. *Social Marketing in the 21st Century*. London: Sage Publications.

Bamberg, S., Fuji, S., Friman, M. and Gärling, T. 2011. Behaviour Theory and Soft Transport Policy Measures. *Transport Policy*, 18(1), 228–35.

Bamberg, S. 2012. Understanding and Promoting Bicycle Use – Insights from Psychological Research. In: Parkin, J. (ed.) *Cycling and Sustainability*. Bingley: Emerald.

——— 2013a. Changing Environmentally Harmful Behaviors: A Stage Model of Self-Regulated Behavioral Change. *Journal of Environmental Psychology*, 34, 151–9.

——— 2013b. Applying the Stage Model of Self-Regulated Behavioral Change in a Car Use Reduction Intervention. *Journal of Environmental Psychology*, 33, 68–75.

Bandura, A. 1977. *Social Learning Theory*. Englewood Cliffs, NJ: Prentice Hall.

Bronfenbrenner, U. 1974. Developmental Research, Public Policy, and the Ecology of Childhood. *Child Development*, 45(1), 1–5.

——— 1994. Ecological Models of Human Development. *International Encyclopedia of Education*, 3(2). Oxford: Elsevier.

Berkowitz, A.D. 2004. *The Social Norms Approach: Theory, Research and Annotated Bibliography*. New York: Independent Consultant.

Cairns, S., Sloman, L., Newson, C., et al. 2008. Smarter Choices: Assessing the Potential to Achieve Traffic Reduction Using 'Soft Measures'. *Transport Reviews*, 28(5), 593–618.

Chatterjee, K., Sherwin, H. and Jain, J. 2013. Triggers for Changes in Cycling: The Role of Life Events and Modifications to the External Environment. *Journal of Transport Geography*, 30. 183–93.

de-Chenatony, L., McDonald, M. and Wallace, E. 2011. *Creating Powerful Brands*. Oxford University Press.

Cialdini, R. 2007. *Influence: The Psychology of Persuasion*. HarperCollins: NY.

Cialdini, R.B., Kallgren, C.A. and Raymond, R.R. 1991. A Focus Theory of Normative Conduct: A Theoretical Refinement and Re-Evaluation of the Role of Norms in Human Behaviour. *Advances in Interventional Social Psychology*, 24, 201–34.

Clark, B., Chatterjee, K., Melia, S., et al. 2014. Examining the Relationship between Life Transitions and Travel Behaviour Change: New Insights from the UK Household Longitudinal Study. 46th Universities' Transport Studies Group Conference, Newcastle University, 6–8 January 2014.

Collins, K., Tapp, A. and Pressley, A. 2010. Social Marketing and Social Influences: Using Social Ecology as a Theoretical Framework. *Journal of Marketing Management*, 26, 13–14, 1181–201.

Davies, D.G., Halliday, M.E., Mayes, M. and Pocock, R.L. 1997. Attitudes to Cycling: A Qualitative Study and Conceptual Framework. TRL Report 266. Transport Research Laboratory. Crowthorne.

Donovan, R. 2011. Theoretical Models of Behaviour Change. In: Hastings, G., Angus, K. and Bryant, C. (eds) *The Sage Handbook of Social Marketing*. Sage: London.

Drucker, P.F. 1954. *The Practice of Management*. New York: Harper and Brothers.

Eagle, L., Dahl, S., Hill, S., et al. 2013. *Social Marketing*. Pearson: Harlow.

Forward, S.E. 1998. Behavioural Factors Affecting Modal Choice. Project ADONIS UR-96-SC.326. 4th framework. Swedish National Road Transport Research Institute. Linkoping, Sweden.

Gatersleben, B. and Appleton, K. 2007. Contemplating Cycling to Work; Attitudes and Perceptions in Different Stages of Change. *Transportation Research Part A*, 41, 302–12.

Handy, S., van Wee, B. and Kroesen, M. 2014. Promoting Cycling for Transport: Research Needs and Challenges. *Transport Reviews*, 34(1), 4–24.

Heckhausen, H. and Gollwitzer, P.M. 1987. Thought Contents and Cognitive Functioning in Motivational Versus Volitional States of Mind. *Motivation and Emotion*, 11, 101–20.

Heinen, E., van Wee, B. and Maat, K. 2010. Commuting by Bicycle: An Overview of the Literature. *Transport Reviews*, 30(1), 59–96.

Hochbaum, G. 1958. Public Participation in Medical Screening Programmes: A Socio-Psychological Study (Public Health Service Publication no 572). Washington DC: Government Printing Office.

Jones, H. 2013. Understanding Walking and Cycling Using a Life Course Perspective. PhD, University of the West of England.

Kotler, P., Roberto, N. and Lee, N. 2002. *Social Marketing: Improving the Quality of Life*. Thousand Oaks, CA: Sage Publications.

Leonard, S. and Spotswood, F. 2010. The Image of Cycling in Britain. Research Report, Stage 2: Qualitative. Report for Bristol City Council: BSMC.

Leonard, S., Rhodes, C. and Spotswood, F. 2010. The Image of Cycling in Britain. Research Report, Stage 3: Concept Testing. Report for Bristol City Council: BSMC.

McFadden, D.L. 2002. The Path to Discrete Choice Models. *Access*, 20, 2–7.

Prochaska, J.O. and DiClemente, C.C. 1983. Stages and Processes of Self-Change of Smoking: Toward an Integrative Model of Change. *Journal of Consulting Clinical Psychology*, 51(3), 390–95.

Prochaska, J.O, DiClemente, C.C. and Norcross, J.C. 1992. In Search of How People Change. Applications to Addictive Behaviors. *American Psychology*, 47(9), 1102–14.

Prochaska, J.O. and Velicer, W.F. 1997. The Transtheoretical Model of Health Behavior Change. *American Journal of Health Promotion*, 12(1), 38–48.

Reckwitz, A. 2002. Toward a Theory of Social Practices: A Development in Culturalist Theorizing. *European Journal of Social Theory*, 5(2), 243–63.

Rogers E.M. 1983. *Diffusion of Innovations*. New York: Free Press.

Rogers, E.M. and Shoemaker, F.F. 1971. *Communication of Innovations*. New York: Free Press.

Rogers, R. 1975. A Protection Motivation Theory of Fear Appeals and Attitude Change. *Journal of Psychology*, 91, 93–114.

Schwarzer, R. 2008. Modelling Health Behaviour Change: How to Predict and Modify the Adoption and Maintenance of Health Behaviours. *Applied Psychology: An International Review*, 57(1), 1–29.

Schwartz, S.H. and Howard, J.A. 1981. A Normative Decision-Making Model of Altruism. In: Rushton, J.P. and Sorrentino, R.M. (eds), *Altruism and Helping Behaviour*. Hillsdale, New Jersey: Erlbaum, 189–211.

Shove, E., Pantzar, M. and Watson, M. 2012. *The Dynamics of Social Practice: Everyday Life and How it Changes*. London: Sage, 26–41.

Sloman L., Cavill N., Cope A., et al. 2009. Analysis and Synthesis of Evidence on the Effects of Investment in six Cycling Demonstration Towns. Report for Department for Transport and Cycling England. London: Department for Transport.

Sloman, L., Cairns, S., Newson, C., et al. 2010. The Effects of Smarter Choice Programmes in the Sustainable Travel Towns: Summary Report. London: Department for Transport. Available at: http://www.transportforqualityoflife.com/ [accessed: 15 January 2015].

Tajfel, H. 1981. *Human Groups and Social Categories*. Cambridge: Cambridge University Press.

Tapp, A. 2008. *Principles of Direct and Database Marketing: A Digital Orientation*. Harlow, UK: Pearson Education.

Tapp, A. and Bird, S. 2009. Bristol Cycling City: The Strategic Implications of Behaviour Change Marketing to Double Cycling Levels in Bristol in 3 Years. Report for Bristol City Council: BSMC.

Tapp, A., Spotswood, F. and Leonard, S. 2010. A Case Study of a Social Marketing Brand: The Image of Cycling in the UK. World Social Marketing Conference, Dublin, March.

Tversky, A. and Kahneman, D. 1981. The Framing of Decisions and the Psychology of Choice. *Science New Series*, 211(4481), 453–8.

Williams, D. 2015. Delivering a Step Change in Travel: A Social Practice Approach. Doctoral thesis, University of the West of England.

Wright, C. and Egan, J. 2002. De-Marketing the Car. *Transport Policy*, 7(4), 287–94.

Yang, L., Sahlqvist, S., McMinn, A., et al. 2010. Interventions to Promote Cycling: Systematic Review. *BMJ*, 341, c5293.