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THE LAYERED REALITY OF SUSTAINABLE TRANSPORT CAMPAIGNING

Master´s Thesis
in Future Studies

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Behavior is viewed as largely a result of decisions (or in some cases decisions not to decide) which are essentially choices among alternative futures.

Wendell Bell & James Mau, Sociology of the Future, 1971

1 FOREWORD

This thesis has been done as a part of a FP7-financed project called PLEEC – Planning for energy-efficient cities. PLEEC-project aimed to develop an integrative model for smart cities based on Best Available Practices (BAP's) gathered from 6 middle-sized European cities. The model sought to integrate technological, structural and behaviour change -related aspects of energy efficiency in cities and aimed to create a joint action plan which would offer practical guidelines for energy smart city development. As a part of this project about 30 case studies describing various behaviour change -related intervention studies (e.g. campaigns, promotions etc.) were gathered. These interventions focused on different aspects of energy efficiency and behaviour change. Most of the interventions targeted transport, household energy consumption, energy efficiency in city functions or smaller businesses. The idea of this task was to examine different kinds of practical methods for encouraging energy efficient behaviour in a city setting and to find behaviour related BAP's which could be used to promote and eventually increase energy efficiency in European middle-sized cities.

This work was done as a part of the work for work package 5 (WP5) which concentrated on the behavioural driven energy efficiency potentials in energy smart city development. The aim of this particular task was to gather best available practices regarding various interventions which have targeted energy efficiency related behaviour, and to examine which kinds of methods were used in these interventions (see Kunnasvirta et al. 2015). The material for this thesis was based on 6 transport interventions gathered within the PLEEC-project. The chosen transport interventions were carried out in Finland, Sweden and Estonia and they focus on promoting sustainable modes of transport i.e. public transport and cycling. The geographical scope was in Northern Europe but potential findings may be useful for other countries as well.

2 INTRODUCTION

2.1 Transport sector and the Climate Change

Transport sector is one of the key sectors when considering global CO_2 emissions. It creates approximately 15% of overall greenhouse gas emissions and these emissions have grown by 45 % from 1990 to 2007. Consequently if we continue to develop the current transport volumes without significant changes, the global CO_2 emissions from transport are expected to continue to grow by approximately 40% from 2007 to 2030. (ITF 2010, 5). The EU has tackled this issue for example in the White Paper (EC 2011) on transport. The White Paper has ambitious targets: overall emissions need to be cut by 80–95% below 1990 levels by 2050 to curb climate change. The report suggests that transport related CO_2 emissions should to be cut by at least 60% by 2050 in relation to 1990 levels and this aim could be achieved with gradual cuts. In addition, transport sector's emissions should be 20 % below their 2008 level by 2030 to reach the 2050 target levels. (EC 2011, 4-5.) The White Paper proposes the general aim of breaking the unsustainable relationship between fossil-fuels and transport, and to create transport systems which are cleaner, more energy efficient and supported by smarter infrastructure (EC 2011, 6).

According to a supplement to the White Paper (EC 2013) reduction potential is especially seen in urban areas which account for one fourth of the CO_2 emissions in the European transport-sector. The reduction potential in urban areas can be as high as 60 % if European transport systems become low-carbon. (EC 2013, 2-3). One solution to tackle this challenge, is to focus on mixed strategies which support sustainable modes of transport such as walking, cycling, collective transport, public transport, adoption of alternative, cleaner fuels and more efficient transport solutions. Furthermore, efforts should concentrate on transport infrastructure and land use planning which are instrumental if we are to encourage sustainable modes of transport. (EC 2011, 7-9, 10-15; EC 2013, 2-3.)

The White Paper suggests various measures to meet with the ambitious CO_2 targets. Some of proposed measures concentrate namely on promoting sustainable transport behaviour through specific solutions like carbon footprint calculators, eco-labelling, vehicle solutions, travel planning. In addition, urban mobility plans for European cities and financial incentives such charging road users are also proposed. (EC 2011, 25-26). It is noteworthy that the need for behaviour change with regard to transport is clearly underlined. According to the EU, people are at the core when it comes to addressing transport

emissions. People need to change their transport behaviour and switch to sustainable modes of transport. (EC 2013, 3-4.)

This thesis focuses on passenger transport. As Eißel & Chu (2014, 391) argue, public attention is mainly directed greenhouse gas (GHG) emissions generated by car driving. This makes sense, as person kilometres generated by car driving continue their steady growth (ibid. 391). Despite newer cars and the introduction of energy efficient technologies, the growth in passenger transport volumes still surpasses the potential benefits related to advances in technology and renewal of car stocks (ibid. 391). There are high hopes that technological innovations will provide a way to both reduce emissions and enable the indefinite growth of transport (ibid. 871). However, as Moriarty & Honnery (2008, 871) suggest, there is some indication that technological advancement is not fast enough and potential benefits are difficult to estimate. Therefore, we need to find a way to replace our current high-mobility culture with a more sustainable one which sees transport as a "derived demand" and not as something which has intrinsic value (ibid. 871). This is a challenging task. As Banister (2008, 74) suggests, people seem to regard, for example, car-driving as a "valued activity" which is done just for the fun of it. Additionally, as Steg (2005, 160) argues, car driving is guided by symbolic and affective values. In other words, some people drive a car, not because they have to but because they enjoy it (Steg 2005, 160).

2.2   Sustainable transport

To define the concept of sustainable transport, we need to first take a look at the concepts of sustainability and sustainable development. The concept of sustainable is defined by the Merriam Webster Dictionary (2015) as something which is:

- able to be used without being completely used up or destroyed,
- able to last or continue for a long time,
- involves methods that do not completely use up or destroy natural resources.

This means that for something to be sustainable, it needs to be able to sustain itself for a long period of time without depleting the resources it is dependent on. According to Heinberg (2010, 1), an unsustainable society cannot be maintained, and will eventually cease to exist due to the continuous flow of unsustainable practices.

The concept of sustainable development was first introduced in 1987 by the World Commission of Environment and Development or the so called Brundtland Commission.

The original definition of the concept of sustainable development was:

> *Development that meets the needs of the present without compromising the ability of future generations to meet their own needs (WCED 1987).*

According to Schmandt et al. (2000, 4) the concept of sustainable development usually involves economic, environmental and social dimensions, and sometimes even other dimensions such as the cultural and political sustainability. Sustainable development has been further developed and redefined in many occasions. It has for example been applied to the concept of ecological footprint which describes the area and services required by a given economy from nature (Wackernagel, 1994, 15). In general, sustainable development is mainly about balance, i.e. in order for our society to be sustainable all these different dimensions (such as economic, social, environmental) should be in balance with one another (Schmandt et al. 2000, 6).

Sustainability or the term sustainable has also been paired with other concepts such as society, agriculture, travel, business and transport. These types of pairings (for example "sustainable transport") modify the original concept which becomes something which can be sustained over time in comparison to the original concept (such as "transport") which does not carry the same notion of time and sustenance. Sustainable transport (or alternatively sustainable mobility) can be described as a system of mobility which is environmentally sustainable (OECD 2002). Friedl & Steininger (2002, 165) define environmentally sustainable transport as something which meets accepted objectives for health and environmental quality, and does not threaten the integrity of ecosystems nor aggravate global phenomena such as the climate change. Sustainable transport is thus something which can continue to exist over time, and is in balance in relation to its economic, environmental and social dimensions. According to Steg and Gifford (2005, 60) environmental, social and economic qualities should be both guaranteed and in balance but the specific nature of these qualities is not entirely clear which makes measuring the sustainability of transport a challenge.

Holden et al. (2013, 70-73) argue that sustainable passenger transport should be assessed from 4 dimensions i.e. transports long-term sustainability, accessibility and transports capability of fulfilling basic transport needs now and in the future. These 4 dimensions form a sustainable transport space (STS) which can be defined through various indicators and threshold values such as per capita energy consumption, daily per capita travel distance by motorized transport, public transport accessibility and the amount of renewable energy for transport as well as emissions generated. According to Holden et al. (ibid. 73) nations face different kinds of problems when entering the STS depending on their level of development but there are some common characteristics, too. For exam-

ple, developed countries aiming for the STS should generally increase their travel efficiency, reduce their travel needs and alter their travelling patterns. Holden et al. (ibid. 75) further argue that technological measures alone are not enough but behavioural measures are required, too to enter the STS. This, however, is not simple. As Banister et al. (2011, 255) argue, behavioural measures are not as popular nor as often used as technological measures, because behaviour is may be considered too complicated by policy developers and transport behaviour is neither straightforward nor easily measured.

2.3 Research gap and originality of the thesis

Although there is an abundance of research concerning pro-environmental behaviour, pro-environmental behaviour in relation to interventions, sustainable traffic, transition management and traffic interventions, there is little or no research concerning those who work with sustainable traffic campaigning. As a consequence, we know quite a lot about the drivers for behaviour change, sustainable traffic, various types of interventions and transitions (see for example Anable et al. 2006; Darnton 2008; Abrahamse et al. 2005; Bamberg et al. 2010; Steg & Vlek 2009; Hiselius & Rosqvist 2016) but very little about those who design campaigns or interventions. Thus we do not know how campaigners perceive their work and what underlying motives they might have for doing the work they do. Furthermore, as Inayatullah (see for example 1998; 2002) suggests, underlying perceptions, motives or worldviews influence people's work, i.e. which issues campaigner address, how campaigns are designed and executed which methods are used and which target groups are chosen. These choices may, in turn, have an effect on the results these campaigns may have. Consequently, these underpinning perceptions, motives and worldviews may, essentially, have a societal impact, in as much as reaching emission targets depends at least partly on successful behaviour change campaigns which will ideally result in the adoption of more sustainable transport practices which hopefully generate lower emissions.

This research will also bring new methodological insights into transport campaigning by analysing sustainable traffic campaigning with a futures research method called causal layered analysis originally developed by Sohail Inaytullah (see for example Inayatullah 1998; 2002). Although campaigns as such have been researched using other methods, CLA has not been utilised to map the underlying worldviews among traffic campaigners. In addition, the method, although extensively used in both futures studies and other fields, is often seen as a difficult and vague method to use in practice (see for example Riedy

2008; Dzidic & Bishop 2015). This research will attempt to create a simplified framework which may assist others trying to use CLA for research purposes.

In addition, the study will add to the knowledge of which kinds of transport interventions work and why, as well as what problems have risen in practical campaigning. As we dig deeper into all facets of our issue, constructing the multi-layered reality of sustainable transport campaigning, we may hopefully discover how interventions or campaigns are framed and how this framing potentially affects the results we get from the interventions. In addition, as a result of this analysis, this research may provide campaign planners with both a widened view as well as some ideas for future campaigns. Hopefully, it will also offer alternative and new ways to frame the interventions more holistically.

2.4 Research questions

This thesis builds on a working hypothesis that interventions or sustainable transport campaigns are governed by certain conventions and deeper structures (such as worldviews and even myths) which dictate the way campaigns are framed, designed and executed. This framing governs both the type of interventions generally made and their results. In addition, campaigns do not necessarily target issues which might have a bigger impact emission-wise. Sustainable mobility is generally promoted with campaigns which target single acts and avoid more unpleasant and politically tricky questions such as unsustainable city structures or car-based lifestyles. This may, in turn, limit the use of campaign measures and tools, and may thus be reflected in the overall results which tend to remain short-term.

In addition to the underlying themes governing sustainable traffic campaigning, this study is also interested in a futures perspective. Namely, how these underlying themes are reflected in the futures images of sustainable transport campaigning. The time horizon is set into 2030 which is far away enough to include a possibility of profound changes, yet close enough to remain imaginable in practical terms. The research question and sub-questions derived from the hypothesis are as follows:

What is the role of underlying systemic structures, worldviews and myths in sustainable mobility campaigns, and how are these translated into campaign measures and futures images?

- *What kind of a change are the campaigners trying to achieve? Are the campaigners striving for, for example, individual behaviour change, political change or a change in lifestyles?*

- *How are the interventions framed? Which underlying systemic structures, worldviews or myths can be found in campaigners' speech, and do these translate into campaigning?*

- *What is the role of an individual in sustainable transport according to the campaigners? To what extent is the individual responsible for changing their behaviour? To what extent is behaviour change due to external factors?*

- *How does the future of campaigning up to 2030 look like according to the campaigners? Do we have campaigns in the future and if so which kind of measures will be used?*

3 THEORETICAL FRAMEWORK

3.1 Transformation towards sustainable transport systems

Some people may find it difficult to accept the need to change their behaviour because of the discrepancy between current lifestyles and the impending challenges climate change poses to these lifestyles. According to Adger et al. (2009, 335-339) in addition to the challenges posed by ecological, economic and technological limits, there are several limiting social factors which affect our capacity to accept the need for change. People are guided by certain values and ethics which determine the general guidelines of what both our society and we as individuals value. In addition, as Adger et al. (2009, 335-339) continue, these define how we guard our values and how these values affect the level of change acceptable to us as individuals and as a society. Values and ethics also govern the kind of goals and objectives we set to guide our adaptation to climate change. Societies are generally not willing to accept measures which contradict with their societal values or their goals of adaptation, and each society brings their own set of values to the table. (Adger et al. 2009, 335, 337-339.) Adger et al. (ibid. 339) argue that this sheer abundance of different values creates a "paralysis of adaptation actions" which has resulted in many ineffective and contradictory responses to climate change (ibid. 339).

Adger et al. (ibid. 339, 346) suggest that in addition to values and ethics we seem to tolerate the uncertainty associated with our current knowledge about climate change as a phenomena and how it will affect our future to a varying degree. The actual and perceived risks associated with climate change also affect the level of individual and societal responses. Whether or not we do something depends on how our society and we as individuals perceive the risks related to either acting or not acting upon the challenges posed by climate change. (ibid. 339, 346) People will act if they think it is necessary but people do not necessarily make the connection between what happens today with what might happen in the future. If the effects of climate change were discussed in the level of personal experiences and local cultures, people might, according to Adger et al. (ibid. 347-348), realise the actual practical implications and irreversible losses associated with climate change more clearly. Unfortunately, as the current climate change discussion is kept firmly in the abstract global level and thus climate change is happening "out there", it is also removed from the lives of the people in terms of both place and culture. As a consequence, changing behaviour seems really not an act worth pursuing, even if we deep down know we should. (Ibid. 347-348.)

According to Dahle (1998) we may be unable to move towards a sustainable society, because we lack both commitment and a clear futures perspective. People tend to examine issues from the present day perspective which is moulded by various political or other concerns (e.g. financial situation) limiting our view. This confined viewpoint often leads to actions which may have short-term benefits but lack the potential to address problems in the long-term. (Dahle 1998, 290-291). However, according to Banister & Hickman (2013, 283) there is a need for a future's perspective especially when addressing complex issues, such as the climate change which require action at all levels of the society. Addressing these multifaceted issues is not straightforward and the outcomes of, for example, different policies cannot be established without long-term observations. In addition, a longer-term perspective helps to create congruent policies which when combined, enable us to tackle climate change more effectively. (Ibid. 283-284) Furthermore, as Inayatullah (2003, 34) argues, a futures perspective helps us to avoid unwise decisions which can generate problems in the future. This applies quite poignantly to our current fossil-based transport systems which are based on decisions made decades ago (ibid. 34). Even if other kinds of transport options might already be available, we do not jump to adopt them, as we tend to avoid or are afraid of change. However, according to Inayatullah (ibid. 34), a futures perspective might give us wisdom and courage to avoid mistakes, and make us embrace change.

When it comes to sustainable transport, Banister & Hickman (2013, 284, 291) argue that our societies seem to suffer from an implementation gap, i.e. knowledge and decision-making do not necessarily have a causal relationship. Thus we may have scientific knowledge about the positive sides of sustainable transport but we seem to be unable to act according to this knowledge. This seems to be, as Banister & Hickman (ibid. 284, 291) suggest, a result of not having either the means or the will to turn research findings into effective policies. Furthermore, relying on only technological solutions is not enough to solve a huge challenge such as the climate change which is essentially a social and an environmental problem (ibid. 290-292). As Moriarty & Honnery (2008, 866, 869) and Holden et al. (2013, 78) suggest, technological solutions can bring us only so far and may not cut emissions as much as is needed to meet with our GHG targets. Besides, leaning solely on current motorized transport practices or expanding their need even further comes at a too high a cost if we consider the effects climate change has both on the environment and the well-being of people (Moriarty & Honnery. 869).

However, climate change targets may be achieved if we, according to Banister and Hickman (2008, 290-292) address the issue from multiple perspectives and take into consideration all aspects of sustainability. For example, a highway may be good for the commerce but on the other hand it has many negative effects with regard to the environment, people's health and emission targets. The pros and cons of constructing a highway should thus be weighed from multiple perspectives, including a futures perspective, to reach a

solution which is sustainable at all levels. Moriarty and Honnery (2008, 869) discuss that we need an approach to transport which is especially focused on ecological and social sustainability of transport. The indisputable need to endlessly expand our current transport regime should be challenged and efforts should be focused instead on how we can meet our future transport demands with lower levels of environmental damage (ibid. 869).

Unfortunately, Hickman et al. (2011, 560-561) perceive great difficulties in the transition towards sustainable transport futures if we rely on the current tools available. Conventional solutions, such as individual policies, new technologies or infrastructure provision are unlikely to solve the problem and produce sustainable transport behaviour (Hickman et al. 2011, 560-561). Hickman et al. (ibid. 561) argue that new hybrid approaches which pair for example scenario development and stakeholder engagement, may provide the stakeholders with the much needed illustration on how various choices may create paths to different kinds of futures. This might, as Hickman et al. (ibid. 561-562) suggest, provide the stakeholders with a greater level of ownership regarding their transport choices. Using multiple approaches or policies, so called policy packaging (see e.g. Tuominen et al. 2014, 45), is regarded as more effective than using a single policy approach to tackle big issues, such as the climate change. According to Tuominen et al. (2014, 53) multiple approaches combining different facets of our reality are needed to achieve profound structural changes required to solve the problems we are currently facing.

3.2. Mobility management and sustainable mobility

Sustainable mobility and mobility management are concepts which may help us to tackle the challenges posed by the unfortunate impasse generated by the need to lower transport generated emissions and our growing transport needs. Due to the complexity of the issue, mobility practices should be addressed from different angles (see e.g. Banister 2008; Davies 2012; Wangel et al. 2013). As the biggest reduction potential lies in cities (see e.g. EC 2013), efforts should be focused on how to make sustainable transport modes a realistic option in cities. As Banister argues (2008, 73) sustainable transport is on paper relatively straightforward: it is a matter of planning cities which require less car use. However, in reality, the issue much more complex. As a step towards sustainable transport, Banister recommends us to adopt a sustainable mobility approach (2008, 73-75), where land use is integrated with transport planning. This approach combines elements of substitution (i.e. reducing individual travel needs by e.g. distance work), modal shift (i.e. increasing the share of e.g. cycling, walking and public transport), distance reduction (i.e. reducing the length of trips by making cities denser) and technological innovation (i.e.

making transport more energy efficient by e.g. introduction of e-vehicles). As Banister (2008, 74-76) and Wangel et al. (2013, 79-80) argue, we cannot achieve sustainable mobility with technical solutions and engineering alone but by integrating the social dimension (i.e. people) to conventional transport planning. Therefore, various measures are needed to entice people to adopt sustainable transport modes (see for example Abrahamse et al. 2005, Steg & Vlek 2009)

Mobility Management (MM) (or alternatively smart mobility management) is an approach, where efforts are focused on people's behaviour. MM utilises mainly soft measures such as communication and raising awareness which are used for example to ensure that harder and costlier infrastructure measures (e.g. construction of bicycle lanes) are taken up by people. (EPOMM 2013, 7; Civitas 2010, 3). European Platform for Mobility Management (EPOMM) defines mobility management as a concept for:

> *"Promoting sustainable transport and dealing with the question of car use by modifying the habits and behaviour of travellers. The core of this mobility management is formed by "soft" policy measures such as information and communication, organisation of services and the coordination of activities of the various partners"* (EPOMM 2013, 7-8).

The MM approach can be integrated to policy level (e.g. through national mobility management frameworks), it can involve fiscal measures (e.g. lowering the costs of public transport) or it can simply comprise of grassroots level campaigning and awareness raising (e.g. campaigns promoting public transport, cycling and walking). (EPOMM, 11-13). Consequently, the MM approach utilises a multilevel, structural approach which relies not only on regulatory or fiscal tools but employs softer behavioural means and integrates them to harder measures. According to the MM approach, cities need to change their transport systems to meet with current challenges, and all available tools and measures should be used. However, this change is not possible if we forget behavioural aspects. Transport systems are, in the end, used by people, so they should be planned for people. (EPOMM 2013, 5-7, 11-13).

Möser & Bamberg argue (2008, 10) that the MM approach relies more on psychology and voluntary action, and less on coercion or restrictions. MM does not utilise any specific methodology but is like a set of so called "soft measures" which are used to encourage people to deliberately change their transport practices (Hiselius & Rosqvist 2016, 34). As Möser & Bamberg (2008, 10) state, there is no clear definition of what a "soft" measure is. It is more seen as a way to distinguish certain measures from "harder" tools such as infrastructure development or incentives (for example taxation). According to Hiselius & Rosqvist (2016, 35) two main types of MM measures can be distinguished: those which encourage changes in personal travel through experimenting (personal-travel campaigns)

and those which aim to raise awareness through provision of information. However, attitudes as such may not be a fruitful target but indeed a more systematic approach combining technical solutions, lifestyle and behavioural changes would be needed (ibid. 35).

According to Möser & Bamberg (2008, 10) empirical evidence regarding the effectiveness of these softer MM measures would be essential to gain wider acceptance of MM as a strategic tool. Hiselius & Rosqvist (2016, 38) state that MM campaigns are necessarily not always systematically planned and campaign objectives may vary greatly. In addition, MM campaigns do not often address social norms and better results could be gained if these campaigns were to target not only individual behaviours but also the social aspects of human existence (such as status and social norms) (ibid. 39). Furthermore, the tendency to highlight undesirable behaviour (such as private car use) as something which unfortunately needs to be avoided in the current state of things may turn sustainable transport into something which is reserved for the morally superior all the while the majority of people are left to continue with their normal lives (ibid. 39-40). Thus instead of underlining for example cycling as the new normal (i.e. something which is for all people), it is often represented or framed in MM campaigns as a sacrificial act (i.e. cycling requires giving up on normal things such as cars).

According to Hiselius & Rosqvist (ibid. 41) integrating the MM approach more strategically as a part of national policies would also be beneficial. The MM approach could be used to bridge individual efforts together to form a more holistic toolkit for sustainable transport efforts but this would require sharper campaign designs (for example the inclusion of social norms) and a wider introduction of MM as a viable strategic tool into the policy level.

The need to address behaviour in order to achieve sustainable transport has been much researched (see for example Davies 2012; Hickman 2014). But as Hickman (2014, 55) discusses, it is often difficult to know which methods work best or even if lasting behaviour change is indeed possible. There is even a growing body of research which indicates that changing individual behaviour is impossible if larger societal and structural issues are not tackled as well (see e.g. Shove 2014; Barr & Prillwitz 2014; Legget 2014; Hickman 2014).

3.2 Creating futures images with causal layered analysis

3.2.1. Discovering alternatives with causal layered analysis

According to Inayatullah (2008, 4) "w*e know we need to change but we seem unable to"*. Future thinking, however, can give us capacity to create conditions for change and give us agency (2008, 4-5, 18). Future thinking can also help to deal with a problem (for example the need to change transport practices) by unpacking the issue and thus deepening our knowledge of the causal relations behind it. This unpacking can be done with the help of causal layered analysis (CLA), a method developed by the futurist Sohail Inayatullah (see e.g. Inayatullah 2008; 2002; 1998). The method was created in the 1990's as a multidisciplinary answer to the shortcomings of positivist future studies. According to Inayatullah (see for example Inayatullah 1998) traditional future methods fail to grasp the deeper meanings of our realities by excluding the levels of myth, metaphors and worldviews from the future images. As a result, traditional future methods produce largely superficial images of future of little actual use, and offer no real alternatives. However, as Inayatullah (2002, 484) points out, we should concentrate on opening up the past and the present, and strive to create alternative futures instead of predicting a particular future. In addition, we should not only create idealized futures but also acknowledge the winners and losers of a particular futures image (ibid. 484).

CLA examines an issue through four different layers of reality which are, as Ramos (2015, 25) aptly states "s*treams of causality operating in unison upon an issue"*. Deepening our view of a problem by analysing it through different layers of reality, creates necessary distance to the issue at hand and deconstructs or undefines it. According to Curry & Schultz (2015, 64), it also creates distance from the present everyday routines. This distancing and deconstructing process provides us with multiple solutions to a given problem and enables us to create alternative paths to a preferred future (Inayatullah 2008, 11-13, 16; 1998, 2). According to De Simone (2004, 505) it also helps us to find new solutions by *"inclusively layering different ways of thinking and knowing".* Thus, CLA demands us to dig deeper, search beyond words and numbers, and not be satisfied with the most obvious explanations.

The method is rooted in post-structuralism, Indian philosophy and critical futures research. According to Inayatullah (1998, 820, 827; 2002, 481) and Ramos (2015, 28-29) CLA has been influenced by the works and ideas of for example Norwegian sociologist Johan Galtung, French post-structuralist Michel Foucault, Indian thinker P.R. Sarkar, Australian futurist Richard Slaughter, critical future studies as well as complexity (or chaos) theory. The influence of Indian philosophical thinking can be seen in the core concept of the four layers of reality: litany, systemic, worldview and myth/metaphors.

This layered view of reality is derived from the works of P. R. Sarkar and Indian classical tradition which sees the mind as a shell comprised of different layers or *Kosas* which can be peeled through an inner journey to reveal the inner self (Inayatullah 1998, 827: Ramos 2015, 30-31). As Ramos (2015, 31) suggests, with its multicultural roots, CLA may help us to create out genuinely alternative futures which may emancipate us and take us beyond the more conventional sphere of western material relativism.

As a post-stucturalist method, CLA seeks to unearth the embeddedness of the field and our reality (Ramos 2015, 25, 37). It asks us to step outside of the box, to dig deeper, to deconstruct and reconstruct our basic assumptions, and to reveal how worldviews, myths and metaphors frame our thinking – a process which will help us to create alternative futures (Ramos 2015, 25, 39). Michel Foucault's concept of the historical episteme i.e. the idea that knowledge and universal structures are situated in history and reflect a person's contextual setting, was according to Inayatullah (2002, 481) and Ramos (2015, 34) particularly influential in the shaping of CLA. Bearing in mind the concept of the situated episteme, CLA may help us to deconstruct issues which seem natural and unquestionable, and through this eye-opening process other alternative views and solutions may emerge. However, Inayatullah (1998, 816; 2002, 480) states that CLA does not entirely embrace postmodernism which is partly too relativistic, although it utilises the poststructuralist critical tools of distancing, questioning and deconstructing.

Sociologist Johan Galtung's (see for example Galtung 1981a; 1981b) ideas and that of cosmology in particular have influenced CLA's deepest layers: the worldview and myth/metaphor. According to Galtung (1981a, 146-147) each civilization shares distinctive aspects or features – a *cosmology* - not apparent *per se* but embedded in the deepest layers of a civilization. This *cosmology* is, according to Galtung (ibid. 147) comparable to the concept of personality in psychology, i.e. it is something which defines us but is difficult to conceptualize. Consequently, the concept refers to the deepest aspects of any civilization which are unchallenged and "*like the air around us, unnoticed*" (ibid. 147). Inayatullah (2000, 480) states that Galtung's concept of cosmology which was transformed to represent the worldview layer in CLA, made him realise how all civilizations rely if unconsciously, on the underlying origin myths. Moreover, these origin myths, vary from civilization to civilization and can, to a certain extent, be used to both explain and set people's behaviour into context (Inayatullah 2000, 480). In this sense, our behaviour may be guided or framed by worldviews and myths in ways which we do not even realise.

The influence of critical future studies with its focus on power structures and the social construction of the future and Richard Slaughter can, on the other hand, also be seen in CLA (Son 2015, 129). In addition, Richard Slaughter has provided the inspiration for the first layer of CLA (the litany) with his concept of *pop futurism* which is the layer where we find the most superficial ideas in the field of futures studies (Inayatullah 2000, 489; Ramos 2015, 32). This view differs somewhat from Inayatullah's idea of litany which is,

as Ramos argues (2015, 32), in all its superficiality the "*empirical reality*" and, thus, an unpassable part of any CLA analysis.

CLA is thus firmly based on critical theory, i.e. it seeks to reveal hidden power structures (Ramos 2015, 26). It aims, as stated by Ramos (2015, 39), to undefine the future by revealing what lies behind current discourses and how these discourses frame future choices. In addition, it seeks to unveil the deeper meanings and underlying currents found behind seemingly unquestionable truths. As Barber (2010, 171) argues, we should be asking: "*Who wins? Who loses? Who is doing the saying?*" By exposing all which is generally taken for granted, CLA offers a base from which a more complete view of the future can be formed (Barber 2010, 171). In the same vein, Curry & Schultz (2015, 71) argue that CLA helps to unveil those who are privileged and those who remain silent. However, as Ramos (2015, 39) suggests, CLA is not only a critical method, it may also be used to conduct cultural research. Examining various cultural images, narratives and categories through CLA lenses may reveal underlying themes, myths and metaphors which might not have surfaced otherwise.

Although a relatively new method, CLA is nowadays relatively often used in futures studies. It has been used to conduct theoretical research and qualitative data analysis but it has also been utilised as a more hands-on problem-solving method in organisations around the world (Ramos 2015, 41). In addition, Inayatullah (2015, 13-14) sees CLA also as a means to increase awareness of the embeddedness of our own views. Thus, even if our scientific analysis may seem objective and based on hard facts, CLA can help us discover that it is, in fact, situated and embedded in a cultural context and governed by deeper worldviews and myths. Researchers, civil servants, students, groups of people or anyone, for that matter, interested in self-discovery or personal growth may, in Inayatullah's (2015, 13, 21) words, utilise CLA as a way "*to explore their own double binds and use CLA as a way to transform their own life stories*". Thus, CLA has multiple uses, all of them which share the aim of revealing the embeddedness and layeredness of our reality (be it personal lives, a research question or an organisational problem). CLA will ideally open up our eyes towards a greater variety of alternatives and possible solutions to whichever issue we are examining.

Despite its firm following among the field of futures studies, CLA has attracted a fair share of criticism, as well. It has been accused of, for example, lacking rigour (Dzidic & Bishop 2015, 444), being too critical, ethereal, difficult or impractical (Riedy 2008, 9), disorienting, vague and open-ended (Wright 2002, 533) or requiring a too high a level of abstractness in practical workshop settings (Curry & Schultz 2015, 71-72). In addition, without a formal methodological process for conducting the analysis, CLA may be regarded unsuitable *per se* for more exact qualitative research (Dzidic & Bishop 2015, 444) and it may fail to attract the more methodologically-minded researchers (Wright 2002, 533). This lack of a precise methodological description has been a challenge also in this

research, although for example Minkkinen & Tapio (2015), De Simone (2004) and Dzidic & Bishop (2015) have created step-by-step methodological frameworks for conducting a CLA analysis which have also been used to bring more precision into this research. Indeed, as Dzidic & Bishop (2015, 444) and De Simone (2004, 498) suggest a more exact analytical process or a more practical approach might benefit the CLA, and allow for a wider adoption of the method across various disciplines.

3.2.2. *Deepening the view with four layers of reality*

According to Inayatullah (1998, 819-820) CLA aims to describe reality thorough four different layers: the litany, the system, the worldview and the myth/metaphor (figure 1). The litany represents the visible surface level and gives a short term snapshot of a given issue. The system level tackles the less visible systemic causes and the time perspective leans more towards the long term. Worldview level requires a deeper plunge into the less obvious; it describes profound thought processes behind an issue which have been moulded by overarching worldviews. The myth/metaphor layer is the deepest level, where unconscious primeval myths and metaphors reside. This level may affect our thinking in unprecedented ways. According to Inayatullah (1998, 819-820) each of the four layers are instrumental to form a holistic understanding of our world.
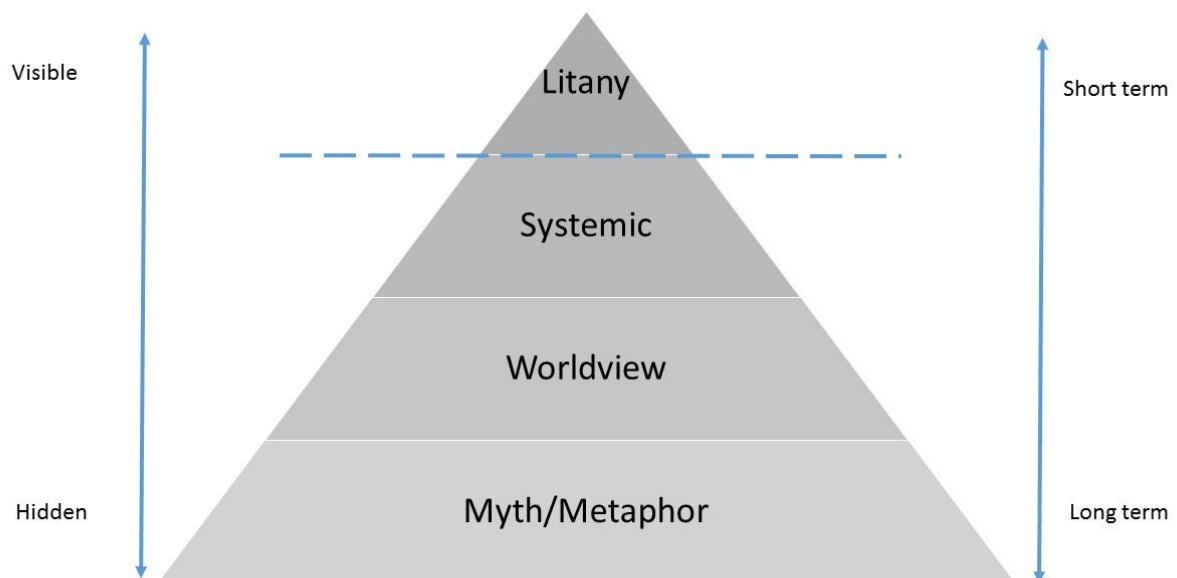

Figure 1 CLA layers: their level of visibility and time perspective (applied from Minkkinen & Tapio, 2015)

Litany

Inayatullah (1998, 820; 2005, 8) defines the first litany level as the self-evident, conventional and unquestioned view about an issue or a problem. It is generally presented quantitatively and rarely delves deeper into the inner logics or causalities of the issue. However, as argued above, litany is a vital layer in gaining a holistic understanding of the examined issue. This layer tends to be occupied by the daily media and may be regarded as representations of the official truth or as Ramos (2015, 32) puts it, the *"empirical reality"*. As Ramos (2015, 32) continues, litany may be seen as *"a distraction from deeper understanding"*. De Simone (2004, 486), describes litany as the *"soundbites"* surrounding us. As such, litany, as, is habitually used for various political purposes and may help to maintain political status quo by portraying a problem as complex, infeasible, chaotic and impossible to solve (Inayatullah (1998; 2005).

System

The systemic level is described by Inayatullah (1998, 820; 2004, 17) as the level, where the background and various social, economic, cultural, political and historical aspects of an issue are analysed. If the litany level was occupied by the official truth served by daily news flashes, the systemic level is, according to Inayatullah (1998, 820; 2004, 17), reserved for more high-brow media which offer an analytical take on the causes and effects of a particular problem. The role of various interest groups related to the issue may be addressed but the analysis remains still somewhat uncomprehensive and relies mainly on quantitative data (Inayatullah 1998, 820; 2004, 17). According to De Simone (2004, 486), this level offers the ingredients for a superficial interpretation of what lies behind an issue.

Worldview/discourse

According to Inayatullah (1998, 820; 2004, 17) the third worldview or discourse level is where we plunge deeper into the issue and examine the forces and ideas framing, supporting and legitimizing it. This is the arena of deeper meanings which are not dependent on the actor but somehow embedded in our collective social, linguistic and cultural structures. Moreover, as Inayatullah (1998, 820; 2004, 17) and De Simone (2004, 489) suggest, the way we discourse about an issue deeply affects the way the issue is constituted and therefore affects the way it is handled.

However, Inayatullah (2004, 17) does not see the worldview-level as a single construct but divides it into 4 subsequent levels within the worldview layer. The different interest of the actors and organisations form the first stakeholder level. Deeper ideological worldviews (such as Neo-Liberalism or Socialism) can be found in the second level. The

third level is the realm of rooted civilizational worldviews (such as Nordic, Eastern European), whereas the nature of knowledge or the episteme occupies the fourth level of myth (for example modern vs. postmodern). According to Inayatullah (2004, 17), the worldview level brings horizontal scope to an analysis and enables us also to question the official truth served in the litany.

The constant horizontal and vertical movement through a source material should, according to Inayatullah (1998, 820), reveal the deeper ideas, worldviews and discourses constructing the issue we are examining. As Ramos (2015, 28) argues, this continual movement horizontally between various worldviews and discourses as well as vertically up and down the four layers feeds the analysis also with both depth and width. As we plunge deeper into the source material, we move into the realm of ideologies and those building blocks which are not dependent on our interviewees, or which are, as Inayatullah (1998, 820; 2004, 17) suggests, "*actor-invariant*". These ideas or worldviews are somehow deeply-rooted in the way we talk, act or tend to think about things, and they create an arena of conventional solutions and tools which are recycled to address for example sustainable traffic related issues. Furthermore, our efforts may remain modest if we accept the "official truth" served in the litany without questioning and fail to examine the worldviews behind our actions.

In a way, the mindset behind our sustainable traffic campaigns may if we follow Inayatullah's (1998, 820; 2004, 17) reasoning, determine their outcome, i.e. we may not achieve what we would like to achieve if we are not ready to critically examine our thinking. Inayatullah argues (1998, 820) that revealing these hidden worldviews, discourses and ideologies is instrumental in our analysis and will help us not only to vision alternative futures images but by doing so, also build up alternative approaches and solutions to solve our problem.

a) Myth/metaphor

The fourth layer is, according to Inayatullah (1998, 820; 2004, 17), the territory of myths, metaphors and the unconscious. This is not the realm of scientific knowledge or exactness but more based on intuition. However, this level adds a thought-provoking dimension to the analysis and as, Inayatullah (1998, 820; 2004, 17) suggests, touches "*the heart instead of reading the head*" and "*evokes visual images*". According to Ramos (2015, 26) myth and metaphors are the "*unconscious ordering of the universe*", i.e. in the fourth layer we find the deep structures which we use unconsciously to make sense of the world. According to De Simone (2004, 488) this layer might also restrain us from acting differently.

3.2.3. *Creating snapshots of alternative futures with futures images*

Futures images or alternatively images of the future is a concept originally developed by Fredrik L. Polak and Kenneth Boulding in the 1950's (see for example Polak 1961; Rubin 1998, 499) and further enhanced by for example Wendell Bell and James Mau in their seminal work *Sociology of the Future* (1971). Polak (1961, 37-38) perceives images of the future as crystallized expectations of the future which reflect a certain set of societal values and norms. These underpinning values and norms govern the future behaviour of people. Bell & Mau (ibid. 23) define the concept as follows:

> *An image of the future is an expectation of things to come at some time of the future. We may think most usefully of such expectations as a range of differentially probable possibilities rather than as a single point of continuum.*

However, there is no clear definition, what exactly constitutes an image of the future, as they may vary greatly depending on the situation (ibid. 23). Rubin & Linturi (2001, 271) see an image of the future as a "*mental construction*" which helps to deal with possible futures. Rubin (1998, 499) argues that:

> *An individual's images of the future derive from different, time-bound, and value-related conceptions of the world which, in times, can coexist simultaneously and still include components and features which are contradictory to each other.*

Rubin thus sees that images of the future are like mental frameworks which do not need to be coherent and can, thus, include contradictory elements as well. Decisions are moulded by past and present knowledge as well as these images (ibid. 499). However, Rubin (1998, 500) and Rubin & Linturi (2001) state that the concept deals more with personal images of the future and thus steps into the realm of personal growth or life management, whereas the focus of this research is more on people's behaviour, behaviour change in general, and the extent to which images of the future might be used as catalysts for social change. This interest in the consequences of images of futures is originally derived from Polak (see for example Polak 1961) who examined how certain civilizational images of the future have shaped societies and cultures throughout western history. However, this thesis is equally interested in the causes of a futures image (Bell 2009, 85), i.e. why people think about the future the way they do. Both of these ideas are also the focus of CLA which seeks to both discover the deeper structures or causalities behind our reality, as well as how the "unpacking" (see for example Inayatullah 2004; 2002) of these layers and causalities maybe actively used to for change.

As Bell & Mau (1971, 23) suggest, the concept of a futures image is quite loosely defined, therefore, there can be many types of images of the future. They can be shared by groups of people or they can be unique perceptions of how the future may turn out. These images can be very abstract or well situated in everyday lives. They may be politically nuanced to serve a specific political purpose or remain neutral. In addition, even the view of *when* a futures image is may variate: future may become the present soon or after a very long time. Moreover, their tone can be positive or negative, i.e. a futures image may describe a desirable or undesirable future. (Bell & Mau 1971, 23). In addition, as Bell (2009a, 83-86) argues, they may be optimistic or pessimistic in their tone which bridges them with social change. Optimistic futures images may be inherently more active, i.e. they may be empowering and progressive, whereas pessimistic images may result in a sense of helplessness and inaction.

This inaction related to pessimistic images of the future is of particular interest if we consider climate change and the adversity it is likely to cause in our future. As for example Kollmuss & Agyeman (2002, 255) argue, people may response to climate change or other major environmental problems in many negative ways. They may be filled with a sense of apathy (there's nothing to be done), they may resort to rational distancing (I cannot let this affect me) or delegation (It's not my fault, why should I care), they may also simply deny the existence of the phenomenon (there is no climate change) (ibid. 255). All of these are normal ways to cope with bad news. Thus the pessimistic images of a future often linked with climate change may result in inaction due to these normal behavioural responses. As this view is well acknowledged among those trying to induce pro-environmental behaviour, the tone of for example sustainable traffic campaigns is usually kept positive to avoid undesirable behavioural responses to the campaigns. The line between frankness and scaremongering is indeed remarkably thin with regard to climate change and its future impacts. However, Rubin (2013, 542) suggests that although negative images of the future may lead to indifference, they may equally lead to action. Thus in the face of a future catastrophe, some may actively seek to stop a potential catastrophe from becoming the reality.

According to Son (2013, 2), images of the future are usually divided into utopias and dystopias. Utopia is, according to Son (2013, 2) usually understood as an "imagined society" which is usually regarded as both idealistic and unrealistic. According to Bell (2009b, 8) utopia is a hypothetical time or place which can be interpreted as a critique of the existing society, a time or a place which is more desirable than the present. A utopia also carries in itself either a direct, or an indirect call for improvement of the present situation (ibid. 8). Dystopia, on the other hand, is often understood either as an undesirable place, infested with negative things which threaten our everyday lives (Son 2013, 2), or as Bell (2009b, 8) defines, the antithesis of utopia. Both utopia and dystopia reflect,

according to Son (ibid. 2), the hopes and fears which stem from the present and are projected into the future. Consequently, depending on a person's beliefs and values, or as Inayatullah might say worldviews, their inner architecture may or may not differ depending on a person or a group. Thus, as Son (ibid. 3) argues, utopias and dystopias are not universal, because there is great variation to the extent to which something is considered desirable or undesirable. For example, a vision of a city with no cars may be regarded either as a dystopia or a utopia depending on a person's or a group's beliefs and values.

Bell & Mau (1971, 15, 20) and Bell (2009a, 85) link futures images closely to the concept of social change. As Bell & Mau (ibid. 17-18) suggest, the images people hold of the future may shape the present in the form of decisions made and thus create a particular future which might not have opened up without a particular image. Bell & Mau (1971, 21-22) state that a person's or group's beliefs in the past, present and future, as well as their beliefs about causal effects (i.e. how the world works) are pivotal. All these shape values which in their turn set the tone of how the future is perceived. Values are also, according to Bell & Mau (1971, 23), shaped by underlying structures and the social environment. However, the past, present and future are, as Bell & Mau (1971, 8) state, reconstructions of other people's experiences, formed by their beliefs and values. Therefore, we cannot know the present (nor the past) in its entirety but must rely on the perceptions and descriptions of others which are again governed by underlying beliefs and personal, cultural and social values (Bell & Mau 1971, 8; Rubin 2013, 540). This reasoning is somehow similar to the concept of the situated episteme (Inayatullah 2002, 481; Ramos 2015, 34) described above, where the context or, to use Bell and Mau's (Mau & Bell 1971, 21-22) terms, beliefs and values frame a person's view of the past, present and the future. The present, past and the future can, therefore, be perceived as fluctuating constructions which are constantly undone, recreated and changed.

The need to think about the future and create images of it, is, according to Rubin (2013, 540), very human. Images of the future are needed for decision-making and simply to guide our everyday lives. Based on values and beliefs as well as hopes and fears, they mould our decisions and behaviour both consciously and unconsciously, although life's realities and other underlying societal, political or cultural factors beyond our control may limit our choices and actions considerably. (ibid. 540). Futures images, as Rubin (ibid. 540) argues, affect our lives and future enormously, and when the future one day becomes the present, we may see that our past decisions and actions may have at least partly shaped the future/present which has become like we hoped, or feared. However, As Bell (2009a, 86) argues, although influential, futures images do not determine, how the future will become. Images of future cannot describe the actual future, as it is not yet present, or as Mau & Bell (1971, 41) poignantly state:

Until the future becomes present, it is not strictly known. There are no future facts.

However, Bell (2009a, 86) suggests, that images of the future, be they personal or shared, shape our behaviour and decisions, and may, at least to a certain extent, affect the future.

4. MATERIAL AND METHODS

4.1. Selection of the intervention cases

The intervention cases were chosen among approximately 40 case studies collected for the PLEEC-project (see Foreword). As the focus of this thesis is on sustainable traffic, the examined interventions are traffic related. Of the gathered 40 case studies, 17 were traffic related and of these 3 were implemented in Denmark, 1 in Romania, 6 in Finland, 2 in Spain, 4 in Sweden, 1 in the Netherlands and 1 in the UK.

To further narrow down the amount of potential cases, a selection process was conducted. Geographical scope of the intervention, intervention type, campaign organisation, year of implementation and intervention duration were used as the selection criteria. Geographical scope was limited to Finland and Sweden due to the similarities of their respective transport systems and climatic conditions. However, one Estonian case was chosen, to provide some comparative information on a transport system which was suspected differ to some extent from the Nordic counterparts.

As the thesis focuses on the MM approach, the chosen interventions were to utilise softer methods, such as experiments and awareness raising, generally used in the MM approach. Campaign organisations were chosen to represent such which were either part of the city where the interventions were implemented or otherwise strongly affiliated with the city. The idea was to limit potential problems related to the lack of official support which may affect intervention implementation to a certain degree. This selection criterion left, for example, NGO driven campaigns beyond the scope of this thesis.

Some of the 17 traffic intervention cases were implemented prior 2010 and these were left out or the research material. The idea was to find newer cases in order to interview people directly involved in the campaign planning and practical campaigning. The aim was also to examine shorter campaigns which seem to be frequently used in MM campaigns. Two of the selected interventions had been carried out more than once but both of these had been modified either according to the feedback or in order to target different stakeholders. All of the selected interventions also utilise a typical MM approach, where a change in travel behaviour is encouraged with personal travel campaigns (Hiselius & Rosqvist, 2016, 35). The selected six interventions were:

- "Car free week" (Estonia)
- "Commuter tickets", "Commuter experience" (Sweden)
- "Spring vacation", "Take the bus to work", "Bike at work" (Finland)

Table 1 Characteristics of the selected interventions

Campaign name	Country	Intervention method	Intervention type	Intervention duration	Target group
Car free week	Estonia	Awareness raising, Experiment	Continual	Short	General public
Commuter tickets	Sweden	Experiment, Awareness raising, Incentives	Nonrecurring	Medium	Commuters
Commuter experience	Sweden	Experiment, Incentives	Nonrecurring	Medium	Commuters
Spring vacation	Finland	Experiment, Incentives	Recurring	Medium	Commuters
Take the bus to work	Finland	Experiment, Awareness raising, Incentives	Recurring	Medium	Commuters
Bike at work	Finland	Experiment	Nonrecurring	Medium	Employees

"Car free week" (Estonia)

The car free week – intervention has been organised in Tarto, Estonia since 2009 (Kunnasvirta et al. 2015, 34). It is a local campaign organised during European Mobility Week. The intervention has focused on reducing the amount of people driving private cars in Tartu and on raising awareness on sustainable transport modes and environmental issues related to car driving (ibid. 34). The campaign has concentrated in attracting different target groups and regularly has sub-campaigns devoted to for example kindergarten children, school kids, commuters and students. According to the evaluation made by the campaign team in 2011 (ibid. 34), the campaign has had some positive results in the form of increased cycling and walking. Unfortunately, due to the inadequacies of the public

transport network, public transport is still failing to attract customers. However, the campaign with its very modest budget is a good example on how effective interventions can be, even with a limited budget, as long as they carefully planned. (ibid. 35).

"Free monthly tickets to commuters" (Sweden)

The intervention targeted car drivers willing to experiment with public transport commuting for a period of one month (Kunnasvirta et al. 2015, 38). The eligible participants received a free monthly ticket and were asked to use public transport at least three times per week. The intervention was combined with a survey mapping the travelling habits of the participants prior and after the commuter experiment. The intervention was organised with a modest budget but was quite successful and very cost-effective. (Kunnasvirta et al. 2015, 38-39.)

"Commuter experiment" (Sweden)

Another Swedish case study concentrated on commuting as well. This intervention had a twofold purpose. It aimed at promoting public transport in general terms but also to educate the citizens of Eskilstuna about some major changes related to bus transport. The intervention concentrated especially in promoting public transport as an option to private car travel. The citizens living in the vicinity of the public transport network of Eskilstuna were offered free bus tickets for a limited period and were asked to take part in a prior and after survey. (Kunnasvirta et al. 2015, 27.)

"Spring vacation" (Finland)

This campaign aimed at attracting car drivers to become public transport clients by giving free one-month public transport travel cards in the Helsinki metropolitan area. In addition, the intervention concentrated on raising the image of public transport. This relatively massive campaign had a big budget in comparison to the other interventions examined in this thesis. Additionally, the campaign team made interviews before the campaign to get a clearer picture on the potential biases the target group had towards public transport. The results of these interviews were utilised in campaign design and promotion. The campaign was, according to the campaign data, very cost-effective and largely successful despite its considerable budget. (Kunnasvirta et al. 2015, 36.)

"Take the bus to work" (Finland)

The Take the bus to work-campaign focused on raising the public image of bus travel and to make it into a positive option for daily commuting in the city of Turku. The campaign was organised two times and included free travel cards as well as campaign events devoted for public transport promotion. The participants were also asked to be active is

social media and post about their practical experiences during the experiment. Participants were asked to take part in prior and after surveys which were used to examine their travelling habits before and after the campaign. The first campaign was successful according to the campaign data and a subsequent campaign was organised the following year. (Kunnasvirta et al. 2015, 32.)

"Cycle at work" (Finland)

The Cycle at work –campaigns was the only one of the chosen 6 case studies which was specifically devoted to the promotion of cycling. The overall aim of this intervention was to promote the health benefits of cycling and to justify cycling as a practical and healthy alternative to car-based local travel during the workday. The campaign targeted local workplaces interested in receiving specially designed bicycles to be used for work-related travel for a period of one month. The campaign received a lot of media attention and was quite successful, although it is hard to estimate if the campaign succeeded in changing work-to-work travel patterns in the long run. This was due to the limited evaluation of the campaign. (Kunnasvirta et al. 2015, 46.)

All of these abovementioned campaigns or interventions resemble a typical MM campaigns. They address sustainable transport through softer measures, i.e. they concentrate on changing people's behaviour by encouraging them to try new transport modes, new ways of commuting and breaking habits (see for example Hiselius & Rosqvist 2015; EPOMM 2013). The underlying assumption is that by breaking, let us say, some mobility habits, new transport modes are given a chance, and old habits related to unsustainable transport modes (such as, using a private car) will be broken, possibly challenged and hopefully replaced with a more sustainable alternative. However, MM does not question the necessity of harder measures but hard and soft measures are seen as complementary (Hiselius & Rosqvist 2015, 35).

4.2.   Gathering the research material

This thesis is in its nature qualitative. Qualitative research can be defined more as a set of various non-quantitative approaches and methods rather than as specific method as Saunders et al. (2012, 163) and Saldana et al. (2011, 3-4) argue. Most often research material consists of interviews or other material (visual, textual or audio) which somehow document human existence and interaction with others (Saldana et al. 2011, 4-5). Data collecting and -analysis is usually non-standardised, interactive, interpretive, and adjustments can be made during the research process depending on emerging themes and issues (Saunders et al. 2012, 163).

In addition to qualitative characteristics, this thesis is also exploratory. Stebbins (2008, 328) sees exploratory research as an approach which is systematic, yet flexible and open-

minded. Exploratory research can be carried out for example by gathering data with key Interviewee or expert interviews or by exploring literature (Saunders et al. 171).

Due to the exploratory and qualitative nature of the thesis, primary research material was collected by using research interviews. According to Saldana et al. (2011, 32), interviews are the most common way to do qualitative research. Wellington & Szczerbinski (2007, 80) see interviews as a method which can be used to explore people's attitudes, thoughts, feelings and perceptions which may be hidden and not revealed at first hand (ibid. 81).

Interviews can be classified, according to Saunders et al. (2012, 372, 374) in several ways depending on their purpose. A general classification distinguishes between structured, semi-structured or unstructured interviews, or between standardised or non-standardised interviews (ibid. 374). The lines between the various interview methods may be blurred, and for example semi-structured interviews may contain structured elements and vice versa (ibid. 374). Saunders et al. (ibid. 375) further distinguish different types of non-standardised interviews depending on their form and level of interaction, i.e. whether or not the interviews are conducted between an interviewer and an interviewee (i.e. "one to one") or between an interviewer and a number of people (i.e. "one to many"). Interviews can be additionally categorised depending on the medium used for the interview (such as the telephone, electronic or face-to-face) (ibid. 375).
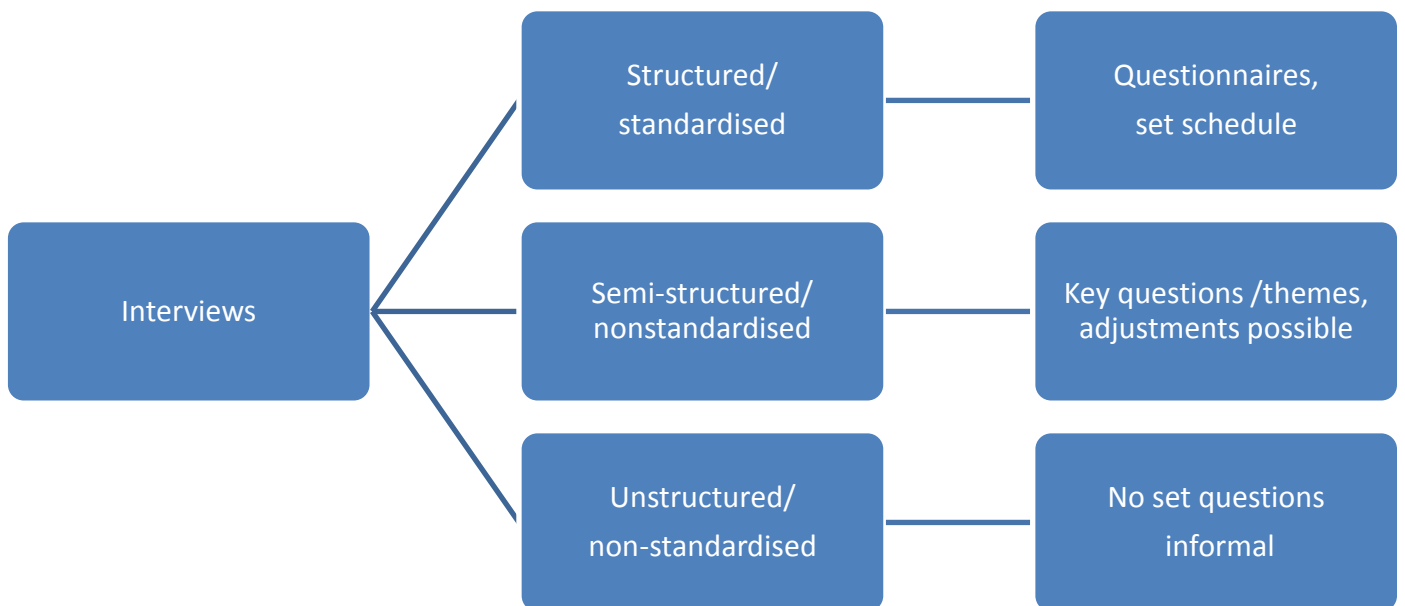

Figure 2 Interview types (based on Saunders et al. 2012)

Because of the qualitative nature of this thesis, semi-structured interviews were used as the main method for gathering primary research material. As the objective of this thesis was to collect research material for the purposes of qualitative content analysis in the form of Causal Layered Analysis, and to examine or as Saunders et al. (2012, 378) and Wellington & Szczerbinski (2007, 81) suggest, "probe" for example the motives, worldviews and hidden attitudes of the interviewees, structured interviews were not considered. Furthermore, as there were some key questions to be explored, unstructured interviews were not considered an option. In addition, due to the suitability of semi-structured interviews for exploratory research, semi-structured interviews were chosen as the primary data collecting method. (Saunders et al. 2012, 376-377).

According to Hirsjärvi & Hurme (2000, 47-48) semi-structured interviews lack a specific definition due to their open nature. However, a set of semi-structured interviews, while relatively open, tends to have some fixed aspects, such as the topic and theme. In addition, interview questions can be fixed at least to a certain degree although this is not necessary. Semi-structured interviews do not thus follow a strict interview scheme like their structured counterparts but are not as open as the unstructured interviews. (Ibid. 48.)

4.3. Data quality and ethical considerations

In order to ensure the quality of the interview data, issues related to data reliability, generalisability and validity as well as potential bias were considered (Saunders et al. 2012, 380-381). Saunders et al. (ibid. 382) argue that qualitative research interviews should not be assessed against their replicability. This, according to Saunders et al. is a result of the complex and unique nature of the interview situation and the many factors which affect how the interview situation unfolds. However, Saunders et al. (ibid. 382) and Hirsjärvi & Hurme (2000, 189) urge researchers to have a systematic approach to the interviews in order to ensure a potential re-evaluation of the collected material. Hirsjärvi & Hurme (2000, 186) argue that traditional scientific reliability does not apply to qualitative interviews, as the behaviour of the interviewee is much affected by the context, i.e. people may answer differently in different situations. As a consequence, we should not put weigh on traditional scientific reliability with regard to qualitative interviews (ibid. 186).

However, as Hirsjävi & Hurme (2000, 188-189) state, this does not mean that there are no rules or requirements for this type of research. The first step is to acknowledge the limitations of this type of research and be transparent about the effect the researcher has on both the interview situation and data analysis In addition, the researcher should be able to plausibly justify the methodological steps taken during the research process and seek to guarantee the transparency of the However, Hirsjärvi & Hurme (2000, 189) stress that the interview data is a result of the dynamic between the interviewer and the Interviewee, i.e. both have an effect on the outcome.

Interview bias is another issue which affects the quality of the collected data. Saunders et al (ibid. 381) distinguish between three types of bias: interviewer bias, response bias and participation bias which can be overcome by for example preparation, careful consideration and by remaining neutral in the interview situation. However, as for example Wellington & Szczerbinski (2007, 52) argue, a researcher, or in this case, an interviewer will inescapably have an effect on the research subject or Interviewee regardless of the precautions. Nevertheless, reflectivity, critical understanding and openness may help to minimize potential issues regarding bias in the interview process which was also an aim in this thesis. (ibid. 53). Issues regarding for example bias were solved in this thesis by describing openly the interview process as well as bringing the potential biases of the interviewer out into the open.

Saunders et al. (2012, 383-384) also discuss the level of generalisability and validity of the data collected in semi-structured interviews. The issue of generalisability or the extent of representativeness of the collected data is a much debated issue (Wellington & Szczerbinski 2007, 63-64; Saunders et al. 2012, 383). However, issues regarding sampling and the representativeness of the research material can be overcome by increasing the transparency of the data colleting process (Wellington & Szczerbinski 2007, 67). It should be noted though, that generalisations to the general population should be avoided (Saunders et al. 2012, 384). When it comes to the validity of semi-structured interviews, Saunders et al. (2012, 382, 384) perceive no decisive challenges: a high level of validity can be achieved, because of the flexibility and depth of the interview method. In other words, the open nature of semi-structured interviews helps to widen the perspective and should allow the researcher to approach the issue from different angles (ibid. 384). Hirsjärvi & Hurme (2000, 189) are not as affirmative and stress that there are some limitations to the validity of the collected data. However, validity and plausibility of the research material can be improved, even if traditional scientific validity might not be possible. Hirsjärvi & Hurme (ibid. 189) suggest that the researcher should for example select reliable and representative Interviewees and expose the research material to a continuous dialogue with relevant research literature.

In addition to data quality, there are also ethical considerations which should be acknowledged before commencing qualitative, semi-structure interviews. As Hirsjärvi & Hurme (2000, 19-20) argue, there are no specific rules or regulations regarding research ethics. However, some general guidelines are available concerning for example consent, confidentiality, privacy and understanding the consequences of the research (ibid. 20). Interviewees should also have the possibility to opt out of the research if they so wish (ibid. 20). Saunders et al. (2012, 231-230) list a number of principles which should be taken into account. These include for example integrity and objectivity, respect, non-ma-

leficence, privacy and confidentiality, voluntary participation, informed consent and anonymity. The purpose of these principles is to prevent substandard research practices and to promote trustworthy research (ibid. 230).

The interviews in this thesis follow the aforementioned guidelines. They were voluntary and confidential. All Interviewees received prior information of the purpose of research and had also had the possibility to decline the interview. The interviews were conducted by adhering to the principles of respect and non-maleficence. Due to the working position in the PLEEC project, the researcher fully admits that an objective gaze towards the subject matter or the Interviewees was more or less impossible to obtain. However, as Wellington & Szczerbinski (2007, 52) state, a subjective perspective is not to be shunned as long as this subjectivity is acknowledged and transparent.

4.4.   Key informant interviews

Wellington & Szczerbinski (2007, 81) define key informant as a person who is a central figure with regard to both the subject matter and the organisation they represent. As the thesis concerned specific interventions carried out in specific organisations, research was conducted by using key informants. The aim of the interviews was to get a wider, in-depth perspective on campaign planning and practical campaign work from the perspective of an interviewee who works with traffic campaigning on a regular basis and can be assumed to have both a professional opinion and practical experience about traffic campaigning. This reasoning is in line with Hirsjärvi & Hurme (2000, 189) who suggest that the interviewees should be reliable to increase the validity of the research material.

The interventions served as the starting point for the selection of the key informants. The aim was to find campaigners who had been directly involved in the interventions, either in the planning phase or in practical implementation. The initial 40 interventions were gathered using a systematic scheme which included a separate box for the name of the contact person. This made the task of finding potential informants relatively straightforward, i.e. each intervention had a named contact person who was approached. As a consequence, 5 contact persons were contacted by e-mail. Of these 5 persons, 4 were willing to participate in the interviews and 1 did not respond. As there was a need to get more informants, additional people were consequently searched. Because there was no interest expanding the range of interventions, a decision was made to search for additional informants among the selected interventions. As a result, 4 additional persons were contacted and all of them agreed to take part in the interviews.

There was some doubt whether or not 8 informants were adequate, however, as Saldana et al. (2012, 33-34) argue, sufficient amount of informants is up to a debate and depends on the purpose of the study. While 3-6 informants may be enough for some re-

search purposes, 10-20 participants may be needed for some other type of qualitative re-
search (ibid. 34). However, as Saldana et al. (ibid. 34) conclude sufficient interview data
is needed to make an analysis. Hirsjärvi & Hurme (2000, 58) argue, that the exact amount
of informants cannot be determined: the researcher should interview "*as many people as
you need to get the information you need*" (ibid. 58). As the principles regarding the
amount of informants are vague in the least, and because there was an urgency to get the
interviews done, the researcher settled for 8 informants.

The informants had slightly different positions and functions in the interventions
which provided for a broader scope for the research and added substance for the different
layers analysed with the CLA method. As shown in Table 2, all were somehow involved
in planning of the campaigns but some were not involved in practical implementation or
evaluation of the campaigns. In addition, both men (3) and women (5) were among the
informants, although this was more a result of coincidence than deliberation.

Table 2 Classification of the informants (or interviewees) according to position and
function

Informant / Interviewee	Position	Function
A	Campaign manager	Planning, practical implementation
B	Campaign worker	Planning, practical implementation, evaluation
C	Campaign manager	Planning, evaluation
D	Communications officer	Planning, evaluation, practical implementation
E	Campaign manager	Planning, evaluation
F	Campaign manager	Planning, practical implementation
G	Campaign worker	Planning, practical implementation, evaluation
H	Communications officer	Planning, practical implementation

The informants were sent an e-mail containing a short introduction into the subject of
the interviews, some introductory questions as well as a suggestion of a time and place.
The purpose of this e-mail was to prepare the subjects for the interviews and to get them
in tune with the theme. In addition, as Saunders et al. (2012, 385) suggest providing the
Interviewees with prior information is a way to increase credibility, validity and reliability
of the interviews. Furthermore, as some of the interventions were carried out a few years
prior to the interviews, there was a need to freshen up the memory by providing some

preparatory information. Interview questions concentrated on three main themes: individual behaviour change, intervention success factors and views on future campaigning. Interview questions are listed in Table 3.

One of the major interview themes was to examine how the campaigners see the role of individuals in sustainable transport, to what extent do the campaigners perceive it up to an individual to change their transport behaviour and which factors limit or encourage behaviour change. The necessity of inducing individual behaviour change is well acknowledged among both researchers and policy makers (see for example EC 2011; Anable 2006; Chatterton and Wilson 2015, Abrahamse 2005; Steg 2007; EPOMM 2012). However, the emphasis on individual behaviour change has also been critisised. As argued by for example Barr & Prillwitz (2014), Shove (2010), Thøgersen & Crompton (2009) and Leggett (2014) by leaning mainly on individual attitudes, values and behaviours, we may be diverted from addressing current challenges from a wider societal perspective. As Thøgersen & Crompton (2009, 142-143) suggest, by concentrating mainly on marginal individual behaviour we might miss behaviours which might have bigger environmental impact. As a consequence if the campaigners mainly accentuate individual behaviour change, campaigns or interventions may be framed in a way which may fail to address issues which should be the focus of attention (Thøgersen & Crompton 2009, 142-143). This resonates with Inayatullah's notion (see for example Inayatullah 1998; 2002) that worldviews affect the way problems are framed. This may in turn affect campaign outcomes.

Secondly the aim was to find out what in the informants' opinion worked well in the intervention (and why) as well as what did not succeed so well (and why). The objective of this interview theme was to examine success factors and to see if these revealed anything of the worldviews of the campaigners and whether or not thus affected the framing of the interventions. In general terms, there is an extensive body of research concerning the factors which may hinder or induce pro-environmental behaviours (see for example Abrahamse (2005), Steg (2007), Anable (2006); Thøgersen & Crompton (2009); Darnton (2008). However, by focusing on easy and uncomplicated behaviours we may be, as Thøgersen & Crompton (2009, 160) suggest, avoiding the more acute environmental issues which would require our immediate attention but are more difficult to address. In addition, the way the campaigners talk about the pros and cons of the interventions may reveal something about the worldviews of the interviews. As Hirsjärvi & Hurme (2000, 51) suggest, the language the campaigners use may in itself carry meanings and construct reality. This is based on the notion that language is not neutral but a carrier of social meanings and practices (ibid. 51). For example, concepts such as "sustainable transport" or "transport behaviour" do not simply describe the world as it is but are constructs which carry in themselves a plethora of assumptions and meanings (ibid. 51).

Thirdly the interviewees were asked about future transport interventions as well as what the probable and preferable future of transport looks like in their city in 2030. A time span of 15 years is far enough for major changes but short enough to be imaginable. In addition, the futures perspective allows us to examine not only what kinds of tools and solutions the campaigners perceive as preferable and possible in their own city, or how they position their own field of expertise in the perceived future but also how they talk about the future. As Rubin & Linturi (2001, 269) argue preferable images of the future may be influential, when people are trying to make sense of complex issues. People are prone to actively promote or act in line with a preferable, probable futures image, and avoid actions which lead to an undesirable futures outcome (ibid. 269). In this way, the images of the future the campaigners have may be mirrored into their behaviour and to some extent to their work. In addition, Rubin & Linturi (2001, 269) argue that people tend to adjust their views to better serve a particular image they have of the world, and when offered new conflicting information, people tend to mould this new information so that it responds to their worldview. Thus the images of the future may unconsciously affect the way campaigns are designed, executed and evaluated but also provide us with information on what may or may not change in the future.

The interview questions (table 3) were categorised into 4 main categories: background information, practical implementation of the intervention, individual behaviour and future campaigning. Background information provided the researcher with material on how the campaigners position themselves in their work. Questions regarding the practical implementation of a campaign added to this but also provided the researcher with vital information on the praxis of sustainable transport campaigning. By asking the interviewees about their view of individual behaviour, the researcher was able to examine how the campaigners perceive behaviour change and how this is situated in other possibly external, underlying factors. Interview questions about future campaigning were added in order to examine the futures images (probable and preferable) the campaigners have, and to see which underlying factors surface from these images.

Table 3 Interview questions

1. Background information
- Your name and role in the organisation   - Work experience related to traffic campaigning (how long and what kinds of projects)?   - Why are you interested in traffic campaigning? How did you end up working with these issues?   - What's rewarding in traffic campaigning? What's challenging?
2. Campaign implementation
- Briefly tell about the background of the campaign, why was it initially planned?   - Did you use a specific planning tool for planning? If yes which tool and why? Was the tool helpful, why?   - What was the target group and why was it specifically this group? Could it have been any other group?   - Indicators – what kind of indicators did you use to measure success? Were these enough? Would you use different indicators if you would do the campaign again?   - How did the campaign succeed? In what way was it successful?   - What challenges did you experience? How were these overcome?   - What happened after the campaign? Was there an evaluation? How was the evaluation made?   - What would you change in the campaign? What advice would you give to someone planning a similar campaign?
3. Individual behaviour
- What do you think is the role of an individual with regards to sustainable mobility? How much do you think an individual can influence transport to become more sustainable?   - Do you think we can modify individual behaviour? Is it possible? Is it important?   - What kind of factors do you think influence individual travelling behaviour and the way people choose their modes of transport?   - What factors do you think stop us from choosing sustainable modes of transport? How would you address these factors or barriers?   - What kinds of methods and measures work best, when you are trying to influence people's traffic behaviour? What does not work? Why?   - Which target groups are the more important ones if you think about transport behaviour? Why?
4. Future aspects
Future campaigning (near future):   - Do we still need traffic campaigns? Why?   - What kind of campaigns do you think should be done in the future? Why?   - What kind of campaigns do you think we will do? Why?   - What kind of a campaigns would you make if you would have an unlimited budget, and no time limits?   Your city in 2030   - How would you like the transport system to look like in your city in 2030? What would need to happen for your city to get to this ideal state?   - How do you think the transport system will look like in your city in 2030?

Interviews were made either by personally visiting the interviewees or by making video interviews via Skype. Three interviews were also made by e-mail, as the interviewees either did not have time for a personal interview, or had technical problems with the Skype software. Even though these three interviews lacked personal contact, the e-mail interviews were utilised as research material. However, the researcher is aware of the limitations related to the e-mail interviews, namely the lack of spontaneity and the risk for calculated answers. Nevertheless, due to the employment of the multi-layered CLA method this was not perceived as a major disadvantage, as the method can be used to dig beyond the surface level in search for deeper meanings (See for example Inayatullah 1998; Riedy 2008).

Interview schedule was partly fixed and partly spontaneous due to the busy schedules of the Interviewees. Each Interviewee was only interviewed once due to the same reason. The interviews were conducted on a one to one -basis but different mediums were utilised depending on the preference of the interviewees. Same questions were asked from all, but the order was not fixed and the questions were phrased differently depending on the flow of the interview. In addition, if the interviewee answered a question indirectly in connection to another question, the question was not asked again in order to avoid repetition.

According to Hirsjärvi & Hurme (2000, 94) the interview is an interactive situation, where both the interviewer and the interviewee have certain roles. The interviewer is in charge of the situation and the Interviewee is expected to provide answers to the questions the interviewer has come to pose (ibid. 94). The interviewer is assumed to appear interested and conversational, yet keep a neutral tone for the sake of not leading or guiding the interview excessively. However, the interviewer comes into the situation with both his or her own background and a set of research objectives. Furthermore, as the interview situation in itself is an interactive process, subjectivity is inescapable (ibid. 96-97). As a consequence, the interviewer has a dual task of collecting valuable research material, while keeping the conversation afloat: the interviewer cannot appear too friendly but should not appear emotionally cold either (ibid. 97-98). In this thesis, the researcher acknowledges certain limitations with regard to the relationship with the interviewees. The researcher had worked with the PLEEC project for the whole of its duration. The researcher had similar professional background and had met 2 of the interviewees in professional situations before the interviews. Therefore, there was a certain easiness in interviewing the interviewees and the onset was informal. However, the interviews were conducted professionally and neutral tones were pursued, even if the atmosphere was laid-back.

The face-to-face and skype interviews were tape-recorded using a standard mobile phone. Each interview lasted 1 hour to 1.5 hours resulting in 353 minutes of raw interview material. This material was then transcribed by using a headphone and a standard word processing program. A Skype interview was especially demanding due to some technical

problems, and some parts of the interview data were incomprehensible. However, enough data could be solved and this interview was used in the research, as well. The transcriptions resulted in 45 pages of raw data. This combined with the e-mail interview resulted in 54 pages of raw research material. This material was then transferred to the N-vivo software for qualitative content analysis.

4.5. Qualitative content analysis meets CLA - to build future images

Schreier (2014, 170) defines qualitative content analysis (QCA) as a systematic, yet flexible method for analysing qualitative, textual data. It reduces the amount of data by categorizing the research material into categories which are relevant with regard to research questions (ibid. 170). Hsieh & Shannon (2005, 1278) define qualitative content analysis as:

> *A research method for the subjective interpretation of the content of text data through the systematic classification process of coding and identifying themes or patterns*".

Both definitions see QCA as a method which brings order and rigour into the creative chaos of qualitative data analysis.

Hsieh & Shannon (ibid. 1278) describe QCA through 3 approaches: conventional, directed and summative. Conventional approach is generally used, when prior research on the subject is scarce. Interview questions tend to be open, and there are no predetermined categories. According to Hsieh & Shannon (ibid. 1281) directed content analysis is a method which is useful in cases, where more research is needed to address certain research gaps. This thesis uses CLA in a away which bears a resemblance to the conventional approach: the analysis is in both approaches a result of immersion, consequent readings and impressions gained from the material. (Ibid. 1279; Inayatullah 1998; 2002). However, both of these methods may tempt the researcher to choose a certain body of research over another which may lead to an incomplete view on the research subject. As a consequence, researchers may find that supportive rather than unsupportive evidence emerges from the data analysis. (ibid. 1281, 1283).

Hsieh & Shannon (ibid. 1283) describe summative content analysis as an approach which concentrates on analysing specific words, contents and their latent meanings in the data. However, this approach may fail to grasp the deeper meanings of these words if the context is not clearly described. (ibid. 1285). This thesis is also interested in contents, deeper meanings and words. Graneheim & Lundman (2003, 111) see summative QCA as

a method which deals with both manifest and latent content present in the text. Manifest content can be directly accessed in the text, i.e. it "*is, what the text says*", whereas latent content can be read between the lines, or as Granheim & Lundman (ibid. 111) state, it "is, what the text is talking about". In other words, manifest content concerns thoughts which are inferred but not said out loud (ibid. 111). Thus, in addition to the conventional approach, this thesis utilises also a summative perspective (ibid. 111).

In this thesis, QCA is seen as a tool which is combined into the framework provided by causal layered analysis. As the focus of this thesis is to examine meanings found in the research material, the methodological approach is similar to summative content analysis. However, the researcher has not concentrated on single words but is more interested in finding latent content i.e. the worldviews and hidden ideas which may lie behind that what is said out loud. As a consequence, the approach is not summative in the traditional sense but aims to bring the concepts of causal layered analysis into summative analysis as suggested by Minkkinen & Tapio (2015). The analysis in this thesis is thus based on a framework which combines summative content analysis and causal layered analysis (Minkkinen & Tapio 2015), as well as the methodological CLA framework developed by Dzidic & Bishop (2015):

1. Getting familiar with the research subject
2. Initial coding using CLA layers
3. Secondary coding using emerging categories
4. Horizontal movement, theme development and alternative pathways
5. Formation of the images of the future

The conceptual parlance of causal layered analysis is utilised, and the analysis builds upon the four layers (litany, systemic, worldview and myths) as well as the continuous horizontal and vertical movement in the different layers which makes this a directed QCA. However, there are parallels also to summative content analysis, too, namely in the emphasis on manifest and latent meanings, as described by Graneham & Lundman (2003, 111). The thesis presumes that qualitative content analysis of the research material, be it causally layered or summative may reveal something profound or latent which may if we follow Inayatullah's (see e.g. Inayatullah 1998; 2000)) reasoning affect the way the issue is constituted and framed.

5. THE ANALYSIS

The analysis is abductive, i.e. observations are, as Reichertz argues (2014, 126), made with a certain theoretical openness and in a dialogue with the research material. The abductive process, as argued by Saunders et al. (2012, 147) relies on a back and forth movement between theory and data, and is in fact a combination of induction and deduction.

The abductive process is a creative undertaking and requires the researcher to perform a "*mental leap*" which may ideally result in finding new and unusual interconnections within the source material (Reichertz, 127). The relevance of the abductive discoveries will be determined by the degree our newly revealed interconnections stand the test of time (ibid. 127). This open logic resonates with the CLA method, where the constant up and down movement through source material lets us to interpret the data openly and to discover new connections and ideas (Ramos 2015, 26). As Dzidic & Bishop (2015, 441) argue, this movement is not limited to the source material but should be made in a constant dialogue between research literature and research material. This continuous movement back and forth is demanding (ibid. 441) but necessary to give support to the analysis and to link it with previous research.

The analysis follows a 5 step framework which has been developed to create a practical approach to CLA. The framework is based on CLA frameworks created by Minkkinen & Tapio (2015) and Dzidic & Bishop (2015). The analysis process begins with the researcher getting familiar with the research subject. The aim is to get an overview on both the research material and the research discussion, and to position oneself in relation to both. After the first step the researcher is ready to start the initial coding using the CLA layers (litany, systemic, worldview and myths). The idea of this step is to take a first vertical plunge into the research material and to see which initial thoughts and categories begin to surface for each layer. The analysis is then taken to the third step, where emerging categories are examined in depth. This process can be described as a figurative peeling, where each layer adds to the whole and opens up new perspectives to the issue. The purpose of this vertical, layered process is to deepen the analysis and to give more substance to the categories. It should be noted that as the analysis is abductive, the researcher is caught up in a back and forth referential relationship between the layered interpretative analysis and research literature (Reichertz, 127; Dzidic & Bishop 2015: 440). In this way the analysis becomes a narrative process which combines the multiple voices of the Interviewees, research literature and the layered interpretation, and as a consequence, generates a multifaceted view on the issue. The fourth step of the analysis aims to add lateral scope to the examination and involves horizontal movement between the categories and CLA layers (Dzidic & Bishop 2015, 441). In this step loose themes start to emerge which are then distilled into actual themes. In addition, through subsequent analysis and by combining layers and themes, alternative futures pathways are created (ibid. 440. These will be used in the final step, where images of the future will be developed.

Horizontal movement within the CLA method refers to a technique, where the plurality of the underlying structures governing our everyday lives is revealed (Ramos 2015, 28). The aim is to somehow unmask the reality and show how our stable everyday existence is actually a playground for various interests (ibid. 28). The vertical movement on the other hand reveals our layered reality, i.e. how all issues are more complex than they first

appear and should be examined by figuratively peeling surface layers to reach the core (ibid. 28).

5.1. Getting familiar and initial coding using layers

As Dzidic & Bishop (2015, 438-439) and Minkkinen and Tapio (2015) state, the researcher should spend some time getting familiar with the research subject. This covers consequent reading of the research material and getting acquainted with the methodological approach. As a consequence, the researcher spent a longer period reading research literature written about sustainable traffic, mobility management, travel behaviour, pro-environmental behaviour, causal layered analysis and qualitative research methods. These themes were revisited numerous times during the data analysis.

The actual analysis of the research material began with the transfer of the material into the N-Vivo platform which allows for a systematic analysis of the material. After this the material was read through several times and coded into the four layers of CLA: litany, systemic, worldview and myths. As Dzidic & Bishop (2015, 438-439) argue, this initial coding lets the researcher to examine and interpret the data vertically through the framework provided by the CLA layers of litany, systemic, worldview and myths. However, same data can be coded into multiple layers, i.e. a sentence may be coded into several layers (Dzidic & Bishop (ibid. 440).

The litany layer contains, according to Inayatullah (1998, 819-820) and Conway (2015, 468), the official truth of the matter which is rarely challenged. In this layer we will find out what the issue is on the surface level. As Graves (2015, 49) suggests it allows us to "*think about this a bit*". The issue seems unchallenged and it is constituted of separate entities (such as car traffic, city planning, cycling, renewables) which are not linked per se. Based on the initial reading of the research material campaigners are unified in their thinking and see current traffic systems as unsustainable. Sustainable traffic is an important solution to curb emissions related to climate change and technical solutions tend to be underlined. Behaviour change is achieved by raising awareness: people should be provided with more information regarding their unsustainable traffic practices.

> *Traffic is the most challenging thing to solve if we are to reach the climate targets which also makes it the most important. More inhabitants must use other means of transport if we are to reach our goal about an attractive city centre and less climate impact. (Interviewee C)*

Of course, it has a huge impact. I mean, it is responsible for the third biggest share of those (aspects) influencing emissions and you know, energy use. (Interviewee B)

The need to curb traffic related emissions is also pronounced at the policy level (see for example EC 2011) and in research literature (see for example Banister 2007; Eißel & Chu 2014). Addressing traffic emissions is considered urgent, yet as Banister et al. (2011, 253) argue, for example demand management tends to be seen first and foremost as a tool which should enable the constant flow of traffic rather than obstruct it by addressing environmental impacts related to traffic. If examined through the litany layer, sustainable traffic campaigning is an isolated process, where specific targets may be difficult to find.

The second systemic layer requires, according to Inayatullah (1998, 820) a more in-depth analysis of the factors and as Conway (2015, 469) argues it includes the drivers and trends which constitute the litany. When it comes to the systemic aspects of sustainable transport, the research material indicates that the campaigners are well aware of the structural factors (such as economical, historical and political aspects) which affect the transport systems they are trying to influence or transform. Therefore, a transport system is not something which is a separate thing but a part of a larger system affected by city planning, politics, historical development and such factors. Campaigners are thus working with systemic challenges and the challenge is to find ways to influence those who are key pieces in the puzzle.

It [sustainable transport] really depends on the infrastructure and the decisions made by the municipality and government. (Interviewee G)

This larger system more or less dictates the options for system development and potential transformation, i.e. the path to a future is somewhat set by past choices, and although change is possible, it is not simple.

Parking policies, norms regarding parking places, their amount and pricing can influence the functionality of private transport and also limit it. (Interviewee E)

Banister et al. (2011, 257-258) argue that our current carbon intensive transport system is a result of past decisions which have built on the notion of ever-expanding transport volumes. This has left us in a locked-in situation, where we are dependent on current transport systems which support our need for continuous economic growth (ibid. 257-

258). In provocative terms, by ditching carbon intensive transport, we may risk the whole economic system falling apart.

The third layer lets us descend into worldviews, i.e. a deeper layer which contains the ingredients constituting the mindset of the campaigners. According to Conway (2015, 470), we should inspect the underlying worldviews and see which views are dominating the discussion and why. This may affect the framing and the outcomes of the campaigns but by revealing the hidden notions, we may be able, as Inayatullah argues (see for example Inayatullah 1998; 2002; 2008) create fresh and alternative ways to design and create new campaigns. The research material indicates, for example, that the transformation from current transport systems to a more sustainable one may be difficult due to a level of resistance among people, i.e. there may be many reasons, why people resist changing for example their daily transport routines. As the need to respect individual choices is pronounced among the campaigners, campaigners tend to be careful and are generally unwilling to directly demand the campaign targets to compromise personal freedom over collective good.

> *It [sustainable traffic] is mainly up to them [the individuals]. More for some and less for some depending on your life situation. (Interviewee B)*

> *The main challenge is to avoid that people see your measures only as a way to mess with their lives. (Interviewee C)*

This may slow down the transition towards sustainable traffic systems as argued also by Barr & Prillwitz (2014, 6) who would like to see a switch in perspective, where instead of looking at individual travel behaviours and attitudes we might examine social aspects of mobility instead. This change or widening of perspective might help the campaigners to find ways to frame "*collective assumptions and routines*" instead of individual behaviours, as argued by Barr & Prillwitz (2014, 7).

The last and the deepest layer of the initial coding takes us to the level of myths. As Inayatullah (2005, 10) describes, the idea is to search for "*collective archetypes*" or "*deep stories*" in a process which is based on intuition or a "*gut*" feeling. Inayatullah (ibid. 10) suggests, that the analysis made in this level should stimulate us visually rather than rely on exact descriptions. This type of analysis calls for a leap of faith from the researcher and is in its nature abductive as described by for example Reichertz (2014). Conway (2015, 472) sees the myth layer as a way to explore the deeper ideas which govern worldviews. Even though the campaigners do not specifically speak in parables, some

archetypes or metaphorical structures can be found in the source material. The campaigners tend to evoke images of struggle and difficulties which as Conway (2015, 473) argues, may indicate the challenges the campaigners are facing in their work.

5.2. Secondary coding using emerging categories

After the initial coding with the CLA layers, the analysis continued by subsequent readings. At this point the aim was to examine which kinds of categories surface from the initial coding process. These categories were examined vertically, and the aim was to see how the emerging categories were layered. As a result, the emerging categories were examined through the four CLA layers. The emerging categories were:

- The roles of the campaigners
- Individual behaviour change
- Sustainable traffic measures

5.2.1. The layered roles of the campaigners

One of the emerging categories focused on the campaigner. The campaigners do their work with a certain level of passion. They are driven by commitment and an urgent need to change the world.

I´ve always been interested in environmental issues and city planning. (Interviewee C)

As the work they do is important to them in many ways and this sense of importance may again affect their campaigning work, "roles of the campaigners" was chosen as one of the categories for this analysis. The campaigners were examined vertically, i.e. through the different CLA layers. The objective was to examine how the roles are layered and what underlying structures emerge through vertical examination.

Litany of roles of the campaigners

The roles of the campaigners seem rather straightforward when inspected through the litany layer. Their work process seems simple: the campaigners plan a campaign, find and apply for funding, and then carry out the practical campaigning and finally, although not always, evaluate the campaign. However, campaigning is also tricky and full of potential pitfalls. People do not respond well to preaching or invasions to the private sphere, and these kinds of efforts will most likely backfire.

> *The main challenge is to avoid that people see your measures only as a way*
> *to mess with their lives. (Interviewee C)*

According to a review made by Anable et al. (2006, 89-90), stressing for example personal responsibility and obligation may indeed encourage some people to change their behaviour, while some may not respond at all well if their mobility practices are challenged. Therefore, campaigning is mainly hands-on communication and information provision. The cycle seems continuous, and due to their hectic work, the campaigners do not have time for analysis or contemplation.

> *Yes, we had lots of meetings. And lots of ideas circling but then we decided*
> *to go for this. We were pretty sure from the beginning of the way we would*
> *carry out the campaign. (Interviewee B)*

Systemic layer: Campaigners working within the institutional system

When the roles of the campaigner are examined in the systemic layer, the view becomes wider. The campaigners are not only information providers but work in a system which is governed by structural processes, such as city history, zoning, political decision making, citizens, infrastructure and so on. The campaigners work with and rely on government, municipality and other officials to give them support through legislation, incentives and planning processes. This may indicate that the campaigners do not feel that they have adequate tools to induce change by themselves but need extra backing and support from the officials.

> *The municipalities, government or whichever structure should provide the*
> *preconditions and the framework, so that people would be encouraged (to*
> *use sustainable traffic modes). (Interviewee G)*

The need for political support is underlined in research as well. For example, Davies (2012, 21) argues, based on a case study made on travel behavioural change campaigns in 12 countries, that governmental support is one of the factors which determines a successful campaign. Without adequate support, the campaigner's role slips into the role of the litanic information provider instead of taking a role as a city official working from within the system.

Worldview layer: Personal worldviews affecting professional roles

The worldview layer deepens the role of the campaigner even further. The campaigners seem to have strong personal views regarding their work as advocates of sustainable traffic.

> *My work is important both for the society and for the environment. (Interviewee E)*

Yet, the work they do is not accepted at face value: not all are in favour of their work. This creates a dual role from the worldview perspective. Their inner passion must be contained in order to not to challenge the existing status quo, governed by individualism, freedom of choice and neoliberal thinking. As a consequence, the campaigners should not preach, invade the private sphere or limit the freedom of choice, even if their inner voice would advise them otherwise.

> *I dislike preaching or pointing a finger at someone, because it is too personal and creates a, you know, counter-reaction, like I will drive the car for sure if you talk to me this way. (Interviewee B)*

Campaigners tend to therefore balance between respecting the freedom of choice and proposing actions in favour of the collective good. This balancing act is generally tackled by disguising, embellishing or reframing the issue so that the proposed actions are voluntary, and it is up to an individual to decide which transport mode they choose. By offering the individual enough information, he or she is given the role of the decision-maker, while the campaigners adopt the role of the choice enabler, i.e. the one providing all necessary information needed to make an informed choice. This distancing act allows them to continue to work in the system which does not necessarily support their worldview. However, there is a potential flaw in this framing as argued by for example Barr & Prillwitz (2014) and Legget (2015). It does not challenge the soundness of the individual choices, and makes the choice between, for example, a car and a bicycle a matter of, for example, convenience rather than a profound question of supporting a certain lifestyle.

Myth layer: Campaigners as mythical figures

The campaigners' roles are a rich source for the myth layer. The campaigners are for example invoking images of a figurative struggle taking place on the streets between the illuminated (for example cyclists) and the unredeemed (such as car-drivers). The role of the campaigners is promethean: to bring knowledge to the unredeemed and to guide them to enlightenment. In addition, the campaigners, like Luke Skywalker, want to entice their people from the dark side of private cars and practices which may destroy our whole existence and ask them to embrace the light which resides in sustainable lifestyles.

I believe I am fighting for an important cause. (Interviewee E)

Another mythical example can be found in the frustration, despair and pessimism which the campaigners experience when trying to convince their target groups of the positive sides of sustainable transport. This bears resemblance to the myth of the giant Sisyphos (Henrikson 1997, 344-345) who was condemned to push a gigantic rock up a hill in Hades, and when seeing it roll down again, was forced to begin pushing it up again. This myth describes an eternal cycle of pointless effort and exertion. Much in the same way the campaigners, like Sisyphos, are facing a situation, where steps forward may be invalidated by political decisions, general disinterest and financial concerns. After one campaign, another begins, yet nothing changes.

Any efforts to influence city planning can be suppressed by one political decision. This is my personal opinion. (Interviewee G)

The campaigning cycle seem endless and major change is not at sight. As Conway (2015, 473) argues, this may indicate that the campaigners may find their dual role a source of frustration which brings forth visions of struggle and fight. However, the mythical roles of the campaigners are not only negative, there is also potential for transformation. The campaigners evoke idealistic visions of a collective utopia, a Gaian paradise which may be achieved through cooperation and creative means.

5.2.2. *The layered reality of individual behaviour change*

The roles of the individual in behaviour change was one of the three key interview themes which is why it naturally emerged from the research material as a category. The challenges related to individual behaviour change are widely discussed in research literature. Pro-environmental behaviour is a much-researched subject and according to a reference report made by the UK Government Social Research (Darnton 2008, 1) there are more than 60 different kinds of social-psychological models and theories which explain behaviour change in some way. The discussion concerning individual behaviour change and pro-environmental behaviour is very extensive (see for example Darnton 2008; Anable et al. 2006; Science and Technology Select Committee 2011) and beyond the scope of this thesis. However, the researcher acknowledges that many conceptual models aiming to capture the complexities of behaviour change and pro-environmental behaviour have been developed, although results seem inconclusive.

Litany layer: Individual behaviour change from the surface level

At the litany level, there is a general consensus that individuals have a key role in making transport more sustainable. This is also clearly underlined in the research material. Campaigners believe that individuals may transform the traffic system and it's up to each and every one to consider their everyday transport choices.

> *The role of the individual is really big. The individual can usually choose the way he or she makes a trip. We do approximately a 1000 trips per year and each individual really should think how each trip will be made and if it is even needed. (Interviewee E)*

Awareness raising and information are needed to make individuals to grasp the unsustainability of their mobility practices. And as a logical step, campaigners can be perceived as guides who inform the individual in the process of modifying their transport behaviour. In the end, it is up to an individual to make the choice and change behaviour. The need for individual behaviour change is discussed at the policy level (see for example Science and Technology Select Committee 2011; EC 2011) and in research (see for example Abrahamse et al. 2005, Steg 2007, Anable et al. 2008). The benefits of individual behaviour change seem unquestionable, the main challenge seems to be to find the most effective ways to affect behaviour, and although there are some discordant views (see for example Shove 2010, Barr & Prillwitz 2014, Legget 2014), the paradigm seems relatively unchallenged both at the policy level and in research.

Systemic layer: Individual choices governed by structural factors

Individual behaviour change becomes an increasingly complex issue, when perceived from the systemic perspective. The research material clearly underlines that individual choices can take us only so far if the structural or technical solutions do not support sustainable choices.

> *Individuals have a responsibility but in a way the biggest responsibility is or should be primarily transferred to the government, municipal or public sphere to create a framework for these [sustainable] solutions, so that we can encourage and facilitate sustainable traffic. (Interviewee G)*

Past and current structural choices (e.g. zoning, cycle path networks, public transport connections etc.) can create locked-in situations, where individuals have no other realistic

choice than to use unsustainable transport modes. In this sense, individuals, and campaigners for that matter, are left to cope with a given infrastructure which is a result of a long historical process governed by economic and political interests, modernist paradigm and other systemic factors (Banister et al. 2011, 249). Individuals cannot change their behaviour if structural factors are not in favour of the change.

> *If there are no cycle lanes or bus connections to your home or the bus stop is really far away, then it really is a big thing. (Interviewee B)*

The campaigners share the general view discussed in both research literature and policy development that transport infrastructure and zoning practices should, from a systemic perspective, be made to support sustainable transport choices, i.e. the city should enable individual behaviour change by using various methods. Incentives, softer MM methods (such as travel card experiments or raising awareness) and harder infrastructure investments can be used to guide people's behaviour (see for example Hiselius & Rosqvist 2016). All in all, support (be it planning, incentives or setting an example) from city officials and the government is needed to give the final push towards change (see for example Davies 2012).

Worldview layer: Interests governing individual behaviour change

When examined through the worldview perspective, individual behaviour change is opened up and various interests and themes surface. Among them, we find the relationship between the individual, the government (city officials, politicians or other public authorities) and to a certain degree various interest groups (such as economic institutions, NGO's, private companies). As we already know, the campaigners stress individual behaviour change, and see the role of the individual central in sustainable travel campaigns.

> *It (sustainable traffic) is mainly up to them (the individuals). More for some and less for some depending on your life situation. (Interviewee B)*

While this view is perfectly legitimate and in line with research, it has its limitations. This interpretation, according to Barr & Prillwitz (2010, 2), Leggett (2014, 3-4) and Shove (2010, 1274) is closely connected to the neoliberal worldview generally used in behaviour change campaigns, where the individual (not the government, nor the private sector) is responsible for changing his/her behaviour. The individual is raised on a pedestal as the key figure in the fight against climate change, environmental degradation or other causes.

> *Every individual in the society nearly has the same possibility to influence the system. (Interviewee C)*

As Barr & Prillwitz (2010, 2) argue, this view is somewhat simplified and falls short in addressing the complexities related to lifestyle transformations. It also puts individuals into the spotlight, and consequently undermines, in a typically neoliberal way, the role of the government and economic institutions in the change (Barr & Prillwitz (2010, 2-3; Leggett 2014, 3-4). In addition, individualism or the need to push for namely *individual* behaviour change, without compromising the freedom of choice, can be seen as a major challenge.

> *Then we have these hardened car-drivers who do not want to abandon their cars, because they love their vehicles so much. It is their choice and no-one can convince them otherwise. (Interviewee B)*

This emphasis may lead the campaigners into a position, where for example car-based lifestyles become like an elephant in the room, an issue which cannot be properly addressed without stepping on too many toes. Addressing a delicate issue such as the right to use a private car would require campaigners to propose actions which may go against their subconscious worldviews. This may leave the campaigners in a limbo: campaigns which threaten individualism, undermine neoliberal economics or cross, rather unpleasantly, into the sacred private sphere become too hot to handle. The potential tension may also create an underlying sense of frustration which may, in turn, limit the scope of the campaigns.

The campaigners strive for change but in the light of the current ethos, the chances of a sustainable transport revolution seem slim without additional help. Consequently, there might be potential in civic engagement and grassroots level action, where the empowered masses drive the transformation from below as a collective. Campaigners see also new opportunities in social media, where active participation and the sharing of experiences is somehow more natural.

> *Facebook is really, I mean, people are really quite open and use their own names. It is a really easy channel. (Interviewee D)*

> *If people have a sense that they can make a difference. This comes from the community. (Interviewee B)*

Civic engagement as a way to create change and pro-environmental behaviour has been discussed extensively also in research literature. Dobson (2010: 40, 43), for example, proposes the concept of environmental citizenship as a way to encourage behaviour change. This concept exploits our need for participation and our appetite for the freedom of choice, and operates in the realm of the civil society which is where lasting behaviour change will take place.

Myth layer: Individual behaviour change from a mythical perspective

Individual behaviour change can be analysed also from a mythical perspective. In this layer, individual behaviour change can be examined as a figurative struggle between the enlightened, i.e. those who have changed their travel behaviour (for example, cyclists), and the unredeemed, i.e. those who have not seen the light (for example, car drivers). The campaigners are the vanguards of individual behaviour change: they tend to live as they preach. This reasoning resonates with the Jesus-myth, i.e. campaigners bring the gospel of sustainable traffic to all willing to listen.

> *I try to promote cycling also in my freetime. It's only natural to do it at work, too. (Interviewee D)*

The strife for behaviour change is bestowed with a sense of urgency: change might be too limited and too slow. This "end is near" – perspective can be both crippling and energizing. It may result in a transformative drive, where change creates more change, and spillover (see Thogersen et al. 2009) generates more change. However, the perspective may also result in a paralysis: we may not get enough people to change their ways, even if we try, so why even bother.

> *Yes [change is possible] but does it [behaviour] change so much or adequately in such a short time. (Interviewee G)*

In addition, the "end is near" - perspective creates tension: how are we to change individual behaviour by using only voluntary means. Yet the campaigners seem reluctant to force anyone, as it goes against the worldviews of freedom of choice, individualism sensibilities.

The analysis reveals also that the "elephant in the room" metaphor is, although not worded, somehow present in the discussions. The campaigners avoid talking about the more profound, political changes (e.g. lifestyle changes, societal changes, changes in the mindset) needed to curb emissions. These issues are politically volatile and may include unpopular, limiting or forcing measures which go against the generally positive tones the

campaigners are trying to use. Nobody wants to make people do anything unwillingly, i.e. the change should come from the individuals themselves. However if this change does not happen, or if it is not enough, other unpopular measures may be needed. The campaigners may deep down know that they should have a plan B if the behaviour change achieved by current campaigns is not enough. However, they tend to avoid bringing it up. Thus the "what if" –option becomes an elephant in the room which is not discussed, although it should be.

5.2.3.   The four layers of sustainable traffic goals and measures

The research material is filled with ponderings about sustainable traffic. As the most important aim of campaigners' work is to transform current traffic systems into sustainable ones, finding sustainable solutions is quite obviously the bread and butter of their daily functions. Achieving sustainable traffic is a complicated matter and requires measures which may be technological, behavioural, structural or most likely a combination of all these. As Holden et al. (2013, 75) argue, technological solutions are not adequate but behavioural measures are also needed. This is acknowledged also by the European Commission (EC 2011; EC 2013) which proposes structural solutions in addition to technological and behavioural alternatives. The MM approach calls for a combination of hard and soft measures (EPOMM 2013, 7). Banister et al. (2011, 254) argue for different combinations of various measures which may include a mixture of new technological innovations, a change in the way mobility is organised and socioeconomic measures. The solutions seem manifold, and no miracle cure seems to exist.

Litany layer: Sustainable traffic goals and measures at first glance

If we examine how the campaigners perceive sustainable transport measures at first glance and perceive it in the litany layer, we notice that campaigners call for action to make transport more sustainable. They see the role of traffic as instrumental in cutting down emissions and their main aim is to serve the greater good by enlarging the share of sustainable traffic.

> *Traffic is the second largest producer of greenhouse gases. (Interviewee A)*

> *The aim [of what we do] is to reduce emissions. (Interviewee G)*

The overall aim of their work is to cut down transport emissions as traffic has such a huge impact on the emissions in cities. The proposed measures are mainly technological: future sustainable cities should preferably have transport networks which are based on

public transport, new technological solutions and light modes of transport such as walking and cycling.

> *I think that we will have cargo bikes, all kinds of gadgets and other stuff in these new residential areas, and people can even repair and maintain them [new bikes and gadgets]. The regional traffic system will be widened to include more municipalities. (Interviewee A)*

> *All kinds of sharing and emission-free transport modes would be the biggest thing. People will also reconsider the way they move. (Interviewee D)*

The litany layer is usually filled with percentages and expert jargon which makes it, as Inayatullah (1998, 820; 2005, 8) states, the unquestionable representation of the official truth. As the litany is not questioned but swallowed in its entirety as the empirical reality, it may, as Ramos (2015, 32) suggests, distract us and limit our understanding of the underlying structures.

> *A modal split with around 20 % car, 25 % public transport, 25 % bicycle and 30 % walking. Carpooling will be much bigger than today and we have a fossil free car fleet. Most of the city centre is shared space based on the speed for pedestrians and cyclists. (Interviewee C)*

Increasing the modal split of sustainable transport modes with campaigning is a common aim of the campaigners, yet research is not in any way unified which means are the most effective ones to induce behaviour change (see for example EC 2011; Anable et al. 2006; Chatterton and Wilson 2015, Abrahamse 2005; Steg 2007) or indeed if individual behaviour change is in fact possible if underlying structures are not addressed as well (see Barr & Prillwitz 2010; Leggett 2014; Shove 2010). Numbers, expert jargon and percentages, are typical litany level tropes which are used to legitimize the work of the campaigners. However, this type of fact-based discourse may distract and create distance from the target groups the campaigners are trying to convince.

On the surface level, the campaigners see sustainable traffic campaigning as the main tool in transforming current transport systems into more sustainable ones. Campaigns can, for example, be used to develop public transport to better meet with the needs of the customers, or to raise awareness on sustainable transport modes by providing people with more information. This reasoning is similar to the aims of MM which relies also on softer measures as a tool for behaviour change (EPOMM 2013). At first glance, the belief in

changing behaviour with campaigns is common among the campaigners, and the need to change individual behaviour is largely unquestioned, as is common for the litany layer (Inayatullah 2004, 17).

> *I don't see why this kind of campaigning should not [have an effect], maybe attitudes can be influenced and people may be able to demand bigger things [to happen]. (Interviewee B)*

> *I think our travel patterns have a chance to do the same leap forward if we can create good behaviour change campaigns and combine them with economic instruments and investments. (Interviewee C)*

> *A single campaign does not change behaviour but people gather information from multiple sources and then someday make the change themselves. (Interviewee D)*

Yet, as Anable et al. (2006, 3) state, knowledge and awareness of for example climate change does not necessarily translate into sustainable travel behaviour, i.e. increased awareness alone does not change individual behaviour. Still, information provision remains an important part of traffic campaigning, and the need to increase awareness on various causes is at the core of pro-environmental campaigning, even if it serves no actual purpose behaviour-wise.

The campaigners see sustainable traffic campaigning as a challenging endeavour. There are a number of things which make sustainable transport measures difficult to pull through among the target groups. These challenges are on the surface level related to practical issues, such as the hectic and busy lifestyles, general mistrust and disinterest in traffic issues. In addition, people need to be offered something in return, i.e. they should gain something from of the campaign. According to Steg et al. (2014, 105) personal gain as well as hedonic reasons may be one of the drivers for pro-environmental behaviour. Some are also driven to act in an environmentally friendly way because they believe they are doing the right thing (ibid. 105).

> *People take part if they get something for free. It is always a positive thing [to give them something for free]. (Interviewee B)*

> *Some are a little bit materialistic. Basically we have some free stuff, lights for the cyclists or something and it works really well. (Interviewee F)*

However, even though campaigns face numerous challenges which may seem difficult to address, this is only the surface level. As Inayatullah (2004, 16-17) argues, our reality is layered and by scratching beyond the surface, we may see that other potential reasons and underlying structures may be found. Time restraints, the need to gain something and general disinterest in sustainable traffic campaigning can be seen as signals of deeper issues or themes which current campaign designs fail to address. Without digging deeper into the systemic factors, underlying worldviews and myths, the campaign results may most likely remain limited, and the noble aims continue their lives in the book of unfilled dreams.

Another litany example comes from the campaigners believing that the general tone of the campaigns should be kept positive and amicable. Personalised information, awareness raising and practical experiments are thought to make good ingredients for sustainable transport measures. According to a review made by Anable et al. (2006, 89-90), stressing for example personal responsibility and obligation may indeed encourage some people to change their behaviour, while some may not respond well if their mobility practices are challenged.

> *The main challenge is to avoid that people see your measures only as a way to mess with their lives. (Interviewee C)*

Although it is perfectly understandable that no campaigner wants to spoil the party, the taboo of not upsetting people or asking them to make only small changes to their lives, may keep campaign results modest at most. As Thøgersen & Crompton (2009, 142) argue, small changes unfortunately result in small reductions in the overall environmental impact.

Systemic layer: A structural view on sustainable transport goals and measures

When we descend into the systemic layer, we will notice that sustainable transport measures become a part of a larger system governed by various structures. Sustainable transport and related measures seem to be dependent on city planning and infrastructure, technical features, political decision making and the interplay between these factors. The campaigners are aware that measures must be carried out in relation to the surrounding environment which may or may not support sustainable traffic. They see the city as both an enabler and a disabler of sustainable transport depending on the decisions made. People cannot be expected to use sustainable transport modes if the city does not provide supporting structures. Systemic causes become the limiting factor of successful transport

campaigning and the campaigners are left at the hands of the municipality, the government and the EU. However, while the systemic structures are well acknowledged by the campaigners, they remain, as Inayatullah (2004, 17) suggests, unchallenged. As they are unchallenged, the potential solutions stay within the system and thus inevitably fail to achieve lasting change.

> *If there are no cycle lanes or bus connections to your home or the bus stop is really far away, then it really is a big thing. (Interviewee B)*

> *You need to put pressure so that structural decisions which are truly sustainable, are made. ((Interviewee G)*

> *Some things are up for the municipalities to decide, and they may support individual choices so that they (the individuals) would choose more sustainable options. (Interviewee F)*

At the systemic layer, we find the politicians and other officials assigned in the role of gatekeepers who may either undermine or boost the positive effects a sustainable traffic campaign may have. Politicians can thus make or break a campaign, and whether or not a campaign is successful depends not only on the general public but also how the campaign is perceived by the city officials. Thus political decisions carry a lot of weight among the campaigners, and even single political decisions can have a huge effect on measures. This can become a source of frustration, and as is usually characterized by the litany layer (Inayatullah 2004, 17-18), creates a sense of apathy and helplessness.

> *Any efforts to influence city planning can be suppressed by one political decision. This is my personal opinion. (Interviewee G)*

Another part of the systemic layer is occupied by the inhabitants or citizens who are not only consumers of sustainable transport services but an integral part of the city transport system. They carry vital information with regard to transport services, and this information may be collected as a campaign measure and utilised as a way to develop the city. Furthermore, social media tools can also be used as feedback channels and thus provide the city with direct feedback from the citizens. In this sense there is room for cooperation between the campaigners and citizens. In addition, social media based measures used in the campaigns have resulted in ad hoc online communities consisting of people

sharing similar traffic interests. Campaigners can thus be seen as enablers who bring like-minded people together and create platforms which may encourage change. As Inaytatullah (2004, 18-19) argues, the perfect campaign recipe in systemic terms relies on cooperation between different groups.

> *In my opinion the pressure should come from the inhabitants of the municipality. (Interviewee D)*

> *At least the social side seems to work, you know, the collective things. If people have a sense that they can make a difference. They [the participants] had even pretty analytical estimations of bus routes. (Interviewee B)*

The campaigners see great potential in measures which rely on experimenting. Most of the interventions which were examined in this thesis, had an element relying on practical experiments. Experimenting may have included bicycle trials (Bike at work), public transport trials (Take the bus to work, Commuter experience, Commuter tickets, Spring vacation) or various combinations (Car free week). Experimenting is seen as a good way to break some of the habits related to travel which are considered central with regard to behaviour change.

> *You can start changing learned habits by experimenting carpooling, public transport or bicycle instead of taking the car. (Interviewee E)*

> *The main idea was to change habits. There is some research that a positive cycling experience of 10 minutes may encourage people to continue. (Interviewee A)*

Anable et al. (2006, 106) argue that habits govern people's transport choices to a great degree. By offering people sustainable transport alternatives in the form of practical experiments, we may introduce a travel mode which might not have been explored otherwise (ibid. 105). However, experiments do not automatically result in a switch into sustainable modes of transport, and people need to be reminded (ibid. 105). As is the case of any single CLA layer, the systemic layer offers only a limited view on habits, and thus a deeper examination on the relationship between our habits, underlying worldviews and myths could be in place. In addition, uncovering the deeper structures behind our travelling habits, may give us an alternative view on how these structures might be potentially addressed to meet with our emission reducing targets.

Worldview layer: Underlying interests governing sustainable traffic goals and measures

When we descend into the worldview layer, we find the campaigners caught in a middle of a triangle consisting of individuals (the ones having the freedom of choice), the government (the ones making the decisions) and interest groups (the ones trying to mould the city to serve their interests). The conflicting interests make their work a constant juggle which creates frustration. This frustration may in part rise from the clash between the worldviews of the campaigners and the worldviews of other parts of the triangle.

> *They offer this cheap parking at 99 euros per month. It is absurd that taking your car to day care is cheaper than taking your kid to a kindergarten. (Interviewee A)*

Despite their reservations, the campaigners must come up with measures which encourage and empower the individuals but also keep the other parts of the triangle enlightened, interested and supportive of their cause without crossing any undesirable boundaries. This leaves the campaigners in a tricky position which may inhibit them from taking an active role in the measures. Their hands seem tied and they may feel exasperated as they cannot live according to their governing worldviews and fail to really push the change forward without additional help. This additional support may come in the form of grassroots level action or anarchism which calls for collective action instead of individual efforts (see e.g. Wachhaus 2014, 575). Campaigners may want to seek additional support from NGO's which are freer to adopt actively political roles but due to the neutral role the campaigners should maintain, this may seem as a politically unwise move. Yet again, we see the campaigners restrained by conflicting worldviews.

As Leggett (2014, 3) argues, behaviour change has become strongly politicised which gives campaign measures also a political undertone. According to Leggett (ibid. 3), behavioural economics (also called nudging) based on social psychological models, uses concepts such as "choice architecture", where people's behaviour can be influenced, or even manipulated subconsciously by simply offering them only certain default choices (ibid. 5). However, the choices people are offered are framed by underlying political, ideological or moral agendas - a thought which follows Inayatullah's (see for example Inayatullah 1998; 2002; 2004; 2015) ideas quite to the point. This worldview-based framing can be seen for example, when the campaigners talk about the politicised city space.

> *You can define the traffic policy of the city simply by examining the cross section of the main street, how much space is assigned for each mode of transport. This gives you a glimpse. (Interviewee A)*

Thus, while the aims of a municipality may be perfectly benign (such as, cars need their street space), measures remain still susceptible to underlying worldviews which are in our case governed by neoliberalism (cars are needed to keep the city centres alive), libertarianism (everybody has the right to own a car) and technocratic reasoning (streets are built for cars) (Legget 2014, 6, 14). As a consequence, campaign measures may also be affected or, as Inayatullah would say, framed by these underlying worldviews, even if the campaigners might be driven by other worldviews, such as, something which Legget (ibid. 16) calls the social democratic worldview. Campaigners, for example, demand stick and carrot but steering should not interfere too much on people's lives to avoid backfiring. Municipal or state interference is seen as a powerful tool to facilitate change without re-sorting to unnecessary force. It also allows the campaigners to remain neutral which makes their work easier, although this neutrality may also become a source of frustration, as stated above.

> *It is not enough if we just say it in positive way that you should do so and so. We definitely need the stick from governing organisations. (Interviewee A)*

> *I [think a] combination of carrot and stick. We must use for example park-ing fees and longer routes to the parking lots if we are to succeed. (Inter-viewee C)*

> *The main challenge is to avoid that people see your measures only as a way to mess with their lives. (Interviewee C)*

However, it should be noted that campaigners do not mention or directly question the underlying motives of governmental interference. The stick and carrot based support the government should offer is subconsciously thought of as a positive thing, and is used as way to legitimize the neutral role the campaigners are pushed to adopt. As a perfect ex-ample of the vertical up and down movement characterizing CLA, this litany-like under-tone of the government as the go-to option solving every problem suddenly lifts us up to the litany-level, where official, unquestioned truths reside (Inayatullah 2004, 18). It is curious that decision making in the municipal level is considered very politically nuanced by the campaigners but governmental steering, such as legislative tools, less so. However, as Leggett (2014) argues, political steering with regard to behavioural change is far from neutral. Thus if we take a look the way the worldview layer steers our campaigners, we

may see that by adopting a sidestepping role and by letting the government take care of the more unpleasant enforcer role, the measures become disjointed in a way: proposed measures become separate from the campaigns and campaigners, and may fail to connect with their target audiences.

The vertical movement up and down the layers also reveals another underlying worldview which may affect the way measures are framed and thus designed. The belief in modernization and technology can be seen to govern measures. The campaigners promote new technological innovations as long as these innovations are of the right kind (for example, electric bicycles, hybrid cars, buses running on renewables) and keep us on the right track (i.e. do not compromise the ultimate goal of reducing the emissions). As a part of the CLA process we should, however, according to Barber (2010, 171), ask who decides which technological innovations we should choose and why.

> *Cars become electric, and cease to pollute. (Interviewee E)*

> *Investments will be made to hybrid, gas depending on how it goes. I don't know about electric cars, though. (Interviewee G)*

New green innovations seem to have a dual role: they are a way to attract the attention of the shareholders (the general public, media, politicians, companies) but they also open new windows of opportunities and thus facilitate green growth. These both are powerful arguments especially, when the campaigners are dealing with the challenges of our current financial situation.

> *Difficult to say if the economic situation does not change, it [speed tram] will not become reality [in 15 years]. (Interviewee G)*

The idea of technology as a determining factor resonates with the concept of ecological modernization which pairs environmental thought with economy and technological innovations (see e.g. Buttel, 2000; Jänicke, 2008). If, as Jänicke argues (200,8 557-558), we can create growth and new opportunities with green technological innovations, we generate a win-win situation. Furthermore, by demonstrating potential financial gains to be gained in the transformation towards lower emissions, we may be able to convince our stakeholders of the benefits of a low-carbon world. However, as modernization builds upon another worldview, namely that of continuous economic growth, we may be threading on thin ice: we cannot sustain infinite growth in a finite world (see for example Brundtland 1998). We must still come to terms with larger socio-economic questions and widen our perspective, as argued by Barr & Prillwitz (2014), Shove (2010) and Banister et al. (2011).

Myth layer: Hidden archetypes behind sustainable traffic goals and measures

Sustainable traffic goals and measures have also underlying mythical structures. The campaigners rely on practical and positive measures in their campaigning. Sustainable traffic campaigns should not be negative or tedious but strive to underline the fun and social side of the human experience. In this way, the campaigners are encouraging people to find their inner child, a mythical creature which may reside inside even the most hardened person. By evoking the image of the inner child, sustainable transport measures become a form of legitimate play which leaves room for transformation through creative means.

> *There was this entrepreneur who sold clothes for children. She had this ET-bike [as a part of the Bike at work campaign]. She made a photo collage, where ET met her own bike Edie and they fell in love. (Interviewee A)*

Consequently, campaigning grows ultimately into a question of not what you are giving up but what you are gaining in return. In a mythic sense it becomes a pursuit of happiness, where happiness may be found in the simple things and not in the pursuit of material comforts or economic growth. However, most people are still resisting the idea of letting go of material constraints, and the campaigners must mask or reframe sustainable traffic measures to hide their real goal of emission mitigation. The carrot and stick -metaphor serves its purpose here: the campaigners are gently guiding and forcing the unenlightened masses to the light. Here they must tread carefully though, as the risk of backfiring is always present, when people are concerned. Health benefits, social norms and potential financial gains may be used as safe concepts for this reframing and the environmental side of the measures gets blurred or side-lined to keep the target groups satisfied.

> *Health- and wellbeing issues become central and functional exercise adds the use of smart transport modes. (Interviewee E)*

> *The way to promote sustainable transports is to highlight their comparative advantages like health and economic aspects. (Interviewee C)*

However, once people are settled in their new healthy and lean ways, the environmental benefits may be better accepted as a norm. This may create a spillover effect, where a single environmentally positive behaviour may, at least in a limited sense, result in similar practices in other everyday functions as well, as argued by Thøgersen & Crompton (2009).

In addition to happiness and the inner child, technology offers another way to examine the mythical layer of sustainable transport measures can be seen to offer the mythical silver bullet which solves the problems as long as we get the people to embrace these technological solutions. There is, however, a potential problem in this if we take into consideration the finiteness of our earthly resources and the limits of the planet. Then again, the campaigners are quite aware that people need more than just technology to change their ways. The adoption of new sustainable technologies requires a behavioural push.

> *Traffic is also dynamic and more about people and their behaviour than technical solutions. (Interviewee C)*

Unfortunately, there seems to be no silver bullet measure to change people's behaviours. This seems to be the general consensus of research literature are well (see e.g. Anable et al. 2006, Abrahamse et el. 2005, Darnton 2008). However, a combination of various measures seems to be more effective than using just one single strategy (see for example Tuominen et al. 2014).

5.3. Horizontal movement and alternative pathways

The aim of the horizontal movement is to examine the categories presented above laterally, i.e. to see which themes emerge from each layer and how these themes are relatable with one another. This undertaking will not only help us discover any emerging themes but leads the way to alternative pathways which may not be revealed by mere vertical movement (Ramos 2015, 28). As Ramos (2015, 28) argues, we may able to discover alternative pathways if the underlying assumptions are revealed and our eyes open for plurality. The researcher made a conscious choice to do the horizontal phase without actively using the N-vivo –programme. The N-vivo database was used as a reference point and research material storage but the horizontal analysis was done using a standard word processing program.

The horizontal movement began by examining each layer through the categories. It should be noted that horizontal movement does not only happen in this phase but is a continuous process as argued by Dzidic & Bishop (2015, 438) and Ramos (2015, 28). In addition, there is overlapping and a dialogical relationship between the different layers (Dzidic & Bishop 2015, 438). Vertical movement is also present in this process, as we move up and down the categories and layers (Ramos 2015, 28).

The 4th step included a systematic reading of each layered category. As a result, a list with preliminary themes in congruence to each layer and category was made. The process

began with searching for certain sub-components or sub-categories (Table 4) which were then examined per each category and layer.

Table 4 Sub-categories in sustainable traffic campaigning

Sub-category	Condensed meaning
Traffic system	
Raison d'être of the traffic system	Path to current traffic system
Main behavioural objective	Main objective for behaviour change
Driver for individual behaviour change	Which main factor drives behaviour change
Campaigning	
organisation	Organisation's position in relation to the city
Process	Process governing campaigning
Measures	Main measures used
Level of involvement	How active a role the campaigner adopts
Role	The role the campaigner takes
Risks	Risks resulting in campaign failures
Results	Ideal result
Targets	Main targets groups
Aides	Supporting factors or actors

These sub-categories were then further condensed into 4 core components to form preliminary themes for each layer. The core components were: current state, campaigner, campaign measures and driver for behaviour change. The core components were similar to emerging categories, however, an additional component "current state" was added after it emerged as a result of the horizontal analysis. This core component describes how the current state of the city transport system is seen in each layer and in which way this state is defined. In addition, semi-condensed themes surface from each layer as a consequence of the horizontal movement. These were then further distilled to form the main themes for each layer (tables 5-8).

In Table 5 we see how the core components which can be found in the litany layers, are translated into condensed themes. In the 'current state' -component, current traffic systems can be described as systems which have natural roots. They have evolved as a result of an inevitable process and changing them is challenging, as it goes against the way traffic systems are usually developed, i.e. it becomes a natural challenge. The campaigner can be seen in the litany layer as a more of a marketer who provides information

to the target groups and gives guidance if necessary. Campaign measures are conservative, mechanical, and use established methods. Behaviour change comes with information: the campaigner must sell the change by providing people with convincing information.

Table 5 Litany core components, semi-condensed themes, and condensed themes

Core component	Semi-condensed theme	Condensed theme
Current state	Current traffic system is a result of a natural process, changing the system is an enormous challenge.	Natural challenge
Campaigner	Campaigner is a detached marketer who provides information, guides consumers and works as a part of city services.	Marketer
Campaign measures	Campaign measures are mechanical and follow well tried campaigning and marketing methods.	Mechanical measures
Driver for behaviour change	Behaviour change comes through information provision and the objective is to sell people the need to change.	Sell the change

The core components which can be found in the systemic layers are translated into condensed themes in table 6. In the current state -component, the current traffic systems have in the systemic layer, evolved as a result of historical and structural development. This system can be changed by changing city structures and by trying to plan cities which support sustainable transport. In this way change becomes a structural challenge. The campaigner can be perceived as a neutral enabler, a liaison between campaigns, targets, politicians and other stakeholders. Measures are mainly structural, i.e. aim to change city structures towards greater transport sustainability which guide people to a change in habitual travel behaviour. The driver for behaviour change comes from changing people's habits to serve the common aims of the city.

Table 6 Systemic core components, semi-condensed themes, and condensed themes

Core component	Semi-condensed theme	Condensed theme
Current state	Current traffic system is a result of historical and structural city development processes. Changing the system is a planning challenge.	Structural challenge
Campaigner	Campaigner is a neutral enabler who organises campaigns and experiments, brings stakeholders together and works as a part of the city system.	Enabler
Campaign measures	Campaign measures are structural and aim at developing a city which support sustainable traffic- Citizens are an asset in this development through their feedback.	Develop the city
Driver for behaviour change	Behaviour change needs a city which supports sustainable traffic. The objective is to change people's habits to fit new structures.	Change habits

Table 7 presents the core components which can be found in the worldview layers are translated into condensed themes. In the current state -component the transport system is mainly a product of a certain ideological process and thus changing the systems becomes an ideological challenge. The campaigner can be interpreted to assume the role of an advocate who struggles with dominating worldviews conflicting with their inner worldviews. Campaign measures are, due to the advocate role the campaigner is taking, both empowering and social. The main driver for behaviour change is to change the mindset of the target groups. Lasting, deep change is possible only if the deeper ideological processes evolve.

Table 7 Worldview core components, semi-condensed themes, and condensed themes

Core component	Semi-condensed theme	Condensed theme
Current state	Current traffic system is a result of an ideological process. Changing the system is an ideological challenge.	Ideological challenge
Campaigner	Campaigner is an advocate with a dual worldview (personal passion clashing with dominating worldviews).	Advocate
Campaign measures	Campaign measures are empowering and social. Measures concentrate on online communities and use grassroots level actors and the benign state as support.	Empowering
Driver for behaviour change	Behaviour change comes through changing the mindset and the main objective create a new ideology.	Ideological lifestyle change

The core components which can be found in the myth layers are translated into condensed themes in table 8. In the current state -component, current transport systems are a result of a metaphorical tug-of-war between those who believe in sustainable transport and those who do not. The current state reflects the power balance and is in a way a metaphorical challenge. The campaigner is seen as the vanguard of transformation who works not alone but in cooperation with others who believe in the cause. Campaign measures are creative and have a positive undertone based on co-creation. Behaviour change comes through creative means which will ideally create a spill-over effect, where newly adopted sustainable transport behaviours generate new behaviours.

Table 8 Myth core components, semi-condensed themes, and condensed themes

Core component	Semi-condensed theme	Condensed theme
Current state	Current traffic system is a result of a struggle between the enlightened and the unredeemed. Changing the system is a metaphorical challenge.	Metaphorical challenge
Campaigner	Campaigner is a vanguard of transformation who co-creates campaigns in cooperation with others looking for happiness.	Vanguard
Campaign measures	Campaign measures use creative methods and positive messages. Those looking for change are assets.	Creative
Driver for behaviour change	Behaviour change comes through creative transformation. The objective is to create spill-over which generates new sustainable behaviours.	Spill-over through creative transformation

A subsequent horizontal and vertical examination was then made to see which alternative pathways emerged from the themes. This process will be described in chapter 5.4.

5.4.   Alternative pathways and images for future campaigning

5.4.1. *Alternative pathways*

A categorised listing of potential pathways per each layer and core components (tables 5-8) were used to build images of future. As a logical step, core components and CLA-layers were merged together, and a futures dimension was added into the analysis and first steps towards the development of futures images were taken. As a consequence, a

flipped summative table consisting of both core components and CLA-layers was generated (table 9), based on the suggestions of Minkkinen & Tapio (2015). The summative table may be seen as a distilled representation of the examined issue as argued by Minkkinen and Tapio (2015). In addition, the table contains 4 different paths which emerged from the horizontal examination of the theme tables (tables 5-8), as well as a subsequent reading of the previous steps and research material. As each emerging path could be seen to emphasise a specific CLA-layer, an additional line for "a primary layer" was added to this table. The primary layer can be seen as an additional specification which helps to grasp the underlying tone of the path, although it does not necessarily determine it.

The main purpose of the flipped table (table 9) was to create a basis for futures images development which will be discussed in more detail below.

Table 9 Summative CLA table with core components and preliminary paths (applied from Minkkinen & Tapio, 2015)

Core component	Path 1: Campaigners as marketers	Path 2: Campaigners as enablers of city development	Path 3: Campaigners as advocates for change	Path 4: Campaigners as experimental hubs
Current state	Natural challenge	Structural challenge	Ideological challenge	Metaphorical challenge
Litany goal	Increasing the modal split of sustainable transport	Planning a sustainable city	Winning an ideological battle	Creating a happier existence
Systemic means	Effective marketing and communication with mechanical measures	Supporting infrastructure and zoning with projected measures	Empowerment of citizens with participatory methods	Creativity and cooperation with off-kilter methods
Dominating worldview	Neoliberalism	Ecological modernization	Environmental citizenship	Simple life
Mythical role	Marketer	Enabler	Advocate	Vanguard
Primary layer	Litany	Systemic	Worldview	Myth
Driver for behaviour change	Sell the change	Change habits via infrastructure	Change the ideology	Create spillover

In the summative table (Table 9), the current state describes the way the transport system may or may not be changed.

- *Current state* may have evolved through a natural process, as a result of structural planning and city development, as a result of certain dominating ideologies or through a more metaphorical process, where different views dominate the ground.

- *Litany goal* describes the thought process which guides sustainable transport measures. It is the type of change the campaigners are trying to achieve which is not questioned by the campaigners. They may strive to increase the amount of sustainable transport (path 1), they may seek to plan and create a sustainable transport city (path 2), and they may wish to change the mindset and win an ideological battle (path 3) or seek to improve the life of all through sustainable transport (path 4).

- *Systemic means* describe the main source of legitimization; i.e. what underlying structure the campaigners resort to make their work worthwhile for themselves. They may find a source of legitimization in doing their work effectively (path 1), they may find it in doing supportive work which ultimately serves their goal of creating a sustainable city (path 2), they may find legitimization in empowering others (path 3) or they may find it through creativity and cooperation (path 4).

- *Dominating worldview* is the main underlying worldview which can be found behind the measures. In path 1 the dominating worldview is neoliberalism, where individual behaviour change is at the core. In path 2 the dominating worldview is ecological modernization, a firm belief in the advancement of technology. In path 3, the dominating worldview is environmental citizenship, where people are encouraged to embrace sustainable transport actively. In path 4, the worldview is simple life, i.e. finding a happier sustainable existence.

- *Mythical role* is the role the campaigner takes which determines the level of involvement in campaign measures and the extent the worldview dominates the measures. In path 1, the campaigner takes the mythical role of the marketer who just needs to be convincing enough to sell the change. In path 2, the campaigner takes the role of enabler who needs to enable the change through stakeholders. In path 3, the campaigner has the role of the advocate who takes an actively political role. In path 4, the campaigner takes the role of the vanguard who practices, what they preach and takes an active role in the change process with others.

- *Primary layer* describes the general tone of the path and the depth of the designed measures. In path 1, the primary layer is litany, i.e. measures touch the surface. In path 2, the primary layer is systemic, and the measures seek to change structures. In path 3, the primary layer is the worldview, and the measures seek to change people's ideologies and thinking. In path 4, the primary layer is the myth/metaphor, and the measures try to find a way to challenge the deepest underlying structures by unconventional means.

- *Campaign measures* describe which types of methods are used to execute campaigns. These may rely on traditional measures which tend to be mechanical (path 1), they may rely on planning and workshop-type of activities (path 2), they may be empowering (path 3) or use creative methods (path 4).

- *Driver for behaviour change* tells us which is believed to be the main way to induce change in behaviour. In path 1, the main way to induce sustainable transport behaviour is through selling the concept of sustainable transport. In path 2, the main way is to change habits through successful city planning. In path 3, a change in behaviour comes through a change in the mindset, i.e. the worldview and ideologies should change. In path 4, change is induced through creative, unconventional measures which seek to create a spillover-effect, where one sustainable behaviour leads to the adoption of another.

Futures images can be seen emerging from these 4 alternative paths. These emerging pathways were used to construct the images of future as argued by Minkkinen & Tapio (2015) and Dzidic & Bishop (2015). As the 4 alternative paths were in a very condense form, it was necessary to open them up to formulate the actual futures images. This process will be described in the following chapter (5.4.2.).

5.4.2. *Four alternative images for sustainable transport campaigning*

The main purpose of the analysis is to provide building blocks and alternative pathways for future thinking (Inayatullah 1998; Ramos 2015). In this thesis, four images of future were made based on the issues which have surfaced from the CLA analysis (table 9). These images concentrate on the future of sustainable traffic campaigning in 2030 and provide a glimpse on future campaigning. Time horizon of 2030 was chosen, because although it seems far away, it is still imaginable. In addition, changes in the underlying structures or the campaigning climate are also possible within this time horizon. As Bell (2009a: 76) has stated, it must be possible for the world to change from A to B, i.e. A must include the possibility (however small) for B. Thus a transformation of from, for

example, a low level of political involvement in campaign work to actively political sustainable transport advocacy must be somehow feasible, even if it may not be the likeliest alternative with regard to present *modus operandi*. The probability of a future can, according to Bell 2009a, 80), be considered by examining the likeliest outcome if there are no significant changes in the campaigning climate. However, it should be noted that it may be difficult to evaluate which defines a significant change (ibid. 81). In addition, things, ideas, entities which do not exist today may well exist in the future (ibid. 162), i.e. what lies in the future, may be only figuratively present today.

According to Bell (2009a, 77), people may often fail to imagine to what extent the world around them could change. As a way to counteract this trapping, and to open up their minds to alternatives, the interviewees were asked to imagine what the probable and possible future would look like in terms of campaigning and with regard to the transport systems of their cities. The focus was thus on the ways sustainable passenger transport campaigning *may possibly* change versus *will probably* change. The images of how transport systems *may possibly* evolve versus *will probably* change were used to provide additional support in the formulation of the images of the future.

The four images offer glimpses of an imaginary middle-sized Northern European city. The purpose of the four images is to provide food for thought and to describe how the future of campaigning may unfold. As this research concentrates of images of the future and not scenarios, the steps leading us from the present to the to the futures image are only lightly touched. Here the researcher follows the thoughts of for example Höijer et al. (2011, 819-821).

Image 1: Selling change – Campaigners as marketers

In this image, the campaigners are working in the communication department of the city. Their mission is to market sustainable traffic solutions to consumers who are using citywide traffic services. As the financial situation is an issue in the city due to the financial crash of 2028, sustainable traffic measures are not a top priority in the city budget but just one of the many areas which needs funding. As a consequence, the campaigners are concentrating in basic information provision, marketing of new services and awareness raising. Core campaign staff is minute and overworked, although additional hands are employed for short-term positions if external funding is available.

Campaigning is a mechanical cycle and methods used are those proven effective by past campaigns. As a result, the dialogue between the campaigners and their target audience is kept to a minimum and campaigners seem detached from their target audience. The biggest risks are related to the hectic lives and disinterest of the consumer targets. It is not an easy task to reach people who are leading busy lives. Awareness raising is mainly done in the form of written material and online platforms which feed information to the

target groups. Main aides can be found in the communication department, where colleagues have experience in making attractive materials and coming up with new and creative marketing methods.

Behaviour change is mainly thought to come from increased awareness: if people just would know more about the responsibility of each individual to embrace sustainable transport modes, the traffic system might be changed. Thus, the campaigners are trying activate various goals which are thought to drive people to change their behaviour. Pro-environmental behaviour may be achieved if the campaigners are able to show that sustainable traffic modes can be associated with for example financial gains, health benefits or altruistic values.

Image 2: Working within the structures – Campaigners as enablers of city development

In this image the campaigners work in close contact with the municipal officials and the city planning department. Traffic campaigns are politically supported as sustainable traffic is seen as a way to strengthen the city brand "Let's ditch carbon by 2045". The campaigners concentrate on targeted campaigns which address specific traffic challenges emerging from city needs. As a consequence, campaigns tend to be longer, although shorter campaigns may be carried out to attend demands and suggestions welling from citizens.

The campaigners are neutral enablers, and the dialogue between the target audience and the campaigners is handled in the form of for example carbon free online planning workshops and social media based feedback channels. The fruits of these processes can be used develop services to better meet the needs of the customers. Unfortunately, city budget does not have a specific budget for this kind of work and even small improvements may get stuck in the administrative machinery or be torpedoed by political interests.

Campaign planning is systematic and campaigns are evaluated at regular intervals. However, evaluation is mainly used to check if the pre-set quantitative targets of the campaign have been achieved and that the campaigns is in line with strategic plans. Qualitative feedback is gathered but due to limited staff, it is seldom utilised in the planning of new campaigns. Campaigns staff is small and some of the staff may hold dual positions in the city structure. Unpaid interns and subsidized short-term employees are favoured as additional campaigns hands. Campaigns rely on practical experiments which are used to create a break in habitual travelling patterns. Experiments are closely tied into city planning which may create some distance between the campaigners and the citizens struggling with daily traffic problems. The main purpose of campaigning is to create a city which supports sustainable traffic, and behaviour change comes mainly through developing a city, where sustainable traffic choices are made easy.

Image 3: It's all in the mindset – Campaigners as advocates for change

In this scenario, the campaigners work in an association-like structure which is not directly affiliated with the city but forms a separate organisation which is partially financed by city grants. The majority of financing comes from external funding which is abundant due to a stricter climate policy in the EU. The campaigners and their work is generally regarded with mixed feelings by the politicians due to their controversial role in the "Free the streets" movement of 2026. Nonetheless, they have succeeded in attracting some political support among the less conventional and younger politicians. Media is especially interested in traffic campaigning, as these campaigns tend to score high on the "climate impact rate", a new rating system adopted by online media houses across the globe since 2025. The campaigns target especially online communities, due to a lack of funding. Campaign ideas and potential targets are collected in regular "online mobility meets". These meetings are informal and often use participatory, empowering methods to encourage people to take an active role in organizing their daily travels in a sustainable way. An ideal campaign result would be to see as many as possible to adopt an eco-techno lifestyle which does not see technology as the bogeyman but more as a tool for change.

Paid campaign staff is minimal and consists of professional campaign planners who are also in charge of evaluating the campaigns. In addition, professional campaigners take care of grant applications and act as liaisons between city officials and media. The actual campaign work is done together with groups of local activists who share an interest for sustainable traffic and collective action. In addition, state is regarded as positive force which creates momentum for change in the form of legislation and incentives. This enables the campaigners to address the unpleasant conflict between their inner passion sustainable traffic and the unwillingness to force people into action. The campaigns are evaluated especially with regard to their quality and impact, and regular evaluations are done also after the campaign has ended. Feedback is collected throughout campaigning and adjustments are made ad hoc, when needed. Target audiences see campaigners as active advocates of change who are trying to transform the traffic system together with other actors.

Image 4: Blending art, experiment and public services – Campaigners as experimental hubs

In this image, the campaigners function as a part of public service providers' network – a cooperative which employs also for example librarians, community workers, artists and pedagogues. As a part of the latest privatization boost of 2025, almost all public services have been transferred to external contractors, private companies or non-profit cooperatives. Funding comes mainly from EU projects and foundations but fortunately the cooperative has secured a permanent service contract with the city which is valid until 2032. With this contract, the campaigners have been able to maintain core activities which are needed for long-term campaigning. The change from a traditional traffic campaigning

organisation into a multiservice providing cooperative has not been entirely painless. However, with their versatile professional backgrounds, the cooperative has been able to address traffic related issues in new, unconventional ways blending art, science and environmental education.

The target audiences of the cooperative campaigns depend on project funding or city needs but the weight is on promoting sustainable transport modes as a way to create a simpler, happier lifestyle. Most campaigns target children, young adults and the elderly who are seen as fruitful companions in the collective process. The duration of the campaigns varies but they tend to be shorter. Campaign work is done in close cooperation with the target audiences, generally involving artistic creations, experimental methods and positive anarchism. Most of the campaigners work as independent contractors within the cooperative and their work situation fluctuates depending on the funding available. This may involve a risk, where the struggle to find funding and interested target audiences may create frustration and a sense of Sisyphean struggle. However, campaigns are planned professionally and evaluated especially with regard to their quality and their level of creativeness. Target audiences see the campaigners as passionate advocates of sustainable traffic who are not afraid to challenge conventions. Behaviour change is linked to creative transformation, where creative bursts may create positive spill-over which is thought to result in the adoption of other pro-environmental behaviours.

6. DISCUSSION

The layeredness of sustainable transport campaigns

By utilising CLA methodology, originally created by Inayatullah (see for example Inayatullah 1998; 2000) and further enhanced by others (see for example Dzizic & Bishop 2015; De Simone 2004) this thesis has dived into the realm of different systemic causes, worldviews and myths governing sustainable transport campaigning. The various layers which this thesis has aimed to both describe and analyse are a depiction of the layered reality which frames the way campaigners design their campaigns and which toolkits they are likely to resort to. Some of the themes which have surfaced in this research are directly visible, while some reside more in the background and affect the campaigners more indirectly. Some themes are even deeply embedded in the western ethos and surface unconsciously in metaphors, phrasings or insinuations the campaigners use.

This work has tried to find answers to a set of research questions (described in more detail in paragraph 1.4.) by analysing research material gathered from a set of semi-structured interviews of campaigners involved in Finnish, Swedish and Estonian transport campaigns. The main research question of the thesis was:

> *What is the role of underlying systemic structures, worldviews and myths in sustainable mobility campaigns, and how are these translated into campaign measures and futures images?*

While there is no simple or short answer to this question, the analysis clearly showed that CLA layers - the litany, the systemic, the worldview and the myth/metaphor – can be found in the research material. Some of the aspects which eventually surfaced, were at first shrouded or hidden from the view and required the researcher to read between the lines, while sometimes visible themes directly caught the eye of the researcher. Quite like Galtung's (see for example 1981a, 1981b) cosmology to which Inayatullah's worldview and metaphor layers are based on (see for example Inayatullah 1998, 2000), these deeper aspects tend to remain unseen like the air we breathe, even if they unconsciously frame our decisions and guide our behaviour.

A clear theme surfacing from the analysis is the discrepancy between personal worldviews and certain systemic restraints which originate from systemic and litanic causes as well as deeper worldviews and myths. This type of dissonance may be likened to the psychological concept of value-action gap (see for example Anable et al. 2006; Darnton et al. 2008; Hiselius & Rosqvist 2016) which tries to explain why people with certain values do not necessarily behave according to their values. This inability to act

according to what one inherently believes in is usually considered to be a result of different underlying factors which indirectly or directly mould behaviour or, as Inayatullah would say (see for example 1998; 2000), frame our action. To use our campaigners as an example, there might be a value-driven willingness to design for example a campaign which rewards those who give up their second car but due to systemic factors such as financial causes (e.g. limited budget), organisational restraints (e.g. certain guidelines which limit the types of campaigns the campaigner can carry out or the role they can have), or worldview related factors (e.g. the respect for personal freedom clashing with the need to be green), these may be difficult to carry out.

The conflict between personal worldviews (or values), and the practical and abstract shackles set by the surrounding environment is a common source of frustration among the campaigners. This constant inner struggle may affect both the design and measures chosen, and may lower the likelihood to utilise novel or unconventional measures and methods. Instead campaigners may resort to campaign designs which have little risk for failure and are easily digestible by their target audiences. However, these may fail to create lasting effects. Furthermore, the endless Sisyphean struggle, where one campaign follows another and people resort to their old habits soon after a campaign has ended may create a sense of disillusionment. This may consecutively limit the willingness to address unpopular or difficult issues, such as those targeting the personal sphere. However, failing to address more profound problems related to for example our consumerist lifestyles (see for example Barr & Prillwitz 2014; Shove 2010, Leggett 2014) might leave us only with modest, superfluous outcomes and only minor changes in people's behaviour. On the more positive side, it should be noted that the research material is rich in futures images which seem to be free from abovementioned constraints. This seems to indicate that many types of methods and measures are at least presumable, and the campaigners would in an ideal setting be more than willing to try them out. However, such an ideal setting may require significant adjustments in both the surrounding thought environment and the more practical side of campaigning.

As a part of the main research question, this thesis has also dealt with the concept of change, namely should individuals change their behaviour, or does change come through other means (such as a change in politics or in lifestyles). The research material seems to indicate that the campaigners are divided and somewhat inconsistent in this matter. Some evoke the need for a political reform, while some seem to stress a strong urge for the people to take responsibility for their actions at a personal level. The need to take personal responsibility is a typical neoliberal trope, where it is up to the individual, not the system, to change (see for example Barr & Prillwitz 2014; Leggett 2014, Shove 2010). At the same time same campaigners may believe that the system needs to enable the change, a notion which resonates more with the idea of the benign social democratic system gently

pushing and lifting the individual towards change (see for example Leggett 2014). In addition, some campaigners would at least in theory be willing to actively change the current system from within or even from below. This anarchistic take on change is linked with strong personal investment in the fight against climate change and the pressure to do more. Action beyond the system is needed, because it seems too rigid and slow to result in quick enough solutions required in the current situation. However, the lack consensus implies that the issue is complex. Lifestyle changes are also inferred but campaigners seem reluctant to carry out any obligatory measures. This demand voluntary action resonates again with neoliberalism, where it is up to each and every one to resume responsibility for their lives.

This thesis has also aimed to examine the underlying systemic structures, worldviews or myth present in how the campaigners talk about campaigning and whether or not these translate into actual campaigning by framing how the campaigns are designed and executed. As was previously already established these underlying structures are indeed present in the parlance of the campaigners, sometimes hidden, other times directly visible. A clear example of how these structures transpose into campaigning can be seen in the high level of respect for personal freedom. Campaigners appear to be quite unified in the sense that they cannot and will not in their roles as campaigners, force anyone to behave differently: it is up to the government to both obligate and support people by creating a system which encourages sustainable transport practices. Campaigners are indeed mobility managers (see for example Civitas 2010; Hiselius & Rosqvist 2016) who use soft measures as their main angle for campaigning, while harder measures, such as legislation or technical infrastructure are the bread and butter of political decision-making and other governmental processes. Ideally, these soft and hard measures complement each other and both types are needed in the transition towards sustainable transport. Unfortunately, harder measures are not always up to speed with softer measures, and campaigners have little leeway in their professional roles to steer behaviour. They can only gently guide and hope for an enlightened response from people.

This thesis has also focused on how the campaigners perceive role of the individual with regard to sustainable transport. To be more precise, the aim has been to discover to what extent is the individual responsible for changing their behaviour and to what extent behaviour change is due to external factors. As has been discussed above the analysis appears to indicate that the underlying worldviews of both neoliberalism and social democracy seem to go hand in hand with regard to individual behaviour change. All campaigners seem to share a view that individuals have a big role in changing their behaviours with regard to sustainable transport and all campaigns examined for this thesis seem to aim at changing individual behaviour. However, campaigners do feel that individual behaviour change requires support in the form incentives, infrastructure, political will and

the like. These either enable or disable individual behaviour change. People can be encouraged to use sustainable transport modes only to the extent they are for example easily available as well as financially, structurally and physically accessible. This thought reverberates with the concept of policy packaging, where several complementary, simultaneous measures and policies are needed to tackle wicked problems such as the climate change (see for example Tuominen et al. 2014).

This thesis has also tried to examine futures images the campaigners have perceived. As a part of the interviews the campaigners were asked to imagine how the transport systems of their respective cities would and could look like in 2030. In addition, the campaigners were asked to consider the future of transport campaigning. The futures perspective was then integrated into the analysis to form four futures images. While these four images offer only a glimpse of what may or may not happen in the future, they provide some insights on how for example the campaigners perceive their work. All campaigners appear to believe that their work continues also in the future. This may be interpreted in many ways: campaigners may feel that their work is important *per se*, although a maybe likelier interpretation is that their work is somehow required. This indicates an inherent belief that current efforts have not been enough and people still need to be guided towards more sustainable transport practices. When asked about the probable future outlook of transport systems in their respective cities, there was some variation in the level of optimism. While some campaigners appear to believe in progress with regard to their overarching sustainable transport project, some are less optimistic. This pessimism may be due to the incapability of the political system to deal with the issue with the level of urgency perceived by the campaigners. Optimism, on the other hand, is related to the concept of ecological modernization (see for example Jänicke 2008; Buttel 2000) which builds upon constant green growth created by innovations resulting in a win-win situation, where both the economy and the environment thrive.

Four images of the future

All four futures images presented in 5.4.2. are derived from the research material and have surfaced through the analysis. According to Rubin (2013: 540), futures images may be hidden and unconscious but reflect, for example, beliefs and expectations people have. Rubin sees futures images as systemic, they affect our decision-making and behaviour, and have a great impact on our everyday lives. Rather similarly Inayatullah's worldview layer remains largely hidden from view yet it frames our everyday decisions in unexpected ways (see for example Inayatullah 1998; 2002).

The first image is a classical business as usual -image of the future: no major changes take place with regard to the campaign organisation. The general tone of this image is litanic, and it addresses sustainable transport superficially. Campaign measures and methods are conventional even mechanical, and results remain modest. In the second image

campaigners serve the city status quo and the city as such is the main driver for change. Campaigners remain neutral and the main aim of campaigning is to support a cityscape which is in line with city strategies. All campaign measures serve a larger city wide strategy and the general tone of this image is systemic: campaigners are a part of larger whole. The fourth image is a more ideal take on sustainable transport campaigning. Yet, it is plausible as it is based on the inner drive the campaigners seem to have towards sustainable transport. Measures are participatory and empowering. They require an actively involved campaigner and grassroots level cooperation. The tone of this image is ideological. The fourth image relies more on the ideas derived from the metaphors and mythical structures used from the campaigners. This image is a utopian depiction of campaigning which relies on co-creative measures and experimental methods. While this image may seem idealistic, it builds upon a possible chain of events.

The idea of this thesis was not only to examine how the campaigners see the future of both their cities and actual campaigning but also to reveal potential hidden structures present in the future discourse. In addition, a more practical objective was to examine if ideas surfacing from these images could potentially be added to the methodological toolbox used by the campaigners in practical campaigning work.

Conclusions for sustainable transport campaigners

While this thesis has been a theoretical exercise, it builds upon actual perceptions of those working with sustainable traffic campaigning. Driven usually by at least some level of personal investment or inner passion, sustainable transport campaigners find their work generally important and rewarding at multiple levels. However, actual campaigning may still be a source of frustration and pessimism, as campaign targets are not easily convinced and systemic restraints make practical campaigning work difficult. In addition, the political system and general zeitgeist offers only limited support.

Futures images developed in this thesis offer a snapshot of what may lie ahead. Unconventional measures using participatory, collective and creative methods as well as a greater use of diverse target groups may be fruitful alternatives to conventional campaigns. Harnessing the inner drive of the campaigners to better serve the purpose of campaigning as well as scanning the grassroots level for new partnerships may be beneficial as well. In addition, concrete measures anchored in the everyday experience, peer involvement and co-creation at the grassroots level may be a way to increase the uptake of campaign measures and result in positive spillover effects (see for example Thøgersen & Crompton 2009). However, it should be kept in mind that people easily resort to their old ways which simply indicates that while people's habits should be targeted, people will not change their habits if there is no external need or if the personal investment in the issue is low or non-existent (see for example Anable et al. 2006; Steg & Vlek 2009). Thus

campaigns which target single actions and avoid addressing the hard decisions tend to have modest results (see for example Banister 2011; Barr & Prillwitz 2014; Shove 2010). However, a campaign with civic engagement or collective action and a strong link to the practical lives of people might succeed where other campaigns have failed. Furthermore, while voluntary action should indeed be the preferred way of targeting people's transport behaviour, the urgency of cutting transport emissions requires us to address unsustainable transport practices and car-based lifestyles also with a sterner regulatory hand. As neither soft nor hard measures tend to work by themselves, an integrated approach with a good balance of both soft, empowering campaign activities and harder measures (such as incentives or infrastructure) could pave the way towards more sustainable transport practices and give people the push they need to change their behaviour.

Methodological considerations

CLA analysis can be described as a cyclical horizontal and a vertical process but it is also a dynamic method which requires parallel expansion and compression of the examined issue by the researcher (see for example Inayatullah 1998, 2002; De Simone 2004). Conducting CLA is, in lack of a better term, a pulsating process, where new discoveries can be made after each pulse. A short description of the process may enlighten this thought: at the beginning the issue is first horizontally and vertically examined and expanded (first superficially and then in more detail) to unpack the underlying layers. According to Inayatullah (see for example 1998, 2002) and Dzidic & Bishop (2015) this process requires, a constant back and forth movement, (or a dialogue), between the research material, deconstructed layers and research literature. After this expansion, the researcher compresses the findings in order to squeeze out the core themes, categories and components. The last steps include yet another expansion. Now the findings, i.e. the compressed themes, categories and components are opened up, reconstructed and transformed to form futures images. These parallel processes are what makes this method a rewarding if somewhat challenging, tool for any type of qualitative research.

CLA evidently requires an open mind, and a readiness let go and loose oneself in the research material, and trust the analysis process. It is, thus in its essence, a creative method which entails the researcher to be intuitive, to see the unforeseeable, to question the unquestionable and to connect issues which seem disconnected at first. Due to its intuitiveness, CLA escapes verbalisation and is often critisised of being difficult and unprecise (see for example Minkkinen & Tapio 2015; De Simone 2004; Riedy 2008; Wright 2002). This is true to a certain extent, and rigour is beneficial to perform the analysis and to keep the researcher on track. In addition, it is equally correct to point out how extremely difficult it seems to be to formulate a precise step-by-step guide for this method. However, this applies to other creative methods as well: it is nearly impossible to describe any creative process formally without losing some of its essence. Nonetheless, this hardly makes

the method unscientific, it only indicates that the method is difficult to verbalise in terms of our current scientific conventions which are a result of and framed by certain underlying structures, worldviews and myths.

Although hazy and unclear at first, the method is also unpacked and clarified as the analysis progresses. It could be well-argued that any CLA analysis becomes, in fact, a dually layered exercise, where the researcher is not only unpacking the examined issue but simultaneously discovers more about the method as well. There may even be meta-layers inherent in the analysis method which act as signposts guiding the researcher forward towards discovery. While the openness, ambiguity and lack of exactness may not appeal to all researchers, it would be superfluous to disregard the eye-opening capacity of this method. CLA allows us to both discover and examine the forest behind the trees. It offers tools for analysing and understanding the background (worldviews, causalities and deeper layers) which may unconsciously frame our behaviour and decisions. CLA also reveals a whole array of future pathways which may or may not become the present depending on the choices we make. Nevertheless, a detailed step-by-step methodological description could increase the appeal of CLA, and pave the way for a wider adoption of the method in a variety of fields. However, detailed methodological descriptions may also take away some of CLA's creativity and thus simplify the view it provides. However, as De Simone (2004, 492) discusses, CLA does not need to be applied thoroughly to bring added value to a research. Some researchers might benefit from utilising just some of the tools and tricks this method has to offer.

Suggestions for further research

Even though the purpose of the thesis has been to probe the issue of campaigning, the researcher understands the limitations of the study and admits that all facets related to the phenomena have not been covered. In addition, the plunge taken into the research material has revealed certain gaps in current knowledge and new issues have surfaced which could benefit from further research. For example, the need to make profound lifestyle changes and the reluctance to limit people's lives is particularly interesting. As profound lifestyle changes may include major limitations to personal freedom (and thus go against our fundamental worldviews), entire lifestyles are rarely targeted and campaigns which might include limitations for lifestyles are generally shunned. Yet, the results of single campaigns which target the transport behaviour of individuals are less than encouraging as people tend to resort to their old ways sometime after a campaign has ended. The taboo of limiting carbon intensive lifestyles on the other hand and the pressure to get emissions under control without upsetting people is indeed interesting in many ways and would benefit from further research. The balance between soft and heard measures would also be a fruitful research topic for anyone interested in integrated measures and policy packaging.

As this work has used CLA as the main method for analysis, some gaps related to the methodology have also surfaced. For example, a more accurate description of the CLA process would most likely increase the appeal of the method. However, due to its creative nature this may be a challenging exercise, as CLA seems to escape verbalisation and requires an open mind not too constrained by detailed explanations. However, the vagueness of CLA as a methodological framework may limit its use. This would indeed be a shame, as the method is very useful in revealing hidden building blocks of issues which once revealed may increase transparency in general by revealing power structures, ideologies and the like, and thus opening issues to change by offering alternative solutions. Consequently, a "light" or slightly more formulaic version of the CLA methodology could maybe spark a wider uptake of the method in various fields.

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