THE ROLE OF SYMBOLISM IN TRANSPORT CHOICE ACROSS DIFFERING NATIONAL CULTURES: IMPLICATIONS FOR POLICY FORMULATION AND TRANSFER

David Patrick Ashmore

Thesis submitted to University College London (UCL) for the Degree of Doctor of Philosophy

Faculty of Engineering

Department of Civil, Environmental and Geomatic Engineering

May 2020

DEDICATION

To Sandy, my life partner, who has shared the journey with me since that day in Delhi in June 1991, when I said: ‘someone has to do something about this terrible air’.

ACKNOWLEDGEMENTS

It would be remiss of me not to begin by thanking my wife and partner of thirty years, Sandy, who throughout this research, has supported me through its challenges. I'm sure it is the case for most people who study for a PhD – at the end of the process the achievement belongs to their family as much as the individual. Thank you so much Sand. I love you more than I can express.

I'm also grateful to my parents. I wish they were here to see me to get to this point. Thanks to Aussie and Myra for pushing, nagging, supporting, and cajoling. My mother always said she would sell the shirt off her back to buy my brother and I books. I think that is a wonderful philosophy, although in the context of this work, her other mantra of 'teach them to read, swim, and drive' may be less appropriate! I also need to thank my brother Tony - him being fifteen years older than me had many advantages other than ensuring I supported Manchester United. Cheers for throwing me the Orwell and the Kerouac, Tone.

Academically and intellectually I owe my supervisor Nick Tyler a huge debt of gratitude. Until I studied for my Master's thesis under Nick, twenty six years ago, I thought that education was about regurgitation. Nick was the first to task me with thinking, ironically within the context of transport modal choice in India. I found it challenging in 1992. Now I hope he feels I've grown into someone worthy of his counsel. Our professional relationship and friendship have lasted for decades and I look forward to it continuing. Nick, this thesis can hopefully be seen as a real attempt to examine that non-linear 'ratchet' we identified in the income/mode choice relationship in the Baroda dataset in 1992.

I'm incredibly grateful to the staff at LeighFisher in Delhi. Our lunchtime discussions were hugely rewarding and if it was India that led to my calling to transport studies, it was a period in Delhi as a transport consultant that catalysed this PhD topic. I cannot remember who said to me: 'you must not take the metro to visit a client, it would be embarrassing for the firm - we have to arrive in a private vehicle', but I am grateful to them. It was my eureka moment.

I've had numerous other academic mentors who deserve my gratitude. Nicola Christie has been a great second supervisor. Throughout the early phase of the work Roselle Thoreaux, Adriana Ortegon, Tsu-Jui Cheng, and Corina Kwami challenged my premises,

and improved the work's rigour. This also applies to the anonymous reviewers who critiqued my work in the journal papers this study has produced. Other people who have encouraged and mentored me academically include Kay Axhausen, David Hensher, and John Polak who our community lost way too young. Alvin Lee was kind enough to offer informal advice and introduce me to the Hofstede indices. Tom Cohen and Giulia Barbareschi provided laughter and support along the way. Latterly I've had great support from John Stone, Jason Thompson, Dorina Pojani, Crystal Legacy, Ian Woodcock, and Eric Keys.

The forty eight interviewees who gave up their time to be interviewed deserve special thanks. Without them this research would not have been possible. I'm incredibly grateful not only for their input but also the enthusiasm with which they engaged with the topic.

My old friends Arnab Majumdar, Paul Jackson, Mario Alves, and Dan Livingstone also deserve a mention. We collectively began our journey into transport studies at the same time and are still embroiled in the field. Gentlemen, it has been fun - perhaps that is the most important thing.

My old friend and mentor Malcolm Appleton warrants a mention for several reasons but most notably for responding to my PhD lamentations – as most PhD students are prone – with: 'you do realise it is *supposed* to be really hard?' Perhaps sometimes that gets forgotten.

Lastly, I would like to state my love for my college - University College London. It has nurtured me intellectually from my teens to my fifties. It truly is a special place. I fell for 'College' the moment I saw the quadrangle in January 1986 and will never forget the thrill of being admitted as an undergraduate that same year. Jeremy Bentham's legacy has transformed countless peoples' lives. I'm lucky enough to be one of them.

DECLARATION OF AUTHORSHIP

I, David Patrick Ashmore, confirm that the work presented in this thesis is my own. Where information has been derived from other sources, I confirm that this has been indicated in the thesis.

[Signature removed]

ABSTRACT

Modal choice is driven by instrumental variables such as travel time, and latent variables such as perceived safety. A latent variable that has been shown to play a role in mode choice is symbolism - what people believe a transport mode communicates about them to third parties in a social context. Given symbols are an outward manifestation of culture, it seems reasonable to surmise that the symbolic value of a transport mode differs within, and across, cultural clusters. One example of such a cluster would be national culture, a subject which due to globalisation has been increasingly studied in recent years, spawning a number of proxy indices by which to compare countries. If the symbolic connotations of modes which may be seen as sustainable - walking, cycling, public transport, 'eco-cars' and car sharing - were to significantly differ across national cultures, then this would be likely to have ramifications for policy development and transfer between nations. Focusing on the mega cities of India and China, this thesis examines these premises by developing two meta cultural clusters on the basis of Hofstede's cross-cultural indices of power differential, and individualism versus collectivism. By sourcing interviewees who possess similar sociodemographic characteristics from within Indian and Chinese mega cities, as well as their counterparts in cities from nations with contrasting Hofstede scores, and through deductive thematic analysis, the symbolic connotations of the sustainable modes are compared to expand theory. The significant thematic differences between the meta clusters - demonstrated through coding densities and quotes - are shown to have significant ramifications for policy transfer. With unprecedented levels of air pollution in the mega cities of India and China this is a pertinent finding from which further research can be constructed to influence policy.

IMPACT STATEMENT

This study represents the first attempt to examine transport symbolism across national cultures using a cross-cultural model to derive theory. Furthermore, the findings of the work present clear challenges for policy formulation and transfer. As such the work makes a clear contribution to the knowledge base required to attempt to reduce traffic-based emissions in industrialising Asian mega cities. The study has significant applied ramifications for policy makers, governments, non - governmental organisations, environmental groups, vehicle and system manufacturers, demand forecasting consultants, and academics.

Moreover, the study has generated four peer reviewed publications. Accepted manuscripts (post journal embargo periods where applicable) are/will be publicly available on UCL Discovery:

1. Ashmore et al., 2017. Symbolic transport choice across national cultures: theoretical considerations for research design. Transp. Plan. Technol. 40, 875–900. https://doi.org/10.1080/03081060.2017.1355882
2. Ashmore et al., 2018. Using thematic analysis to explore symbolism in transport choice across national cultures. Transportation 1–34. https://doi.org/10.1007/s11116-018-9902-7
3. Ashmore et al., 2018. The symbolism of ‘eco-cars’ across national cultures: Potential implications for policy formulation and transfer. Transp. Res. Part D, Transp. Environ. 63, 560–575. https://doi.org/10.1016/j.trd.2018.06.024
4. Ashmore et al., 2019. Gauging differences in public transport symbolism across national cultures: implications for policy development and transfer. J. Transp. Geogr. 77, 26–38. https://doi.org/10.1016/j.jtrangeo.2019.04.008

TABLE OF CONTENTS

LIST OF FIGURES

LIST OF TABLES

'We came to this meeting in a Mercedes or Rolls Royce. You came in a Mazda. Do you think we will treat you as an equal? You do not qualify to participate. Go home, We will inform you of the outcome via telephone.'
(Mak, 1997)

'There's no way I'm getting on a train! Call me a cab!' (Iacobucci, 2016)

'A bus is essentially a giant minivan that continually stops to pick up progressively smellier people' (Friedersdorf, 2010)

1 INTRODUCTION

Understanding transport modal choice in urban areas is important for policy makers. Comprehending why people make the transport decisions that they do, allows for the tailoring of public policies which seek to influence a city's air quality, safety, energy consumption, health, and economic productivity (Vafeiadis, 2012). Mode choice also significantly shapes land-use patterns and further modal choices - increased motorisation can lead to urban sprawl which in turn can re-influence travel choices (Papaioannou and Martinez, 2015).

Governments in the nations of the Global North[1] have been attempting to tackle the negative aspects of high levels of motorised traffic for decades. In many nations of the Global South, however, rapid and recent economic growth, coupled with the localised mass production of cars, has fostered burgeoning levels of personal motorisation, making issues such as traffic-generated air pollution pressing new imperatives for governments (Chen et al, 2009; Kan and Chen, 2004; Siddique et al, 2011; Zhou et al, 2010).

These issues appear to be manifesting themselves most acutely in the cities of 'mega nations' such as India and China. The United Nations (2014) estimates that by 2050 these two nations alone will constitute 37% of the anticipated increase in the world's urban populace. Such a dramatic population increment, and its mobility implications, are likely to have significantly detrimental environmental and economic impacts. Sanjai (2017) believes that congestion is literally grinding the economies of Indian cities to a crawl, with average traffic speeds of five kilometres an hour. As to air quality, Delhi is already the most polluted city in the world; Beijing is only slightly behind (World Health Organisation, 2014; Iyengar and Lipton, 2015). The New Delhi High Court recently stated that living in the Indian capital was akin to being in a 'gas chamber' (Herman, 2015). Hannam (2017) refers to Beijing's smog as an 'airpocalypse'.

Harris (2006) states:

> One would be hard-pressed to find a more explicit and profound example of how human behaviour can adversely affect the ecological environment than the ongoing experience of China. A huge population and rapid economic growth have conspired to create an expanding environmental

[1]Global North/South terminological issues are discussed in subchapter 2.6.1.

> catastrophe…air and water pollution have been estimated to be (costing) about 12% of the country's gross national product.

According to Pucher et al (2007):

> Cities in China and India…are suffering from severe and worsening transport problems: air pollution, noise, traffic injuries and fatalities, congestion, parking shortages, energy use, and a lack of mobility for the poor. The urban transport crisis in China and India results from continuing population growth, urbanisation, suburban sprawl, rising incomes, and skyrocketing motor vehicle ownership and use…unless the problems of motorisation in China and India can be effectively dealt with, the world faces sharp increases in greenhouse gases, accelerating climate change, and rapid depletion of a range of non-renewable resources.

To urgently address this scenario, commentators such as Pucher et al (2007) advocate a package of remedial policies which may be termed *sustainable*. Within this thesis 'sustainable transport policy' can be taken to mean discouraging personal gasoline or diesel vehicle ownership and usage, whilst encouraging the adoption of cleaner vehicle technologies, shared vehicle occupancy, public transport (both rail and bus based modes) and non-motorised modes (walking and cycling). Pojani and Stead (2015) describe such a package of measures as initiatives which try to 'undo the transformation of cities caused by automobile dominance'.

Given the air quality in the urban areas of their nations, transport policy makers in China and India have begun to articulate a more environmentally sustainable approach. The Government of China is increasingly promoting initiatives such as the building and marketing of public transport, and attempting in some cities to deter car usage through curtailment schemes (The World Bank, 2012). Licence plate based car restrictions are in place in both Shanghai and Beijing. Zhou and Huang (2017) note that in the last twenty years seventeen cities in China other than Beijing, Guangzhou, or Shanghai, have built metro systems. In India, the Federal Government have stated that they are seeking to support sustainable mobility through developing mass transit, catering to a mixture of vehicles, encouraging non-motorised travel, and building institutional capacity to better plan public transport (The Government of India, 2014).

Such developments may be framed as transferring sustainable transport policies which have proven useful in one nation, to another. As with the transplanting of any policy between two places, however, there may be location specific barriers in place in the recipient environment which could affect the likelihood of successful adoption. Such impediments may be technical, governmental or fiscal. They may also be cultural or psychological. An example would be *symbolism*. Symbolism is concerned with how people within a social hierarchy, believe that others perceive and judge them as a consequence of the overt symbols or 'signifiers' they elect to display (Saussure et al, 1916; Hjelmslev, 1953; Dittmar, 1992) - the symbolic aspects of the transport modes have been shown to affect modal choice (Steg, 2005). Yet the meaning of a symbol differs between cultures, both in terms of what it denotes at the surface or connotes at a deeper level (Barthes, 1957; Barthes, 1967). In fact, some have argued that symbols are an intrinsic manifestation of a nation's culture at any given point in time (Hofstede, 1984; Hofstede et al, 2010).

Within the context of urban transport policy development and transfer this raises several research questions. What might be the symbolism of a specific transport mode within a nation at this present moment? What meaning does the mode and its use communicate to other groups in a society about the user, their peers and family? Are these connotations positive, negative, or neutral, and to what degree might they impair or encourage the uptake of a mode? How may the symbolic meaning of a mode in one national culture differ in a seemingly very different national culture? Furthermore, if strong differences *do* seem present what might these mean for urban transport policy development within, and transfer to, the mega cities of India and China?

The analysis of these questions constitutes not only original research but possesses strong applied relevance. There is little point transferring a policy from one nation to another if it is likely to be resisted for symbolic reasons by large segments of the population. A greater understanding of transport symbolism within a recipient culture will therefore allow for the development and customisation of tailored policies and increase their likelihood of successful implementation.

Gaining insights into the symbolic connotations of a mode in one national culture and comparing it to that of another is a complex task. Despite the range of cross-cultural proxy indices in use, culture remains something intangible or 'fuzzy' (Soares et al, 2007). Moreover, symbolism is something people do not always wish to acknowledge, as it can

be an embarrassing topic (Steg, 2005). Such complexities make drawing definitive conclusions extremely difficult. This thesis therefore focusses on beginning the process of unpicking the underlying latent dynamics of transport symbolism across select national cultures, so as to foster theoretical fertility. In doing so it can be seen to be adhering to the research philosophy of Lakatos's (1978) - that of theoretical progression. The method chosen utilises two of the Hofstede (1984) cross-cultural indices in tandem with deductive thematic analysis. By choosing national clusters with contrasting Hofstede variables, but sampling purposively across the clusters - choosing individuals who are as sociodemographically as similar as possible to maximise comparability - strong thematic contrasts between the groups are shown. The findings indicate which sustainable transport policies may be more likely to be transferable to the Indian and Chinese urban context due to lower symbolic barriers. They also confirm that the premises put forward have strong potential to be extendable to a local theory. The study generates significant numbers of caveats and ancillary topics for further research so can be seen to meet the research criteria of theoretical fertility.

The thesis is structured in eight chapters. Chapter Two examines the literature to derive the research questions. Chapter Three deals with research method: the underpinning philosophy and choice of analytical technique to be deployed. Chapter Four deals with the implementation of method. Chapter Five presents the study's results. In Chapter Six the potential implications of the results in terms of sustainable transport policy formulation and transfer will be discussed. Chapter Seven notes caveats and areas of further research. Chapter Eight offers concluding remarks. Four Appendices follow the bibliography.

2 BACKGROUND: DERRIVATION OF THE RESEARCH QUESTION(S)

2.1 Structure of this chapter

This background chapter shows the study's theoretical underpinning, and the derivation of the research questions. The chapter is an expansion of the material presented in Ashmore et al (2017)[2]. The concept of latent motivation in transport choice is first introduced. This is followed by a description as to how symbolism - the manner in which people perceive others socially because of the symbols they display - acts as a latent choice variable. The differing symbolic connotations of several transport modes, as described in the literature, are then presented. Following this comes a discussion of how symbolic meaning can be seen to vary *vertically* within a population, as a consequence of economic capacity. This leads to the introduction of the concept of *horizontal* symbolic variation, which describes differences in symbolic meaning *across* a similar sociodemographic cohort who differ due to factors such as ethnicity and lifestyle preferences.

One such horizontal differentiator is culture, defined by Matsumoto and Juang (2012) as 'the collective bundle of beliefs, values, and attributes, which define a group of people'. The concepts of culture, and national culture, are introduced, and shown to be an influencer of choice. Hofstede's (1984) national cultural indices of power differentialism, and individualism versus collectivism, are shown to be the most logical for this study. The latent concepts of symbolism and national culture are both then combined, within the context of transport choice, to derive the research questions. To demonstrate that the research questions are relevant there then follows a discussion of transport policy transfer between national cultures, and how symbolism may be a barrier to successful policy formulation, adoption, and transfer.

2.2 Latent motivation in transport choice

2.2.1 The 'instrumental transport rationale'

Understanding how people make transport choices is important as it allows governments to formulate policies that facilitate mobility and economic activity, while minimising externalities such as air pollution and congestion. As such the analysis and forecasting

[2] See Appendix D

of how, and upon what basis, people make transport decisions has evolved considerably over preceding decades. It has been shown that modal choice is driven both by observable, (termed instrumental) variables such as travel time or monetary cost, and unobservable (termed latent) variables such as perceived quality or safety (Ortúzar and Willumsen, 2011; Chen and Li, 2017).

The early pioneers of transport forecasting worked in a period dominated by the neoclassical approach to urban transport and mobility, and as such approached transport decision-making as an overwhelmingly instrumental discipline (Kębłowski and Bassens, 2017). Goulden et al (2014) term this a period of 'naïve instrumentalism' which emphasised 'predict and provide' - forecasting levels of demand, and subsequently providing capacity and fixed infrastructure (primarily roads) to cater to it. Kane and Behrens (2002) see the early innovators of transport studies as mathematicians, economists and engineers with a *positivist* outlook - of the view that human behaviour functioned, or could be represented in the same way as, the natural sciences. A good example of positivism in early transport studies was the development of the gravity based trip distribution model, which assumed attractions between origins and destinations resemble the attraction between atomic particles of differing mass and distance apart (Ortúzar and Willumsen, 2011).

During this early period of transport modelling there was a central premise that travel was a derived demand, or disutility, where an individual's intention was to minimise the overall negative cost of travel - operationalised through time and money (Banister, 2008). Travel was seen as ancillary to other activities, something people suffered to perform a more worthwhile task. Describing this inception phase Wind et al (2012) make reference to a period of the 'instrumental transport rationale'; in line with the 'McNamara fallacy' that only things that are quantifiable drive behaviour (Fischer, 1970).

The science of transport forecasting traditionally hinges around the concept of utility, with each mode bringing benefit or disbenefits relative to others. Yet for decades utility was largely represented by things that could be measured such as cost or time; latent behavioural drivers were largely ignored. Within the original modelling tools, subjective, non-measurable choice biases for modes were accounted for (and still often are) by applying unitless quanta to each mode when quantifying utility. These quanta are termed modal or alternative specific constants, and their aim is to control for unexplainable attributes but not explain them. Temme et al (2008) term alternative specific constants

as the ‘black box’ of travel behaviour; this term is also used by Sheller and Urry (2006). Klaiber and von Haefen (2008) suggest that the practice of burying non-observable attributes of choice in a constant can improve a forecasting model’s statistical fit, but is of limited use in understanding and predicting outcomes. Koppelman and Chandra Bhat (2006) agree, flagging that mode specific constants offer little in the way of explanatory value:

> It has been widely observed that decision makers exhibit preferences for alternatives which cannot be explained by the observed attributes of those alternatives. These preferences are described as alternative specific preferences or biases; they measure the average preference of individuals with different characteristics for an alternative relative to a ‘reference’ alternative.

Ben-Akiva and Morikawa (2002) state that if a model only uses quantifiable instrumental variables such as travel time, then the non-tangible drivers of travel behaviour must have been captured within the alternative specific constant. They note, however, that deconstructing the alternative specific constant is hugely difficult, as it contains multiple latent phenomenologies.

2.2.2 A greater recognition of non-instrumental motivators

In recent decades, ‘predict and provide’, has been largely rejected and the transport policy platform has shifted towards managing issues of car dependency so as to lessen congestion and improve air quality (Urry, 2004). Urry (ibid) describes the imperative of tackling the ‘Frankenstein’s monster of automobility’, something described by Bohm et al (2006) as a belief system which legitimises the dominance of the car by putting it at the centre of society, where all other forms of travel have to find their place.

Breaking down beliefs of automobility and reliance on the private car, however, has proven difficult. Car dependency is driven not only by instrumental variables such as cost and time, but also by entrenched psychological factors (Steg, 2005). It is becoming widely recognised through work being undertaken in the neurosciences, that in decision-making a multiplicity of complicated emotional processes are occurring, without people being necessarily aware of the aspects of choice they are comparing (Damasio, 2008; Kahneman, 2012).

Mode choice is therefore complex, and it has been suggested that to attract more users to environmentally sustainable modes - walking, cycling, public transport, modal sharing, and cleaner vehicle technologies - it is important to know more about its emotive drivers (Beirão and Sarsfield Cabral, 2007). Such knowledge will allow for the tailored marketing of sustainable modes to different groups to maximise uptake. Conversely it could also facilitate advertising campaigns that deter the use of the less sustainable modes.

The tools developed during the early years of transport studies have arguably struggled to accommodate the shift towards understanding the psychological determinants of travel behaviour. Jones (2014) opines that even as early as the mid-1970s academics were beginning to question whether the person/trip perspective was providing a real understanding as to the travel choices people make. Jones (ibid) sees contemporary transport studies as relatively self-contained, focussing primarily on demand and supply. Shaw and Hesse (2010) suggest that the emphasis on empiricist, positivist assumptions, inherent within transport forecasting, fails to account for quirks of behaviour, situation and societal interrelations. Sheller and Urry (2006) criticise a static transport studies, which has failed to consider how the car has reconfigured urban life based on aspirations to modernity. Verlinghieri (2014) believes the intrinsically positivist approach taken by transport studies may have made it a field which hesitates to embrace new epistemological paradigms. Cairns et al (2014) state that transport studies tends to focus on outputs, not the psychological of meaning of transport:

> Mode choice tends not to be conceptualised in terms of culturally available practice…in consumer societies products such as the car have become important in the construction of self-identities based upon shared and agreed meanings...transport research has not widely reflected this.

Anable (2005) states it is becoming increasingly recognised that rational, instrumental arguments are insufficient to explain why measures to restrict car use generate strong negative reluctance to change. Guiver (2007) opines that within transport forecasting influences amenable to measurement still tend to be privileged over factors which are less quantifiable. Idris et al (2015) note that conventional mode choice models have been criticised for their inability to pay appropriate attention to psychological constructs. Temme et al (2008) believe that researchers have increasingly recognised that decision makers differ significantly in terms of their psychological constructs, and that these variations affect a modal alternative's utility in a systematic way. Jensen (2015) calls for

the inclusion of non-instrumental variables into the analytical frame, as a corrective to imaginary rational-mobile subjects seeking to minimise distance and optimise an economic budget.

Many of the comments relating to the psychology of transport pertain to the emotional pull of the car. Steg et al (2001) describes how when analysing the psychological aspects of the car, advertising makes clear that appeals are being made to peoples' sensitivities to power, self-esteem and social status. Choo and Mokhtarian (2004) examined the question of why people buy certain types of cars, not only from the perspective of their instrumental features, but also attitudes to travel, lifestyle, and mobility. They concluded that the vehicle types in a person's choice set cater to a specific set of self-perceived personality characteristics. Chua et al (2010) state that someone who is buying a car to 'show off' may formulate different choice sets to someone wishing to 'save the environment'.

By the 1990s, the understanding that car dependency was difficult to shift, and that the 'black box' of the modal constant had to be 'cracked open' (Sheller and Urry, 2006), drew increasing numbers of behavioural scientists to transport studies. This trend continues today within arguably the latest iteration of transport studies - mobilities. Mobilities examines not only what movement *is* - its empirical reality - but also what it *means*, in terms of socio-cultural, economic and political aspects (Sheller and Urry, ibid; Shaw and Hesse, 2010). Mobilities may be seen as transport studies evolving away from its initially positivist position, to embrace non-traditional interpretivist epistemologies. Sheller (2016) believes mobilities has an inherently anti-positivist edge.

2.2.3 Latent variables

In keeping with this shift towards analysing the emotional drivers of travel behaviour, Wind et al (2012) call for the integration of 'soft issues' into transport and activity based models, to accede to the emerging aspects of the new mobilities turn. One way this can be accomplished is through the use of proxy indicators, termed latent variables, which represent intangible, non-instrumental drivers of behaviour. An example of a latent variable would be 'intellect': it cannot be measured per se, but an attempt can be made to capture its essence through other constructs. For example, intellect can use intellectual quotient (IQ) for which there are many tests available, as a proxy measure. The use of proxy measures, however, does not imply that latent variables are hypothetical or 'not

real' (Guest, 2016). They fall within the realms of the platonic tradition, representing the outward manifestation of the effects of the latent phenomena, but do not constitute the latent variable itself. Bollen (2002) affirms this by describing latent variables as observable phenomena influenced by underlying and unobservable causes. Borsboom et al (2003) see latent variables as unobservable attributes that play a significant causal role in human behaviour.

As hidden motivators of behaviour cannot be seen or quantified, the scientific use of latent variables places a premium on designing research instruments to test hypotheses about their effects or visible outputs (Bollen, 2002). The transport planning industry has in recent years explored the use of proxy variables in latent class demand models. Hess and Hensher (2013) term these hybrid models, containing additional sets of explanatory variables other than those observable in the data itself. Walker and Li (2007) used proxy variables, derived through Likert scale surveys examining 'lifestyle preference', as explanatory variables within a residential choice model to improve its functionality and statistical fit.

One such latent choice variable is **symbolism** (Steg, 2005; Heffner et al, 2007; Dittmar, 1992). Symbolic meaning is concerned with how people within a social hierarchy, believe third parties perceive and judge them as a consequence of the symbols or 'signifiers' they outwardly display (Saussure et al, 1916). The next chapter discusses symbolism and describes how researchers have flagged its potential effects upon travel behaviour.

2.3 Symbolism as a latent transport motivator

2.3.1 The concept of symbolism

The symbols people display within a culture are a complex form of social communication having multiple levels of meaning (Barthes, 1967). The manner in which groups and individuals use symbols within a societal context, to self-define, interact with others, and exhibit hidden motivation, is known as symbolic interactionism (Gingrich, 2006). In discussing symbolic interactionism, Williams (2008) notes how the field stems from the work of George Mead. Mead (1908) examined the interface between individuals and the social realm, where gestures and social objects played a key role in social discourse. The display of outward symbols assists individuals and groups to develop their self-identities

and narratives relative to others, so as to compare themselves based on objective, normative criteria, to third parties within the context of a socially stratified society (Lindemann, 2007; Festinger, 1954). In using symbols within a social context, people construct meaning from their lives to feel self-worth (Hermans and Hermans-Jansen, 2001). Furthermore, Bourdieu (1984) defines the notion of *symbolic capital* where symbols bring societal value, and respect is accorded to parties who portray certain symbols within specific contexts. An example would be someone wearing overtly branded designer clothing being treated more courteously by a hotel receptionist, than someone who was shabbily dressed.

Symbolic meaning and motivation have been investigated at length in disciplines such as sociology, literature, semiotics, sociolinguistics and psychology. Bourdieu (1984) saw the outward symbols people displayed as being part of a competitive, ever-changing, social game of overt consumption, where societal tiers competed for cultural capital or status honour to maintain divisions in society. Belk (1988) describes how externally consumed symbols define membership of a group to frame the group's self-identity. Dittmar (1992) offers a model of how symbols are used by different groups to present aspects of self-identity; she argues that societies have a shared understanding of the symbolic value of goods, which allows people to make judgements about others, so as to evaluate and socially rank them.

Symbolism has been shown to affect choice. Elliott and Wattanasuwan (1998) state that in postmodern societies consumers make choices not just on the basis of the utility of a product in practical terms, but also on what it conveys as a symbol. Advertising is seen as a key supply line for passing symbolic messages to and from consumers, using brands to build identity (Elliott and Wattanasuwan, ibid). McCracken (1986) flags how advertising transfers meaning by bringing together goods or services which are consumed, with a representation of the culturally constituted world, so as to allow the viewer to glimpse an essential similarity between themselves and others. When the symbolism of the product is established the viewer can then attribute to the good or service values from the cultural realm.

As to how symbols communicate meaning, Saussure et al (1916) postulated that a sign or symbol has two meanings. Firstly, a 'signifier' or objective meaning. Secondly a 'signified' - what the sign communicates to others about the displayer. Saussure's work, however, only describes how symbols work at a fundamental level. It was Hjelmslev

(1953) and Barthes (1957, 1967) who took the concept of the signified a stage further by suggesting a symbol has two implications - a denotation and a connotation. Denotations are the precise, literal, meaning of a sign or symbol such as a word or object. Connotations are a deeper meaning of that which is initially denoted at the surface level. Connotations express the emotional, cultural or social meanings associated with a sign or symbol.

Chandler (2007) describes how denotations are generally accepted by all, but connotations can differ according to the characteristics of the appraising group. For example, the denotation or label of 'vegetarian' is generally acknowledged by people to describe someone who does not consume meat. The connotations attached to the word, however, may differ widely between individuals and social groups. Some people may see vegetarians as healthy and caring, others as moralising and subversive. Barthes (1967) argues it is the connotations of a symbol that drive behaviour. Barthes (1957) was able to show that within the linguistic realm symbols did function at the level postulated by Saussure et al (1916) - the sign acted purely as a literal signifier and signified. Within legend, mythologies, folklore, and culture, however, Barthes (ibid) described how the same sign can act as a signifier for a much deeper connoted meaning. He opines:

> I am at the barber's, and a copy of Paris-Match is offered to me. On the cover, a young Negro in a French uniform is saluting, with his eyes uplifted, probably fixed on a fold of the tricolour. All this is the meaning of the picture. But, whether naively or not, I see very well what it signifies to me: that France is a great Empire, that all her sons, without any colour discrimination, faithfully serve under her flag, and that there is no better answer to the detractors of an alleged colonialism than the zeal shown by this Negro in serving his so-called oppressors. I am therefore again faced with a greater semiological system: there is a signifier, itself already formed with a previous system (a black soldier is giving the French salute); there is a signified (it is here a purposeful mixture of Frenchness and militariness); finally, there is a presence of the signified through the signifier.

2.3.2. The symbolism of the transport modes

The concept of symbolism in transport is well established in the arts and social sciences, most strongly around the meaning of the private car. Barthes (1957) believed cars were

the equivalent of great Gothic cathedrals, the supreme creation of an era, conceived with passion by unknown artists, and consumed in image, if not in usage, by a whole population appropriating them as a magical superlative object. Belk (1988) describes how for many young American males the automobile is a symbol of masculinity, part of the owner's extended self and ego - when a car is damaged the owners can often act as if 'their own bodies have been injured'. Miller (2001) describes how much of the scholarly literature on car consumption shows the car as a symbol of modernity offering greater mobility and speed. Dittmar (1992) sees an expensive car as signifying assuredness; she feels that in some cases neighbours may accord someone respect on account of this, and that this in turn may affect the way that the car owner feels about themselves and his or her social standing. Pojani and Stead (2015) state that at a societal level, private cars have long connoted comfort, speed, pleasure, power, protection, individuality and superiority.

In literature, in 'The Great Gatsby' (Fitzgerald, 1925), Gatsby's car can be seen to connote decadence, wealth, and the eventual cause of ruin (Belarafon, 2012). In 'On the Road' (Kerouac, 1957) the Cadillac symbolises rebellion against the American Dream through subversive, mobile lifestyles (Shmoop, 2008). Gartman (2004) states that early automobiles conferred cultural capital on the high bourgeoisie in American society by attesting to their owners removal from the necessity of work. Adorno (1974) saw mass produced automobiles as symbols of conformity, connoting the loss of individuality and illusory false hopes of freedom. Heffner et al (2006) note that products like automobiles symbolise more than just social status, stereotypes, or social roles - they signify any aspect of identity. Dawson (2017) describes how in the post Second World War Balkans, an integrated road network came to symbolise the idea of a united Yugoslavia. The same author also opines how *within* Yugoslavia, a key symbol of the Americanisation of Europe was the motorcar industry, and that driving often came to be seen as an expression of bourgeois individualism (Dawson, 2015). Wu and Pojani (2016) describe how in Thailand a strong focus on road construction has not only been to replace war damaged infrastructure, but also act as a symbol of the nation, a buffer to the communism being adopted in other states within the region. Bourdieu (1984) saw undertaking car maintenance as symbolising manual workers, and luxury cars connoting societal affluence.

Symbolism also acts as a motivator within the context of more recent car propulsion technologies. The image and social prestige gained from driving a hybrid or electric

vehicle seems to be the most important determinant in purchasing choices (Chua et al, 2010; Anable et al, 2011). Heffner et al (2007) notes that whilst the purchase of a hybrid car may outwardly denote a concern for the environment, the connotations of owning the vehicle can vary widely. The true value to the owner of a hybrid car, the deeper purchasing motivator, is likely to come through what this outward concern for the environment connotes to the owner's social group. Heffner et al (ibid) describes five denotations of owning a hybrid car: preserving the environment; opposing war; managing personal finances; reducing support to oil producers; and embracing new technology (Table 1). Generally, however, each of these denotations raises several differing connotations - possessing ethics, concern for others, community orientation, intelligence, maturity, personal independence, national independence, individuality, and being an advocate for local manufacturing. Kurani et al (2018) examined the symbolic meaning of electric vehicles in California and concluded there were three that predominated: being able to manage personal finances, preserving the environment, and reducing support for oil producers. In Sweden, Jansson et al (2017) note how the adoption of electric vehicles is strongly related to demonstrating ecological awareness, tech savviness, and social activeness, to peers and neighbours.

[Refer to primary reference]

Table 1: Denotations and connotations associated with owning a hybrid car.
(Heffner et al, 2007). Reprinted from Transportation Research Part D, 12, '*Symbolism in California's early market for electric vehicles*', page 409. With permission from Elsevier (for PhD thesis examination purposes only).

Very recently the symbolism of car sharing, or shared mobility has become pertinent through the rise of firms such as Ola, Didi, Uber, Zipcar and GoGet. The symbolism of these relatively new modes is still being explored, but the academic literature is beginning to examine the meaning of the 'sharing economy' within the context of transport. Bardhi and Eckhardt (2012), in discussing car sharing, what they term a form of 'access-based consumption', note that whilst the practice is not well theorised, there are visible symbolic value connotations at play. They flag that car access is no longer being seen among

certain groups as an inferior option to ownership, and can connote liquidity - a sign of freedom from ownership, flexibility, and an urban lifestyle, a part of which is anonymity. Dowling et al (2018) define car sharing in Sydney as a socio-material practice dwelling within the realms of social discursivity; they see it as connoting independence and flexibility.

Other modes of transport have also been described in symbolic terms. With regard to the bicycle, Withers and Shea (2016) state:

> Of course, people have been recently embracing bicycles in such prodigious numbers for more than these machines' benefits to material practices such as exercising, commuting, and saving money. Surely, it is also the bicycle's symbolic and connotative significance, in addition to its material advantages and practicality that are attracting such a range of devotees. For example, bike messengers, hip-hop artists, and punk rockers are jumping onto the saddles of bikes due to the machine's associations with anti-corporate politics…although environmentalists cherish the bicycle for its disentanglement from pollution and global warming, surely many of those same environmentalists also use the bike and connect their sense of self to bikes for what that machine symbolises about a person's commitment to a (supposedly) simpler, purer lifestyle.

Stressing that symbolic meaning varies according to the observing group – that the meaning is relative depending on the observer and the value set(s) of the group(s) to which they belong - Aldred (2013) flags a range of connotations for cycling in the United Kingdom. These range from deviancy, youth crime and parental irresponsibility, to contributing to solving environmental problems and being in good health. Fruhen and Flin (2015) state that for many car drivers, cyclists symbolise being outside society's norms and are seen as socially deviant. Respondents in a survey undertaken by Leonard et al (2012) saw cycling as symbolising fitness consciousness, environmental awareness and being adventurous. Conversely though, in the same survey, non-cyclists also associated cycling with other attributes such as not being hardworking or independent. In developing countries, Pojani and Stead (2015) see cycles as connoting a mode for the poor who are unable to afford their own motorised transport. Law and Karnilowicz (2015) indicate that such localised values may be transferred when people migrate, noting

how for the Vietnamese community in Melbourne the bicycle may still connote poverty because ‘in (their) country it's just poor people who ride a bike’. Jones and Novo de Azevedo (2013) note how in Pelotas, Brazil, those on lower incomes would continue to aspire to own a car as long as cycling was stigmatised, and the car promoted as a status symbol of modernity and success. In the case of electric bicycles, Lin et al (2018) perceive that in Nanjing a car user is seen as well-educated and wealthy, whereas the current symbolism and social connotations of ‘e-bikes’ is that they are for the poor and uneducated.

As to the connotations of railways, The Railroad Network (2011) opine how in Rowling (1997) the train stands for bonding and the beginnings of friendship. In Piper (2012) the engine of the locomotive embodies tenacity and the ability to overcome struggle. Conversely, in Gaskell et al (2011) the building of a railway stands for profiteering, gluttony, dishonesty and fraud. Considering the rapid growth of the railway network in newly industrialising nineteenth century Germany, Karstedt (2003) describes how for rural Germans the railways symbolised ‘the encroachment of the modernity of the cities upon their traditional way of life’. Schivelbusch (1986) describes how in 1839 the mixing of all social classes on trains was seen as standing for a more egalitarian way of life, a broker of liberty by means of the fostering of new ties.

Urban public transport’s connotations are seemingly varied. At a generic level, Iacobucci (2016) describes how some people view public transport as a ‘turnoff’, as it can symbolise social inferiority. According to ITDP (2007) the term ‘public transport’ can in certain environments have the same symbolic connotations as a ‘public toilet’: a communal inconvenience to be endured rather than appreciated. Other commentators, however, feel that generalising about the symbolism of public transport as a whole is too simplistic. They suggest that different connotations apply to rail and bus-based modes. Wu and Pojani (2016) note that rail-based urban transport tends to have a higher image than bus-based. Scherer and Dziekan (2012) examined the emotional differences between public transport and car use and found that between 20-50% of the difference in mode share for bus, rail and tram, are driven by emotional and socially symbolic attribution biases towards rail-based modes, and against buses. They term this a ‘psychological rail factor’. Mallqui and Pojani (2017) opine that despite challenges relating to implementation and cost, rail-based urban transport has a higher image then bus-based, and therefore tends to be a more popular mode for both governments and users.

Often it seems metro systems bring prestigious or unifying connotations to a city and its inhabitants - a civic symbolic capital within a global environment where cities are competing with each other for prestige. Perkins (2017) sees the London Underground and its emblem as a symbol of London uniting in the face of adversity. Over thirty years ago, within the context of the Global South[3], Dalvi (1986) suggested that rail-based mass transit is always tempting to politicians seeking to sell progress to the public. Little may have changed. Zhou (2017) sees metro systems as a sign of modernity in Chinese cities, a 'nod' to China's role in the global economy, and a symbol of being international, something which raises an official's political capital. Zhu et al (2011) describes how advertising on Guangzhou's metro is a way in which the city projects itself as modern and forward looking. Williams (2008) refers to Delhi's metro as a symbol of definite progress. Rediff (2006) concurs:

> More than anything else, the Delhi Metro has become the symbol of India's progress today to the whole world. It has brought so much attention to our country and our economic and technological leap forward.

The connotations of bus travel are, however, usually less flattering. Buses frequently appear to possess negative social symbolism. The UK Department for Transport (2008) likens the bus to a workhorse - familiar, even friendly, but dull, unexciting, and functional. Furthermore, it seems that bus use can sometimes symbolise being unable to afford personal motorised transport. A British Ford advert[4] from the 1930s, on the surface merely denotes a new Ford can be purchased for £100. The connotations of the advert, however, may be seen as showing the man whose family is waiting at a bus stop, marvelling enviously at the car driving by, as being unable to provide financially for his family. This is perhaps in keeping with Margaret Thatcher's reputed comment in 1986: 'a man who beyond the age of twenty six, finds himself on a bus, can count himself a failure' (The Economist, 2006). Guiver (2007) states how interviewees in a survey described bus users as unfortunate victims, disempowered citizens with few choices. Moore (2010) believes that for many people, buses are seen as the 'loser cruiser'. Friedersdorf (2010) associates bus users with poor personal hygiene.

[3] Global North/South terminological issues are discussed in subchapter 2.5.1.

[4] http://www.motorbase.com/content/2011/08/ford-of-britain-100-image-of-the-week-%E2%80%93-2352/

In the Global South buses also appear to connote social inferiority. Peng (2005) believes that in nations such as China bus systems are always at the bottom of the list of development strategies, along with walking and cycling, because they are considered an inferior relic of the past - unsuitable proof of politicians' attempts to modernise their cities and show tangible progress. Pojani and Stead (2015) feel that in the Global South buses are seldom seen as a mode of choice, but rather a mode of last resort for people who are not even able to afford a bicycle, or who live so far outside the city that travel by bicycle is impossible. Li et al (2006) support this by noting that many people in China feel that buses are the only mode of choice for impoverished migrants. Li et al (2019) flag that in Changzhou the symbolic value of the private car and 'face' culture, has lessened the image of public transport which is now seen as a mode for low income people. Banerjee et al (2010) undertook an attitudinal survey in Surat in India and discovered that many middle-class Indians do not wish to be seen riding a bus or using non-motorised modes.

Bus Rapid Transit or BRT may be seen as an attempt to overcome an inherent rail bias by bridging the image gap between bus and rail-based modes. It does this by emulating some of the features of urban rail and tram systems including fixed infrastructure, dedicated right of way, priority at intersections, closed ticketing systems, platform-level boarding and, articulated vehicles. Hensher and Mulley (2015), however, suggest that BRT may be 'tainted' by an association with regular slow and unreliable bus services operating in mixed traffic. Wu and Pojani (2016) state that in the Global South, BRT systems suffer from an association with buses that have a negative image; they see the need to raise the image of BRT as a sustainable transport mode. Hidalgo and Gutiérrez (2013) suggest that BRT lacks a single meaning and that within the public debate surrounding transit options is often seen as a second-best alternative to rail-based modes. This they argue results in the political economy being favourable to those candidates offering rail alternatives as part of their proposals. Joshi (2012) recounts how the now discontinued BRT scheme in Delhi exposed a class divide, where car drivers came to see use of the busway as connoting people whose time was less important than that of car drivers:

> The debate manifests the class divide in a status-conscious city where a car is considered more of a status symbol than a convenient mode of transport. Mr Sharan, the man spearheading the campaign against the BRT, dismisses the argument. He says those who travel in their

> own cars are the decision-makers, therefore, they should get priority over buses. He believes that bus users can wait because they are engaged in less important jobs. "You cannot keep a commander-in-chief waiting in traffic while his army is waiting for his orders. How does it matter if a peon reaches their office five minute before time?" Mr Sharan asks.

2.3.3 Does symbolism affect transport choice?

Many commentators believe symbolic considerations *do* affect transport choice. Idris et al (2015) flag how the maintenance of an outward social persona is a key determinant of an intention to travel by a particular mode. Beckett (2015) suggests that the Austin Metro car was able to achieve a significant percent of the United Kingdom's market share in 1982 because it displayed patriotism. Cairns et al (2014) postulate that one reason for the increasing popularity of communal transport modes such as car sharing is the formulation of 'novel identities' to display to others. Snowdon and Grimmer (2009) describe how in choosing and using a car, a primary motivator is social categorisation and esteem enhancement. Heffner et al (2007) concluded that the outward presentation of being seen to care about the environment to fit in with a particular peer group, was critical for many hybrid car purchasers. Chua et al (2010) agreed, flagging that purchasers of hybrid cars are often concerned with the car improving their social image more than the potential environmental benefits. Noppers et al (2014) showed how symbolism was a major consideration for procurers of electric cars in Holland. Choo and Mokhtarian (2004) found that people who wished to outwardly portray their success and wealth to others through their vehicles were unlikely to buy small cars. Maynard (2014) states that in recent years the reason behind many young people not obtaining driving licences, is that for them the car symbolises a passé form of prestige; this view is also echoed in Metz (2014). Fitt (2015) undertook a survey in Christchurch, New Zealand and discovered that 80% of respondents indicated that social and symbolic meaning affected their mode choice.

2.3.4. The isolation of symbolism as latent transport choice variable

Whilst there is thus a broad consensus that individual transport modes convey different symbolic meanings, and that these meanings in turn have an effect on peoples' mode choice, it is only recently that symbolism was specifically isolated as a latent variable in

transport choice by Steg (2005). This derivation is described in her paper '*Car use: lust and must: instrumental, symbolic and affective motives for car use'*. Heffner et al (2007) state that before Steg (ibid) no studies had attempted to focus on the symbolism of automobiles in studies of car buyers and drivers. Steg (ibid) utilised a theoretical model of motivation - Dittmar's (1992) '*The social psychology of material possessions'* - to isolate symbolism as a proxy variable through factor analysis within the context of car usage. Dittmar (1992) offered three categories of choice motivation within a social context:

1. Instrumental - the practical reasons for people choosing something.
2. Symbolic - how people express themselves and their social position relative to others, through their outward choices.
3. Affective - the feelings evoked by a choice (in this case driving a car).

Using Dittmar's three categories Steg (2005) developed a Likert scale questionnaire to attempt to capture each within the context of car ownership and usage. An example of a statement relating to symbolic motivation was: 'the car gives me prestige'. The survey respondents were a group of Dutch car commuters in Groningen and Rotterdam. Having undertaken both exploratory and confirmatory factor analysis Steg was able to isolate symbolism as a latent proxy variable, and concluded:

> Car use is not only popular because of its instrumental functions…the way people talk about their cars, and the ways cars are advertised make perfectly clear that the car fulfils many…symbolic…. functions. In advertisements, appeals are made to people's …social status…the car seems to be a status symbol…the results from these studies…provide solid empirical evidence for the significance of non-instrumental motives for car use...symbolic … motives may not only affect mode choices, but other transport choices…Further research should examine the relationships between various types of transport behaviour and symbolic motives in more detail.

One key finding of Steg's research was the extent to which people downplayed symbolic motivation. When asked directly, people indicated that the symbolic aspects of their choices were only slightly important, far less than the practical. Results from other studies, however, show that symbolic motivation appears to be one of the strongest predictors of behaviour (Noppers et al, 2011; Noppers et al, 2014; Bolderdijk et al, 2013).

This suggests people may not always know what motivates them, or that if they do, they downplay factors they prefer not to acknowledge to others.

Sociologists such as Bourdieu (1984) have demonstrated that the value attributed to a particular symbol differs *vertically* within a population by income and education level. Furthermore, scholars such as Ohnmacht et al (2009) have shown that *horizontal* differences in attitudes and values may be observed *across* the same vertical status level, based upon other group-specific characteristics. These concepts, vertical and horizontal segmentation, and how they may relate to symbolic motivation, will be discussed in the next subchapter.

2.3.5. Vertical and horizontal segmentation of symbolic motivation

Having isolated symbolism as a latent variable Steg (2005) examined how its importance varied within her sample of respondents based upon their sociodemographic characteristics. Mean scores for the Likert scale ratings for each factor pertaining to symbolic, instrumental, and affective motivation were calculated for a range of sociodemographic segments. It was demonstrated that the outward symbolism of a car seemed to matter more to younger car users than older, low and middle-income earners compared to higher, males than females, and those who drive a great deal compared to those who do not.

The varying importance attributed to certain symbols by different sociodemographic groups within a society is well researched. It was the sociologist Veblen (1899) who mooted the idea of status goods and conspicuous consumption within a stratified society, by describing how people deemed to be of lower social status aped the behaviours and symbols of those of whose social class they aspired to be members of. In doing so, some people ended up procuring status products beyond their financial means, despite having had an option to buy identical products of similar functionality for lower cost (Sorokin, 1957).

In relatively recent years these social and cultural dynamics have been explored in depth by Bourdieu (1984) whose theory of distinction postulates a social comparison model where different classes compete for symbolic capital, by means of evolving symbols, to demonstrate place in a class hierarchy. As the tier below acquires the symbols of those above, members of the tier above discontinue displaying the same symbols and adopt those of the group above them (who in turn adopt another symbol being displayed by the

group above them). The German sociologist Simmel (1957) described a trickledown effect of changing fashions. Sheller and Urry (2006) within the context of mobilities see this dynamic as part of upward and downward social movement. Frank, (1993) likens this evolving social positioning to being 'on a treadmill', flagging it as a zero-sum game due to its continual recalibration, making eventual satisfaction impossible. Using a transport example, O'Dell (2001) opines that once mass-produced automobiles arrived in the United States, in order to maintain an outward distance from the working class who were adopting domestic automobiles in increasing numbers, the middle class forfeited the American car as a status symbol. This process of distinguishing oneself from other social tiers within a society seems to occur in even the poorest nations. When incomes are extremely low, such as in rural India, the quest to 'keep up with the Joneses' continues, often to the detriment of basic needs such as healthcare (Linssen et al, 2011; Bloch et al, 2004).

These sociodemographic drivers of symbolism in choice have strong transport policy relevance in terms of discouraging car use. As discussed in Dargay (2001, 2007) and Nolan (2010), car ownership has been shown to be 'sticky' - reasonably inelastic to income. Many people grow to see their cars as a mandatory social possession not a transport choice, so when their incomes fall, they tend to try to retain ownership of their vehicles. The presence of symbolism around the car could compound this problem - losing a vehicle may be seen as symbolising a loss of income and social standing. Certain groups may therefore resist car reduction policies, not only for compelling instrumental reasons, but also because of what not having a car may potentially connote to others. If this was the case, policies to discourage car use and encourage more sustainable modes such as public transport, would have to be tailored and marketed to different groups, so as to lessen potential social embarrassment.

Sheller and Urry's (2006) earlier reference to 'upward' and 'downward' social segmentation and mobility, evokes a traditional, what has already been termed *vertical* stratification of society, separated according to wealth, education and income. It is common practice when developing utility functions in transport modelling to segregate groups by income to reflect differing affordability thresholds and time sensitivities, according to the perceived purchasing power of the different groups. When discussing mobility within the context of social divisions, however, Ohnmacht et al (2009) and Morgan et al (2006) describe a *horizontal* segmentation of societies, across groups, with

no change in vertical level. Brand and Dávila (2011) discuss mobility's horizontal dimension within the context of Medellin's metrocables and social equality.

Ohnmacht et al (2009) state:

> New forms of inequality follow from a greater awareness of increased global complexity and the existence of a greater range of choices for individuals; these forms are therefore defined by such things as consumption, lifestyle, identity dynamics and so forth. This horizontal diversification has led to an increase in heterogeneity within social stratification studies (e.g. variations in attitudes, opinions and values and behaviour in the same status level).

If vertical segmentation deals with variables that only operate *within* nations, horizontal segmentation can transcend national borders to examine phenomenology across nations or cultures (Bolton and Myers, 2003; Sethi, 1971; Cleveland et al, 2015). Agarwal et al (2010) confirm that horizontal segmentation addresses behavioural heterogeneity across both countries and cultures. Durvasula and Lysonski (2010) believe young Chinese consumers are freer to demonstrate individual good fortune to others through conspicuous consumption than elderly people. Shah (2009) also makes reference to generational differences when overtly expressing wealth in India. Dunn and Searle (2010) opine that males are far more likely to care more about the symbolic value of their cars for reasons of perceived enhanced mate attraction. Sheel (2005) explored the consumer behaviour of the Indian community in Canada and demonstrated extreme familial pressure being placed on youth to be seen to drive a 'good car' to show family back in India that the expats have prospered in the new country. Ivanic et al (2011) show that some ethnic groups within a nation, who possess perceived lower endowed societal status than others, often increase their willingness to pay for visible status goods to assert their social position. Kaus (2013) demonstrated that within South Africa non-whites spend between thirty to fifty percent more on visible consumption goods and services, than socially equivalent whites, often at the expense of basic health and medical needs.

The discussion of migrant status or ethnicity as horizontal variables which affect symbolic behaviour raises the possibility of 'national culture' (a subset of the overarching concept of 'culture') being a differentiator of the symbolic aspects of transport choice. This will be discussed in the next subchapter.

2.4 Culture, national culture, and how they may affect choices

2.4.1 Culture

Matsumoto and Juang (2012) define culture as the 'set of attitudes, values, beliefs, and behaviours shared by a group of people'. Mulholland (1991) notes 'a set of shared and enduring meaning, values, and beliefs that characterise national, ethnic, or other groups and orient their behaviour'. The study of culture within anthropology is well established, with Margaret Mead's early work being among the most widely cited (Mead 1928, 1930).

There are many examples of culture. Even by 1952 over 164 definitions had been identified by Kroeber and Kluckhohn (1952). Culture, like symbolism, is a latent concept, something which cannot be seen or directly measured. Soares et al (2007) describe it as 'fuzzy', something raising definitional, conceptual, temporal, and operational obstacles for research. Culture is a phenomenon whose manifestation can vary either vertically or horizontally. Vertical variations are driven by factors such as social class or income, an example being 'middle-class culture'. Yet *across* a vertical cultural group there is likely to be a plethora of horizontal cultures, for example 'middle-class urban culture'.

Culture is dynamic and influenced by interaction with other cultures - something enabled by the mobility of people, ideas, and practices. Sasaki and Yoshikawa (2014) see culture as ever changing. Salazar (2010) is of the view that human mobilities are infused with cultural meaning; the way people move across borders exerts strong influences on their values, and that they in turn effect the cultures with which they interact. Guo (2015) discusses cultural mobility within the context of globalisation, and flags three theories as to how cultures interact and evolve - differentialism, hybridisation and convergence:

> Cultural differentialism involves barriers that prevent flows that serve to make cultures more alike; in this case cultures tend to remain stubbornly different from one another. Cultural hybridisation is the mixing of cultures and the integration of the global and the local, leading to unique combinations. Cultural convergence is when cultures are subject to many of the same global flows and tend to grow more alike.

Ritzer (2011) stresses that there is an imbalance in the way that cultures flow and interact, with those of more powerful societies such as the United States, moving around the world more fluidly than those of less powerful nations. Some forms of culture also travel more readily than others due to global communications and marketing: pop music culture can

be seen to be more globally influential than academic theories - at least in the shorter to medium term - among the bulk of the global population.

Some commentators see symbolism and culture as being entwined. According to Fitt (2015), human societies use symbols to express specific ideologies and social structures and to represent aspects of their culture. Therefore, the meaning of a symbol is not inherent in the symbol itself but is culturally learned (Womack, 2005). Geertz (1973) saw culture as an inherited series of beliefs manifested through symbols: the means by which people demonstrated their attitudes and knowledge to others in often irregular and inexplicit fashion. He saw the job of the cultural researcher as getting underneath this 'thick description'. Hofstede et al (2010) concur by seeing symbols as the surface expression of culture, an outer layer of a 'cultural onion'. Dittmar (1992) describes how people evaluate how others see them, as a consequence of the symbols they portray, as deriving from a culture's values, not only through social interaction, but also schools and the media. Fairchild (1970) also sees symbols as an integral part of culture:

> [culture is] …. a collective name for behaviour patterns socially acquired and transmitted by means of symbols; a name for all the distinctive achievements of human groups, including…the material instruments or artefacts in which cultural achievements are embodied.

Culture is becoming an increasingly discussed topic in the transport and mobilities literature. One of the four critical aspects of urban mobility culture as described by Kuhnimhof and Wulfhorst (2013) is 'perception and lifestyle orientation' which they see as being heavily influenced by cultural background as well as socio-economic categorisation, status concerns, and social norms. Miller (2001) notes that in social history there tends to be an emphasis on the outputs of the car, its externalities, rather than its consumption and relevance in cultural contexts.

2.4.2. National culture

One aspect of culture which has received significant attention in recent decades, due to the international mobility of trade and labour, is *national* culture. National culture is defined by Hofstede (1984) as 'the collective programming of the mind that distinguishes the members of one national group from another'. National culture is an evolving entity due to globalisation, consumerism, cross-national exchanges, and international media (Taras et al, 2012; Jenner et al, 2008).

The expansion of global media and trade has led to national culture becoming a well-studied topic especially in commerce and the social sciences (Markus and Kitayama, 1991; Steenkamp, 2001; Strohschneider, 2002; Swaidan, 2012). Ayoun and Moreo (2009) note how during recent decades, the concept of national culture has attracted increasing attention from scholars seeking to define the phenomenon, and develop strong frameworks for analysis and comparison. Gerhart and Fang (2005) describe national culture as a dominant focus in international research. This interest has fostered a suite of cultural models or indices seeking to contrast differences in national culture by means of proxy variables. The most commonly cited and used are those of Schwartz (1999), Trompenaars and Hampden-Turner (1997), Hofstede (1984), House et al (2004) and Inglehart (1997). Aspects of these models will be presented in subchapter 2.5.

Whilst national culture is a generally accepted phenomenon there is, however, no consensus as to what causes it. There seem to be three prevalent hypotheses. Newson et al (2007) believe that genetics play a role in shaping the characteristics of national culture, which in turn creates the environment within which a population must survive. Matthew and Busemeyer (2011) offer a cultural heritage hypothesis with people inheriting different approaches to living from their forebears. Social conditioning is often seen as the major causal factor. Rau et al (2009) believe that national culture is a manifestation of the social rules for conducting conversation and discourse. Savani et al (2012) state there is a body of empirical evidence supporting the claim that social norms shape national cultures, and that what is considered acceptable in cultures where there is a strong element of interdependency comes through 'social proof'. Varnum et al (2010) believe the most likely causes of difference relate to whether or not children are primed by adults to behave independently causing an individual analytical cognition, or interdependently leading to a social harmony mode of thinking. As will be discussed in subchapter 2.5.3 notions of interdependence or independence as national cultural differentiators, feature strongly in all of the cultural models.

2.4.3 Controversies over national culture as a concept

Whilst there is a significant body of literature assuming nations possesses distinctive, influential, and describable cultures, generalising about a collective national group is not without controversy or detraction. There are three issues flagged by those who raise concerns about the concept of national culture in the modern era, which are in turn refuted by the national cultural theorists.

Firstly, some scholars object to the nation state being the unit by which a culture is measured, stating that culture spreads across national lines (Di Maggio, 1997). This argument has been countered with a practical rejoinder: national borders at least physically bound culture and is the environment within which those travelling to another nation need to operate (Hofstede, 1998a). Witchalls (2012) describes how, when considering claims of a borderless world, the consumption of national media and the enactment of local legislation remain crucial in maintaining a degree of national cultural continuity.

Secondly, some commentators oppose attempts to quantify national homogeneity, or generalise at the expense of the individual (Jones, 2007). Osland and Bird (2000) object to what they term 'sophisticated stereotyping'. They acknowledge the concept of national culture is helpful, to a degree, but feel it does not convey the complexity found within cultures - the paradoxes encountered. McSweeney (2002) opines that instead of seeking explanations for assumed national uniformity, researchers should be looking to use frameworks which explore non-national complexity, and the situational variability of an individual subject.

There are several counter arguments to the generalisation concern. Hofstede et al (2010) note that whilst no model justifies the stereotyping of individuals, the concept of national culture deals not with individuals but national societies - the indices in use are not designed to examine differences between individuals (Minkov and Hofstede, 2011). Furthermore, it is the usefulness of the national cultural models in the field, not their theoretical or empirical perfection, which has led to their popularity and uptake. Prior to the development of cross-cultural studies, and the different models, researchers were forced to treat culture as a single variable with no explanatory powers (Minkov and Hofstede, ibid). Lastly, the cultural models do not claim to measure anything other than collective relativity. It is assumed for any variable within a cross-cultural framework, that individuals within each national cultural grouping are normally distributed. It is the difference between the means of the two normal distributions that demonstrate a cultural difference - the indices measure relativity not absolute scores (Hofstede, 1984). This is shown in Figure 1.

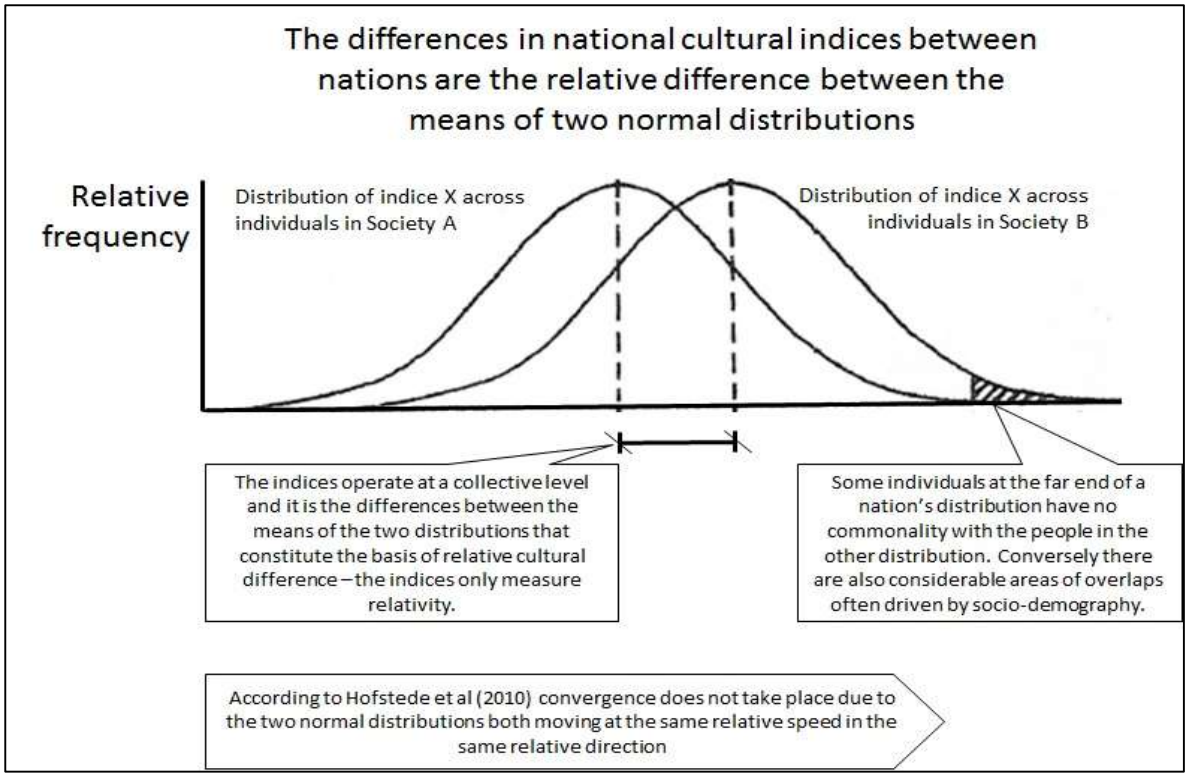


Figure 1: Hofstede indices - relative distances between normal distributions.
(Adapted from Hofstede, 1984).

Williamson (2002) states:

> To reject totally…functionalist models of national culture, before more satisfactory models have been developed, would be to throw away valuable insight. For social scientists working within the functionalist paradigm, a quantification of national culture opens up what is otherwise a black box of cultural factors. For social scientists working outside the functionalist paradigm…the described attributes of national culture…may be either used to describe social phenomenon or put up as a comparative yardstick for other cultural attributes.

The third objection to the concept of national culture, touching on Guo (2015) and Ritzer's (2011) convergence issue, is the question as to whether or not national culture is homogenising due to global media and enhanced connectivity. De Mooij and Hofstede (2002) note how some researchers feel globalisation is leading to a uniformity of world lifestyles, needs and taste. There are several counterarguments to this view. Witchalls (2012) concludes that despite increasing international interconnectivity, national culture remains strong due to it being *autopoietic* - it references against its own norms when

interpreting new information to assess how acceptable the values of another culture are. Minkov and Hofstede (2011) see all modern societies broadly evolving in the same direction but not converging, thus maintaining the relative difference between them; they state research into the development of cultural values has shown little evidence of convergence over time. Gould and Wong (2000) are of the opinion that 'things represent different things in different cultures', and that indigenous cultures are shaping their own market norms not following those of the industrialised world. Hamamura (2012) states that modernisation theory may have predicted the rise of global individualism, but it seems evident that there is still a persisting collectivist cultural heritage in many places (the concept of individualistic and collectivist cultures will be discussed in greater depth in subchapter 2.5.5).

The strongest evidence of national cultures not converging arguably comes from the management and marketing literature. Advertising is a discipline which necessitates an analysis of national culture as firms attempt to sell products across country boundaries. As such, they are presented with a choice of attempting to appeal to consumers with either globally uniform or localised messages. According to Schmid and Kotulla (2011) over three hundred academic papers debate this issue, and they concur that a divergent marketing strategy across national cultures works best. A 'one size fits all' marketing strategy usually fails in other markets, suggesting that the influence of traditional culture persists, even under a façade of more western culture.

De Mooij (2003) notes that ignoring national culture's influence led many companies to centralise operations and marketing, which resulted in declining profitability. Agarwal et al (2010) opines that whilst the extent of the convergence of cultural values across nations has been debated by international marketing researchers, from a practical standpoint transnational firms require a cross-national, cross-cultural approach. Gupta and Wang (2011) feel that whilst the global economy offers more options to firms, they still need to use the embedded national culture to differentiate their product in the market. Nakagawa et al (2017) state that multi-national corporations looking to diversify into emerging markets need to build their localised capabilities within the framework of the local culture in order to innovate. Jiang and Wei (2012) describe how advertising campaigns need to be focussed on specific localised needs and conditions, not rely upon global economies of scale.

Whereas the concept of national cultures converging is refuted by many, the concept of hybridisation is often acknowledged. Tomalin and Nicks (2010) when discussing migration believe that there is a duality at play when people who live in one culture have been raised in another. They suggest people who are assumed to be fully integrated into a culture may do things totally in tune with their originating culture, and out of tune with the culture into which they have supposedly assimilated. This may also apply when people are working for overseas firms within their nation of origin. Shah (2009) describes the dilemma facing young Indians working for multinational corporations who need to show a westernised individualistic facade at work and a traditional collectivist mentality at home.

2.4.4 National culture influencing choice and behaviour

Several commentators argue that the effects of culture on choice and behaviour are significant. According to Malhotra and McCort (2001) a country's culture has long been identified as a key characteristic underlying systematic differences in behaviour at a general level. Swaidan (2012) believes that the culture of a nation can affect the motives and ethical behaviour of its inhabitants, a view shared by Vitell et al (1993). Craig and Douglas (2006) note that whilst national culture is becoming 'contaminated, pluralistic and hybridised' it remains a pervasive influence on behaviour. Koçak et al (2007) state that national culture leads to different populations making varying choice evaluations; Belk (1999) sees this as being attributable to differing value associations. Guess (2004) believes that it is the utility gained from each aspect of choice which differs between cultures, and that culture-specific expectations and values are passed down through the generations with each age tier indicating what is effective or appropriate. Rau et al (2009) believe that individuals from different cultures have differing views of the self, which in turn affects their decision-making.

Briley et al (2000) offer three models for the role that culture plays in decision-making. The universal model assumes there is little difference in how people from different cultural groups make decisions. Within the dispositional model, culture is seen as affecting decision-making, regardless of the situation within which the decision is being made. The dynamic model, similar to the dispositional model, sees the degree to which culture affects decision-making as changing over time, and varying according to the situation. Briley et al (ibid) concludes that the 'situation in which a decision is being

made affects the degree to which cultural values and norms arise in the decision-making process'.

2.4.5 National culture in the transport literature

There are several references on the role of national culture in the transport literature. Some of them are comparatively based across nations. Other material relates to the experience of migrants and their travel choices upon settling in a new country.

Almost thirty years ago Tansey et al (1990) discovered a difference in the advertising appeals made to potential purchasers of automobiles in the United States as opposed to Brazil. The theory put forward was that recent urbanisation and a strong leisure culture in Brazil led to cars being marketed differently than in the USA, which was seen as having a relatively weak leisure culture. The issue of differing attitudes towards the balance between work and leisure across national cultures is discussed by Rapaille (2006). Lee et al (2015) found a difference in driving caution between Malaysian and British drivers, which they believed was attributable to a culturally-driven attitude towards safety. Their research suggested that 'Malaysian drivers are more inclined to think it is safe to pull out in front of approaching vehicles than drivers from the UK, indicating they may adopt a less cautious appraisal process about oncoming traffic in general'. Loo et al (2015) feel national culture may drive travel behaviour as they see transport as a manifestation of group attitudes and values. Rundmo et al (2012) in examining traffic culture as a symbolic exchange, assessed differences between the driving behaviour of Russian and Norwegian adults, and concluded that each nation has its own traffic safety culture which is a valid predictor of traffic accident rates.

Oliver and Lee (2010) examined hybrid car purchase intentions in both the USA and Korea and concluded that within the culture of the USA there was a stronger relationship between a person's environmental concerns and an intention to purchase a hybrid. This ties in with the findings of Heffner et al (2007) and Chua et al (2010). Conversely within the Korean culture there appeared to be a stronger link between the social value of owning a hybrid car and an intention to purchase one.

Cunningham et al (2002) also contrasted the United States and Korea in terms of satisfaction with airline services. They found that when choosing an airline, passengers from the United States are most concerned with service reliability, ease of connection, and in-flight comfort, whereas their Korean counterparts are more concerned with flight

risk factors. Kim and Lee (2009a) also examined the airline industry and Korean culture. They compared the attitudes of employees of airlines from China, Japan, the United States and Korea, and concluded that the Korean airline staff considered it more culturally acceptable to stereotype passengers, based on their race and nationality, than staff from the comparator nations. In addition, when examining passengers from the same four countries Kim and Lee (2009b) found it was more culturally acceptable for passengers to complain about an airline's service in China and the United States, than in Korea and Japan.

Scherer and Dziekan (2012) in examining the 'psychological rail factor', a seemingly inherent modal bias towards rail rather than bus-based modes state:

> Images of different public transport systems vary between regions since customer attributes derive from perceptions and beliefs which are influenced by local conditions and different cultures…any psychological biases in favour of rail over bus will be influenced by local conditions so cannot be generalised and applied to different regions.

Takahashi (2010) undertook comparative research into the way which Canadians and Japanese communicate with bus drivers and other passengers. They found that in Canada, verbal greetings and signs of appreciation were prevalent, and that inside the bus there was lively chatter. Conversely in Japan the bus community was characterised by silence with no verbal interaction between passengers and drivers, and a strong imperative not to disturb other travellers.

For different migrant groups *within* a city, Syam (2014) examined the role of national culture in modal choice in Auckland. He concluded a migrant's country of origin was a strong motivator as to how they perceived public transport attributes, and concluded 'it is helpful for transport planners to understand people's cultural backgrounds so that transport provision in the future can cater for different needs'. Syam et al (2011) also examined different ethnic groups' perceptions of security on public transport in Auckland and concluded that culture helped explain behavioural differences. Law and Karnilowicz (2015) examined cycling in Melbourne and concluded that locational culture, in this case Arab-African and South East Asian, was a determinant of a person's propensity to cycle or not. They concluded that many newly arrived and marginalised migrants and refugees, are less likely to engage in cycling for cultural reasons than their Australian raised

counterparts, because in 'their country it is for poor people'. Within the context of hybrid and electric vehicles in China, Qian and Yin (2017) conclude that public policy efforts should pay more attention to the role of national cultural values when promoting environmentally sustainable technologies.

This chapter introduced the concepts of culture and national culture and noted controversies around them. It then flagged how national culture affects choice, generally, and in the transport field. The material presented within this chapter thus far therefore leads to an overarching meta research question of:

'Does national culture seemingly affect the symbolic aspects of transport choice?'

This high-level research question, however, needs locational context, a basis by which to disaggregate it for analysis, and, having further broken it down, it also needs applied relevance. These are the topics which will be dealt with in the remainder of this chapter.

2.5 Choosing a model by which to segment national cultures

When examining cross-cultural differences Buil et al (2012) state there are two important considerations: which nations to sample *across*, and who to sample *within* each nation chosen. As noted in the introduction this study is concerned with the environmental crisis which has arisen in Indian and Chinese cities as a consequence of increased personal motorisation. The process of choosing a model by which to contrast nations therefore entails selecting a cross-cultural index which yields a group of nations whose scores contrast with India and China. This subchapter will first expand upon the emergent environmental crisis in Indian and Chinese mega cities. It will then introduce the commonly used cross-cultural models and their areas of overlap. Following this, the most suitable model and indices for this study will be justified and further described.

2.5.1 The environmental crises in Indian and Chinese cities

Pojani and Stead (2015) state that in a short period of time cities within the Global South[5] have experienced a rapid growth in transport-related challenges, including pollution, congestion, accidents, public transport decline, environmental degradation, climate change, energy depletion, visual intrusion, and lack of accessibility for the urban poor. Stead and Pojani (2017) note a pattern - rapid motorisation combined with inadequate

[5] See subchapter 2.6.1 for a discussion on terminology.

public transport systems, leading to 'chaotic traffic patterns with high car and motorcycle use and high environmental pollution'.

The United Nations (2014) predict that the strongest negative impacts of this rapid motorisation will manifest themselves in 'mega nations' such as India and China. They forecast that these two countries will account for 37 per cent of the projected growth of the world's urban population between 2014 and 2050 - India is predicted to have 404 million new urban dwellers, China 292 million. Such a population explosion is likely to have significantly negative impacts upon environmental sustainability especially given the situation is already seen as acute. Delhi is currently the world's most polluted city with just under 300 micrograms per cubic metre of PM10 - fine particulate matter of 10 microns or less - in the air (World Health Organisation, 2014). Beijing registers 120 micrograms per cubic meter of PM10 (Iyengar and Lipton, 2015). For comparison purposes London, in 2011, scored an annual average of 22 micrograms per cubic meter of PM10 (Press Association, 2014) whilst still being deemed as having the 'filthiest air' of any European capital (Hansard, 2012). The European Community allowable level for PM10 is 10 micrograms per cubic metre (European Commission, 2015).

The air contamination in Indian and Chinese cities is having significant consequences. Kan and Chen (2004) describe how air particulate pollution is negatively impacting health in Shanghai, posing huge economic and social costs. Zhou et al (2010) see rapid motorisation as leading the degradation in air quality in urban areas in China. Chen et al (2009) see 'traffic air pollution and health constituting one of the biggest challenges to sustainable economic development in Shanghai'. Wang (2010) describes how residents in Chinese cities are relying more on fossil fuels to travel longer distances, which in turn is driving an insatiable demand for more fossil fuels. In Delhi, Siddique et al (2011) note how 72% of air pollution is generated by traffic, and that despite the introduction of compressed natural gas auto-rickshaws, traffic-related air pollution continues to deteriorate, causing permanent respiratory impairment for many citizens.

Given population growth projections the challenge seems set to worsen. Zhou et al (2010) see motorisation continuing to grow in cities such as Beijing, as higher incomes drive increasing car ownership. Dargay et al (2007) forecast that China's vehicle stock will increase nearly twenty-fold to 390 million by 2030, and that vehicle ownership in China, India, Indonesia and elsewhere in Asia, will grow twice as rapidly as per capita incomes.

Dargay et al (ibid) predict that only 15-45% of vehicle ownership saturation will have been reached in some Asian markets by 2030.

Both the Indian and Chinese Governments in facing these challenges have stressed that they wish to promote greater levels of environmentally sustainable transport. In recent years the World Bank lending policy in China has shifted from funding non-urban road infrastructure towards supporting urban public transport systems, walking and cycling, sustainable land use planning, and integration across modes (The World Bank, 2012). Peng (2005) notes the sizeable investments made by the Chinese government in public transportation systems. In Shanghai, even by 1994, policies were put in place to limit car ownership by means of a bid-auction mechanism and an increased promotion of park and ride schemes. In 2010 Beijing adopted a license plate lottery model to limit the number of new car purchases; the city has also increased parking charges and lowered transit fares. The New York Times (2017) has flagged how Chinese Government incentives to promote the uptake of electric vehicles has led to an increase of seventy percent between 2016 and 2017, albeit it from a very low base.

In India the Federal Government is seeking to promote sustainable mobility and accessibility (The Government of India, 2014). Their plans place a greater emphasis on public transport, higher levels of walking and cycling, and an equitable allocation of road space. Specifically, in 2017, the energy minister flagged an aspiration that by 2030, not a single petrol or diesel car should be sold in the country, only electric vehicles (PTI, 2017). Moreover, also in 2017, the Indian National Green Tribunal stated that they wished to ban diesel vehicles over ten years old (Times of India, 2017). UITP India (2017) note the expansion of metro systems in India with new schemes - Kochi, Hyderabad and Lucknow - complementing the existing in Delhi, Chennai, Kolkata and Bangalore. ITDP India (2018) describe how the nation's bus rapid transit (BRT) network, originally piloted in Delhi (discontinued), and Pune, has grown, with systems now in place in Ahmedabad, Rajkot, Indore, and Surat.

The sustainable transport policy initiatives the Indian and Chinese governments are seeking to adopt may be seen to be *broadly* leading edge. Pojani and Stead (2015) state that:

> In Northern Europe, some cities have witnessed a trend of reclaiming urban space from the automobile and prohibiting cars from major parts of

> downtown areas and/or confining them in other ways. Today, these places are often considered as leading examples of sustainable urban development, as cities across the world strive to meet urban sustainability standards by improving public transport, encouraging non-motorised modes, creating pedestrian zones, limiting the use of private cars, and otherwise trying to undo the transformation of cities caused by automobile dominance. Concepts of automobile restraint that were unthinkable just a few decades ago are now being considered or even adopted.

The differing and changing symbolism of transport modes, however, may be playing a role in facilitating or hindering sustainable transport policies. This may especially be the case in situations where the sustainable transport modes possess fewer positive connotations than owning a private vehicle. If this were true, some of the observable differences might be arguably attributable to a nation's automobility lifecycle - the degree to which mass car ownership is still a novelty - a function of development, rising incomes and enhanced local mass manufacturing. Other differences, however, may be more rooted in cultural symbolic imperatives, and these may present barriers when attempting to transfer sustainable transport policies from one place to another.

A number of commentators have alluded to the symbolism of public transport in Asian nations relative to their European counterparts (Van and Fujii, 2011; Kumar et al, 2016). Belgiawan et al (2014) examined attitudes to public transport in a range of cities, including Shanghai and Utrecht, and found that survey respondents in Utrecht had a much more positive attitude to public transport than their Shanghainese counterparts; it was speculated that symbolic factors were playing a key role. Mishra (2016) believes that in some Asian cities, public transport is a negative symbol for the rich and middle class, a view echoed by Tuan (2015). Van et al (2014) found that students in a range of Asian cities and countries, would only not buy a car for their future work commute if public transport became seen as being for the 'rich', 'superior' and 'cool'. Joshi et al (2016) flag how in post-colonial India modes not conforming with borrowed motifs of modernity led to a culture of automobility that prioritises personal mobility over other low carbon alternatives.

2.5.2 Introduction to the major cross-cultural models

In subchapter 2.4.2 it was stressed that the expansion of global media and trade has led to national culture becoming a well-studied topic especially in commerce and social science (Markus and Kitayama, 1991; Steenkamp, 2001; Strohschneider, 2002; Swaidan, 2012), and a dominant focus in international research (Gerhart and Fang, 2005). The most commonly cited models by which to contrast national culture are those of Hofstede (1984), Schwartz (1999), Trompenaars and Hampden-Turner (1997), House et al (2004) and Inglehart (1997).

The first statistically significant measures of national culture were developed by Hofstede (1984). Bond (2002) describes Hofstede's publication as 'monumental', meeting a growing academic hunger for structure concerning national culture. Minkov and Hofstede (2011) stress that before Hofstede's work researchers were forced to treat culture as a single, somewhat inexplicable, variable. Hofstede (ibid) analysed 116,000 Likert scale questionnaires submitted by employees of the IBM corporation across the world and managed to break down significant behavioural differences observed between different nationalities. By means of factor analysis he isolated four key dimensions where the variables statistically correlated at a national level - power differentialism, individualism versus collectivism, masculinity versus femininity, and uncertainty avoidance.

The first Hofstede dimension the power differential index or PDI, describes how accepting people are of social inequalities and managerial hierarchies. Secondly, individualism versus collectivism contrasts the relationships between individuals and social groups. The third index, masculinity-femininity, articulates two contrasting societies: one where there is a preference for assertiveness and material reward, versus another rewarding cooperation, modesty, and caring. The gender based terminology of this index has proven controversial; some therefore prefer to refer to it as 'tough versus tender' (Hofstede, 1998b). The final original Hofstede dimension, uncertainty avoidance, describes how different nationalities deal with lack of predictability through the expression of emotion or the control of anger. Later research added two further dimensions to the Hofstede suite: long term versus short term orientation examined attitudes to time; indulgence versus restraint deals with leisure time mindsets (Hofstede et al, 2010).

The Schwartz (1999) framework compared scores from samples of students and teachers across sixty nations. The seven country-level dimensions developed were labelled conservatism, hierarchy, mastery, affective autonomy, intellectual autonomy, egalitarian commitment and harmony. These can be presented as three divisions of opposites. Embeddedness versus autonomy examines collectivist attitudes, conformity and group membership and allegiance, as opposed to two forms of independence - intellectual autonomy where people are free to pursue their own cerebral pursuits, and affective autonomy which refers to the independent pursuit of pleasure and enjoyment. Comparing hierarchy versus egalitarianism, Schwartz observed a difference between societies where people comply with the roles allocated to them in a social order and are subject to sanctions if they fail to comply, versus those where people are seen as moral equals and encouraged to work towards a common good. Finally, the dimensions of mastery versus harmony, contrast value systems where success and progression are seen as critical, against those where preservation of the existing social and natural world is paramount.

Trompenaars and Hampden-Turner's (1997) model of national cultural differences was developed for business management following a survey of 8,000 managers and employees across 43 nations. The model has seven dimensions. Five cover human interaction with each other, one has a temporal component, and another focuses on the environment. Universalism versus particularism deals with the relative importance of rules over relationships. Individualism versus communitarianism contrasts people who see themselves as individuals or part of a group. When comparing neutral versus emotional cultures, a neutral culture may be seen as one in which emotions are held in check, whereas an emotional culture is a space in which emotions are expressed openly and naturally. A specific culture is one in which individuals have a large public space they share with others, and small private spaces which they guard closely and use only with their peers and family; a diffuse culture is where public and private space are similar in size and individuals guard their public not their private space carefully. In an achievement culture people gain status based on merit, whereas in an ascription culture status comes through what someone *is*. Sequential versus synchronic cultures contrasts those who like events to happen in a chronological order against those who are flexible with time and commitments. Finally, external versus internal control, compares cultures where people believe the external environment controls events, versus those who believe they themselves can shape events.

House et al's (2004) GLOBE (Global Leadership and Organisation Behaviour Effectiveness) project also focuses on commercial leadership. Data from one thousand firms (seventeen thousand managers) was used to expand the Hofstede (1984) dimensions from the original four to nine. Power distance and uncertainty avoidance were retained, but collectivism was divided into institutional collectivism and in-group collectivism. Masculinity and femininity were divided into assertiveness and gender egalitarianism. Long term orientation evolved into future orientation. House's (ibid) new dimensions were humane as opposed to performance orientation, a seeming extension of the 'tough/tender' dichotomy of Hofstede's masculinity/femininity.

Finally, Inglehart's (1997) World Values Survey (WVS) has expanded from the early 1980s into a global project covering more than one hundred countries. The WVS is a significant database with over 360 survey items covering areas such as gender and sexuality, government, education, ecology, happiness, morality, work, and emotions. The WVS is a large repository but Inglehart (ibid) has managed to condense its findings down to two main factors. The first is self-expression versus survival; the second secular rational versus traditional authority. Self-expression cultures are those where a high priority is accorded to tolerance of minority groups and foreigners, protecting the environment, and ensuring all citizens can participate in political and economic life. A survival culture looks inward placing a strong emphasis on physical and material security and is linked with a low level of tolerance and strong ethnocentricity. A secular rational culture is one which does not place strong emphasis on traditional family values, authority figures and religion - divorce, abortion, euthanasia and suicide are seen as acceptable. Conversely in a traditional society there is a strong emphasis on the family as the defining unit; religion is strong and there is a marked deference to authority figures.

2.5.3 Starting with Hofstede's indices

Having offered an overview of the major cultural models it is necessary to decide which one will be used for this study. There is, however, no consensus in the cross-cultural studies literature as to the best model for any given problem. The general sentiment aligns with the views of Ng et al (2007) who opine that researchers should be free to choose the cultural paradigm which best suits their needs. Minkov and Hofstede (2011) concur, stating that researchers should seek the framework which offers them the greatest insight into a situation at any given time:

> This relativist position may cause confusion among some practitioners…yet, scholars should be aware of the fact that there is no single best way of partitioning the cross-cultural spectrum that will provide a one-size-fits all solution. When deciding how exactly to construct a particular dimension, a researcher should consider not only theoretical and statistical guidelines, but also practical ones. Dimensions should have a pragmatic function: they should be associated with a wide range of interesting and important variables, explaining a high percentage of their variance. Which variables are interesting and important is a question to be answered collectively by the consumers of social science. This pragmatic approach may incense scholars who view the goal of scientific inquiry as a search of an absolute truth. We are afraid that 'absolute truth' is a very elusive concept, not only in social science, but also beyond…asking which dimensions of culture are true or right is a meaningless question as the key question is how coherent and useful they are.

In choosing particular dimensions of a cultural model, it seems sensible to opt for something which is alluded to in each of the cultural models, despite them using different labels. This consensus seemingly occurs the most when examining the extent to which people give priority to individual choice over the wishes of their collective group (termed an 'in group'). Hofstede (1984) terms this 'individualism versus collectivism'. This correlates with his power differential index (PDI), something which describes how important it is to show one's family's place in society to achieve harmony. The fact the two indices are correlated offers scope for researchers to use them in tandem with one another, i.e. a low PDI/individualistic cluster compared to a high PDI/collectivist cluster. Both India and China are classified as high PDI/collectivist. The nations of Northern Europe, Oceania, and English-speaking North America are seen to be low PDI/individualistic.

Hofstede et al (2010) note how across forty eight countries individualism versus collectivism correlated with the GLOBE in-group collectivism with a correlation coefficient of 0.77. Smith et al (2002) undertook analysis on the Trompenaars' dataset using multidimensional scaling and identified two reliable country-level dimensions across thirty-five countries. 'Egalitarian commitment versus conservatism' correlates

with Hofstede's individualism versus collectivism with a coefficient of 0.61; 'loyal involvement versus utilitarian involvement' correlated with Hofstede's PDI dimension with a coefficient of 0.74, and the individualism/collectivism index with a measure of 0.59. Compagnoni (2018) opines that Trompenaars' communitarianism - individualism measure is virtually identical to Hofstede's individualism versus collectivism.

Schwartz (1994) described how Hofstede's individualism score was positively correlated with his affective autonomy (0.46), intellectual autonomy (0.53) and egalitarian (0.51), and negatively correlated with conservatism (-0.56) and hierarchy (-0.51). Hofstede's power distance score was seen to be positively correlated with conservatism (0.45) and negatively correlated with his affective autonomy (-0.45). Smith et al (2002) examined Hofstede's and Schwartz's dimensions and discovered correlations between Hofstede's individualism and Schwartz's autonomy-embeddedness (0.64) and egalitarianism-hierarchy (0.50) dimensions. Hofstede's power distance was shown to be negatively correlated with Schwartz's autonomy-embeddedness (-0.52) and egalitarianism-hierarchy (-0.41) measures. Inglehart and Oyserman (2004) describe a high level of correlation between their WVS 'survival vs self-expression' dimension, Hofstede's individualism vs collectivism, and Schwartz's autonomy vs embeddedness.

Hofstede's indices of power differentialism (PDI) and its correlate, individualism versus collectivism, will therefore be used for this study. The indices will be used to sample nations, and disaggregate the overarching meta research question which was presented at the end of subchapter 2.4 - 'does national culture seemingly affect the symbolic aspects of transport choice?' In using these particular Hofstede indices there is no claim that they offer superior explanatory power compared to the other cross-cultural models, only that they are the most logical indices to use for this study, at this point in the research programme's development.

There are other compelling reasons to use the Hofstede indices. The individualism versus collectivism index is the most widely cited cultural dimension in existence (Jones, 2007). Furthermore, three quarters of the studies undertaken in cross-cultural research to date have used the Hofstede indices (Ng et al, 2007). It is one of the few cultural frameworks that has been deployed extensively across numerous subject disciplines (Williamson, 2002; cited in Mortimer and Grierson, 2010). Taras et al (2012) describe Hofstede's work as 'elegant'. Magnusson et al (2008) feel the other cross-cultural models only offer limited advancement over Hofstede's.

To date Hofstede's work has had limited application in transport studies. Marsden and Stead (2011) specifically suggest using one of Hostede's (1984) indices for examining the wider influences that culture may have upon policy transfer. Syam et al (2011) and Syam et al (2013) used the indices as a basis for segmenting different migrant cultures in Auckland, and to explain differences in perceived security on public transport. Gaygısız (2010) examined traffic fatalities across forty six countries using the Hofstede power differential index as an explanatory variable. Barbarossa et al (2015) drew upon Hofstede's indices for tentative explanatory purposes when comparing intentions to buy an electric car in Denmark, Belgium and Italy. Buja (2016) utilised Hofstede's indices to examine Korean societal attitudes and opined that in Seoul company executives are laughed at if they are seen driving themselves to a restaurant to meet colleagues, rather than be driven by a chauffeur.

The Hofstede PDI, and individualism versus collectivism indices, are described in more detail in the following two subchapters.

2.5.4 The power differential index (PDI)

The Hofstede (1984) PDI index describes societies where people accept a hierarchy within which everyone has a place needing no justification. Examples are India, China, and Mexico. In low PDI societies such as the United Kingdom or Sweden people strive to equalise the distribution of power, and demand justification for inequalities of power. *Generally speaking,* the nations of the Global South[6] tend to be higher PDI, whereas those of the Global North are usually lower PDI. That said, even within the Global North, there is a significant difference in scores between the Catholic nations of Southern Europe and the Protestant North European nations.

PDI scores describe dependency relationships within a nation. In low PDI countries there is a preference for consultation between the different levels within a hierarchy. In addition, the emotional distance between the different levels is small - frequently people from different levels in a stratum will socialise together. Contradiction, and in some cases conflict, between the different levels is permitted. In high PDI nations, however, there is dependency of subordinates upon their managerial superiors or those considered to be above them socially. Hofstede (1984) thus defines power distance as the extent to which the less powerful members of a society or organisation, expect and accept, that power is

[6] See chapter 2.6.1.

distributed unequally. Power distance therefore depends upon the value system of the *least* powerful members in a society. Leadership and autocracy can only function if accompanied by obedience and deference, which gives society a stability satisfying peoples' need for dependence, in turn offering a sense of security to both those in power and below them.

Hofstede (1984) describes how social class and the power differential index are inextricably linked. In many societies opportunity is linked to access to education, which in turn plays a role in deciding which occupations people can aspire to. Aspiration and choice are key when discussing the PDI with a society. In low PDI societies greater numbers of people have access to education and a range of occupations; social mobility is common. In high PDI societies, however, access to education is less widespread, thus restricting the roles people can aspire to.

The PDI was derived by means of a Likert scale survey. This process is described in Hofstede (1984). People across the IBM corporation were asked a range of questions relating to: how frequently employees visibly, and vocally, disagreed with management; the degree of autocracy in managerial decision-making processes; and, subordinates' preference for their manager's decision-making style. Factor analysis was undertaken for the mean scores from the Likert survey, and an emerging cluster was observed comprising of the questions dealing with power and inequality. From the mean scores of the sampled employees an index was calculated ranging between 0 and 100. These scores represent relative distance between nations not absolute positioning.

In high PDI societies people are expected to use their power to increase their wealth to make them look as powerful as possible (Hofstede et al, 2010). Symbolism - signalling through symbols - plays a key role in identifying where people sit in a hierarchy. The signalling must be unambiguous to avoid confusion, inappropriate treatment, and what is termed 'loss of face' (de Mooij and Hofstede, 2010). 'Face', respect, or outward dignity will be discussed in the next subchapter. In high PDI societies publicly consumed goods or symbols, things third parties can see - for example a car rather than a domestic refrigerator - command a price premium. Moreover overseas brands, even if made locally, confer greater status than domestic counterparts (Sharma, 2010; Wong and Ahuvia, 1998; Batra et al, 2000; Eastman and Goldsmith, 1999; Piron, 2000; Bagwell and Bernheim, 1996; Doctoroff, 2012).

2.5.5 The individualism versus collectivism index

The second and most widely analysed Hofstede dimension is individualism versus collectivism (Guess, 2004). A society's score in this dimension reflects whether people's self-image is defined in terms of 'I' or 'we'. In individualistic societies such as Australia, Germany, or Canada, people generally have a preference for a loosely-knit social framework in which people are expected to take care of themselves and their immediate families only. In collective societies such as Indonesia, Ghana, or Malaysia, however, there is a preference for tightly-knit frameworks in society, in which individuals can expect their relatives or members of their 'in-group' to look after them in exchange for unquestioning loyalty. Collectivism is not about subordinating oneself to the group - the group itself *is* one's own identity (de Mooij and Hofstede, 2010). Individualistic nations are usually in the Global North, whereas collectivist nations are often in the Global South[7]. According to Hofstede et al (2010) the majority of societies in the world are collectivist; individualism is the exception.

Methodologically, the individualism/collectivism indices were calculated in an identical way to the PDI scores - through Likert scale surveys and factor analysis. The individualism/collectivism scores correlate with the PDI dimension, the only sets of Hofstede variables to do so. In cultures in which people are dependent upon in-groups, they are also usually dependent upon power figures. In collectivist cultures extended families and companies have strongly patriarchal structures with the head of the family or company exercising strong authority. In collective societies decisions emphasise rank, not only of the individual, but the in-group. In this regard the PDI and individualism versus collectivism indices may be seen as somewhat interchangeable, although Hofstede (1984) maintains them as separate entities as he believes they describe different phenomena. Triandis and Gelfand (1998) took a different line by unpacking the individualism and collectivism indices into separate components, each stressing hierarchy within collectivism and individualism. For this study Hofstede's stance will be maintained.

In collectivist cultures the requirements of the collective dominate over the wishes of the individual. Hofstede and Bond (1988) describe how in collectivist societies, harmony comes through the preservation of 'face', dignity or prestige, as well as the stability of

[7] See chapter 2.6.1.

society based on unequal relations between different groups. 'Face' ('mianzi' in Mandarin) is defined as an image of self, delineated in terms of approved social attributes - it may be seen as outward dignity or respect. Face is crucial in collective societies when maintaining social prestige and power (Goffman, 1955). Loss of face through a depiction of lesser economic capacity (de Mooij and Hofstede, 2010) or when an individual does not meet the requirements placed upon them as a consequence of their social position (Ho, 1976), can 'unravel the carefully woven fabric of social relationships essential to a person's success in society' (Drake, 2011).

Ho et al (1976) state that loss of face is far worse than the concept of embarrassment - it can place a family's wealth in jeopardy, affect business relationships, reduce a groups' social circles, and in societies where marriage is a form of wealth conservation, negatively impact marriage prospects (Bloch et al 2004; Sheel 2005). Upton-McLaughlin (2013) states that in China causing someone to lose face can reinforce one's own authority and status, or pressure someone toward a desired action such as quitting their job or fulfilling a promise. That face is *lost* is pertinent when examining choice theory. Kahneman and Tversky (1984) discovered that losses are more important than gains when it comes to critiquing choices, especially in a competitive environment (Gill and Prowse, 2012; Linde and Sonnemans, 2012; Schwerter, 2013).

Shavitt et al (2010) describe how in collectivist societies the imperative to show status or be penalised, results in decisions being made collectively, so as not to place the group at risk by standing out. Within collectivist societies there is thus a strong emphasis on conformity (Commuri, 2009). As such, major decisions are more likely to be made by the group, and advice sought from those within it (Savani et al, 2011; Johnson and Chang, 2000; Prabhu, 2012). Guess (2004) opines that in collectivist nations decision-making takes the form of:

> …consider the social aspects of the problem…proceed carefully, involve others.

Hofstede et al (2010) corroborate this:

> In the collectivist family, children...take their bearings from others when it comes to opinions…opinion is established by the group. If a new issue arises on which there is no established opinion…some kind of family conference is necessary.

Savani et al (2012) stress that in collectivist societies 'selfish' individualistic decision-making carries a high risk of sanctions, even ostracisation from the group. They note that the monitoring of decision-making in such an environment shows that aversion to an item can be attributed to the perceive dislike of the item by others. Shavitt et al (2010) stress that in collectivist India people focus on complying with authority and on enhancing the cohesion and status of their in-groups. Ni (2008) describes how in China people tend to 'follow the crowd' to conform to social membership of groups.

According to Savani et al (2012) in collective societies decision makers are obliged to seek out clear normative cues, social proof, from groups they wish to belong to. This means that normative influences - the tendency to conform to the expectations of others - become extremely important (Trompenaars and Hampden-Turner 1997; Burnkrant and Cousineau 1975). Yoo and Donthu (2001) and Shukla (2010) observed that brands associated with higher social acceptability were significantly preferred among consumers in collectivist markets. In collectivist cultures advertising appeals stress belonging to the group (Mortimer and Grierson, 2010). Erdem et al (2006) found that consumers in collectivist developing markets tend to look more for extrinsic cues in their purchasing decisions than consumers in individualistic, developed markets. According to Savani et al (2011), Zhang and Neelankavil (1997), and Mourali et al (2005), people in individualistic cultures have much less of an obligation to seek normative cues when purchasing or consuming a product. Laroche et al (2005) found that individualism has a significantly negative effect on consumer susceptibility to normative influences.

Shavitt et al's (2010) description of the need within a collectivist society to show status or be penalised raises the issue of rewards and sanctions. The issue of social norms and punishment for contravention is comprehensively discussed in the academic literature. Fehr and Fischbacher (2004) state that.

> No human societies exist without social norms, that is, without normative standards of behaviour that are enforced by informal social sanctions. In fact, the ability to develop and enforce social norms is probably one of the distinguishing characteristics of the human species. It is, therefore, not surprising that social scientists, at least those outside of economics, invoke no other concept more frequently than that of 'norms'.

Okimoto and Wenzel (2011) note how punitive action is applied to in-group members when they transgress a group's rules, so as to confirm the transgressor's membership status in the group. By overtly disciplining or sanctioning a member of the in-group, other group members are trying to ensure that the behaviour is corrected, so as to maintain the person's membership of the group. This in turn mitigates against individual disengagement from a group and holds the group together.

The issue of sanctions is also covered in the cultural studies literature. Both the punitive and reward aspects of individual or group choice are discussed within Hofstede et al (2010) as an intrinsic aspect of individualism versus collectivism. Not only is the 'we' group in collectivist societies the source of identity, but protection against the hardships of life. Breaking the rules of an in-group makes both the individual, and their immediate peers within the in-group, vulnerable. Bond and Smith (1996) note how in collective cultures cooperation is stronger, but this only applies to in-group members. When interacting with out-group members, members of collectivist societies are far less likely to be cooperative. This is in contrast to members of individualist cultures who behave more cooperatively than members of collectivist cultures when new groups are formed (Bond and Smith, ibid).

Inglehart (1997) found a significant correlation between survival imperatives and collectivism. Minkov (2007) discovered that within exclusionary cultures - which tie in heavily with collectivism (Hofstede et al, 2010) - there is a tendency to reserve favours, services, privileges and sacrifices for friends, relatives, and other groups with which one identifies. Outsiders do not receive such privileged treatment and are often subject to indifference, inconsideration, rudeness and sometimes hostility.

2.6 Research questions and policy transfer implications

2.6.1 Study research questions

At the end of subchapter 2.4 the overarching meta research question was offered:

'Does national culture seemingly affect the symbolic aspects of transport choice?'

Subchapter 2.5, against the contextual backdrop of the traffic-induced environmental crisis in Indian and Chinese cities, described how Hofstede's indices of power differential

(PDI), and individualism versus collectivism, were a sensible starting point by which to segment nations, and to disaggregate the meta research question for examination. This yields four sub research questions to be assessed across each chosen cultural cluster.

At this moment in time:

1. To what extent, and in what way, do the imperatives relating to Hofstede's Power Differential Index, seem to affect the symbolic aspects of transport choice between the two meta cultural clusters?
2. To what extent, and in what way, do the imperatives relating to Hofstede's Individualism versus Collectivism index, seem to affect the symbolic aspects of transport choice between the two meta cultural clusters?
3. Are there seemingly different symbolic connotations for the sustainable transport modes, between the low PDI/individualistic and the high PDI/collectivist meta clusters (and to what extent are these potentially explained by the Hofstede PDI, and individualism versus collectivism themes)?
4. If strong differences seem present between the two meta cultural clusters what might this mean for sustainable transport policy formulation within, and transfer from other nations to, the mega cities in India and China? What is the extent to which symbolism may act as a barrier to, or a facilitator of, a particular policy?

Caveats pertaining to 'at this moment in time' stress the ever-morphing nature of culture and symbols (subchapter 2.4.3). The reason a particular sociodemographic group needs to be sampled relates to likely vertical variations of the symbolic value of a mode within a society - Bourdieu's (1984) work as discussed in subchapter 2.3.5. Purposive sampling criteria will be described in subchapter 4.1.2.

Whilst there have been piecemeal attempts to examine the issue of symbolism in transport choice, this study is the first comprehensive attempt to study the topic at a cross-national level, using a specific model not only for clustering but also explanatory purposes. Within local city-specific contexts, Law and Karnilowicz (2015) and Syam et al (2011) have examined the different cultural values of urban migrants and how they affect their perceptions of cycling and public transport. Ger et al (1999) discussed the differing symbolism of the car, public transport and bicycle, in Turkey and the Nordic nations (along with other symbols such as organic food, air conditioning and pressure cookers); they flagged the issue of policy transfer but did not explore barriers in great depth.

Helveston et al (2015) contrasted the motivation for purchasing electric vehicles in China and the USA but did not utilise a cultural model for explaining differences. Qian and Yin (2017) concluded that the consideration of outward 'face' was important when marketing hybrid and electric vehicles in China.

This study does not specifically seek to contrast the Global North with the Global South. Even the terminology surrounding such classifications is complex, contentious, and often poorly defined, ideologically weighted, and misleading (The World Bank, 2015; Solarz, 2014; Neuwirth, 2017; Khaled, 2017). That said, as noted in subchapter 2.5.4, the nations of what are generally termed the Global South tend to be high PDI and collectivist. The inverse is typically true for the countries termed Global North. This means that the conclusions of this study may be scalable to a broader Global North/South discussion. This is noted in Chapter 7 when discussing further research.

Given the desire to promote sustainable transport solutions, the emphasis of the work is on what might be termed the symbolic aspects of *downward* modal shift to a sustainable mode. This means transferring to a mode which is visibly cheaper to use and less polluting at source, than the mode which has been discarded. In this discussion the term 'downward' implies no negative connotations, it refers purely to a mode's visible cost of acquisition and usage. Due to the emphasis on sustainable modes the symbolism of the different petrol and diesel car models and sizes, and that of the car generally, are not specifically discussed within this thesis, although within interviewee quotes reference is frequently made to cars as a contrast to the sustainable modes[8]. Furthermore, it is acknowledged that a smaller, newer, petrol car is likely to be more environmentally sustainable than a larger, older, sports utility vehicle. A shift to an 'eco-car', a hybrid or electric vehicle, from a gasoline car is, however, within scope, noting this might be a fiscally upward move if the more environmentally-friendly technology costs more than the petrol vehicle. Paratransit modes will be alluded to occasionally but are not dealt with specifically. Neither are taxis or motorcycles/scooters.

It is the issue of transport policy transfer between nations that allows the research questions to pass what the University of Colorado Denver (2017) term the 'so what' relevance test. If a policy is successful in one culture but not readily transferable to

[8] It is, however necessary to briefly contrast the symbolism of petrol/diesel cars generally across cultures, as a contrast/reference point by which to examine the differences for the 'eco-cars' – see subchapter 5.3.1.

another, the reasons may not be instrumental but symbolic or cultural. Daniell (2014) states:

> There is much potential for developing a more in-depth understanding of national cultures and the impacts that cultural orientations or biases have on the development of public policy within countries and policy transfer between countries.

Policy transfer is the topic of the next subchapter.

2.6.2 Applied relevance - transport policy formulation and transfer

There is a significant body of literature on public policy transfer, a term coined by Dolowitz and Marsh (2000) as 'the process by which knowledge about policies, administrative arrangements, institutions and ideas in one political system (past or present) is used in the development of policies, administrative arrangements, institutions or ideas in another political system.' Newmark (2002) stress that given the globalised nature of the world, many nations are now looking to other countries to share policies programmes, information, ideologies and innovations.

Dolowitz and Marsh (2000) note the concept of policy transfer is not new. Jakola (2016) believes the circulation of ideas across national borders dates back centuries, but that the incidence of governments looking for solutions abroad has only recently significantly increased. He argues this has occurred through advances in communications, greater contact between civil servants, and the increase in international advisory services. Wood (2014) notes policy learning is taking place increasingly due to what she terms 'policy tourism' where local actors undertake study tours which entail travelling to other countries to see 'best practice' and meet with those in the exporting locality. Wood (ibid) sees these study tours as an essential conduit through which best practice can circulate, and relationships can develop that may be integral to policy adoption. McCann and Ward (2010) mention 'globally roving consultants touting policy solutions all over the world'. Matsumoto (2007) sees such advisers as agents of diffusion.

Baker and Temenos (2015) state the practice of policy transfer, what they term 'policy mobilities', has intensified in recent years due to inter-urban competition spawning an increase in research in the area. Bender et al (2014) describe how the analysis of international influencers of policy transfer gained momentum in the 1990s with policy diffusion as well as transfer becoming two strong areas of research. According to Levi-

Faur and Vigoda-Gadot (2006) the term 'transfer' derives from political science where the state has a role in policy movement, whereas diffusion focuses on the flow of information through social systems, often by-passing government.

Bender et al (2014) distinguish between two forms of international policy transfer - coercive and voluntary. Coercive policy transfer is when a political entity is forced to adopt policies by funding bodies usually in exchange for loans or grants. The work of Matsumoto (2007) when examining bus rapid transit (BRT) system implementation in Jakarta, Seoul and Beijing, suggests that the lending agencies had considerable influence in the technology chosen.

Voluntary policy transfer theoretically takes place through non-binding interchanges such as mutual learning, where policies utilised elsewhere are examined by actors for their usefulness within another context. Echoing earlier discussions on vertical and horizontal symbolism, voluntary transfer may be seen as governance via a horizontal process as opposed to the top-down process imposed through the conditionality of a coercive model. Williams and Dzhekova (2014) also distinguish between 'want to' and 'have to' policy transfer. Williams and Dzhekova (ibid) also discuss the differing forms of voluntary transfer: copying, adapting, hybridising, synthesising or drawing inspiration. Bender et al (2014) distinguish between three types of voluntary policy transfer:

1. Learning, where rational actors are keen to discover remedies to a pressing problem which has seemingly been solved or moderated elsewhere.
2. Competition, where unless a policy adopted by one state is adopted in an adjacent state, negative consequences may occur in the adjacent state - an example would be the deregulation of an industry attracting resources to the adopting nation from the non-adopting nation.
3. (Salient for this study) Emulation, where one jurisdiction seeks to conform with the norms established elsewhere, perhaps for reasons of civic or national prestige.

Dolowitz and Marsh (2000) see the desire to be taken seriously as a nation as a policy transfer impetus. Holzinger and Knill (2005) describe how a perceived need for international conformity can drive the spread of policy approaches; they stress a need for global acceptance and standing cannot be seen as voluntary if the norm is defined elsewhere, and conclude it is unclear where voluntariness ends and coercion begins. Importantly for this study, Maggetti and Gilardi (2013) note that in some instances

measurable impacts are often not as important as symbolic considerations - an imperative for a policy not to break a social taboo or present the adopting entity in the wrong light. Wang (2010) notes how Chinese policy makers have a preference for practices adopted in wealthier societies.

Marsh and Sharman (2009) term copying foreign models for symbolic and normative factors, rather than reasons associated with functional efficiency, as mimicry. Mimicry is relevant when examining symbolism. Marsh and Sharman (ibid) believe that nations that objectively need to rectify a problem do not always adopt a policy which is tailored to solve it - often the policy imported is for reasons of prestige or legitimacy.

In the transport literature, articulated barriers to the transfer of transport policies between nations tend to lean towards the instrumental. For example, Matsumoto (2007) in discussing bus rapid transit transfer to Jakarta focuses on aspects of transfer such as design and fare payment systems. Wang (2010) in examining a series of remedial measures transferred to Mexico City - park and ride, vehicle quota systems, congestion pricing and new license plate quotas - focuses on instrumental barriers such as governance structure and land use patterns.

Some commentators, however, do mention softer, latent barriers to transfer, making reference to culture. Bender et al (2014) flag cultural transfer enablers as being ones not 'clogged by cognitive filters' such as shared values - for example individualism or equality. Marsh and Sharman (2009) note that when transferring policies, national distinctiveness remains 'alive and well'. Marsden and Stead (2011) conclude that a variety of factors including culture may influence a policy preference. Ison et al (2011) inquire why there has been little research into why some policies are successfully transferred and others not: they wonder if the 'constraining' role of local customs plays a part. De Jong and Geerlings (2005) cite culture as a consideration when considering policy and organisational transfer, and believe policies are most likely to be successfully transferred into nations that are culturally similar. Hofstede et al (2010) describe how governments from some nations often eagerly try to export policies and institutional frameworks from other nations under the guise of development, but such initiatives do not change the political mores of a country if those mores are deeply rooted in the psychology of the population, and out of sync with the recipient nation's value context.

Research into the impacts of policy transfer to the Global South is seemingly scant. Marsh and Sharman (2009) state that despite the growth in publications and research focussing upon cross-national policy transfer, little attention has been paid to the experiences of regions outside Europe. Newmark (2002) states that the vast majority of studies into policy effectiveness and transfer have been conducted within Europe. This may be due to policies aiming to curtail car use only recently gaining traction in other regions. For example, Jakovcevic and Steg (2013) stress how in Argentina, transport policies aimed at reducing car use as well as environmental concern regarding the impact of a growing motorisation rate, are topics which have only relatively recently begun to be discussed among the broader population.

Within this chapter, subchapter 2.2 introduced the concept of latent motivation in transport choice, and how developing a greater understanding of the role of latent emotive factors in mode choice has become of increasing interest to scholars in recent decades. Subchapter 2.3 presented the latent behavioural driver of symbolism, how people make decisions based upon how they are perceived in social constructs by others - it was shown that symbolism played a role in transport choice. References to symbolism in the transport literature were then described. Following this, the concept of symbolic meaning varying vertically, according to education, income and wealth, and horizontally, between people of the same vertical level in society across dimensions such as age, gender and migrant status, was described. Subchapter 2.4 presented the horizontal concept of culture and showed it to be dynamic and a determinant of decision-making. The additional horizontal concept of national culture was then discussed and flagged in the transport literature; references to national culture having an effect on mode choice evaluation were presented. This led to the development of an overarching meta research question of: 'does national culture seemingly affect the symbolic aspects of transport choice?'

This meta research question, however, needed locational context - a basis by which to disaggregate it for analysis and applied relevance. Therefore, in subchapter 2.5 the emerging transport and environmental crisis in Indian and Chinese mega cities was introduced as the study's geographical focus. It was then shown how two of Hofstede's (1984) cross-cultural indices - power differentialism (PDI), and individualism versus

collectivism - were a logical starting point by which to compare Indian and Chinese culture with those of nations where sustainable transport policies have been the most extensively implemented and studied. India and China were classified as high PDI/collectivist, and the nations of Northern Europe, Oceania, and English-speaking North America as low PDI/individualistic[9]. Chapter 2.6 presented the derived sub research questions and the study's applied relevance: transport policy formulation within, and transfer from other nations to, the mega cities in India and China.

The next chapter describes how the study method was chosen.

[9] The countries to be compared with India and China will be presented in subchapter 4.1.1. The sociodemographic group to be sampled within each cluster will be described in subchapter 4.1.2.

3 CHOICE OF METHOD

3.1 Structure of this chapter

This chapter describes the research method to be deployed within this study. It represents an expansion of the justification of method reported in Ashmore et al (2017, 2018a, 2018b and 2019)[10]. In subchapter 3.2 the requirements of the method and the research philosophy are outlined. The choice of a suitable method follows in subchapter 3.3 - thematic analysis is justified as the method of choice. To conclude this chapter it is shown in subchapter 3.4, that the form of thematic analysis to be deployed needs to be largely deductive/confirmatory due to significant prior immersion in cross-cultural theory.

3.2 Requirements of method and underpinning philosophy

As noted in subchapter 2.4.1 Geertz (1973) saw culture as an inherited series of beliefs manifested through symbols: the means by which people demonstrated their attitudes and knowledge to others in often irregular and inexplicit fashion. He saw the job of the cultural researcher as 'getting underneath this thick description'.

This is challenging. Understanding latent, hidden motivators is according to Zaltman and Coulter (1995) a 'special' challenge for researchers, and this study presents two latent motivators for consideration[11]. Culture is intangible or 'fuzzy' (Soares et al, 2007); researchers describe how symbolic drivers of behaviour are things people have difficulty understanding, or prefer not to acknowledge (Steg et al, 2001). Johansson-Stenman and Martinsson (2006) expect that self-reported statements regarding the importance of status symbols would be systematically downplayed. Noppers et al (2014) highlight how when symbolic attributes are included in a study, respondents usually indicate that image-based product attributes are unimportant to them personally. Johansson-Stenman and Martinsson (ibid) note that most consumers rate status concerns as unimportant for their own purchase decisions but simultaneously as highly important for their neighbours.

This tendency of individuals to dismiss the influence of symbolic meaning has been observed within transport studies (Heffner et al, 2007; Rapaille, 2001). Ni (2008) asked Chinese automobile purchasers about the lifestyle connotations of their vehicles and

[10] See Appendix D.

[11] Although it was noted in 2.4.1 that some commentators see symbolism and culture as being entwined, with symbols being an outward manifestation of culture.

concluded it was an extremely difficult exercise: respondents became awkward and offered vague answers, due to status seeking being seen as a personal matter. Steg et al (2001) concurred and raised the problem of socially desirable answers when justifying and rationalising choice; she asks 'who would easily be aware of and admit that driving a car contributes to one's feeling of power?'

Furthermore, in addition to being able to interrogate the research questions, as this is a nascent line of enquiry the method needs to be able to expand the research base to facilitate further work. This is in keeping with the research goal of *theoretical fertility* espoused by Newton-Smith (1981) who argues that 'good theories' are fertile, and possess scope for generating premises to guide further research. Swanson (1988) sees a valid theory as providing scope for further development and findings - being able to guide, control and expand further research. Meehl (1992) refers to a theory's 'deductive fertility of fruitfulness'.

The notion of the growth of knowledge consisting of a theory developing and expanding, whilst initially being insulated from premature wholesale acceptance or rejection, is in line with Imre Lakatos's (1978) approach to scientific inquiry through research programmes. Within the initial phases of a Lakatosian research programme the core premise is protected. This is important as in the early phases of a research programme theories are at their most vulnerable due to their novelty and reliance on new assumptions. Through the process of examination - seeing what does or does not appear to have merit - a theory is unpacked and expanded to guide the research programme's overall development. Theories are seen as dynamic structures of interlocking premises not discrete entities. Moreover, within the context of a Lakatosian research programme, it is accepted that theories rarely spring into existence fully developed. Those that tend to be successful rapidly generate ancillary ideas for growth, even though the original theory may eventually prove fallible, at least in its original form (Chalmers, 1999). In this instance, given the opaque nature of the subject and the early stage of the research programme, it would therefore be unrealistic to expect any of the hypotheses inherent within the research questions to be *definitively* falsified or accepted.

The method for this study therefore needs to fulfil two criteria. It must be able to gauge, through the interrogation of the research questions, if the Hofstede indices appear to offer sound explanatory potential as to how symbolism functions in transport choice across national cultures. It also needs to foster fertility - to begin unpacking the underlying latent

dynamics to unearth ancillary premises and caveats to enable the research programme to grow. Philosophically the required method may therefore be seen as Lakatosian as it seeks tentative confirmation or rejection of a premise, whilst enabling theoretical expansiveness. Given these multiple requirements, the method needs to be flexible, 'dispensing with epistemological chauvinism to enrich an understanding of phenomena' (Campbell, 1988; Boyatzis, 1998). It also needs to be pragmatic. According to Feilzer (2010) pragmatism 'brushes aside' epistemological and ontological concerns and focus on the task in hand, that of telling the researchers what they need to know.

3.3 Qualitative methods and latent motivation

The exploration of symbolism and national culture falls within the research traditions of symbolic interactionism and ethno science respectively (Crabtree and Miller, 1992). Methodologically these areas typically draw upon qualitative methods. Qualitative methods have been described as extremely effective when examining latent motivation as participants are freer to express themselves, so can provide the researcher with rich data into how culture and symbols permeate their decision-making (Coolican, 2009; Bryman, 2012). Furthermore, qualitative methods are especially well-suited to examining cultural differences, as descriptive comparison 'renders culture more concrete' (Karasz and Singelis, 2009). Crossman (2017) notes how qualitative analysis explains the role symbols play in the relations of social life.

Qualitative analysis has been used before in transport studies to explore complex, emotive, aspects of transport choice and attitudes. Beirão and Sarsfield Cabral (2007) in examining the psychological factors that influence mode choice, state that qualitative research is a powerful enabling tool because it allows for the emotive aspects of the modal choice process to be explored with its 'ifs, buts, and maybes'. Grosvenor (1998) supports the use of qualitative techniques in transport research so as to foster a greater understanding of traveller perceptions, attitudes and behaviour. Lucas (2013) opines that qualitative methods are increasingly being recognised as valuable when understanding the underlying motivations behind people's travel behaviours, and for 'teasing out' more hidden attitudes and perceptions. Clifton and Handy (2003) believe that for transport research, qualitative methods can help fill the gaps left by quantitative techniques, which are not always well suited to exploratory areas of research where issues remain

unidentified. Mars et al (2016) believe that qualitative techniques play a key role in understanding activity-travel decisions, and opines it is due to qualitative methods' nature of being sufficiently open to address complete subjects. Guiver (2007) drew upon the established qualitative technique of discourse analysis to examine how people perceived bus and car travel. She states:

> Qualitative research…(seeks) understanding…and (entails) a commitment to embrace complexity…when people speak to one another not only do they need to use mutually understood words and grammar (but also)…because they are part of a shared culture…unpack a number of images and ideas not explicitly explained by the speaker. However, these culturally understood connotations are not static; they are constantly refreshed by usage, challenged, and negotiated.

Qualitative techniques will therefore be used for this study. The method will need to be both confirmatory and foster theoretical expansiveness. These dual requirements are why *only* qualitative methods will be used for this study. Quantitative work could test speculative hypotheses pertaining to the Hofstede indices, when examining transport symbolism across cultures, but they would offer little in terms of fostering theoretical expansiveness. Mixed methods were considered but it was decided that as the research is in a nascent area, what is first needed before undertaking any quantitative testing, is a significant and rigorous qualitative endeavour to 'get underneath' Geertz's (1973) 'thick description' of culture (to unearth Beirão and Sarsfield Cabral's [2007] 'ifs, buts, and maybes'). Mixed methods are discussed as a next research step in subchapter 7.2.

3.4 Deductive thematic analysis

3.4.1 Why thematic analysis?

There is a broad suite of qualitative techniques available to the researcher - a wide variety of different fieldwork approaches (Holloway and Todres, 2003; Sauro, 2015; Vaismoradi et al, 2013; Lucas, 2013; Creswell, 2012). What the majority of the qualitative techniques have in common, however, is that they are inductive in nature. Most of the well-established techniques - ethnography, narrative, phenomenology, grounded theory, and case study analysis - entail theories emerging from the data; epistemologically qualitative techniques are largely constructivist and interpretive. For this study, however, the

analytical method needs to be more epistemologically flexible. It must enable the confirmation of the usefulness of the Hofstede indices when examining the research questions, *and* foster theoretical growth to guide further work. What is needed is a qualitative technique which seeks to examine and 'stress-test' semi-formed theories, whilst yielding further insights.

Thematic analysis, a method of identifying, analysing and reporting themes within data (Castleberry and Nolen, 2018) will be used for this study. The method works by identifying and *coding* - allocating chunks of pertinent text to key themes running through a body of textual data - so as to establish the presence and strength of a theme. Within thematic analysis a 'good code' captures the richness of the theme/phenomenon under investigation (Braun and Clarke, 2006). As thematic analysis deals with themes running through a dataset it can be seen to represent a common thread across all of the qualitative techniques (Braun and Clarke, 2006; Boyatzis, 1998; Guest et al, 2012). Mars et al (2016) note how thematic analysis is the most commonly used analytical technique in qualitative studies dealing with travel behaviour.

Thematic analysis can be both confirmatory and exploratory. In this study the technique will therefore be used to confirm the explanatory usefulness of the Hofstede indices, but also, by presenting pertinent quotes, facilitate the expansion of theory. Denzin and Lincoln (2005) and Alhojailan (2012) suggest thematic analysis is excellent for multi-disciplinary research questions (such as this study) as it can be used either inductively or deductively to straddle different epistemologies. Clarke and Braun (2017) note that thematic analysis is unusual in the suite of qualitative approaches due to it offering a method unbounded by theoretical commitments, enabling it to be deployed across a range of frameworks and research paradigms. Nowell et al (2017) opine that the method is easily grasped, and useful in helping the researcher to take a well-structured approach to handling data. Braun and Clarke (2012) note that thematic analysis provides an entry level method to qualitative research, which can otherwise seem vague, mystifying, conceptually challenging, and overly complex.

There is another compelling reason to use thematic analysis for this study - it supports abduction by allowing the structuring of qualitative information in a format that will support the development of quantitative instruments (Boyatzis, 1998). By coding the incidence of themes within the data and gauging how frequently they recur, it is possible

to assess the relative strength of each of the derived themes, so as to target further work. This is discussed in subchapter 7.2.

In opting for thematic analysis two issues should be acknowledged. The first is whether or not thematic analysis is a method in its own right, or an enabler for the suite of qualitative techniques. Commentators differ in their views. Boyatzis (1998) sees thematic analysis as a tool to use across different methods. Ryan and Bernard (2000) place the coding of themes within the major qualitative analytic traditions rather than as a method in its own right. ResearchGate (2014) describe thematic analysis as part of content analysis. The position taken for this study, however, is that of Braun and Clarke (2006) who opine that 'thematic analysis should be considered a method in its own right' (as distinct from a *methodology* [Clarke and Braun, 2013][12]). Braun and Clarke (2012) believe that thematic analysis is rapidly becoming widely recognised as a unique and valuable method in its own right, and achieving the same 'brand recognition' as established techniques such as grounded theory (Clarke and Braun, 2013). This is a view shared by other researchers including Nowell et al (2017), King (2004), Leininger (1992) and Thorne (2000).

The second issue is that of coding frequency - how it delineates thematic from content analysis, and how the incidence of thematic codes across the cultural clusters will be used in this study. Content analysis differs from thematic analysis in that whilst it draws upon thematic coding, it looks for trends and patterns of words used and their relationships, so as to build and examine theory (Bloor and Wood, 2006; Mayring, 2000; Pope et al, 2000; Grbich, 2012). Vaismoradi et al (2013) see content analysis as being able to draw upon coding frequencies as a proxy for phenomenological intensity. They do not, however, believe thematic analysis can be used for this purpose, but see this as an advantage, as in their view, unlike content analysis, thematic analysis need not use the frequency with which a theme is coded as a proxy for relevance. This makes it extremely useful for building theory, as an innovative theory can stem from one single bold and compelling assertion (Vaismoradi et al, ibid). Others, however, such as Boyatzis (1998) feel that within thematic analysis the quantification of coding densities is acceptable, and that by measuring thematic coding density, the researcher is not drifting into content analysis. Boyatzis (ibid) sees coding incidence as interval data allowing for the comparison of

[12] Methods are the tools, techniques or processes used in research; methodology is the study of how research is done, and the principles that guide research practices (McGregor and Murnane, 2010).

coding densities between different groups so as to confirm or build theory. Guest et al (2012) go further than this, not only by claiming thematic coding frequencies and densities can be utilised as a proxy for the strength of a phenomenon between different groups, but also in hypothesis testing, provided there has been an extremely rigorously implementation of method. Importantly for this study, Guest et al (ibid) see coding density as a means of fostering confirmation. Braun and Clarke (2012) concur stating that in thematic analysis the method can offer the answer to a question.

For the purposes of this thesis a pragmatic approach will be adopted which concurs with the position taken by Boyatzis (1998), Guest et al (2012) and Braun and Clarke (2012), by assuming that thematic density, gauged through coding frequency, *can* be a proxy for the strength of a theme among different groups, and this does not mean that the work has strayed into content analysis. In addition, however, the study will capitalise on the flexibility of thematic analysis - a theory will be seen as being robust enough to be used in subsequent work if it is backed up by a quote which is 'vivid and compelling' (Vaismoradi et al, 2013).

3.4.2 Deductive thematic analysis

There are three types of thematic analysis residing along a continuum ranging from theory-driven to data-driven approaches. Each possesses benefits and challenges for the researcher (Boyatzis, 1998). Theory-driven analysis applies developed or pre-developed 'codebooks' derived from theory (DeCuir-Gunby et al, 2011). Crabtree and Miller (1992,1999) believe that the use of a codebook provides for a clear trail of evidence for the credibility of a study. In theory-driven analysis the researcher starts from their own or someone else's assertion, develops themes consistent with what is being postulated, and sees to what degree these themes are present in the dataset by coding text to each theme. Boyatzis (ibid) sees theory-driven code development as being the most commonly used approach. Guest et al (2012) describes how the purpose of deductive thematic confirmatory analysis is:

> …to…assess…a predetermined idea. As such the processes involved are more rigorous and less flexible than in a traditional inductive analysis. In fact there is very little induction involved. In a confirmatory (thematic) analysis, the conceptual categories are determined prior to reviewing the text and codes

> are generated from…hypotheses…confirmatory analysis requires structured procedures and in some ways…(can be)…similar to quantitative analysis.

A good example of a theory driven approach to thematic analysis is offered by Selvam and Collicutt (2013). In examining the core virtues seen as paramount for African religions, they coded sections of text relating to seven themes previously identified by Peterson et al (2004). Similarly Fereday and Muir-Cochrane (2008) developed an a priori template of codes in the manner described by Crabtree and Miller (1992, 1999) so as to examine the role of performance feedback in the self-assessment of nursing practice. To do this they built a six category codebook, clearly defined in the template format stipulated by Boyatzis (1998).

The secondly method of thematic analysis, sitting at the far end of the continuum from theory driven work, is data driven, purely inductive, where themes are drawn from the data itself. The use of thematic analysis in this way represents a form of grounded theory as described in Chapman et al (2015), where speculation as to cause and effect stem from the data not prior theorising. Lapadat (2010) feels that more thematic analyses are inductive than deductive. As already noted, this study's method cannot be purely inductive due to prior significant engagement with the work of the cross-cultural theorists, and the use of the Hofstede indices to frame the sub research questions.

Thirdly, a hybrid approach of theory *and* data driven thematic analysis draws upon a priori theory, whilst formally generating new themes as per an indictive approach. This was the method deployed by Fereday and Muir-Cochrane (2008) who, as well as developing a codebook from theory, generated six additional themes through a rigorous inductive process.

In this instance the use of the Hofstede indices for the segmentation of national cultures and the derivation of the research questions, arguably makes deductive analysis inevitable. The researcher has extensively studied what a cross-cultural model believes makes cultures different, so is unlikely to approach an inductive task without strong biases as to what will emerge from the dataset. The question is therefore whether or not to adopt a hybrid approach allowing for both inductive and deductive methods. This was not done purely because of resourcing issues. A full inductive review of the transcripts would need significant additional input from other researchers to develop and validate emergent themes and examine if they are being coded reliably. Prior to the commencement of the

exercise there would be no way of estimating the volume of inductive themes likely to emerge and the scale of the task. Deductive thematic analysis is therefore the only method used for this study.

When analysing the dataset, however, ancillary theory will inevitably stem from the data itself - it will emerge inductively and be more conjectural in nature. Indeed, this is a goal of the research method. These inductive insights will be flagged and recur throughout the discussion of the results as caveating material (the 'ifs, buts and maybes'). The need to formally develop these tentative inductive themes is noted in the further research chapter. In subchapter 7.1 five candidate inductive themes are flagged for formalisation.

There are some disadvantages to adopting a deductive theory-driven approach. It can often result in lower interrater reliability (IRR) in coding than inductive work, due to projection on the part of the researcher, who has been immersed in the theory from which the themes are derived (Boyatzis, 1998). Guest et al (2012) recommend if possible, keeping the analyst removed from the theory being tested so as to ensure as much objectivity as possible, but notes this is often difficult if resource constraints dictate the vast majority of the work needs to be done by a single researcher (this issue is further discussed in subchapter 4.7). Another criticism of theory-driven analysis is that in formulating codes away from the data, they may not be appropriate for the data to which they are to be applied. Wolcott (2009) suggests that researchers should remain 'as close to the data as possible'. Similarly Strauss et al (1998) counsel that when categorising phenomena it makes sense to closely examine data first. Lapadat (2010) believes that deductive thematic analysis locks the researcher into an approach that could result in premature closure of theory. She also notes how researchers at the interpretivist end of the theory versus data-driven continuum, may argue that the process of breaking text into parts to label them, fractures the coherence and contextuality of narratives constituting the data. This is further discussed in Chapter 5 when describing the presentation of quotes.

This chapter has outlined the research method's requirements and underpinning philosophy. It then noted that qualitative methods are well suited for understanding latent motivation. Deductive thematic analysis was then justified as the study method. The next chapter describes the steps involved in implementing the method.

4 IMPLEMENTATION OF METHOD

Chapter 3 justified deductive thematic analysis as the method for this study. This chapter discusses the steps involved in implementing the method. It represents an expansion of the material published within Ashmore et al (2017, 2018a, 2018b, and 2019).

There will be twelve stages deployed when implementing the method:

1. Choose which nations to sample based upon the Hofstede (1984) power differential, and individualism versus collectivism indices.
2. Choose who to sample within each of those nations.
3. Derive qualitative themes relating to the symbolic aspects of transport choice, reflecting:
    a. The connotations of each sustainable mode - positive, negative, or neutral.
    b. The Hofstede PDI, and individualism versus collectivism indices.
4. Develop a topic guide; pilot and finalise.
5. Note project ethics and ensure they are adhered to.
6. Recruit interviewees, undertake interviews, and perform interview transcription.
7. Finalise the codebook and coding rules.
8. Confirm thematic validity and undertake interrater reliability coding.
9. Formulate thematic coding densities for the two meta[13] cultural clusters.
10. Present the results contrasting the two meta clusters by means of coding densities and strong quotes - examine if the Hofstede indices appear to offer strong explanatory potential as to how symbolism functions in transport choice across national cultures.
11. Discuss the findings in terms of sustainable transport policy formulation within, and transfer from other nations to, the mega cities in India and China. Note study limitations.
12. Discuss further research emanating from the study including candidate inductive themes stemming from the data, vertical and (other) horizontal differences observable in the dataset, and additional topics.

Stages 1-8 of this method will form the structure of this subchapter.

[13] See 4.1.2

4.1 Sampling considerations

4.1.1 Specific Hofstede clusters

Two Hofstede indices - the power differential index (PDI) and individualism versus collectivism (see subchapters 2.5.4 and 2.5.5) - were chosen to cluster nations into groups at different ends of the PDI/individualism spectrum. With the focus of the study being on transport policy in the mega cities of China and India, two high PDI/collectivist groups were developed containing these countries. The first - Confucian - consisted of China and Taiwan. The second - South Asian - constituted the nations of the Indian Subcontinent, India, Pakistan, Bangladesh and Sri Lanka, although only Indian interviewees were drawn upon as only large Indian cities present a full modal suite[14].

It was necessary to contrast these clusters with those located at the other end of the PDI/individualism spectrum. As the study was based out of London for expediency it was logical that one contains the United Kingdom. In keeping with Hofstede et al's (2010) definition of a distinct 'Anglo' cluster, this grouping consisted of the United Kingdom, Australia, Ireland, New Zealand, Canada, and the United States. The term 'Anglo' was retained for this cluster.

Rather than pick a single low PDI/individualistic cluster with which to contrast the two high PDI/collectivist cultures, however, balance was sought by picking an additional low PDI/individualistic culture. This was termed 'Nordic', a shorthand term for 'Protestant North European': Catholic European nations such as France have noticeably higher PDI scores than their counterparts in Scandinavia. The inclusion of a Nordic cluster can be seen as fortuitous from a sustainable transport policy perspective as according to Scott (2014), the Nordic countries offer environmental policy lessons for the rest of the world.

It was decided to include the Netherlands within this Nordic cluster, along with Norway, Sweden, Denmark, Iceland and Finland. This was due to some commentators seeing the Netherlands as fitting with the Nordic countries in terms of national cultural values. Sicinski (1976) feels that Finland, the Netherlands, and Norway culturally fit closely together. Inglehart's World Values Survey (Inglehart et al, 2014; Inglehart and Oyserman, 2004) has consistently placed the Netherlands in a Protestant European cluster alongside the Nordic nations. Another reason for the inclusion of the Dutch is that like the Scandinavians, they are often cited as being at the leading edge of sustainable

[14] See 4.1.2.

transport policy. Scholars such as Scott (2014) and Pojani and Stead (2014) make reference to Nordic and Dutch transport policies as being world leading. The Dutch were included on the proviso that no interviewee or their parents, originated from, or lived in, the Catholic south (Bakvis, 1981).

Two Hofstede meta cultural clusters, each consisting of the two chosen sub clusters, were therefore used for comparison. These are shown in Table 2:

Meta 1 – Low PDI/ individualistic	Sub 1	'Anglo' (Australia, USA, UK, New Zealand, Canada, Ireland)
	Sub 2	'Nordic' (Sweden, Norway, Finland, Denmark, the Netherlands)
Meta 2 – High PDI/ collectivist	Sub 3	'Confucian' (China, Taiwan)
	Sub 4	'South Asian' (India, Pakistan, Bangladesh)

Table 2: Sampled Hofstede meta (and sub) clusters

These clusters' PDI and individualism/collectivism scores are shown in Table 3 and Figure 2. The World values survey clusters, which support the bundling of the Hofstede clusters, are shown in Figure 3.

The purpose of this study is to note observable qualitative differences between the two *Meta* clusters. Therefore, on the majority of occasions, differences *within* a meta cluster will pass without comment. Just as contrasting India and China is not the goal of the analysis, neither is contrasting the Anglos with the Nordics. Some heterogeneity, however, within a meta or subcluster, is likely. There is no suggestion that the interviewees within any cluster, meta or sub, have a homogenous viewpoint. What the sampling strategy does moot, however, is that people who originate from low PDI/individualistic nations - provided they meet the sampling criteria offered in Table 4 - will lie in terms of their Hofstede scores within the same normal distribution for both their subcluster and the aggregated meta cluster (Table 1). This would mean they are likely to have *similar* views on the symbolic aspects of transport choice within their society and the other subculture within their meta cluster, and that these views are being significantly driven by national cultural values. As noted in Figure 1 (subchapter 2.4.3),

when comparing the Hofstede indices, it is the relative gap between the means of the normal distributions that constitute a cultural difference. That said, if there are hugely noticeable differences between the two subclusters within a meta cluster, it would be remiss not to comment upon them. Whilst not the focus of this study these are strong candidates for further research and will be flagged in Chapter 7.

Cultural group & country of interviewees	**Hofstede's cultural dimensions**	
	Power distance PDI (higher score equals greater power differential)	Individualism /collectivism (lower score equals greater collectivism)
LOW PDI/INDIVIDUALISTIC – META 1		
Anglo – Sub 1		
Australia	36	90
United Kingdom	35	89
United States	40	91
Nordic/North European – Sub 2		
Netherlands	38	80
Norway	31	69
HIGH PDI/COLLECTIVIST – META 2		
Confucian – Sub 3		
China	80	20
Taiwan	58	17
South Asian – Sub 4		
India	77	48

Table 3: PDI and individualism/collectivism indices for clusters.[15]

[15] See subchapters 2.5.4 and 2.5.5 for a description as to how these indices were derived.

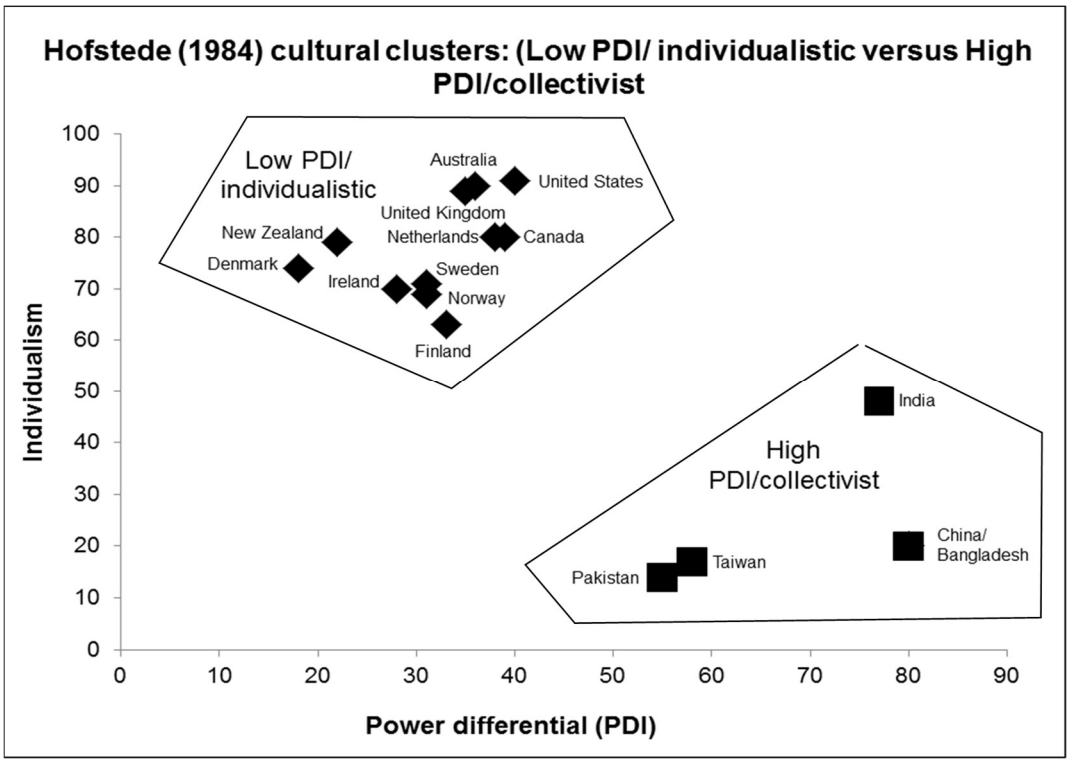


Figure 2: Low PDI/ individualistic versus high PDI/collectivist meta clusters. Produced from the Hofstede (1984) indices.

Figure 3: Sixth wave world values survey clusters (Inglehart et al, 2014).[16]

[Figure 3 in the public domain at: http://www.worldvaluessurvey.org/WVSContents.jsp?CMSID=Findings]

[16] As noted in subchapter 2.5.3 Inglehart and Oyserman (2004) describe a high level of correlation between their WVS 'survival vs self-expression' dimension, Hofstede's individualism vs collectivism.

With the emphasis on urban areas and regional groupings it is probable that 'urban cultures', indeed individual city cultures, are sitting within a national cluster. There is also the possibility that a national cluster may be part of a broader regional cluster. These points are acknowledged, but in this instance a significant examination of the contrasting cultures of multiple cities would not be possible due to an absence of appropriate models by which to segment and compare them. Moreover, regional clustering would not be possible when discussing the Anglo culture, as the nations are often geographically a long way from each other. This is a candidate for further research which focusses on urban or city-specific culture.

4.1.2 Sampling within nations

As discussed in subchapter 2.3.5 Bourdieu (1984) demonstrated that symbolic motivation varies significantly as a function of sociodemographic characteristics *within* a nation. Therefore, in cross-cultural analysis random sampling is of limited use as it mixes cultural (horizontal) and social (vertical) motivation (Buil et al, 2012). Hofstede (1984) notes this, flagging how the PDI index for low income or poorly educated groups in low PDI nations is similar to the score for high PDI nations. Just as Hofstede (2010) states 'one should not compare Spanish engineers with Swedish secretaries', it would appear that an unskilled worker in the United Kingdom may have a more comparable PDI score to a professional worker in China, than a doctor within their own nation:

> (in lower PDI nations) we see that the lower-education, lower-status occupations tend to produce high PDI values and the higher-education, higher-status occupations tend to produce low PDI values. Education is by far the dominant factor. The correlation of an occupation's PDI with the average years of formal education (in France, Germany and Great Britain) is an amazing r = -.90. Every additional year of formal school education needed for an occupation reduces the occupation's PDI score by about 18 points (Hofstede, 1984).

This points to a need for purposive, stratified sampling to yield strong results, whilst recognising that there are still likely to be some vertical differences within in a sample that cannot be controlled for. Such a strategy entails contrasting people across the cultural clusters who are as *similar as possible* in terms of education, income and occupation

(Vijver and Leung, 1997). Ohnmacht et al (2009) term this horizontal sampling. Table 4 offers the sampling criteria for interviewees.

Sampling dimension	**Criteria for inclusion**
Current domicile, urbanity and mode choice set:	Interviewees must be living in a major urban area with access to a full modal choice set. A mode should be available even if an interviewee and/or their family choose not to use it. A full modal choice set comprises: bus/BRT, metro/tram/commuter rail, non-motorised options, and car sharing schemes, as well as privately owned motorised modes - cars, and motorcycles/scooters. 'Eco-cars' such as hybrids and electric vehicles should be available for purchase. Paratransit is likely in some cities but not mandatory as a mode in the sampling criteria.
Heritage, birth and raising:	Interviewees needed to have been raised in a major urban area in country, to parents also born and raised in the same nation.
Education level:	Interviewees must be educated to degree level. At least one parent must have a degree.
Age:	Above eighteen and under fifty years old.
Gender:	Equal balance between males and females.
Car ownership status:	The family or individual must have owned a car for at least ten years.
Other attributes:	Interviewees must possess high-speed internet access and speak fluent English.

Table 4: Sampling criteria for interviewees from population of interest.

The process of narrowing the sample down to people as socially similar as possible was assisted by the use of snowball or referral sampling (Given, 2018; Brace-Govan, 2004;

Lewis-Beck et al, 2004; Salganik and Heckathorn, 2004; Kaplan et al, 1987). Snowball sampling works through researchers approaching a small selection of people who they know meet the sampling criteria and asking them for referrals to contacts who also meet the sampling criteria. Personal acquaintances of the researchers are not used for interviews, but friends and contacts of personal acquaintances are, as are friends and personal acquaintances of the previous batch of interviewees. Thus, the sample is seen to grow in a manner akin to a snowball rolling downhill, with a strong likelihood that the participants have much in common. Snowball sampling is useful in that it is simple, cost effective - it does not require extensive resources - and can be used to quickly locate people within a specific, sometimes latent, population of interest (Cohen and Arieli, 2011; Voicu and Babonea, 2011).

The inherent downsides of snowball sampling hinge around its high degree of subjectivity. It is highly dependent upon the researcher being able to access an appropriate starting point for the sample (Dudovskiy, 2018). In addition, the researcher often only has access to a small subset of the overall population in question, making it hard to draw definitive conclusions as to whether or not the people spoken with accurately represent the views of a population (Morgan, 2008). That said, despite these inherent limitations, snowball sampling appears well suited to this study due to its purposive nature.

As cities were the focus, interviewees needed to have been raised and currently live in, within their country of origin, a major urban area offering a full transport mode choice set. Essentially, this means to be admissible, a city must have a metro, light rail, heavy commuter rail, or tram system, so as to ensure a spread in the symbolic connotations of the different modes. To try to ensure as much social equivalence within a cluster as possible, participants needed to be degree educated, have a degree educated parent, have had a car in their immediate family for the previous ten years even if living remotely from their families, and possess high speed internet access - a proxy for connectivity and wealth. There was also a requirement for the participants to speak fluent English which is likely to be a surrogate for being highly educated among the Confucian cluster, with English fluency being extremely common among the educated in both the South Asian and Nordic nations. These criteria incline the sample towards what may be arguably termed ‘elitism’ - the wealthiest, more educated, individuals within the national cultural clusters. In the context of India this may be advantageous as Chatterjee (2008) has

described how in India, environmentalism, if it exists anywhere, is to be found among 'urban elites'. Moreover, as was seen in Heffner et al's (2007) Californian study, being seen to be environmentally conscious, was an important motivator for purchasing a hybrid car, and this was strongly tied in with education levels.

Not mandating that an interviewee's parents needed to have been raised or currently living in a major urban area does raise the possibility that some interviewees might have been exposed to values other than those predominating in their city. These might be termed suburban or rural mindsets. Whilst this is a possible limitation it is assumed that the probability of it occurring would be relatively uniform throughout the clusters so would not dilute the overall findings in relative terms.

The requirement of being university educated may also be seen as problematic as the qualification may mean something different between the meta clusters. It may be highly elite in India but relatively common in Norway. This is noted and not seen as a major issue only an inevitable feature of the sampling framework. As discussed, the PDI score varies within a nation vertically by education level. There is no suggestion that affluent educated urban people are homogenous across different nations, only that cultural values are likely to manifest themselves most strongly when comparing similar people across societies. In addition, sampling at the lower sociodemographic end of the national clusters would negate mode choice equivalence, as whilst a blue-collar worker in Norway will almost certainly be able to afford a car, this is extremely unlikely to be the case in India. Similarly, whilst poorer members of society may be seen as car captive on the urban fringe in cities such as Melbourne, this is not likely to be the case in Mumbai.

The necessary number of interviewees to be sampled from each cluster is a function of the goal of thematic saturation. When no new themes emerge from a dataset, enough people can be regarded as having been interviewed. Thomas and Harden (2007) state that sample homogeneity assists with the process of thematic saturation as less variation between the interviewees is likely to more rapidly lead to a consolidation of themes. There is no definitive answer as to how many interviews are necessary for thematic saturation but it has been suggested it should occur by twelve (Baker and Edwards, 2012; Guest et al, 2006). As four sub cultural clusters were chosen, this made for a total of forty eight interviewees. As internal comparison *within* a meta cluster is not the research goal the interviewee numbers could have been lower - twelve for each of the low PDI/individualistic and the high PDI/collectivist - but it was felt that this would negate

the possibility of the dataset being used to make comparisons within a meta cluster when undertaking further research. Having four as opposed to two clusters is also likely to increase the potential for theoretical fertility.

Although equal gender balance between the interviewees was seen as desirable, it was not strictly necessary for the Hofstede indices chosen - neither the PDI, nor individualism versus collectivism, are seen to vary by gender. Hofstede argues that all members of a society need to cooperate with its value systems to ensure that it functions. That said, within the broader research programme there is considerable scope for further work focussing on gender using different cultural indices[17]. In any event, equal gender balance was ensured by sampling both six males and females from within each cultural cluster.

4.2 Derivation of the themes for analysis

4.2.1 Mode specific themes

The first batch of themes are generic, relating to the symbolism of a series of what may be termed *sustainable* transport modes (subchapter 2.6.1). These basic foundation themes - pre-defined categories or combinations of possible outcomes - stipulate whether or not a mode has positive, neutral or negative connotations so as to allow comparison across the meta cultural clusters. These modal themes are necessary to contextualise the findings related to the themes derived from the Hofstede indices (to be described in subchapters 4.2.2 and 4.2.3) and to draw out practical policy transfer barriers. Modal themes are also needed to allow the formation of targeted survey and attitudinal questions when undertaking further research.

As noted in subchapter 2.6.1 the modes to be examined are: public transport, both bus and rail based, as well as generically; 'eco-cars' which are either hybrid electric or purely electric; non-motorised modes covering walking and cycling; and shared mobility[18]. In this instance the latter was largely car sharing as offered by firms such as Zipcar, because, when the topic guide was developed and piloted, and interviews were undertaken - between 2014 and 2016 - the concept of shared ride-hailing, e.g. Uber Pool, was relatively new. Firms such as Ola, Uber and Didi were still largely single ride-hailing platforms competing with regular taxis, and taxis were not examined within this study. Would the

[17] See Chapter 7 which describes further research.
[18] The exclusion of private cars (other than eco-cars) is justified in subchapter 5.3.1.

interviews be undertaken now the concept of shared mobility would be greatly expanded to cover shared ride-hailing modes. Other contemporary modes and smartphone apps such as trackless trams, electric bicycles and scooters, and 'Mobility as a Service' or MaaS (Belmore, 2019; Apostolou and Reinders, 2018; Hardt and Bogenberger, 2019; Newman, 2019) would also have been included in the guide. These are certainly topics for further research as they all have potential symbolic ramifications, and as such they are flagged in subchapter 6.3 which makes specific policies recommendations.

During the initial coding of the dataset the importance of symbolic neutrality became clear. At first when examining non-motorised transport and car sharing (as was reported in Ashmore et al, 2018b) neutrality or indifference was coded within the negative theme, as it was felt it would not positively influence uptake. It was supposed that if a mode connoted nothing, this would deter people from using it due to symbolic pointlessness. It was when examining eco-cars and public transport, however, that symbolic neutrality was encountered in a positive symbolic light: if nobody cared who used what mode, then it could be argued it did not put a symbolic barrier in place. Post this insight (as is reported in Ashmore et al 2018a, 2019) neutrality was extracted as a separate theme in its own right. Recalculation of the reliability statistics (see subsection 4.7.1) for non-motorised transport and car sharing then took place, followed by a recoding of the entire dataset for these two modes.

This led to eighteen modal specific themes or symbolic permutations:

1. Eco-cars - positive symbolism
2. Eco-cars - neutral symbolism
3. Eco-cars - negative symbolism
4. Public transport (generic) - positive symbolism
5. Public transport (generic) - neutral symbolism
6. Public transport (generic) - negative symbolism
7. Metros/trams - positive symbolism
8. Metros/trams - neutral symbolism
9. Metros/trams - negative symbolism
10. Bus-based modes - positive symbolism.
11. Bus-based modes - neutral symbolism.
12. Bus-based modes - negative symbolism.
13. Non-motorised transport - positive symbolism

14. Non-motorised transport - neutral symbolism
15. Non-motorised transport - negative symbolism
16. Car sharing - positive symbolism
17. Car sharing - neutral symbolism
18. Car sharing - negative symbolism

The rules stipulating *when* to code a section of text to a theme are offered in the codebook in Appendix B. This section of the codebook is generic as the criteria can be applied across all modes. Given the reasoning for the derivation of the themes, for all the modes it was loosely expected that the coding densities for negative symbolism would be considerably higher for the interviewees from the high PDI/collectivist cluster relative to their counterpart interviewees from the low PDI/individualistic cluster. Conversely higher levels of coding densities were anticipated for positive and neutral symbolism from the interviewees from the low PDI/individualistic cluster compared to their counterparts from the high PDI/collectivist cluster.

The next section of themes, directly derived from the Hofstede indices, aim to offer insights into the reasons for differing modal connotations across the meta national cultural clusters. If positive, neutral or negative connotations dominated for a mode within a meta cluster, it was expected that the Hofstede indices would help explain why this might be the case, and the reasons for it differing from the other meta cluster. The generation of the Hofstede related themes is described in the next subchapter.

4.2.2 Power differential index themes

As discussed in Chapter 2.5.4, the Hofstede (1984) power differential index (PDI) describes societies where people accept a hierarchy within which everyone has a place needing no justification. In high PDI nations it is expected that an individual clearly projects, through symbols, their social status and familial position. It seems sensible therefore to speculate that in high PDI cultures, failing to clearly showcase social status, through purchasing capacity or exclusivity in how one travels, could be a social taboo for more affluent groups.

It was therefore surmised that the interviewees from the high PDI/collectivist cluster, would describe how within their city, positive symbolism would be attached to a mode if the purchase price was widely known to be higher than another mode. It was assumed that the inverse would also apply - modes seen as cheap at point of consumption,

accessible to all, would be described as having negative symbolism. For the interviewees sampled from the high PDI/collectivist nations it was further speculated that expressing purchasing capacity when travelling would generally be less a matter of choice than collective obligation.

For the interviewees sampled from the low PDI cluster, however, it was surmised that there would be no stated obligation to show purchasing capacity when travelling. Furthermore, it would not be surprising to see in the quotes sourced, that for this group, the idea of travelling immodestly or showcasing wealth, would be a violation of a cultural modesty imperative. In addition, it was expected that among the interviewees from the low PDI meta cluster, some negative connotations may apply to modes such as hybrid cars if it was felt those using them were acting in a 'pious' or sanctimonious manner to set them apart from others (see anecdotal sources such as Toyotapious [2017]).

It was postulated in Ashmore et al (2017) that:

> Say, that in the analysis of the qualitative transcripts, a consistent theme emerged that it was highly embarrassing to the participants coming from country X (a collectivist country) if their educated children, employed by prestigious global firms, were seen by others from their peer group, travelling to their place of work on a crowded public bus, because in their culture someone who was supposedly rich being seen using a public bus regularly would symbolise a loss of wealth, failure in their careers, and their family no longer being able to afford to run their car…Then, imagine that the analysis of the qualitative transcripts unearthed in country Y (an individualistic country) that when wealthy people were seen on a public bus their peers respected them greatly for caring about the environment as it would be assumed that the switch from the car to the bus had not…(been) …something forced upon them…If these two differing scenarios emerged from the data, then it would be reasonable to hypothesise that in collectivist cultures when travelling it was important for people to demonstrate their social level and affluence to enable them to be appropriately and clearly ranked and treated; and that this was not the case for individualistic cultures.

Hofstede et al (2010) augment this conjecture:

> Visible signs of status in large power distance countries contribute to the authority of bosses. A subordinate may feel proud his boss drives a bigger car than his neighbour's boss…In small power distance situations status symbols are suspect…subordinates will likely comment negatively to neighbours if their boss spends money on an expensive car…leaders enhance their informal status...by taking the streetcar to work.

Themes 19 and 20 pertain to the PDI index. Theme 19 is termed 'obligation for mode to symbolise social status'. Theme 20 is 'no obligation for the mode to symbolise social status'. Precise definitions for these themes, and when they should be coded in the text, are offered in the codebook in Appendix B. It was expected that the coding densities for theme 19 would be relatively high for the interviewees from the high PDI/collectivist cluster, in comparison to their counterparts from the low PDI/individualistic cluster. The inverse was expected for theme 20.

4.2.3 Individualism versus collectivism themes

The thematic codes deduced from the individualism versus collectivism index relate to collective decision-making and punitive treatment for breach of symbolic imperatives. As flagged in subchapter 2.5.5, collectivism is not about subordinating oneself to the group - the group itself *is* the identity of the people within it (de Mooij and Hofstede, 2010).

Within collective societies and cultures, respect or 'face' - termed 'mianzi' in Mandarin - is important to maintain social prestige and conserve wealth (Goffman, 1955). Loss of face takes place collectively. It is the group's face that suffers when the collective is perceived to be presenting themselves in a manner not akin to how they wish to be viewed by others in society (Ho, 1976). For this reason in collectivist societies decisions are made collectively, so as not to place the group at risk by standing out or not conforming (Shavitt et al, 2010). Contraventions may incur significant social penalties, whereas adherence may bring reward (Savani et al, 2012; Trompenaars and Hampden-Turner 1997; Burnkrant and Cousineau 1975; Laroche et al, 2005; Erdem et al, 2006; Yoo and Donthu 2001; Shukla 2010; Commuri, 2009). In addition, within collectivist societies sources of information or evidence needed to make a major group decision are often sought from within the in-group (Savani et al, 2011; Johnson and Chang, 2000; Prabhu, 2012).

Themes 21 and 22 therefore relate to collective decision-making. Theme 21 is 'collective modal decisions drawing upon normative influences'. Theme 22 is 'individualistic modal decision-making based upon personal preferences' [19]. It was expected that the coding densities for theme 21 would be relatively high for the interviewees from the high PDI/collectivist cluster in comparison to their counterparts from the low PDI/individualistic cluster. The inverse was expected for theme 22.

Four further themes were generated for individualism versus collectivism. Without sanction or reward, it is logical to assume some people would be inclined to ignore the dictates of their culture and in-group. It was therefore assumed that enforcement mechanisms operate within cultures where conforming to symbolic imperatives is an obligation. Shavitt et al (2010) state that 'in a collectivist society one shows status or is penalised'. This penalty or castigation could arguably take the form of a person knowing that they have violated a symbolic norm and feeling shame, but also corrective sanctions may be applied by third parties - for example being mocked, avoided, socially demoted, or being verbally castigated. It also seems logical to surmise that in situations where there is less of an obligation to show status when travelling, that such corrective mechanisms are not present, or present to a far lesser degree.

Judgement and sanction themes for violating or complying with a symbolic imperative were derived. A key differentiator between the themes was the overt or covert nature of approval or disapproval. Would people witnessing someone in their society or peer group violating or complying with a symbolic transport imperative, quietly approve, remain indifferent, or tacitly appreciate the conformity? Conversely, in some cases, would people openly praise or criticise adherents or transgressors? If penalties and rewards *were* non-verbal what form would they take?

Given these questions four further individualism versus collectivism themes were fashioned. Theme 23 dealt with 'covert approval for complying with symbolic transport imperatives'. Theme 24 examined 'covert disapproval for breaking symbolic transport imperatives'. Theme 25 described 'overt rewards or benefits for complying with symbolic transport imperatives'. Lastly, theme 26 flagged occasions where there would be 'overt criticism or sanctions for breaking symbolic transport imperatives'. The

[19] Triandis and Gelfand's (1998) 'vertical collectivism' index acts potentially as a compound measure of codes 21 and 22, showing how collectives make decisions so as to show their place in a hierarchical society.

detailed description of each of the themes, and when they should be coded in the text, is shown in Appendix B. It was expected that the coding densities for the interviewees from the high PDI/collectivist cluster would be higher for all forms of judgement and sanctions than their counterpart interviewees from the low PDI/individualistic cluster. Moreover, it was anticipated that the ratio of the coding densities for overt sanctions or rewards to covert sanctions or rewards would be of the same order of magnitude for both meta clusters, but that the actual levels of coding densities for overt judgement and sanctions would be higher for the interviewees from the high PDI/collectivist cluster than the interviewees from the low PDI/individualistic cluster.

There were boundary issues with the judgement and sanctions codes, areas of ambiguity, points where one code morphed into another. These needed to be clearly described in the codebook to ensure coding reliability and ensure thematic validity. Gossip not witnessed by the transgressor or complier was seen as covert rather than overt even though the act of speech took place. In cases where interviewees described the likely speech of others, not actual speech, this was coded as covert. Conversely if interviewees suggested the complier or breacher would be spoken to directly this was seen as overt. External implications were taken as overt. For example, a section of text describing '*so then it would be okay for two families to marry*' was coded as overt. Moreover, overt action had to reflect directly on a person. So, someone being mocked behind their back may lead to people avoiding that person but didn't qualify as overt unless it was stated that the person would be ostracised. Not choosing to be someone's friend, however, meant a person had not been directly confronted but an active choice had been made, so this would be coded as overt.

The full list of Hofstede derived themes are:

19. Obligation for the mode to symbolise social status (PDI)
20. No obligation for the mode to symbolise social status (PDI)
21. Collective decision-making drawing upon normative influences (IND/COLL)
22. Individualistic decision-making drawing upon individual preferences (IND/COLL)
23. Covert approval for complying with symbolic transport imperatives (IND/COLL)
24. Covert disapproval for breaking symbolic transport imperatives (IND/COLL)
25. Overt rewards or benefits for complying with symbolic transport imperatives (IND/COLL)

26. Overt criticism or sanctions for breaking symbolic transport imperatives (IND/COLL)

4.3 Developing and piloting the topic guide

A semi structured interview approach was used. According to the Food and Agriculture Association (1990) semi-structured interviews are conducted with a relatively open framework drawing upon general questions or topics. Relevant topics for discussion - the things the interviewer will use to start lines of conversation - are identified in a prior list of questions in a topic guide, noting the broad nature of the direction the interviewer wishes an interview to take. These topics can be used, should the conversation deviate too far from the focus of interest, to guide the interviewees back onto the subject matter. Within a semi-structured interview other questions are posed as the interviewer sees fit, giving the interviewer the flexibility to probe for details on a particular point, or discuss spontaneous issues that may arise. Edwards and Holland (2013) describe how semi-structured interviews are an *open* method of interviewing, allowing new ideas to be brought up during the interview, depending upon what an interviewee says. According to Edwards and Holland (ibid) and Willis (2004), the semi structured approach is the most commonly used research method in the social sciences.

In this instance, within the topic guide the Hofstede related questions were supplemented with those pertaining to general modal symbolism and mode shift. There were, despite cars not being the focus of this study per se, car-oriented questions to allow the dataset to be used for further work. These related not only to choosing to purchase or use a certain car, but also electing to sell one to use other modes and be 'car free'. The broad line of inquiry followed was: status obligations when travelling; collective decision-making; the symbolism of a mode; and then, certain mode shift scenarios pertaining to the interviewees' peer group shifting 'downwards' in terms of the exclusivity and price differential aspect of a mode. An example of the latter would be to sell a car and begin cycling to work. The initial topic guide is shown in Appendix A. In the first instance there were no notes or prompts in place for the interviewer. The word culture was not specifically used as it was hoped interviewees would mention this of their own accord.

This initial guide was then piloted to gauge fitness for purpose. Bloor and Wood (2006) describe how piloting entails the undertaking of preliminary scoping research prior to a full exercise being implemented. This allows potential flaws in the process to be gauged,

and as such offers an opportunity to reflect upon, and modify if need be, research instruments and other aspects of method. In this case the pilot work afforded an opportunity to test the topic guide to make sure the questions were clear and unambiguous to all clusters.

The piloting of the topic guide was conducted face to face through discussions with personal contacts based in London, who originated from within each of the subcluster groups. All of the people with whom the initial topic guide was discussed, felt that a preliminary question relating to how people generally travelled would relax participants. It was also suggested that greater use of the term 'generally speaking' would be helpful, so as to make clear that an interviewee should provide information about their society and peers as well as themselves. There also was a sense that offering interviewees contextual examples of when a mode might not match a social group or occasion would foster verbosity. For example, if a lawyer was to arrive at a client's office on a cycle or a bus, what would people in their society, or those with whom the lawyer was meeting, think? Finally, for some people there was some confusion as to what the modes were. It was therefore decided it would be sensible to have pictures of all modes on hand during an interview. The final revised topic guide is also shown in Appendix A. Due to the interviewer having been advised that more guidance was needed during the interview process, this second topic guide contains significantly more prompts.

4.4 Project ethics

Whilst this research can be classified as general and non-invasive - it does not involve vulnerable groups, intrusive interventions, sensitive topics or deceptive methods - as noted by both Matsumoto and Leong Jones (2009) and Honan et al (2013), what may be seen as an awkward subject in one culture may not be in another, due to socio-cultural norms and social taboos. As observed in subchapter 3.3 people may have a tendency to dismiss the influence of symbolic meaning due to status seeking being a personal and perhaps embarrassing issue (Heffner et al, 2007; Rapaille, 2001; Ni 2008).

For this study the line adopted was that provided participant quotes were anonymised and it was clear that interviewees could terminate the process at any point in the interview should the questions become awkward, this was considered sufficient to minimise the risk of embarrassment. To confirm that the questions would not breach cultural norms the

issue of sensitivity was discussed with topic guide pilot participants. All confirmed the questions were not intrusive or likely to prove awkward from a cultural perspective. In fact, during the interviews, not one participant showed a clear indication of embarrassment. A small number of interviewees from the Confucian cultures did on occasion, in the early stages of an interview, briefly evade questions relating to status, and justify decisions for instrumental reasons (as predicted by Steg et al, 2001). But no participant indicated any signs of awkwardness at being asked to express their views on symbolism and status, even if it took some time for them to become verbally expansive.

Participant confidentiality and consent throughout the process was seen as crucial. To this effect a completed ethics form was submitted to the UCL Research Ethics committee, noting that data obtained would be treated confidentially. All participants were notified at the outset of the broad purpose of the research and consent was obtained verbally at the commencement of an interview. Transcripts were anonymised and reference only made in subsequent publications to the person's cultural cluster, age, gender and city. All data and correspondence were stored on locked computers. Emails to and from participants were stored in a separate folder and deleted once the research had been completed.

As no other academic institutions were involved in the work there was no requirement to clear any other, location specific, ethics procedures. The UCL Research Ethics Committee confirmed their approval of the study in October 2014.

4.5 Recruitment, interviewing and transcription

4.5.1 Recruitment

The basis for interviewee recruitment and snowball sampling was discussed in subchapter 4.1.2. Having established the sampling criteria, in keeping with snowball sampling protocols, contact was first made with personal connections in major cities within the countries being examined. Once the criteria for inclusion had been explained to these contacts, they in turn suggested interviewees, who were then contacted by email. Following initial email discussions, if all parties agreed, an interview time was arranged. At the end of their interview, interviewees were asked if there were other people they knew who fitted the sampling criteria. If so a potential new interviewee's email details were requested. This snowballing led to a bunching of interviewees in a number of cities: Anglo - London, New York, Melbourne and Sydney; South Asian - Delhi, Chennai and

Mumbai; Confucian - Beijing, Guangzhou, Shanghai and Taipei, and; Nordic - Oslo, Amsterdam and Rotterdam.

Table 5 shows the sociodemographic characteristics of the 48 interviewees. In the Anglo sub cluster over half the interviewees lived in London. This is a consequence of the research being based in London and raises the question of the sub cluster being slightly London centric, although the views expressed by the participants across all four of the Anglo cluster's interviewees' cities did not seem discernibly different. Furthermore, although Delhi and the Punjabi culture were repeatedly mentioned for being 'showy' by the South Asian cluster, this view appeared to be universally held - not specific to those living outside of Delhi. Delhi's 'showiness' is mentioned in a quote in subchapter 5.2 and the need for further research into city specific cultures is flagged in subchapter 7.4.2.

Meta Cluster	**Sub cluster (and country sampled from)**	**Number of interviewees**	**Cities of abode (numbers of interviewees from each)**	**Age range (mean, standard deviation)**
Low PDI/ individualist	Anglo (United Kingdom, United States, Australia).	12 (6 males, 6 females)	London (7) New York City (2) Melbourne (1) Sydney (2)	26 – 49 (39,9)
	Nordic (Norway, Netherlands)	12 (6 males, 6 females)	Oslo (4) Amsterdam (6) Rotterdam (2)	27 – 48 (37,7)
High PDI/ collectivist	Confucian (China, Taiwan)	12 (6 males, 6 females)	Beijing (2) Shanghai (5) Guangzhou (2) Taipei (3)	25 – 48 (31,7)
	South Asian (India)	12 (6 males, 6 females)	Delhi (7) Mumbai (2) Chennai (3)	27 – 48 (35,8)

Table 5: The sociodemographic characteristics of the 48 interviewees.

The age range for each sub cluster's interviewees, along with the mean and standard deviation, are also shown in Table 5. The age ranges are highly similar. This is also true for the mean age and standard deviation, other than for the Confucian sub cluster where the average age of the interviewees is between four to eight years younger. It was noted in subchapter 2.4.3 that Shah (2009) feels that in collectivist societies younger people working within a globalised environment - such as for a multinational company - may be exposed to more individualistic attitudes. Some of the younger Confucian sub cluster interviewees *did* work for multinational firms. That does not, however, change their

understanding of, and their adherence to, the underlying cultural norms of the society within which they and their familial in-group operate.

Everybody approached agreed to participate in the research, making a response rate of 100% even in the absence of financial incentives. It is surmised that this was not only due to the generosity of the participants, but also due to referrals being made by personal contacts, thus placing an element of obligation on the interviewees. That said, in all cases it seemed that people were very willing to participate.

4.5.2 Interviewing

Kvale (2008) sees talking with people as a way of understanding views and opinions on their social world, literally an 'inter-view' where knowledge is constructed between the interviewer and the interviewee. Kvale (ibid) notes how interviews are used extensively across the social sciences and how they have become a common research method. Turner (2010) flags the usefulness of the medium as a way of examining different cultures. Mars et al (2016) describe how interviews are the most commonly used method to elicit qualitative information in travel behaviour studies, usually in combination with a semi-structured approach.

Rubin and Rubin (2012) offer three types of questions to be used in interviews so as to obtain data which is detailed, deep, vivid, nuanced and rich. The first type is the main questions - the 'scaffolding of the interview'. The broad flow of these has been described in subchapter 4.3; the full questions are listed in Appendix A. The second type - follow up questions - are not prepared beforehand, but are opportunistic, allowing the interviewer to delve more deeply into a particular point made. An example would be if someone said that labour intensive modes made people sweat and this was a sign of symbolic negativity when travelling - it is not part of the core topic guide but warrants further discussion to expand the research. Finally, the third question type is the probe, which acts so as to keep the momentum of an interview moving and encourage the interviewee to keep speaking to gap fill a missing piece or obtain clarification. Probes are a way of overcoming people's tendency to avoid going into too much detail as they encourage expansiveness. All three types of questions were used in the interviews within this study.

Individual interviews were chosen over focus groups. This was due to the interviewer possessing sufficient time to speak with forty eight people (rather than for example twelve groups of four people spread between the clusters). This not only generated a

proportionately larger volume of data, but also allowed a more in-depth discussion with each interviewee. Aside from affording larger volumes of data, another advantage of individual interviewing in this instance was that it was more straightforward to arrange convenient times with individuals, rather than co-ordinate mutually acceptable group interview times and logistics across different time zones and cities.

Due to geographical separation, and a desire to obtain verbal cues and show modal photographs for clarity should they be needed, if face to face interviews were not possible, Skype was the preferred, and most commonly utilised, interview medium. The telephone was used in rare cases where participants did not have Skype or an internet connection was poor. For telephone participants who needed clarification as to the physical appearance or technical aspects of modes, photographs were on hand for emailing; not one telephone interviewee requested these photos. The interviews each lasted for one hour making a total of forty eight interviewee hours. Longer interviews, given the logistics involved, would have been extremely difficult, but within this hour thematic saturation appeared to have been comfortably reached for all interviewees, as was expected based upon the guidance offered by Baker and Edwards (2012) and Guest et al (2006).

Other than the two Australian interviewees, all of the Anglo interviews were conducted face to face in London or New York. All of the Nordic and Confucian interviews utilised Skype. Exactly half of the South Asian interviewees used Skype; on the other six occasions reversion to the telephone was needed when Skype failed. For these six South Asian interviews this raises the question of the interviewer being unable to capitalise on non-verbal cues (Oltmann, 2016).

In no case did the interviewer find the Anglo, Nordic or South Asian, interviewees reticent about questions of symbolism – quite the opposite. This was in contrast to some of their Confucian counterparts who initially in their interview, evaded the questions relating to status, and reverted to instrumental reasons for their mode choice. This raises an issue of suppressed response for some of the Confucian interviewees (Matsumoto and Leong Jones, 2009), although by the end of each of the interviews with the Confucian interviewees, the participants were openly discussing matters of symbolism and status. Often people referred to their own and family/peers' value systems; in other instances people referred to the values within their nation as a whole or how third parties may view a decision. The resulting transcripts may therefore be seen as not only describing the

values of the target sample, but also the culture within which they dwell and the values of other sociodemographic groups within it.

Interviews were recorded having obtained consent in line with ethics approval (see subchapter 4.4). Questions were posed in a relaxed manner having established initial rapport using off topic conversation (Turner 2010; Ritchie and Lewis, 2003). The emphasis was on the interviewer speaking as little as possible - active listening - only probing or seeking clarification when it was thought it would yield insightful data (Rubin and Rubin, 2012).

As the interviews were conducted in English and no local interviewers were used, this may, theoretically, have affected the results, in that symbolism is a complex construct to describe even in a person's first language. This did not appear to be the case for either the Anglo or South Asian interviewee clusters, both of whom were completely fluent in English. The bulk of the Nordics were almost as fluent in English as the Anglos and the South Asians and seemed not to struggle to express their culture's symbolic imperatives. The one group whose English language skills, although excellent, might have led to a difficulty in describing latent cultural motivations, were the Confucians. It did not appear on the basis of the material obtained, however, that this impinged upon the ability of this group to provide high quality data, although within the transcripts there might be some understating of the relevance of symbolism due to linguistic limitations.

Finally, the issue of the interviewer's positionality relative to the interviewees is a significant issue for quality control in qualitative research. Ganga and Scott (2006) define positionality as the notion of 'insiders' and 'outsiders' – interviewing within one's own cultural community or not. They claim that to a large extent, interviewing within one's own cultural group (insider status) affords a degree of closeness that increases the awareness between both the interviewer and the interviewees, and that this in turn affects rapport and the subsequent interpretation of the data. Therefore, positionality is a crucial concept within the field of cross-cultural research where differences in culture are being examined, although the interviewer/analyst may not come from the cultural group being interviewed (Manohar et al, 2017). Merriam et al (2001) use several case studies to explore positionality in cross-cultural work: a black woman interviewing other black women within the same country; Asian graduate students in the United States speaking with people in their country of origin; and African academics learning from African businesswomen. Stiedenroth (2014) discusses her experience of conducting research as

a western, educated, unmarried, young woman, with interviewees in a highly conservative country.

Berger (2015) lists potential positional differentiators as gender, age, race, immigration status, sexual orientation, personal experience, political beliefs, social class and culture. In this study the interviewer met all of the sampling criteria for the Anglo group (noted in Table 4), and had had the advantage of previously living in India and mixing with the same social cohort that the South Asian cluster's interviewees were recruited from. It is not possible to definitively state that the interviewer's sociodemographic characteristics did or did not influence interviewee responses or the subsequent analysis of the data, but establishing rapport early and posing open questions - only prompting interviewees when necessary and not indicating what answers the interviewer might prefer - aimed to lessen the risk of positional distortion. Moreover, all parties came from the same social class, were urbanites, had the same base education level, and spoke comfortably on first name terms without being prompted by the interviewer. There was no sense that the interviewer was being humoured, or that participants were not being candid; the interviews felt like discussions with peers. Nevertheless, the risk of positionality distortions is inherently present within the study and needs to be flagged.

4.5.3 Transcription

A transcript is a fully typed-up documentation of an interview recording. The more precise a transcript, in that it captures changes of focus, profanity, laughter, stalling, silences and hesitations (Rubin and Rubin, 2012), the better. Reliable transcription is imperative to ensure that subsequent analysis is reliable (Braun and Clarke, 2006).

The interviews were transcribed manually by playing back the digital recording. The analyst undertaking this exercise manually, is useful in that it forces he or she to pay close attention, repeatedly, to what interviewees said. This allows for the highlighting of key quotes early in the process. Even at this stage the transcriber should be able to see themes recurring or being reinforced in the data (Guest et al, 2012).

The final transcripts consisted of 166,000 words. This broke down into 51,000 words for the Anglo interviewees, 25,000 words for the Nordic interviewees, 40,000 words for the Confucian interviewees, and 50,000 for the South Asian interviewees. These differences mean that the thematic coding incidences have to be offered in the results chapter not as

absolute values but normalised by the number of words for each cluster. The unit used to measure coding density in this study is frequency per 100,000 words.

4.6 Development of the codebook and coding rules

Subchapter 3.4 emphasised the methodological rigour of thematic analysis. To avoid assertions of 'anything goes' (Antaki et al, 2003), and to be efficacious, thematic analysis needs to be disciplined, systematic, transparent, and meticulous, to ensure there is consistency and validity in the findings (Castleberry and Nolen, 2018). So as to make sure that coding - the process of the allocation of blocks of text to themes - takes places consistently, codes are documented in the primary vehicle of thematic analysis - the codebook (Guest et al, 2012). Braun and Clarke (2006) feel that the thematic codebook is essential to thematic analysis's legitimacy. The codebook sets out clear definitions for when text should and should not be allocated to each theme, so as to reinforce a theme's presence and depth (Fereday and Muir-Cochrane, 2008). If this is not done when to code a theme may be unclear. This increases the probability of it being coded differently by multiple coders, which would adversely influence both its reliability and validity (see subchapter 4.7).

The codebook's structure, as offered out in Boyatzis (1998) is described under the following headings:

1. Theme number and name - how to quickly describe it.
2. A definition of what the theme pertaining to the code is concerned with - a summary definition of what it concerns.
3. A description of how to see when the theme is occurring (how to flag it for coding) providing *very* clear guidance to the coders as to when a section of text should be coded.
4. A description of when the theme does not apply - very clear guidance to the coders as to when a section of text should *not* be coded.
5. Summary examples, both positive and negative, to eliminate confusion - practical quotes so as to make things even more clear for the coders.

The issue of what volume of text is to be coded is a moot point in thematic analysis and reflects the fact that the same theme may be coded multiple times within a sentence. For example, if one considers the thematic code 'Obligation for the mode to symbolise social

status' in tandem with the following quote from an interviewee, it is arguable that the theme under consideration should be coded twice, e.g. the two highlighted sections:

> **You have to show where you are in the levels** - it's important in Indian culture. If you have a maid who cycles and you started cycling you would lose respect. Not just in the eyes of your peers but also the maid. She would start seeing you as someone not worthy of respect. **You have to judge the power and status; things like this matter** (South Asian 4, Chennai, M, 35).

It could also be argued, however, that the paragraph as a single entity presents a stronger example of richer coded text than the two quotes in isolation from each other - it is more informative if the paragraph is coded as a single entity. This dilemma has ramifications for calculating coding reliability statistics (Subchapter 4.7) as smaller incidents of coding lead to less precise and lumpy coding reliability scores, sometimes bringing the reliability of the primary coder into question. In this instance a decision was made that in order to elicit greater numbers of codes for calculating intercoder reliability it was permissible to break a paragraph into component codes, but coded text could then be re-aggregated for later presentation as quotes. This partly counteracts the argument that breaking text fractures the coherence and contextuality of the narrative (Lapadat, 2010).

It was permissible for a single code to be allocated to multiple themes (Braun and Clarke, 2006). Within a quote, if an individual interviewee's view conflicted with the perceived majority opinion they were expressing, then the majority view predominated when coding. An example would be: 'I don't express status in the way I travel but I think most of my peers expect me to'. This would not be coded for the individual but the collective, i.e. there would be a societal obligation that overrode the individual's views.

4.7 Thematic coding reliability and validity

The final topic to be discussed in this chapter are thematic coding reliability and validity, and how they were managed. These two concepts are essential in thematic analysis so as to ensure that the analysis is transparent, disciplined, systematic, and meticulous, and to confirm that there is consistency and validity in the findings (Castleberry and Nolen, 2018). Without reliability and validity, if there is a single primary analyst - as in this instance and other projects where resource constraints are an issue - there is a significant chance of bias, and the coding exercise being open to allegations of excessive subjectivity.

The goal of the reliability and validity exercises is to minimise this as much as possible within the project constraints, so as to enhance the research's credibility.

4.7.1 Interrater reliability

Coding interrater reliability (IRR) is a statistic which measures the degree to which blocks of data are similarly coded under a theme by multiple observers, so as to ensure consistency of coding and establish the legitimacy of the primary coder (Fereday and Muir-Cochrane, 2008). Vaismoradi et al (2013) describes how intercoder reliability refers to the extent that one coder independently classifies material in the same way as others, and is an essential tool not only for measuring reliability but improving it through discussion. Alhojailan (2012) notes how it is necessary to involve other researchers to some degree in coding to increase the chance of reliability.

This, however, is problematic in instances where resource constraints do not allow the involvement of more than one coder. A PhD exercise is likely to raise this problem. Guest et al (2012) discuss the issue of there being only one primary coding analyst, stating that they often hear: 'But what if there is only one analyst?' within the context of IRR. The solution they offer is for the primary analyst to provide a colleague with a codebook and ask them to examine a random selection of coded text to see if the connections between the raw text and the code definitions are intuitive. They argue that such an approach is a big step towards addressing potential reliability problems. Fereday and Muir-Cochrane (2008), facing similar resource constraints within the confinements of a doctoral study, decided that the student could code the dataset and a selection of the analysis could then be confirmed with a supervisor familiar with the material. They note that this process did allow for consistency.

The author as the primary coder, has gone further than that suggested by Guest et al (2012), and undertaken by Fereday and Muir-Cochrane (2008), by drawing upon the help of colleagues familiar with the codebook. Dual coding of all of the transcripts was not plausible, but it *was* possible for the secondary coders to code a small sample of transcripts in their entirety, and then compare their incidence of coding with that of the primary coder. In each case one transcript - the first interviewee - from each of the four subclusters, was coded by both the primary and a secondary coder. The fact that three[20]

[20] These researchers are noted as co-authors in the journal publications in Appendix D along with the study's primary and secondary supervisors.

other researchers were used to establish the reliability of the primary coder can be seen as a limitation, but it was the optimum outcome given there were twenty six codes and a very large dataset.

The reliability coding exercise used the measure of 'percentage agreement on presence', termed a popular method of gauging IRR by Boyatzis (1998). Within a percentage agreement on presence calculation there is an assumption that coding a theme as present is more important than coding it as not being present. Here the noting of a code across all of the clusters is deemed to constitute it as being present: it need not be seen in all of the groups. This makes sense when comparing coding incidence across groups when some are expected to show a code in abundance, and others barely or not at all.

Given the newness of the theory and this being the first time this codebook has been used, a coding threshold of 70% agreement was deemed reliable, as is advised in Boyatzis (1998) to establish the legitimacy of the primary coder. The twenty six reliability coding percentages for each theme for each cluster are offered in full in Appendix C. Appendix C also shows the IRR calculations for a sample of the modal themes (the public transport themes, 8-16) and all the Hofstede derived themes (19-24). Instances of 100% consensus generally reflected a single instance of identification by both coders. For all codes, coding reliability was higher than the 70% pre-established threshold for the deduced themes. The primary researcher was therefore seen as a reliable coder.

4.7.2 Thematic validity

Within thematic analysis validity describes if a code accurately represents the features of the thematic phenomena it is intended to describe (Hammersley, 1987; Kerlinger, 1964). In this instance two types of validity are important: external validity and face validity. External validity deals with extrapolation of the findings outside the study group. In this instance this depends upon the strength of the study findings. For this study, further work would assume that any premises are scalable for only the sociodemographic group being sampled, i.e. the findings will next be tested as a local theory across that particular group.

The other measure, face validity (Guest et al, 2012), gauges whether or not a code or theme intuitively describes the phenomena being analysed. This is determined through consensus among researchers. Face validity in deductive theory-driven thematic analysis, as is being used in this case, is straightforward as the research begins with a theory. Once

a code is coded to a theme by multiple coders, by definition the theme validates the presence of the theory in the dataset.

Boyatzis (1998) notes that:

> With theory driven code development, this (validity) is the easiest stage. The researcher started with the theory, so once the observations are made about the presence of absence (or degree of presence of absence) of the themes in the raw information, the interpretation is a directly commentary on the theory. The theory of parts of it are either confirmed or refuted.

In this exercise, for the modal and Hofstede deduced themes, a single code by both coders across the groups conferred face validity - it was not necessary to see the presence of a theme in *all* of the cultural groups. Only one would suffice but it had to be seen by both coders. For the sample of data coded all themes were seen by both coders. This ensured that the face validity criteria were met - that the codes captured the essence of what the themes purport to examine.

This chapter has described how the study method - deductive thematic analysis - will be implemented. It has stipulated sampling criteria across nations and within a cluster, and then shown how each of the twenty six themes for coding were derived. The expected magnitude of the coding densities was flagged for each meta cluster - how they are hypothesised to vary relative to each other. The derivation and piloting of the interview topic guide was then offered, followed by project ethics criteria, and the process by which interviewees were recruited, interviewed, and their data transcribed. The stages of codebook development were then described, along with the process through which thematic coding and reliability was managed. The next chapter offers the study's results.

5 RESULTS

This chapter presents the findings of the study, which will be discussed within the context of the research questions in Chapter 6. In subchapter 5.1 the format to be used for presenting the data is outlined. In subchapter 5.2 quotes will be offered where interviewees allude to the existence of their nation's culture. In subchapter 5.3 each of the sustainable modal themes will be presented. This will be followed by the results for the Hofstede themes: subchapter 5.4 offers the data relating to the PDI themes; subchapter 5.5 presents the findings for the individualism versus collectivism themes.

5.1 Presenting the data

When writing up the results of qualitative research, Denzin and Lincoln (2005) advise the researcher to 'render through writing' so as to make clear where the research lies epistemologically. The use of deductive thematic analysis in this instance grounds the study primarily within logical positivism. The writing style will therefore seek to confirm the premise that the derived Hofstede themes have strong explanatory potential, so as to allow the findings to be scalable from the interviewee data to a local theory for further examination. As noted by Feilzer (2010), however, thematic analysis is a pragmatic technique which also supports the process of abduction, so in addition candidate emergent themes for further analysis will emerge from the quotes. This affords the work a small interpretivist aspect, but as these suggested further themes have not been derived, validated, and coded rigorously, they remain candidates for additional work only - the method has not drifted into hybrid thematic analysis (see subchapter 3.4.2). This is noted in subchapter 7.1.

Miles et al (1994) counsel writers of qualitative research to be mindful of their likely readership and to provide material relevant to their potential concerns. This is in sync with a comment in Guest et al (2012) who notes that the cardinal rule in writing up qualitative results is to 'avoid annoying one's audience (and)…to do this it is essential to know the audience for whom one is writing'. Miles et al (ibid) offer three factors which enable a reader to engage with a qualitative report: aesthetic (entertain, amuse, and arouse feelings); scientific (heighten insight, illuminate, deepen understanding, expand theory, convince the reader of validity, and advance the methodological craft); and, moral (emancipate, raise consciousness, and clarify social and normative issues). As this work

expands upon an existing theoretical base whilst flagging opportunities for future research, the narrative primarily resides within the scientific definition, although readers may find certain quotes arouse feelings. Nor is there a complete absence of normativity given that the study is grounded in the concept that sustainable transport polices are beneficial for cities.

Flick (2006) advises the writer of qualitative research to write differently for the practitioner as opposed to the layperson. Whilst it is hoped that a lay audience would appreciate the study, this work is primarily written for transport policy actors - academics, government planning and transport agencies, non-governmental organisations, system manufacturers, social marketers, and the transport advisory profession. A degree of familiarity with technical terminology and concepts will therefore be assumed.

Braun and Clarke (2006) note that the main purpose of writing up a thematic analysis is to tell the complicated story of one's data in a way which convinces the reader of the validity and merits of the analysis. They state the analytical narrative should go beyond a description of the data to make arguments in relation to the research questions, using a balance between narrative and data extracts. The data offered here will therefore consist of two components - thematic coding densities supported by strong illustrative interviewee quotes. As noted in subchapter 4.1.1 the focus of the study is on the contrast between the two meta cultural groups - the interviewees sampled from the low PDI/individualistic cultural cluster versus their peers in the high PDI/collectivist cluster. Given this, however, occasionally the differences between the subclusters within a meta cluster (the Anglos vs the Nordics, and the South Asians vs the Confucians) are alluded to.

The thematic coding densities offered are metadata - formal renderings of themes existing at the interface of the raw data and the analyst. Tabulating the frequency of the codes aggregating under a theme guides the analyst to core aspects of the raw data to both confirm and expand theory for testing (Guest et al 2012). Coding densities are offered in tabular format under the discussion of each mode or theme rather than in a single table. Supporting quotes from the data are provided to support the thematic coding densities and facilitate the expansion of themes (Guest et al, 2012). The use of quotes to illustrate symbolism is a method that other qualitative transport researchers have used. In Beirão and Sarsfield Cabral (2007) the ownership of a car was presented by one female respondent as symbolising that she had 'worked hard':

> It's not by chance that my hands look like this, I made that sacrifice [of buying a car] many years ago. My vehicle is my [emotional] support.

In Guiver (2007) quotes were offered to show how for some of the population of Leeds, bus usage symbolised being poor and having few choices:

> Somehow, just what is left, the ones without a car, the poor souls have to go on public transport. They have to take it as it is or leave it.

In Heffner et al (2007) one interviewee stressed that the ownership of a hybrid car, for him, symbolised being intelligent, someone who conserved natural resources, in stark contrast to his views on SUV drivers:

> Hybrids are intelligence...SUVs are stupidity.

The quotes will be anonymised in keeping with the requirements of the project ethics approval (subchapter 4.4) and presented in the form of national cultural cluster, cultural cluster interviewee number, city of abode, gender, and age. There is no requirement to present an even spread of quotes across or within the cultural clusters to support the coding densities. The emphasis is on presenting the strongest quotes which seem to offer insights into why a coding density score may be high or low for a particular cluster. This approach fulfils what Sandelowski (1994) describes as a core requirement when presenting coding incidences and quotes in qualitative research - ensuring that the rigorous obligations of scientific reporting are met whilst deploying a degree of artistic license for illustrative purposes.

With the research focus being on improving air quality in the mega cities of Asia, more quotes from the interviewees from the high PDI/collectivist cluster are offered than for their low PDI/individualist peers. Furthermore, the quotes from the interviewees from the high PDI/collectivist cluster are often longer than their low PDI/individualistic cluster counterparts. As per the entire thesis, where colloquialisms are used they are placed in inverted commas (University of Melbourne, 2012). If a quote from one section is especially strong in reinforcing a theme in another section, it may be further quoted (several times if deemed useful). The quotes are not indexed within the text, but to facilitate ease of reference supporting quotes immediately follow relevant coding density scores and narrative.

In keeping with the advice of Popper (1969) that new theory should be bold, the quotes offered attempt to show significant contrast between the two meta groups. To do this the

strongest examples of the phenomena being mooted are presented. Whilst this might be regarded as presenting extreme examples (Mills et al, 2018) the strongest quotes did not seem outlandish, merely highly illustrative examples of viewpoints that others in a cluster expressed less emphatically.

Given the likely presence of some heterogeneity in the clusters the terms 'generally speaking', 'seemingly', 'for the individuals spoken with', and 'for similar people within a culture', should be assumed as a given, and will not be endlessly re-stated in the narrative. Similarly, when the terms 'low PDI/individualistic interviewees' or 'high PDI/collectivist interviewees' are used, it should always be taken to mean 'the interviewees sourced from the low PDI/individualistic or high PDI/collectivist societies as defined by the Hofstede's indices', not that the interviewees themselves, as individuals, are by default, always of a low PDI/individualistic or high PDI/collectivist disposition.

5.2 The mention of 'culture' generally

There were no rejections of the concept of national culture among the interviewees. Moreover, references to national culture were made by the interviewees without prompting by the interviewer, who used only the term 'society' when posing questions.

> The great thing about public transport is that it is a snapshot of London, a slice of society. On the tube today I saw barristers, tourists and celebrities…sensible people walk. But who knows that you are walking? It's a good way of disguising your wealth. It's about culture…in my culture it was drilled into me that you didn't show off (Anglo 1, London, F, 32).

> I don't think about these sorts of things. I don't think people in my culture do either. It's not like I'm an exception. It's not like there are stupid rules on showing who you are with transport (Nordic 6, Amsterdam, M, 41).

> For rich people they have to spend to demonstrate that they are rich. So, my rich friend he always wants to have a good car to make him think that he has had a successful life. Yes he would have discussed it with all of us…his friends, his family…At first his wife she wanted to keep the money for the children and some of us said he should take his family abroad as that also brings respect in our culture, but he still insisted on having that car (Confucian 3, Guangzhou, F, 27).

> One upmanship is hugely important in the Indian culture. And if you are below you can be treated very badly. Abused. It's our legacy of the caste system…reverential above… abusive below. On the road it is important to show who you are with your vehicle…a bigger car driver can abuse a smaller car driver. Although the brand will be weighed by both parties. A Tata sedan versus a small BMW - that could unsettle them, but I think the brand would count more. It's about price (South Asian 9, Delhi, M, 48).

It was stressed by interviewees, however, that *within* a national culture, several subcultures operated. The interviewees described different sociodemographic groups having varying symbolic imperatives. This reemphasises the importance of horizontal sampling and offers considerable scope for further work examining the verticality of transport symbolism within a nation, either using the current dataset, or sourcing new interviewees from different sociodemographic groups. There is also the possibility of using the dataset to examine other horizontal differentiators of behaviour such as location, e.g. urban versus suburban transport symbolic variation. These issues are further discussed in Chapter 7.

> Some people come from the culture of mend and make do (Anglo 7, London M, 44).

> In the hipster culture you could be seen as more desirable for having a really cool cycle, like a really old, retro one (Nordic 12, Amsterdam, F, 27).

> In London's culture the symbolic stuff is largely irrelevant because the practicality takes over (Anglo 3, M, London, 38)[21].

Frequently, within a nation, different cities were flagged as having their own unique culture. In India the culture of Delhi (Punjabi) was frequently described as 'showy':

> Delhi derives its culture mainly from the Punjabis and the Sindhis who settled …after the 1947 partition. They had to build themselves up from scratch and now they have a lot of wealth and they do not shy away from showing it off…There's a movie called 'Do Doohi Chah'…and that movie is about

[21] See Chapter 7 – further research - for a discussion on the interface between the symbolic and the practical.

> social pressure to buy a car in Delhi. So, it shows the avenue of enquiry is something that is happening in the culture (South Asian 7, Delhi, F, 31).

National culture was confirmed by some interviewees as evolving, dynamic, and responsive:

> I think Chinese culture is also quite practical, flexible, and I think it's because money really matters…everything is negotiable if it impacts the ability to make money (Confucian 4, Taipei, M, 26).

5.3 The modal connotation themes

This chapter offers coding densities and supporting quotes for each of the sustainable transport modes, for both the meta and sub cultural clusters. For each mode a small amount of contextualising text is first offered[22]. Eco-cars are first discussed, followed by public transport, non-motorised modes, and finally car sharing/shared mobility.

5.3.1 'Eco-cars'

This was discussed in Ashmore et al (2018a)[23].

Both hybrid and electric vehicles are designed to reduce vehicle emissions at point of usage. Generally speaking, hybrid vehicles are partly powered through regenerative braking energy being captured in a battery. When battery levels are insufficient, reversion is possible to regular gasoline-based propulsion. Electric or 'plug-in' vehicles operate purely on electricity stored in batteries which are recharged overnight or at charging stations during the day.

For the purchaser, both technologies bring a degree of uncertainty relative to their petrol-only counterparts. It is as yet unclear as to whether or not hybrid vehicles yield a payback over conventional petrol vehicles over a set time period. The calculation depends not only on the purchase price of the cars, but also the cost and timing of battery replacement, local fuel price, and the frequency of regenerative braking (Choi and Oh, 2010; Chua et al, 2010; Heffner et al, 2007; Lave and Maclean, 2001). Furthermore, at present, electric vehicles also have significant limitations compared to conventional vehicles, including

[22] Some of this is also referenced in subchapter 2.3.2, but it was felt a significantly abridged reiteration of the key points would be useful as context.
[23] See Appendix D.

lower kilometre range, longer refuelling times, and less publicly accessible refuelling opportunities (Mersky et al, 2016).

To encourage people to migrate to these newer technologies, governments across the world have put in place purchasing and usage incentives. These include capital grants, tax breaks, and user charge exemptions (Diamond, 2009; Yabe et al, 2012; Helveston et al, 2015; Sierzchula et al, 2014; Langbroek et al, 2016; Silvia and Krause, 2016; Ajanovic and Haas, 2016; Lévay et al, 2017). In their drive to tackle air pollution, both the Chinese and Indian governments are encouraging people to purchase eco vehicles, and have supported the upscaling of local manufacturing capabilities and offered subsidies to manufacturers, although in China the recent removal of these subsidies has led to a decline in sales (Hao et al, 2014; The New York Times, 2017; PTI, 2017; Clifford, 2016; Indian Express, 2014; Wong, 2019).

Yet, an individual's decision to procure hybrid and electric cars, on the surface, still seems 'fiscally irrational' (Turrentine and Kurani, 2007). Whilst practically the decision may appear illogical, however, emotionally it may not, and latent drivers of behaviour appear to be playing a key role. For example, Langbroek et al, (2016) describe how in Stockholm, people who believe they can affect changes in environmental outcomes through their own actions, are more inclined to purchase electric vehicles. It was noted earlier in 2.3.2 that Heffner et al (2007) argue that being 'seen to be green' (Berth, 2011) is what truly motivates a decision to purchase a hybrid car. Little research has been done on the symbolism of eco-cars in the urban areas of the Confucian and South Asian cultures. Helveston et al, (2015) contrasted the motivation for purchasing electric vehicles in China and the USA. The results of their analysis suggested that whilst in the USA ownership of an eco-car may confer social status, this was yet to be the case in China. Qian and Yin (2017) discuss face consciousness when examining Chinese consumers' attitudes towards battery and plug-in hybrid electric vehicles. Noting the slow adoption of the technology they conclude that within Chinese culture the outward presentation of face was potentially more important than fiscal incentives when adopting new products. Wang et al (2018) alluded to the symbolic value of electric cars in China, but did not draw definitive conclusions as to how it was affecting their current low level of uptake.

Before offering the results of the symbolism of eco-cars across each cluster, it is first necessary to present the scores for the symbolism of cars *generally* for each group, so as

to allow the eco-car findings to be contextualised. The dataset generated for this study contains a great deal of rich material testifying to the symbolism of cars generally, as well as models, brands, and sizes. In offering quotes for the sustainable modes and the Hofstede indice themes, numerous references will be made to cars and types of cars. This is unavoidable as the discussion of modes takes place within the context of transport choice as a whole, and cars are highly relevant as a contrast when discussing the status positioning of the sustainable modes. Despite this, cars are not the primary focus of this thesis, although subchapter 5.3.1 discusses 'eco-cars' and 5.3.4 explicitly deals with car sharing. In addition, the notion of someone being 'car free', whilst not a sustainable transport category in its own right, is of great interest, and quotes pertaining to it are offered in the car sharing subchapter. The symbolism of cars and car types, across the clusters, remains a significant potential study in its own right; this is noted in subchapter 7.3. Table 6 shows the thematic coding densities between the groups for the symbolism of cars at a generic level, i.e. it only relates to comments about cars *generally*, not specific subtypes of cars such as sports utility vehicles.

Theme label	**Frequency counts per code (per 100,000 words)**			
	Low PDI/ Individualistic		High PDI/ Collectivist	
	Anglo	Nordic	Confucian	South Asian
A. Cars (generic) - positive symbolism	6	16	190	216
B. Cars (generic) - neutral symbolism	45	112	3	0
C. Cars (generic) - negative symbolism	20	64	20	2

Table 6: Coding densities for cars generically.

It may be seen, overall, that the interviewees from the high PDI/collectivist cultures saw cars as possessing extremely strong positive symbolism within their cultures[24]. This was not the case for the interviewees from the low PDI nations who largely saw cars as being symbolically irrelevant or negative. The Nordic interviewees seemed especially unimpressed with the symbolic value of cars. Conversely, for cars generally, the South

[24] See subchapters 2.2.2 and 2.5.1 for a discussion of the 'automobility' cycle; this is also mentioned in subchapter 6.4 when discussing study limitations.

Asian interviewees barely expressed any incidences of negative symbolism and none of neutral symbolism:

> We're at the stage here where the car isn't the real indicator…probably a really expensive cycle, show who is really in the middle classes. But not cars. Not fancy cars (Nordic 11, Amsterdam, F, 28).

> One car? No in that case I think that they would choose the bigger one. Mostly for a symbol. Because in our culture the car isn't only for travelling. You can make a lot of friends if you can drive a good car, and it also helps you with your business (Confucian 12, Beijing, M,25).

Table 7 shows that the same feelings are not represented in the scores and quotes for the eco-cars. This is discussed in the following subchapters.

Theme no.	Theme label	**Frequency counts per code (per 100,000 words)**			
		Low PDI/ Individualistic		High PDI/ Collectivist	
		Anglo	Nordic	Confucian	South Asian
1	Eco-cars, positive symbolism	47	84	5	2
2	Eco-cars, neutral or no symbolism	2	4	13	22
3	Eco-cars, negative symbolism	12	12	23	22

Table 7: Coding densities for eco-cars.

5.3.1.1 Interviewees from the low PDI/individualistic cultural cluster

In keeping with the findings of Heffner et al (2007) and Chua et al (2010), the interviewees from low PDI/individualistic cultures largely attached positive symbolism to ownership of eco-cars. In contrast with their *general* views on cars in urban areas, the eco-car offered a visible marker for associated positive connotations including affluence and healthy living.

> If a family is driving around in a battery powered car then they'd be environmentally focussed, middle class, gentrified, living in a nice leafy suburb, eating wholefoods (Anglo 1, London, F, 32).

The interviewees from this group indicated that a modal shift from a regular petrol car - 'prestige' branded or otherwise - to an eco-car, would be viewed favorably within their cohort. Nobody interviewed from the low PDI/individualistic cultural cluster said that their friends or family would frown upon, or deride, their decision to buy an eco-car:

> I think if you sold a BMW or an SUV and went to an eco-car then that would generally be well regarded (Nordic 5, Oslo, M, 41).

> Yeah..it's good…they'd (family and peers) like the fact I was showing to people that I had a social conscience. There's nothing at all wrong with doing something good for the environment whilst satisfying a transport need (Anglo 4, F, Sydney, 32).

> My mum wouldn't care if I travelled by bus (laughs)…no...no…they wouldn't care. My parents are the left leaning liberal types, so they would be really proud of us if we used public transport and bought a Prius. They'd be so happy. They'd really appreciate it (Nordic 10, Rotterdam, F, 33).

In the case of a very expensive eco-car such as Tesla, the low PDI/individualist group seemed to feel owning one did not constitute bad taste by overtly flaunting economic capacity (see subchapter 5.4) due to the car's environmental credentials:

> The Tesla thing is interesting. That thing has got to be $100,000 dollars but it is electric so has a great environmental profile so you're spending a load of money, but you think 'good for you'. My peer group would see this as a good decision and I'm under no illusions about that, and if there is a symbolism around the enviro cars, then that's good (Anglo 11, New York, M, 45).

It was noted that some social groups, defined by an extremely positive attitude to cars, might loathe eco-cars for their overt environmental statement:

> People who like cars and driving, they would see the Prius as the Devil's vehicle. No self-respecting petrol head would touch a Prius (Anglo 12, London, M, 49).

Given the significantly positive symbolic connotations of eco-cars among the interviewees from the low PDI/individualistic cluster, the magnitude of the coding densities for negative connotations might seem surprising. These instances of coding occurred when the purchaser of an eco-car was seen to be behaving in a stereotyped manner, flaunting their social class, outwardly preaching to others, or being self-righteous, hypocritical, and insincere. Negative jibes ranged from playful generalisations to outright indignation and hostility:

> Prius (laughs)…granola eaters who come from a well off background. They've been to a really liberal school like Brown or UT in Austin. Flowy hair…liberal, vegetarian, a package… does yoga (Anglo 2, F, New York City, 28).

> And some comedians hit hard on people who drive the Prius. Mock them. But I don't think there's a specific type of people…it's not just beardies and yoga people (Nordic 1, Rotterdam, M, 48).

> Prius drivers! Pretentious…and the new electric BMWs are very flashy…I'd look down on any person who drove a BMW (Anglo 7, London M, 44).

> (Company X) has a pool of these electric vehicles and we can use them for work, for getting around if they are needed. Not for personal use though. They got the cars to build a good image, being environmentally friendly is seen as a good thing here. It makes a positive image for the firm. Although it's a bit of a fake thing everyone knows they aren't that good for the environment. But they say something more about the person I think, that they want to be seen by others to care (Nordic 4, Oslo, F, 28).

5.3.1.2 Interviewees from the high PDI/collectivist cultural cluster

As may have been expected given Helveston et al's (2015) work contrasting the motivation for purchasing electric vehicles in China and the USA, the interviewees from the high PDI/collectivist cluster saw little positive symbolism in owning, or using, an eco-car. Interviewees felt that eco-cars lacked symbolic value and had not been socially normalised[25]. If someone suggested that their family procure an eco-car, it was thought unlikely that this would be accepted by the collective, and symbolism was stated to be a

[25] The role of normative influences will be offered in subchapter 5.5.1.

major factor in this decision. The only group who might constitute a possible exception was stated to be young people schooled in subjects such as environmental science. On a positive note, some interviewees from the high PDI/collectivist cluster stressed that a clean symbolic 'slate' offered an opportunity to market eco-cars to young 'social trend setters', living away from the interference and constraints of the collective family[26]:

> We don't even know the name of the electric vehicle brands. But once they are properly marketed there will be an opportunity. As of now the market is clean for electric vehicles as people have no perceptions…only if I am living alone in Bangalore or some IT hub away from the family then I can buy the vehicle (hybrid car) then tell my father (South Asian 1, Delhi, M, 29).
>
> The environmental aspect of the hybrid car is not too important to me. In China many people are concerned about the air pollution but this does not affect their decisions when it comes to buying something (Confucian 2, Taipei, M, 44).
>
> The hybrid car means nothing in our culture. It's just a car. Nobody would buy it to show that they were environmentally concerned (Confucian 6, Beijing, F, 31).
>
> If the rich people who set the standards choose these cars then people would go for them. At the moment there is no benchmark so it is not seen as the car to be used. Nobody cares (South Asian 2, Chennai, M, 31).
>
> It's only people who work in something like urban planning…or creative people that would understand these cars and think that they said something to those around them, something about their education level. It's not a typical type of car choice (South Asian 7, Delhi, F, 31).
>
> In the first tier cities I do not think it will be huge issue for a young couple to choose a hybrid, as many young families are not living with their parents in cities like Shanghai. They move there for work and because their parents are far away. As long as the couple are financially independent then the parents

[26] Proximity to family will be discussed in Chapter 7 (further research).

> could not be involved too much in the decision[27] (Confucian 8, Shanghai, F 30).

Interviewees from high PDI/collectivist cultures described how people purchasing cars had no incentive to spend extra money to 'be seen to be green'. Eco-cars were seen as connoting nothing, only conferring symbolic value if the brand was 'not local':

> I wouldn't think they were green, trying to do good for the world. I'd think that they were copying people in the West. As long as it is a brand coming from a foreign country then it will be seen as good. But if Tata produce a cheap electric car then the price and the fact that it is local will give the impression that you have downgraded to rubbish (South Asian 2, Chennai, M, 31).

The interviewees from high PDI/collectivist cultures described how eco-cars would only be ranked relative to others based on price:

> The problem with eco-cars is that people only judge you in India on the price you pay for the car and the model…If your role demands a Mercedes and you show up in a Toyota, people will not think 'hey it's a hybrid!' They won't care. These things are not being played up as important in the adverts (South Asian 9, Delhi, M, 48).

> I worked in the government. To show they cared about the environment they bought the directors Prius cars. Some of my friends think this is silly because it does not clearly show the status of the director. They could have bought them bigger cars for the same money to show the status. Environmental cars don't have status (Confucian 2, Taipei, M, 44).

It was stated that there was a significant risk that eco-cars could symbolise constrained income or misrepresent the collective's true economic capacity relative to others. Some noted that within their culture this could connote frugality or perhaps greed.

> The Prius is kind of low status because it's cheap. People only judge (based) on the price in China. They don't place a focus on the environmental aspect yet (Confucian 12, Beijing, M, 25).

[27] Collective decision-making will be discussed in 5.5.1.

> People who do not spend all their disposable income when buying a car in India will be seen as greedy or less talented…My relatives boast about the type of fuel they can afford to buy for their cars. It is related to their social status. If I buy an electric vehicle the people will think I am the worst person, a good for nothing, who is seeking help from others. They will think I bought it to charge it at the office…and show me disrespect for being greedy (South Asian 1, Delhi, M, 29).

One interviewee from India suggested that public subsidies offered to encourage the uptake of eco-cars, would contribute further to their negative symbolism:

> I know the government will give incentives, but these send a message to others that you are getting some discount, you have less disposable income, less social status, that you are inferior to the other person (South Asian 1, Delhi, M, 29).

Other interviewees felt that purchasing an eco-car could affect one's business prospects or marriageability:

> Indians don't like unconventionality. An environmentally friendly choice like a car share or an eco-car could hurt your business (South Asian 6, Mumbai, M, 32).

> If I was a bystander watching a family who owned a BMW meet another family who drove a Toyota Prius, to discuss the marriage of their kids, I would think 'Okay this is a BMW family meeting a Toyota family. It looks like the BMW family is better off financially'. These things can affect the marriage negotiations (South Asian 10, Mumbai, M, 45).

Interviewees from the high PDI/collectivist culture noted that switching from a 'high-status' branded car to an eco-car would be frowned upon and may provoke questions from others in society. Trading in a luxury sedan for an eco-car was therefore seen as extremely unlikely, unless the original car was retained to clearly showcase the collective's purchasing power:

> If [you] were to change a flashy Audi to a battery car people would think something is wrong, that your salary had dropped (Confucian 12, Beijing, M, 25).

> A rich family owning a BMW would not sell their car to buy a Prius as their only car. They would keep the BMW. The Prius might downgrade the family standard. BMW people are treated differently. If you move to a Prius you go down. People would ask 'why have you done this?' (South Asian 4, Chennai, M, 35).

In an environment of collective decision-making (see subchapter 2.5.5) and heavy parental involvement in adult children's lives, if offspring lived close to the family group, some interviewees suggested that prominent family members would stop others within the family from buying an eco-car, through emotional blackmail such as feigning illness or by endless pestering:

> If you traded off your BMW for a hybrid car, which normally costs less, your family might think you need some money as it could signal a financial problem. Aunts might gossip, not because it is a hybrid car but because it is a cheaper car with lower cost. They might think you lost money in the stock market or gambled it away…if a couple told their parents they sold their BMW to get a hybrid to protect the environment the parents would think the reason is fake and you are definitely facing some problems and are too ashamed to tell. Some might try to block your decision…some might get really grumpy about the hybrid car until you give in and accept their 'suggestion'. They'll keep pestering you; sometimes they would pretend they have a headache or stomach ache (Confucian 8, Shanghai, F 30).

> My parents will think that I have borrowed money and am in financial trouble if I try and buy an electric vehicle. It will very hard to convince them - they will worry people will talk and think their son is an idiot or having problems. They will pressure me not to buy it and if you are living in the home or close to the family, the father has supremacy. If the family and son have an argument over choosing such a vehicle, the father will go to work and call your mother, and your mother will call you, and you won't be able to focus. Your mother will try to talk to your friends, say you are stubborn trying to buy an electric vehicle. They will create an environment where everyone around you is stopping you from going against your father. To get peace of mind you will concede to get rid of the stress (South Asian 1, Delhi, M, 29).

5.3.2 Public transport

This topic was discussed within Ashmore et al (2019)[28].

If nations are seeking to foster a movement away from car usage, mass transit must arguably play a key role because of its carrying capacity. In subchapter 2.3.2 it was noted that urban public transport's symbolic connotations seemed varied. Generically, as 'public transport' it may show social inferiority due to its communal nature (Iacobucci, 2016; ITDP, 2007). Yet, the connotations of rail and bus-based systems seem different, with rail-based urban transport appearing to have a higher symbolic value than bus-based (Wu and Pojani, 2016; Scherer and Dziekan, 2012; Mallqui and Pojani, 2017). In terms of civic symbolic capital - city pride - metro systems appear to bring prestige to a city, making them highly politically desirable (Dalvi, 1986; Zhou, 2017; Williams, 2008; Rediff, 2006). Bus-based systems, however, often possess negative symbolic value - the 'loser cruiser' - even if operated along a BRT corridor (Guiver, 2007; Moore, 2010; Fitt, 2015; Friedersdorf, 2010; Pojani and Stead, 2015; Li et al, 2006; Banerjee et al, 2010; Hensher and Mulley, 2015; Wu and Pojani, 2016; Hidalgo and Gutiérrez, 2013; Joshi, 2012). Table 8 shows the coding densities for public transport, broken down into generic public transport, rail-based and bus-based modes.

5.3.2.1 Interviewees from the low PDI/individualistic cultural cluster

Overall, the interviewees from the low PDI/individualistic cluster saw public transport as being something 'everybody uses' and not at all embarrassing. This is reflected in the high coding incidence for public transport possessing positive or neutral symbolism:

> The public transport is used by everyone…the middle classes have always used the tube, along with everyone else (Anglo 9, London, F, 48).
>
> There's no link between status or occupation and how you travel…no there are no strict rules. Anyone uses the bus or the tram (Nordic 4, Oslo, F, 28).
>
> I think it would be embarrassing for people who thought that people shouldn't use public transport for status reasons. I mean is that why people drive? I'd turn it upside down and say people driving half a kilometre in a car is embarrassing (Nordic 2, Oslo, F, 37).

[28] See Appendix D.

Theme no.	Theme label		Frequency counts per code per 100,000 words			
			Low PDI/ individualistic		High PDI/ collectivist	
			Anglo	Nordic	Confucian	South Asian
4	Public transport (generic)	Public transport (generic) possessing positive symbolism.	17.7	15.8	5.0	2.0
5		Public transport (generic) possessing neutral symbolism.	68.7	82.9	17.5	12.0
6		Public transport (generic) possessing negative symbolism.	9.8	3.9	70.0	62.0
7	Rail-based public transport	Metros/trams possessing positive symbolism.	13.7	19.7	7.5	10.0
8		Metros/trams possessing neutral symbolism.	39.2	39.5	15.0	12.0
9		Metros/trams possessing negative symbolism.	2.0	0.0	15.0	28.0
10	Bus-based public transport	Bus-based modes (including BRT) possessing positive symbolism.	15.7	15.8	2.5	2.0
11		Bus-based modes (including BRT) possessing neutral symbolism.	64.8	98.7	2.5	6.0
12		Bus-based modes (including BRT) possessing negative symbolism.	23.5	27.6	55.0	96.1

Table 8: Public transport coding densities - generic and sub modal

In addition, within their cities, if people were seen to eschew public transport to drive an expensive vehicle, the interviewees from the low PDI/individualistic cluster felt it displayed a tendency towards standing out by demonstrating purchasing capacity. Doing such a thing was often seen as a sign of personal insecurity:

> If someone had money and they began doing more ostentatious things like stopping using the street car and driving a BMW to work then, yeah, people would say… 'well, yeah, we know you've got money but there's no need to

> show it off or that sort of thing.' There's no benefit to the person to show it off. In fact, it's the opposite. We'd think the guy was insecure. It's like having to make up for something if you know what I'm saying (Nordic 7, Amsterdam, M, 35).

For some interviewees from the low PDI/individualistic cluster, using public transport connoted being able to afford inner city real estate, i.e. it was a proxy sign for wealth and having had a high level of education. Conversely, those of lower income on the urban periphery where land values were cheaper, were often seen as being car captive, having little choice:

> But certainly, the richer places in Sydney tend to have the better transport links. If I can catch public transport it means I live in a better suburb so…I'm more likely to be wealthier…If I saw someone on a bus, I wouldn't associate their social status with their mode of transport…There's plenty of people on the buses in Sydney who can afford or have a nice car, and there's plenty of people who live in wealthy areas in Sydney who don't even own a car or have an old car. I wouldn't want to generalise. You can't (Anglo 4, F, Sydney, 32).

> The less well-off people tend to only be able to afford property that is a long way from the city centre where the public transport is poor and so they're stuck with having to have a car, with driving long distances every day in heavy traffic, because that's the sort of circumstances they have to suffer…they can only afford a house miles away (Anglo 6, Melbourne, F, 49).

> There's no real stereotype for people who use public transport other than the fact that they live in the inner cities. So, they are the higher educated and better off middle class (Nordic 9, Amsterdam, M, 42).

Breaking down the symbolism by mode, the interviewees from the low PDI/individualistic cluster often saw using urban rail systems as showing someone was 'fitting in' with what was expected within their cities:

> In London people who travel by public transport are pretty much everybody. It's overwhelmingly the main way how Londoners get around. Day and night. Well, until the tubes stop. Coming to London and using the tube is like a rite of passage. It's exciting. In London most people travel by tube, status doesn't come into it (Anglo 9, London, F, 48).

> And you've seen the picture of the king of Norway on the tram in the 1980s? He was going up there to ski, mixing in with everyone else, and nobody even noticed. That's great picture if you can find it. I think the people knew he was there, but you're not supposed to show off that you're different to others. People thought it was great…If you were going to a dinner party it would be easier to take a bus if you were drinking. People wouldn't be embarrassed. Not travelling because the mode says the wrong thing about you. That's ridiculous (Nordic 4, Oslo, F, 28).

> People who use public transport: in a city? They're just going about their business. I wouldn't make any assumptions. Their clothing would tell me more about their social status…No, I'd say the PT system in New York is an equaliser. The standard subway…everybody uses it. If it was during the day most people, even the investment bankers, they would use the subway…I mean nobody who was a merchant banker would feel any shame at using the subway, no, not at all…in New York or Washington DC the subway is a leveller (Anglo 2, F, New York City, 28).

As for buses, some interviewees from the low PDI/individualistic cultures saw positive symbolism in using the bus, from the perspective of being self-sufficient or blending-in with people from all social backgrounds:

> If a new girlfriend came to my parents' house for the first time and got off a bus, then they'd appreciate she had come independently. That would be expected and appreciated. They wouldn't think 'good grief, it's a poor person getting off a bus!' No, it's not that. There are social symbols to identify people but how you arrive generally isn't one of them (Anglo 7, London M, 44).

> If I was hiring a lawyer and he arrived on a bus I would be delighted. I would not judge his professional ability (Nordic 1, Rotterdam, M, 48).

Typically, a choice to take a bus was seen as merely a function of which public transport mode served a particular location. There was not generally a stereotype of a bus user as all social classes mixed on the mode.

> No, of course my family wouldn't be ashamed of me using the bus. There's nothing wrong with the bus. You just use it if you aren't served by a train line. No there's no status thing with public transport in inner city Sydney;

> practically everyone travels in by bus…using public transport instead of the car doesn't disgrace you socially at all…it's not like you can't be socially disgraced as a person but the car or the transport mode has nothing to do with it (Anglo 4, F, Sydney, 32).
>
> …in Holland…we're practical. If the car is a waste of money we get rid of it. It would be bizarre to waste your money to appear to be getting around in a car or avoiding public transport. These are just not considerations in my culture. Very much not. It's such a wide class of people who use public transport. Anyone without a car, and that's a huge class of people in Amsterdam. Between the types of public transport there's a mix…anyone can use public transport….if I saw a man in a suit on a bus, then I wouldn't look twice (Nordic 6, Amsterdam, M, 41).
>
> There isn't much of a distinction between people who use trams or buses. Some people would take a combination of the two (Nordic 9, Amsterdam, M, 42).

The bus, however, was the only mode where the interviewees from the low PDI/individualistic cluster seemed to begrudgingly admit the presence of negative transport symbolism. In fact, for both the Anglo and Nordic groups, there was around twice as high a level of coding density for bus negative symbolism than bus positive symbolism, although neither of these densities was anywhere nearly as high as bus neutral symbolism, showing indifference was the prominent emotion. The negative connotation was due to a perception that some people may be captive to the mode for reasons of price as they lived in areas containing cheaper housing. But it was stressed that this would not stop someone from an interviewee's peer group from using a bus if it was the most sensible travel option:

> I think the only thing some people think is slightly lower is the bus. Buses generally are for the … areas that weren't supplied by the tube. They used to be poorer areas before they gentrified so you might see more ethnic minorities on a bus, but it would still be a mix. Nobody would not use the bus if it was the best way to get to work (Anglo 9, London, F, 48).

> The buses serve the areas of the cheaper housing, and they seem to show that you don't have *complete choice*, that you have to use the bus (Nordic 10, Rotterdam, F, 33).

One interviewee from the low PDI/individualistic cluster felt that upgrading a bus route to a bus rapid transit (BRT) corridor, would symbolically upgrade the image of the bus:

> I think a true dedicated BRT would be seen symbolically higher than normal bus travel (Anglo 8, London, F, 32).

5.3.2.2 Interviewees from the high PDI/collectivist cultural cluster

In contrast, the interviewees from the high PDI/collectivist cluster largely described public transport in a negative light, a mode for the lower social classes. They stated that many car-owning families would avoid public transport not only for practical reasons, but also to negate the risk of them being socially misclassified. The coding densities for negative symbolism for public transport for this group were between ten to fifteen times higher than for the interviewees from the low PDI/individualistic culture, the Nordics' 3.9 count per 100,000 words versus the Confucians' 70.0 being the strongest contrast.

> My mum's partner in business, she would never use public transport. She thinks the car shows off her financial and social status and that public transport is for poor people (Confucian 7, Guangzhou, F 35).

> If people know you have a car and you are on the public transport then sometimes you get embarrassed, especially if you are working for a good company… your employers and colleagues wouldn't be embarrassed, but they'd be judging you (Confucian 12, Beijing, M, 25).

One interviewee from the South Asian cluster noted that in social gatherings the transport modes used to arrive might be a basis by which people automatically sought out their social peers:

> Suppose a friend and I are going to a wedding party. Some friends might come by public transport and other friends might take their private vehicles. It would be the tendency of the people who came on the public transport to stick together all night. Some people will talk to you very politely to try to get a ride home. But mostly they will try to avoid connecting with you (South Asian 1, Delhi, M, 29).

Some interviewees from the high PDI/collectivist cultures felt that symbolically it would be 'okay' for wealthier groups to use the metro on *certain* occasions such as the weekday commute:

> At least take a metro or taxi, or take a company car (Confucian 1, Shanghai, M, 36).

> The metro has broken down the status barriers. It's the one mode of public transport that even the high status people don't mind using. The convenience supresses the snobbery (South Asian 8, Delhi, F, 48).

> If I was to get on the metro during the weekend? It might be tricky. You are expected to use your car if you have a car…perhaps if their family or friends aren't involved then they might get away with it. But it would be very rare (South Asian 2, Chennai, M, 31).

But despite any positive connotations of metro systems, frequently, the interviewees from the high PDI/collectivist cluster described rail-based public transport as having negative symbolic connotations within their culture. Metros and trams were often stated as being for the 'low-grade people', not a group one wished to be seen fraternising with. Personal hygiene issues such as body odour were often mentioned. There also seemed to be a link between the symbolic permissibility of using the metro and the trip purpose - e.g. meeting someone on a first date might be seen as an occasion to display a family's car not travel by metro:

> I know a few people who won't use the metro as they don't want to be seen travelling with the smelly people. It's a bit embarrassing (Confucian 6, Beijing, F, 31).

> Even in my family, I think if it was a first date they would want me to be driven there and even if I said I wanted to take the metro they'd say 'are you sure'? Partly it's because if you have a car and the date isn't going well you can call the chauffer and get out of there. But….definitely in first meetings….good show is important (South Asian 3, Delhi, F, 27).

> To increase my workout, I decided to use the metro instead of my car. And my colleagues they were saying 'why have you started using the metro?' After three weeks I began using the car again and my colleagues were saying, this may sound absurd but, they said 'Oh, you are a big man now, you are

> again bringing the car.' What do I mean by this? I mean if someone is using a car he is superior. If he is using public transport he is inferior. This is the mind-set even in the qualified people. They are feeling shameful that I am coming with the low grade clerks from the office (South Asian 1, Delhi, M, 29).

One of the interviewees from the high PDI/collectivist cluster stated that a friend used metro systems when overseas, in cultures where she saw it as being 'the thing to do' for her social equivalents, but she would refuse to use it in her home city for symbolic reasons. This suggests that people's symbolic judgements are relative or flexible: when in other cultures they seek out normative influences from those they see as their peers.

> My flatmate will use public transport when she visits London. She's wealthy but she wouldn't use it in Beijing. She thinks it is the thing people do in London, that the 'right sort of people' use it (Confucian 6, Beijing, F, 31).

Across the interviewees from the high PDI/collectivist cultures, travelling by bus overwhelmingly connoted negative symbolism - lack of affluence, being a poor migrant, or someone possessing little choice. Many went as far as stating that using a bus in certain social and commercial situations could damage someone's reputation, constitute 'social suicide', and, through detrimental gossip, lower a family's perceived financial status. As noted for metros, this seemed especially the case for certain trip purposes, for example when families came together to discuss marriage union, or when the travel was in a business context and the person using the bus might be seen by a potential business partner. The nature of judgement and sanctions for symbolic contravention will be specifically discussed in subchapter 5.5.2:

> A family who is known to be rich...the whole family on the bus? People would be 'what happened?' It would be shocking for people to see (Confucian 12, Beijing, M, 25).

> If the man got off the bus outside the girlfriend's parent's house, people would say, 'this guy, he's not doing too well'. Maybe her parents would try to find another boyfriend. As long as they know you have money, that's alright. But they would try to persuade you to buy a car as it's not good for you to be seen using the bus everyday…strongly persuade if you are marrying the daughter (Confucian 1, Shanghai, M, 36).

> If I had gone to a meeting of this nature in a suit and arrived by bus, and been seen by the person I was meeting, then he wouldn't say anything, but he would probably think 'What's wrong with this guy? Why has he taken a bus, is this reflective of something more, can I be doing business with him?' He will think that if I am representing a half a billion dollar company and the company cannot provide me with transport that meets the level of status I am supposed to be at, it is a poor reflection of the company I am supposed to be representing and therefore it poses a question in his mind of "is this is a company I would like to do business with?" (South Asian 10, Mumbai, M, 45).
>
> Say for example that two families are meeting for the first time to discuss an arranged marriage. And one of them arrived at the hotel where the meeting was in a Jaguar, and the others arrived by bus, and the Jaguar family saw them. Oh, that situation would play out horribly. No, if this happened by some miracle, the parents in the rich family would be livid. It would be seen as desperately insulting for the rich family (South Asian 9, Delhi, M, 48).

The idea that building a BRT upgraded the symbolism of the bus was not generally accepted by the interviewees from the high PDI/collectivist cluster. BRT was 'still a bus' and of considerably lesser symbolic value than a metro system. Unless travelling by BRT was differentiated clearly through the pricing mechanism - more expensive than a car trip - the interviewees from the high PDI/collectivist cluster felt it would continue to suffer from all the negative connotations of regular bus travel:

> I think that BRT may not be good enough for upper middle class people in Delhi. Metro is definitely considered more 'high status' than BRT (South Asian 5, Delhi, F, 27).
>
> If you are taking a bus, you belong to a lower section of society that cannot afford a car. A BRT would be worse than a metro. Going in a metro has some dignity. But if you are taking a BRT everyone will say you are a greedy person, you want to save your money…BRT gives no extra status. I will think that someone doesn't belong to my class if they are on a BRT. It will be seen as the same as an ordinary bus unless the prices are much higher, comparable to the cost of fuel, using your own vehicle (South Asian 1, Delhi, M, 29).

Finally, the notion of someone selling their car to use public transport was generally seen as risible by the interviewees from the interviewees from the high PDI/collectivist cluster.

> I've never heard of anyone selling a car to use public transport. Acquiring a car is a status symbol. They even joke about Tata releasing a car for people to leave outside their house and not use called 'Tata Seldom' (see Beer and Biryani, 2015). The car might have been a gift or they have bought it just for show (South Asian 3, Delhi, F, 27).

In concluding this subchapter, it was noticeable that the South Asian cluster seemed especially averse to the notion of using buses and metros for symbolic reasons. For both modes their coding density was around twice that of their Confucian counterparts, which itself was far higher than for the interviewees from the low PDI/individualistic cluster.

5.3.3 Non-motorised modes

This was discussed within Ashmore et al (2018b)[29].

As noted in subchapter 2.3.2 there seem to be several positive connotations associated with cycling in Europe and the Anglo nations (Aldred and Jungnickel, 2014; Pelzer, 2010). Until recently, however, governments across China were implementing policies to reduce the presence of bicycles; the mode was seen as an 'emblem of backwardness' (Rhoads, 2012). In the last decade, however, in trying to improve air quality, governments in China have been seeking to promote bicycle rental programmes to encourage people to transfer from private transport to cycling (Jiang and Li, 2010). Van Mead (2017) states the promotion of rental cycles has led to a significant uptake in the use of bicycles in Chinese cities. The Economist (2017) declares 'in China, bicycles are back'. The shared cycles offered by apps such as 'Mobike' or 'Ofo', however, seem not to be specified for the commuter market, only short within-city trips. In addition, it would appear there may be insufficient demand for the dockless cycles and this has led to 'bicycle graveyards' - piles of disused cycles (Haas, 2017).

Within India whilst the national government ostensibly has a positive attitude towards cycling (The Government of India, 2014), it would seem that bicycle hire schemes have had mixed results and face many challenges, one of which according to Xydias (2015) is

[29]See Appendix D.

an image of cycles being a 'poor man's mode' (also see Law and Karnilowicz [2015]). This could explain why The Hindu (2016) states:

> The world is divided into two: cities that have bicycle networks and others who want it. Where does that leave Indian cities? They belong to a third category: directionless…despite a high user base, Indian cities have no plans for cycles.

Table 9 shows coding densities for the non-motorised modes for each meta and subcluster.

Theme no.	**Theme label**	**Frequency counts per code per 100,000 words**			
		Low PDI/ Individualistic		High PDI/ Collectivist	
		Anglo	**Nordic**	**Confucian**	**South Asian**
13	Non-motorised transport - positive symbolism	39.2	96.0	27.5	10.0
14	Non-motorised transport - neutral symbolism	86.3	92.0	7.5	0.0
15	Non-motorised transport - negative symbolism	5.9	12.0	60.0	124.0

Table 9: Non-motorised modes coding densities

5.3.3.1 Interviewees from the low PDI/individualistic cultural cluster

The interviewees from the low PDI/individualist cluster had low, and reasonably similar levels of negative coding densities for theme 15, the negative connotations of non-motorised modes. Whilst the positive coding densities were over twice as high for the interviewees from the Nordic cluster than the Anglos, the neutral symbolism levels were similar, and significant. For the interviewees from the low PDI/individualistic cluster, the coding densities give a feeling of symbolic positivity or indifference towards non-motorised modes, and this is supported in the quotes. Getting around on foot or by cycle was seen as something people just *did,* and was well regarded for symbolising health, being fashionable, and inner city living. In fact, the modes seem so accepted that one person even suggested there was a hierarchy emerging within the cycle riding community:

I don't think we should differentiate ourselves… there is a hierarchy within the bike riding community though. The posher you are, the posher the bike… by posh I mean … retro inspired bike … titanium aluminium with a basket (Anglo 1, London, F, 32).

In Washington you can afford to walk if you live close to the city. It's a symbol they aren't intentionally giving off but it shows wealth (Anglo 2, F, New York City, 28).

If I started walking or cycling then nobody would think twice about it. It's not like it says anything about me. I guess people would like the fact I was trying to be healthier and fitter (Anglo 7, London M, 44).

I don't think anyone would think anyone had gone down in the world if they started cycling. My family would like me walking or cycling as they are cheap and healthy. And most people who can afford to walk in are wealthy as they live near town. My peer group…a lot of people I know cycle in to work, it's fashionable (Anglo 10, London, M, 26).

People see walking or cycling as good. People here like everyone to be equal. I often see politicians walking around the street. It's not good to show yourself as being too high. If a person in a business cycled it would be good… a way of showing they are fit and healthy, signs of status (Nordic 3, Oslo, F, 31).

If I had someone, a professional, visit me, and he was rich or in a suit and came on a cycle…I'd think that he was probably quirky as I wouldn't expect a lawyer to come on a bike…I think I'd be impressed… getting someone different…I think I'd think more of him and be more tempted to hire him. Independent. Not one of those corporation robots. Yes…it would be a good sign (Nordic 6, Amsterdam, M, 41).

Everybody cycles. It's strange if you don't cycle. I guess some people can't or won't but anyone who wouldn't cycle for image would be seen as a fool (Nordic 8, Amsterdam, M, 48).

Erm, social hierarchy exists, but travelling doesn't matter in this way. Everyone uses public transport and bikes a lot. You see Ministers biking and kids biking, so transport wise you can't really tell. It's totally normal for

ministers, professionals, lawyers, bankers, to cycle, in a suit with a briefcase (Nordic 10, Rotterdam, F, 33).

5.3.3.2 Interviewees from the high PDI/collectivist cultural cluster

There were *some* positive connotations mentioned for cycling and walking by the interviewees from the high PDI/collectivist interviewee cluster, with the Confucian cluster positive coding levels being of a similar order of magnitude to the Anglos (although their indifference coding score was over ten times less). But it was stressed that in the high PDI/collectivist cultures cyclists split into two groups - those who exercised, and those who were captive to the mode for cost reasons. Positive connotations only applied to the former, and these would be distinguished by clothing - either business wear or cycling apparel - and the time of the day that they were cycling:

> The type of people who use the bicycle splits into two. Poor people… that's most people who use the bicycle because they live far away but have no choice about how to get to work. But there are also office workers who want to get some exercise (Confucian 11, Shanghai, F,28).

> Cycling…in the early mornings and evenings with the right type of cycle is okay… you need to buy all the clothing to be cool. But if you travel by normal cycle regularly people will think there is a problem. (South Asian 4, Chennai, M, 35).

One thing noticeable about the coding densities for cycling and walking for the interviewees from the high PDI/collectivist culture was a negligible degree of symbolic indifference. Cycling or walking as the primary transport mode was largely stated to symbolise having little or no modal choice, and, for anyone with financial means it was seen as a potentially socially shaming activity. Non-motorised modes seemed to largely connote poverty, being a migrant from outside the city or someone in a low level occupation:

> If I cycled to work in a suit I wouldn't have been surprised if they asked for my resignation on the spot. How could I command respect from my staff if they arrived by car and I by bicycle? (South Asian 9, Delhi, M, 48).

> Walking is for people with low incomes (Confucian 8, Shanghai, F 30).

> You don't want to show up at your future in-laws on a cycle. It's a very bad idea for face (Confucian 9, Shanghai, F 28).
>
> Sold a BMW and started using a cycle? (laughs). I think the mother in law will want him to keep using the BMW (Confucian 3, Guangzhou, F, 27).
>
> Construction workers, people from the countryside, migrant workers…they often live around the factory so use a bicycle. Not a public bicycle but their own bicycle. Being able to afford their own brings them face (Confucian 5, Taipei, M, 48).
>
> The poor people would only get on the bus if the cycling trip was just too far, if you live a long way out (Confucian 6, Beijing, F, 31).
>
> There's no way a senior official can cycle. People would be shocked. Cycling is for those at a low level. Nobody cares it is healthy (Confucian 12, Beijing, M,25).
>
> If was to ride a bike in my street it would be like I was committing some crime. I take my bike out only when it is dark … I come back before everyone wakes up (South Asian 1, Delhi, M, 29).
>
> You have to show where you are in the levels - it's important in Indian culture. If you have a maid who cycles and you started cycling you would lose respect. Not just in the eyes of your peers but also the maid. She would start seeing you as someone not worthy of respect. You have to judge the power and status; things like this matter (South Asian 4, Chennai, M, 35).

Some South Asian interviewees stressed that sweating or labour intensivity was a sign of having few resources, reinforcing the theme that exercise had to be seen as discretionary. As noted earlier, some leeway may be afforded to people who were clearly cycling for exercise, but the situation would be first clarified. If it was clear that the means was not being used for transportation but recreation, then some positive symbolic capital might accrue.

> …any signs of sweating paint you as lower class. If you have resources, you are supposed to have someone sweating for you in our culture. If you are rich and doing something that is labour intensive you are odd. If you like exercise trek on a mountain…I'm not sure how to put it….they need to show that they

> are mixing with the right class and that the world can see them mingling with the right people…if you start doing things differently to your friends then people may misjudge your friends, I think they are concerned about you, but partly it's because anything that leads to you working hard is a downgrade. Getting better is about avoiding work – motorised commuting, air con in the house, using a lift not walking up a set of stairs. There needs to be a strong reason for not doing that. They believe that they and their friends should move up together and that any downgrade is seen as unacceptable…a good example is when Ikea comes then people will choose the stuff but then someone else will drive to get it, lift from the store, bring it home, and assemble it. People won't want to be seen assembling their own furniture. They'll manage the building of the furniture (South Asian 3, Delhi, F, 27).

> Cycling is confusing. People would clarify it was for exercise and if you said no they would immediately assume that you had gone down in your fortune. If you said you were doing it for exercise then they would see it as little stylistic…Walking and cycling - it's okay for exercise not for transportation. People do walk to work but the work has to be very close…The health impacts of doing something comfortable is the least important. Most families are raised to overcome the sufferings. They don't think that by making the comfortable choices you are causing others to suffer. People think I have to overcome suffering. I have to do better and avoid previous hardships and be comfortable and the rich people define what is comfortable. So, I have to drive a car, use a lift, and be fat (South Asian 4, Chennai, M, 35).

Flagging the link between the instrumental and the symbolic, one interviewee stressed that for short distances, cycling may be less acceptable than walking. Distance thresholds seem relevant when it comes to the symbolic judgement of a mode. This is discussed in Chapter 7 which suggests further research:

> I have a cycle. Trust me my mother gave me massive hassle for buying one. If I used it people would stare at me. Even though the office was one block away. 'You have a car…why are you cycling?' They were gossiping. So in the end I had to give up and walk to the office instead of cycling. It was ridiculous but I couldn't shut my mother up about it. There's less embarrassment to walking if it is a short distance. Cycling says 'the guy is a

> fool!' I was wearing a suit and tie and cycling - that was a bit embarrassing for my family. People like delivery guys cycle or poor people. Not someone who owns a car (South Asian 6, Mumbai, M, 32).
>
> It's the distance that makes you able to tell the difference. If you are close to the office it means you might not be poor. If you cycle a long distance you can't afford the bus (Confucian 2, Taipei, M, 44).

One issue with the non-motorised modes in India may be the service-based nature of the economy where large numbers of low paid security guards are employed to restrict others' access to a facility such as a hotel or office, and use modal signalling as an entrance criterion.

> …you are interacting with social gatekeepers all the time - doormen, men on the gate - they need to know who you are so they can behave in a certain way. My security guy….he salutes me when I am in a car. If I cycled he would definitely not salute me (South Asian 5, Delhi, F, 27).
>
> If someone who was supposed to be a lawyer arrived at a company on a bicycle … he would be treated with distrust. 'Supposed' because the man on the gate might not believe he was a lawyer. If he (the lawyer) had on a suit and was cycling in the heat the poor man (the security guard) would be desperately confused and unhappy. It's his job to screen people - he'd be getting different signals. He'd ask plenty of questions to make sure he didn't get into trouble (South Asian 11, Chennai, F, 32).

For the interviewees from the high PDI/collectivist cluster, shifting from a car to a non-motorised mode for commuting was seen as foolish or strange, and potentially connoting being unable to continue to own a car for financial reasons:

> Everyone goes to work with a driver so if you choose to walk or cycle then all the other top officials would look at you weirdly. Why are you doing this when you have a driver? (Confucian 12, Beijing, M,25).
>
> If you sold your car to cycle it would be seen as much more ridiculous than if you sold your car to use the metro. Selling your car, if it was your only car, would be seen as a bit silly anyway, but selling it for cycling…cycling is seen as the old way of getting around, for poor people for commuting, who can't afford a motorised mode of transport (South Asian 2, Chennai, M, 31).

Lastly, one interesting area for further research is how the non-motorised modes may gain symbolic status through their ancillary relationship with other modes of higher status:

> ….cycle rickshaws are coming back up the social pecking order…they are taking people from the nicer residential areas to the metro (South Asian 3, Delhi, F, 27).

5.3.4 Car sharing (shared mobility)

This was discussed within Ashmore et al (2018b)[30].

The shared economy is 'flourishing' (Wu and Zhi, 2016). The extent to which people, however, are willing to share their personal mobility remains a moot point. The OECD (2016) state that the transition phase from the individual use of cars to shared usage is unclear, and that public policies may be necessary to guide the process of change. Bardhi and Eckhardt (2012) suggest that there is positive social signage in moving from an ownership to an access based model of asset usage. This may, however, not be universal across all cultures. With very recent developments in the supply of urban transport services, the examination of this topic breaks down into two distant modes: car sharing/pooling and what might be termed 'shared mobility'.

Car sharing or pooling within a household or among peers seems a well-established concept and practice in many places. Car sharing in the present mobility paradigm, however, tends to imply a more recent phenomena fostered by mobile communications technology - being able to purchase temporal units of car usage for a shared 'on street' communal vehicle through a smart phone application and user account. Examples of firms offering this service are 'Go Get' in Australia and 'Zipcar' in the United States. In this instance, car sharing mirrors a hire car which can be picked up and returned at different on-street locations for short periods. Another variant on this theme is people renting out their own vehicles for the periods of the day that they are lying idle.

Shared mobility, however, differs in that it offers a shared variant to the concept of ride-hailing, as offered by firms such as Didi, Ola and Uber. The app in question is able to match people travelling in similar directions, collate their journeys into a bundle, and bring down the overall cost of travel per individual.

[30]See Appendix D.

The vast majority of the data obtained for this thesis relates to car sharing not shared mobility as when the topic guide was developed and piloted, and interviews were undertaken - between 2014 and 2016 - the concept of shared ride-hailing was relatively new. Firms such as Ola, Uber and Didi were still largely single ride-hailing platforms competing with regular taxis, and the symbolism of taxis was not specifically examined in this study. Would the interviews be undertaken now the concept of shared mobility would be greatly expanded to cover shared ride-hailing modes. There are, within this chapter, however, a small number of quotations spontaneously provided by interviewees that allude to the symbolism of ride-hailing apps and sharing. These will be mentioned at the end of this subchapter.

Table 10 offers the car sharing coding densities:

Theme no.	**Theme label**	**Frequency counts per code per 100,000 words**			
		Low PDI/ Individualistic		High PDI/ Collectivist	
		Anglo	**Nordic**	**Confucian**	**South Asian**
16	Car sharing - positive symbolism	15.7	40.0	5.0	10.0
17	Car sharing - neutral symbolism	19.6	44.0	5.0	2.0
18	Car sharing - negative symbolism	2.0	4.0	25.0	32.0

Table 10: Car sharing coding densities

5.3.4.1 Interviewees from the low PDI/individualistic cultural cluster

Car sharing was viewed positively or neutrally by the interviewees from the low PDI/individualist cluster. Sharing was expressed as symbolising being shrewd for being able to manage money, and sensible for not owning a car which was barely used. It sometimes connoted environmental awareness which, as discussed elsewhere, can often be a proxy for presenting oneself as educated and urbane. In addition, with road congestion being prevalent in all of the cities from which the interviewees from the low PDI/individualistic cluster were sourced, sharing a car was seen as appropriate from a civic duty perspective. The high degree of symbolic neutrality around car sharing meant that there were seemingly no image barriers in place to using shared cars.

> I'm just about to sign up to a Zipcar. People would think you were shrewd…saving money and hassle. If you're just using a car occasionally, if you mainly use public transport, they'd think it was sensible… people respect things like that (Anglo 10, London, M, 26).

> In the inner part of Melbourne, the answer has to be no (stigma). With population densities high and increasing and road traffic becoming more difficult and time consuming to negotiate, sharing modes of transport is seen as appropriate and very acceptable (Anglo 6, Melbourne, F, 49).

> Zip cars would be used by people who are environmentally friendly. You'd live in central London, so you'd sort of not be poor would you? (Anglo 12, London, M, 49).

> I think car sharing schemes are viewed positively. It's practical…you can have a car when you need…it's economically smart. And you're sharing which is great. It's not like you drop in peoples' eyes in the society if you don't own your own car (Nordic 3, Oslo, F, 31).

The interviewees from the low PDI/individualistic cluster frequently linked the benefits of being able to access a car sharing scheme or hire a car on occasion, as allowing them to be 'car free'. This was not seen as a negative but a removal from the burden of car ownership, which they felt had ceased to be a social or practical imperative, at least in cities. Interviewees stated that if they chose car free lifestyles, this choice would be well viewed by their family and peers, and nobody would question their decision. Being car free seemed almost a status symbol in that it showed a removal from the need to own a car, which (as per walking and cycling for this cluster) was seen as a proxy for being able to afford to live in the inner city where public transport was of a high quality.

> Selling the car wouldn't be humiliating at all. If I went car free I'd use a Zipcar. But it wouldn't be embarrassing. No. It's almost the other way. It's irrational to own a car in central London…it's a …waste of money. I think more people laugh at me (for owning a car) than they would if I sold it (Anglo 3, M, London, 38).

> Then again not having a car is a status symbol for some people in Sydney (Anglo 4, F, Sydney, 32).

> I also do the car sharing thing, where you can get a car for a couple of hours if you need it. It doesn't make sense for me to own a car. My parents thought it was a great idea - me selling my car and using the car sharing scheme (Nordic 3, Oslo, F, 31).
>
> If I stopped using my car and started using public transport my family would, in no way, have a problem with it. Not at all. No no no. Not at all. And if I went and sold the car I think my family and friends would applaud it (Nordic 5, Oslo, M, 41).

5.3.4.1 Interviewees from the high PDI/collectivist cultural cluster

The coding densities in Table 10 show largely negative symbolism for car sharing across the interviewees from the high PDI/collectivist cluster, as opposed to their low PDI/individualist cluster counterparts. Furthermore, any positive or neutral connotations are of a much lower level. The comments from the low PDI/individualist interviewees about sharing connoting being shrewd with money or clever, contrasts strongly with those of the high PDI/collectivist interviewees, who stressed how in their culture not spending to the full extent of one's means indicated 'stinginess' or greed, and that sharing would be seen as a sign of not being able to afford one's own vehicle. Sharing would seemingly embarrass one's family and provoke negative judgement. Even owning a bicycle over using a shared one was stated to be a face issue. The prospect of selling one's own vehicle to utilise a shared one seemed to be a taboo at present. Once again, young people living away from the family, however, seemed to have more freedom in their choices:

> … it's a cultural difference. Sharing a public car would not be good for your family's face…you might be regard as if you cannot afford a car. Your parents would talk to you….the government are trying to introduce something like the shared car. But you couldn't sell your own car. There would be a face problem. To do that there would have to be a family discussion (Confucian 1, Shanghai, M, 36).
>
> Construction workers, people from the countryside, migrant workers…they often live around the factory so use a bicycle. Not a public bicycle but their own bicycle. Being able to afford their own brings them face (Confucian 5, Taipei, M, 48, also in 5.3.3 non-motorised modes).

> …at any function the car is a status symbol…car sharing you would be treated better than someone who walked off the street. But the doorman won't understand it. If you were to tell him it was a communal car, shared, he would laugh at you. Why would someone coming to an exclusive function not have their own vehicle, embarrass their family in this way? (South Asian 2, Chennai, M, 31).

> They might grudgingly downscale from a flashy branded car to a locally made car. Going to public transport would be terrible for them. But sharing a car would be seen as the most humiliating. The fact that they were owners of a car to using shared transport which is traditionally for the economically deprived in a city?! (South Asian 10, Mumbai, M, 45).

> The zipcar thing - car sharing - I think it's too early for India at the moment. It could catch on among young people if you presented it in a fashionable, cool, light. And perhaps in places where people are living and working away from their families. So Bangalore attracts a lot of young people who work in IT and it has awful traffic. And many people who go there don't necessarily intend to stay there all their lives. In this case then perhaps these kinds of ideas could make sense. So, cities like Pune, Bangalore, Hyderabad, cities that aren't so family oriented then then could catch on. It's a young, urban, sort of idea, and if they are away from the traditional family constraints, then it's more out of sight out of mind (South Asian 11, Chennai, F, 32).

> In India, sharing means that one is not competent enough to earn properly to meet basic needs…greedy…inferior to others (South Asian 9, Delhi, M, 48).

> …there would be judgement they couldn't afford their own car. Here you're expected to show you are going up by owning your own assets, not going down by using something shared or public. If you don't do these things then people will assume you are stingy (South Asian 12, Delhi/Gurgaon, F, 29).

A handful of interviewees from the high PDI/collectivist culture did, however, completely unprompted by the interviewer, begin discussing the symbolism of ride-hailing apps such as Uber, Ola or Didi, and their ride-sharing services. This was not the case for the interviewees from the low PDI/individualistic cluster who only barely alluded to the ride-hailing apps, and only in a practical context. It seemed that some interviewees from the

high PDI/collectivist nations were proud of the modernity conferred upon their society with the arrival of ride-hailing apps but this was largely irrelevant to the interviewees from the low PDI/individualistic cluster.

It also appeared that for the interviewees from the high PDI/collectivist cluster, the status accruing to the shared ride-hailing apps came from not only the use of a more modern vehicle fleet and status brands, but also the fact that the ride was hailed from a smartphone. One interviewee said that people would sacrifice waiting time to be able to hail a ride from their smartphone. The quote below stating that using Ubers or Olas, if they were unmarked, allowed people who may not be able to afford a car to feign having their own chauffeur-driven vehicle when arriving at a destination, is also noteworthy. This stresses the need for further research into the symbolic capital of ride-hailing apps:

> Let me tell you, I work for a good company, a well-known global business, and there are taxis outside the building or circling the area. It's possible to walk outside and get a taxi immediately. But my colleagues, some of them insist on calling for an Uber on their phones. Even if it means they wait another fifteen minutes. Why is this? It is because they can say 'see, we have Uber now, like other places, we are modern'. Using Uber brings them status. It has more status than a regular taxi...if one uses an Uber or Ola, then when the person gets down at the destination they can feel proud because it has air conditioning unlike the black and yellow taxis…to move with the fashion and pace of society, it is preferred to book an Ola or Uber (South Asian 1, Delhi, M, 29).

> If you have a lower income and can't afford to own your own car in Delhi, some people have started getting an Uber. It is chauffeur driven it can look like you are arriving in your own car…But if it was a shared Uber and the other people in there were smelly then…I have a friend who would think "no I am not doing that because I am a high status person"…she is very conscious about the choices she makes defining her status (South Asian 3, Delhi, F, 27).

It is perhaps the issue flagged in the previous quote - the need to travel alongside 'one's own' - that in 2015 led to Ola, Uber's competitor in India, segmenting their shared offering by user group and not allocating seats to people randomly:

> Ola Share…is much like UberPool in that it allows customers to share their journey with others to save money on their fare. There is a twist, however. While UberPool rides seat users randomly…Ola…will match customers with people from their own defined social circles (Russell, 2015).

One interviewee noted that when using shared ride-hailing vehicles they inevitably ended up travelling with their own social class, and stated that this was driving a new phenomenon - business networking in shared Olas or Ubers:

> In Mumbai it (shared ride-hailing) can be used for networking. Some people now look to share an Uber for this reason. I've heard of a venture capital guy closing a deal in a shared Uber…the thing is, when you are with Uber or Ola you have a debit or credit card, and I generally get a sedan, and there would be some software matching the cars and the origin and the destination. I go from the business district to an upmarket residential area, so anyone else in the car…we probably have things in common (South Asian 6, Mumbai, M, 32).

Despite some useful ancillary functions of shared ride-hailing in Shanghai (such as dating) one interviewee from the Confucian cluster felt that car sharing could never fully replace car ownership in her city due to the ceremonial and business symbolic requirements of a private car. Needing to be on show at a wedding was frequently mentioned by the interviewees from the high PDI/collectivist culture as a reason for their family needing to own a car.

> Didi and Uber share have become popular this year in China - many girls like to use it to see handsome boys! But people may not define it as shared mobility. Just as I mentioned before, maybe they only take this as another kind of taxi. I don't think sharing would eventually replace ownership. First in Chinese opinion, self-owned is better than sharing. Second, for short trips and unformal occasions, it is okay to use shard mobility…but for formal occasions such as weddings and business contacts it is not suitable to use shared transport…especially for a wedding…it is a…big event in China (Confucian 11, Shanghai, F,28).

One interviewee from Chennai stated that the range of cars offered by Uber had introduced a new symbolic imperative into transport choice - choosing to pay more for a more prestigious Ola or Uber sedan or SUV:

> One more experience I will share with you very quickly, you know in terms of how the prestige works. Like say my mother she wants an Uber or Ola cab. I have to pay another fifty percent more to get her a prime sedan or SUV. Because the neighbours will watch when the car comes. Even people like me who are very rational sometimes we have to behave like this in our culture otherwise people will think you're stupid and not speak to you (South Asian 2, Chennai, M, 31).

The above quotes suggest that a key benefit of shared mobility - not needing to own a car - may be symbolically irrelevant, even damaging, in the high PDI/collectivist cultures. Being car free was viewed as a cultural anathema. Moreover, the interviewees from the high PDI/collectivist cluster constantly stressed that generally within their societies there was no symbolic kudos to be gained in showing concern for environmental issues. Choosing not to own a car because one cared about the environment was seen as a justification that the vast majority of people would not believe:

> … car free here?! You've a higher probability of winning the lottery! It's not going to happen. The social reaction would be wonderment. People would assume you have lost your job. There's not a chance that they would buy a voluntary car free justification. They assume you had … taken a huge financial hit (South Asian 9, Delhi, M, 48).

> I've never heard of anyone selling a car to use public transport. Acquiring a car is a status symbol. They even joke about Tata releasing a car for people to leave outside their house and not use called 'Tata Seldom' (see Beer and Biryani 2015). The car might have been a gift or they have bought it just for show (South Asian 3, Delhi, F, 27).

> If someone told me that they had sold their car because they had started caring about the environment, I would think they were lying. If they had always been into the environment, I might believe them but most people don't care about that sort of thing (Confucian 6, Beijing, F, 31).

> … protecting the environment…it's nonsense talk for people who can't afford cars (South Asian 2, Chennai, M, 31).
>
> The family wouldn't let them sell the car. They won't go car free. People hold onto their cars. If they do sell their car how will they travel to occasions when they have to show off their status? I've seen people going to weddings dealing with flat batteries because the car hasn't been used for weeks…all dressed up and the car won't start (South Asian 6, Mumbai, M, 32).

This concludes the modal themes subchapters. The findings will be discussed within Chapter 6 when addressing the research questions. The modal coding densities and quotes presented within sub chapters 5.3.1 to 5.3.4 provide contextual material for the next two subchapters which examine the explanatory power of the Hofstede indices when analysing the symbolic aspects of modal choice across the two meta cultural clusters.

5.4 The PDI codes

Subchapter 2.5.4 introduced the Hofstede Power Differential (PDI) index (Hofstede,1984), which describes societies where people accept a hierarchy within which everyone has a place needing no justification. India and China are classified by Hofstede as high PDI societies; the Anglo and Nordic nations rate as low PDI.

In subchapter 4.2.2 it was surmised that in a high PDI nation an individual's need to clearly project through symbols, their social status and familial position, would lead to a clear imperative to show purchasing capacity or exclusivity in how one travels. It was mooted that showing purchasing capacity when travelling would generally be less a matter of choice than obligation. Conversely, for the interviewees sampled from the low PDI cluster, the inverse may be expected - there being no obligation to demonstrate wealth when travelling. In fact, it was speculated that the interviewees from the low PDI/individualistic cluster may note a modesty imperative when travelling. Themes 19 and 20 pertain to the PDI index. Theme 19 is termed 'obligation for mode to symbolise social status'. Theme 20 is 'no obligation for the mode to symbolise social status'. Precise definitions for these themes, and when they should be coded in the text are offered in the codebook in Appendix B.

Table 11 shows the coding density for theme 19, the 'obligation for the mode to symbolise social status' being significantly higher for the interviewees from the high

PDI/collectivist nations, compared to their counterparts from the low PDI/individualist nations As may be expected the reverse applied to theme 20, 'no obligation for the mode to symbolise social status'.

Theme no.	**Theme label**	**Frequency counts per code per 100,000 words**			
		Low PDI/ Individualistic		High PDI/ Collectivist	
Hofstede driven themes - PDI		**Anglo**	**Nordic**	**Confucian**	**South Asian**
19	Obligation for the mode to symbolise social status	33	39	357	532
20	No obligation for the mode to symbolise social status	359	588	145	44

Table 11: Coding densities for the PDI themes

5.4.1 Interviewees from the high PDI/collectivist cultural cluster

The interviewees from the high PDI/collectivist nations strongly stressed a cultural obligation for a mode of transport to symbolise the social status of an individual and their 'in group'. This signalling of placement manifested itself by showing exclusivity and purchasing capacity. To not travel appropriately it seems, would lead to incorrect social judgement, substandard treatment, and loss of face or respect. One interviewee suggested the imperative to be classified correctly in a social context was more important than clean air, suggesting that a deferred penalty of poor health was preferable to more immediate social misclassification"

> There are two issues - security and status consciousness. These cannot be managed with communal, public options. It's better to put up with the congestion and the horrible air than to be judged the wrong way in society (South Asian 6, Mumbai, M, 32).

> Face, is related to your position … 'mianzi'… self-esteem. How you travel shows your level in society…this is important to benefit our position or face (Confucian 5, Taipei, M, 48).

> You have to show where you are in the levels - it's important in Indian culture. If you have a maid who cycles and you started cycling you would lose respect.

> Not just in the eyes of your peers but also the maid. She would start seeing you as someone not worthy of respect. You have to judge the power and status; things like this matter (South Asian 4, Chennai, M, 35. Also in subchapter 5.3.3, non-motorised transport).

> How you travel definitely does indicate your social class …you're obliged to travel in the correct way. A middle class family wouldn't travel by moped. You wouldn't be taken seriously. It's a lower class vehicle (South Asian 6, Mumbai, M, 32).

> There is most definitely in the culture an obligation to translate your wealth into visible symbols. Yes. It's kind of climbing the ladder (South Asian 7, Delhi, F, 31).

For the interviewees from the high PDI/collectivist cluster 'tiering' across the modal spectrum was described as important, with clear pricing signals being the delineator between higher and lower levels. Modes which fostered homogeneity might handicap this requirement. One interviewee described air conditioned buses in Delhi differing symbolically from lower priced non air conditioned buses. Another noted the gossip and monitoring grapevine that operated throughout the society to allow one to gauge ones 'right position'. This constant flow of symbolic information between an 'in group' to enable correct positioning, was a steady theme within the interviewee transcripts of the high/PDI collectivist cluster, but not their counterparts in the low PDI/individualistic cluster. It is flagged in Chapter 7 as a candidate area for further research.

> …a luxury a/c bus service. There's wifi. It's good and a bit more expensive…but for some people it would be a problem to be seen this way (South Asian 6, Mumbai, M, 32).

> Your family would know what car your boss drives. There's an informal information network… you want to find your right position…know where you fit in the hierarchy. The right watch, the right car. If you upset the hierarchy the crowd will turn against you. Talk about you. Think you are disruptive (Confucian 12, Beijing, M,25).

Within the transcripts of some interviewees from the high PDI/collectivist cluster, policies to force people to modally 'come down' to the level of others, were described as politically risky. Exclusivity was again noted as paramount in signalling status:

> … role models would be needed to get people onto public transport. The bus is for people who are poor, not seen as important. For others to shift onto public transport they would have to maintain a category of exclusivity for some people, people would not think we have to all use this together as one society. If the system goes away of being exclusive, then there will always be the aspiration to move into an exclusive stream. If a politician attempted to reduce the exclusivity…then… simplistically…they will not survive for very long in politics…politicians are funded by the rich people…they will make sure that the exclusivity remains (South Asian 2, Chennai, M, 31).

5.4.2 Interviewees from the low PDI/individualistic cultural cluster

Such sentiments were rejected by the interviewees from the low PDI/individualist cluster. Expensive symbols were seen as not automatically flagging a person's social classification; modesty again came through as a strong signalling imperative. Whilst interviewees stated that there were many social symbols operating within their society, the mode of transport was seemingly not one of them, unless it connoted education through exercise, or environmental concern by eschewing the use of a car and using more sustainable modes. One interviewee stressed that she hid her car usage from colleagues to come *down* to the right level; another saw using cars in city centres as representing being low status 'like smoking or jewellery':

> If you want a prestige car…fine…there's no obligation. A BMW… people assume you earn good money but that would only be an assumption about your wealth not your level in society…there's a bit of a correlation but not much. (Anglo 7, London M, 44).

> People use public transport in London… How you travel in London doesn't show status one bit…In London I don't know many people who drive (Anglo 10, London, M, 26).

> Ostentation and differentiation from others generally aren't that well liked in Britain. You're supposed to be modest about your money or people think you have no class (Anglo 12, London, M, 49).

> Dutch people don't like people wasting money. Modesty is important…there's a saying…'being normal is already wild enough'. If you do something outstanding…don't get a big head about it…a big SUV or a big

> BMW, they are considered very ill-mannered, a vulgar show of money…'you really want to own that car, that's very arrogant, and you're a bit of a show off' (Nordic 8, Amsterdam, M, 48).
>
> Holland is very non-hierarchical. The social hierarchy doesn't depend on materialistic things like a big car. You get a few stupid people… for most it's irrelevant (Nordic 9, Amsterdam, M, 42).
>
> The mode of transport doesn't have to reflect your or your family's position in society. Economically no. There is a kind of high status to be active though. If you have high education, are in the cultural elite, you are supposed to bike. If anything, cars are low status, like smoking or jewellery (Nordic 5, Oslo, M, 41).
>
> Sometimes I have to use the family car to go to work, if say, I need to do a big shop afterwards. But if I use the car, sometimes on purpose, I park my car away from the school and walk. I don't want the prejudice of people thinking that I don't mingle well and in Rotterdam you're supposed to use public transport when you can. You've got to try and come down to the right level (Nordic 10, Rotterdam, F, 33).

An interviewee from New York stated that he only knew the cars the partners of the firm for whom he worked drove, because he had attended social functions at their homes. The topic seemed not to be noteworthy enough for discussion during business hours. This is in stark contrast to the above quote where an interviewee from Beijing states: 'your family would know what car your boss drives'. As noted, the flow of symbolic signalling information seems different between the two meta clusters:

> If they showed up to work in something really gauche...above a BMW then that might be frowned upon as a little showy. If I think about the cars the named partners actually have, and I only know from going around to their houses for social functions and that sort of stuff, then one has a Lexus, the other a Subaru, and I think the other guy has a Prius. It's an eclectic set of cars. Even the person who has the Lexus I don't think they even consider status (Anglo 11, New York, M, 45).

For the interviewees from the low PDI/individualist cluster demonstrating education seemed more important when connoting social status than financial capacity. Education

was shown by travelling healthily, demonstrating concern for the environment, and not standing out. Interviewees stressed, however, that there were other socio-cultural groups within their nation where 'showiness' might matter[31]:

> The great thing about public transport is that it is a snapshot of London, a slice of society. On the tube today I saw barristers, tourists and celebrities…sensible people walk. But who knows that you are walking? It's a good way of disguising your wealth. It's about culture…in my culture it was drilled into me that you didn't show off (Anglo 1, London, F, 32. Also in subchapter 5.2, 'mention of culture generally').

> If someone had money and they began doing more ostentatious things like stopping using the street car and driving a BMW to work then, yeah, people would say… 'well, yeah, we know you've got money but there's no need to show it off or that sort of thing.' There's no benefit to the person to show it off. In fact, it's the opposite. We'd think the guy was insecure. It's like having to make up for something if you know what I'm saying (Nordic 7, Amsterdam, M, 35. Also in subchapter 5.3.2, public transport).

> Estate agents tend to be showy with their cars…they have to drive their clients around …it's the tool of their trade (Anglo 6, Melbourne, F, 49).

> If someone showed up at a wedding in a car belching smoke it would be a joke. It's not like people would be shunned on the dancefloor (Anglo 11, New York, M, 45).

The findings of this subchapter will be discussed in Chapter 6. The next subchapter examines the results for the individualism versus collectivism themes.

5.5 The individualism versus collectivism codes

Hofstede's (1984) individualism versus collectivism index was described in 2.5.5, where it was noted it correlated with the PDI. It was shown that in collectivist cultures the requirements of group members are paramount and more important than the wishes of an individual within a group. Collectivism, however, is not about subordinating oneself to the group - the group itself *is* the identity of the people within it (de Mooij and Hofstede,

[31] See Chapter 7.

2010). Within collective cultures, outward respect, or 'face' - termed 'mianzi' in Mandarin - is important to maintain social prestige and conserve wealth (Goffman, 1955). It is the group's face that suffers when the collective is perceived to be presenting themselves in a manner not akin to how they wish to be viewed by society (Ho, 1976). For this reason in collectivist societies decisions are made collectively, so as not to place the group at risk by standing out for not conforming (Shavitt et al, 2010). Within subchapter 4.2.3 two symbolic transport themes, both relating to modal decision-making and the role of 'social proof' (Savani et al, 2012) were derived. Theme 21 is 'collective modal decisions drawing upon normative influences'. Theme 22 is its inverse - 'individualistic modal decision-making based upon personal preferences'. Table 12 shows the coding densities for these themes for the cultural clusters.

5.5.1 Collective decision-making versus individual preferences

It would appear that within the high PDI/collectivist cluster there is potential for collective decision-making using normative criteria to vary. The coding density for theme 21 for the South Asian cluster is twice that of the Confucian, despite both being of significant magnitude. Conversely, the coding incidence for the low PDI/individualistic cluster for theme 21 is almost negligible.

As may be expected this difference is mirrored in the coding density for theme 22 which concerns being able to make one's own modal choice decisions without consulting one's family and based upon one's own criteria. This was almost zero in the South Asian cluster, relatively low in the Confucian cluster, and significant in the low PDI/individualistic meta cluster, although the difference in the coding densities between the Anglos and the Nordics warrants a comment.

5.5.1.1 Interviewees from the low PDI/individualistic cultural cluster

The interviewees from the low PDI/individualist cluster found the notion of collective decision-making bemusing, ridiculous, something a child would be subjected to. This group stressed they were free to make their own transport decisions drawing upon personal preferences without symbolism being a mandated consideration. One interviewee even suggested he would go against the wishes of his mother merely to annoy her; such confrontational sentiments were totally absent within the transcripts for the interviewees from the high PDI/collectivist cluster. A handful of interviewees from the low PDI/individualist cluster admitted, however, that it was impossible to completely

insulate themselves from normative influences such as fashion, when purchasing things that would be seen in public - 'who isn't looking at what their friends do?':

Theme no.	**Theme label**	**Frequency counts per code per 100,000 words**			
		Low PDI/ Individualistic		High PDI/ Collectivist	
Hofstede driven themes – individualism versus collectivism		**Anglo**	**Nordic**	**Confucian**	**South Asian**
21	Collective decision-making, normative influences	4	4	85	166
22	Individualistic decision-making, own criteria	57	99	20	2

Table 12: Coding densities - collective versus individual decisions

> Who chooses how I travel? Seriously? It's completely up to me of course. We'd (family) chat about it my transport decisions but it's not like I'd have to prove anything at all or get their permission. That would be silly...I'm old enough to stand on my own two feet (Anglo 4, F, Sydney, 32).
>
> Me and my husband would choose the car. Not my parents. I'm an adult aren't I? (Anglo 8, London, F, 32).
>
> At the end of the day it is an individual decision but who isn't looking at what their friends do? I don't think there is any pressure but even if you don't notice it, then you would be looking around (Nordic 4, Oslo, F, 28).
>
> You can see people with a car you like and say, 'oh that's nice', but you'd carry on doing what you're doing. It's about self-expression not obligation from the society or family (Nordic 12, Amsterdam, F, 27).
>
> My family wouldn't get involved in my mode choice or what I buy. No…If…you're in New York City, you adapt to set yourself up to the norms of the city… in this instance it would be to use the subway because in New York City everyone uses it…you'd make the decision yourself (Anglo 2, F, New York City, 28).
>
> Extended family in the decision-making process? No. No. It's purely up to us. I wouldn't even talk to them. It's not on the radar. I'm 49, an adult.

> ‘Mummy can I have a car?’ (laughs)… I never even did that as a kid. It’s my car. I suppose if she expressed disapproval about what I bought I’d argue with her and tell her she was a shallow idiot, but she wouldn’t influence the decision one little bit. She’d strengthen my resolve to own the car to annoy her (Anglo 12, London, M, 49).

5.5.1.2 Interviewees from the high PDI/collectivist cultural cluster

The collective decision-making dynamic described by the interviewees from the high PDI/collectivist cluster, especially if they were living in close proximity to their extended family, was very different to that of their counterparts in the low PDI/individualistic cluster. A decision would have to be deliberated and made by the group - how socially ‘suitable’ it would be perceived as being by third parties was a major consideration. The other thing stressed by the interviewees from the high PDI/collectivist cluster was that if a young couple bought a car or were gifted a car as a wedding present, it would often have been financed by their families, and be classified as a group asset. In effect a couple would be unable to go ‘car free’ because it would not be their car to dispense with. For both the Indian and Chinese interviewees, a car as a dowry or wedding present was something often stressed.

> (When people buy cars)…they have to discuss with their parents….it’s a very common thing in China (Confucian 11, Shanghai, F,28).

> When my family buys a car the discussion takes place throughout the whole family…how ‘suitable’ it is (Confucian 3, Guangzhou, F, 27).

> I haven’t bought a car yet but…it is a group decision (Confucian 10, Shanghai, F,25).

> You see basically every major decision that we make when the extended family are around us has to be done in consultation with them. Every decision that we make we consult with our parents and this applied to [buying] cars too…they do have a say. And the relatives in the city, the extended family would also involve themselves in the decisions (South Asian 12, Delhi/Gurgaon, F, 29).

> In India purchases are made collectively across the whole family. Without a doubt. Symbolism is a major influence (South Asian 10, Mumbai, M, 45).

> If you sold your car to use public transport? …your family wouldn't let you sell the car… they'd take it off you…the car belongs to the collective. People will hold onto the family car for image reasons (South Asian 8, Delhi, F, 48).

> It's a big face down if the groom doesn't have a car. How will he get the bride in the first place? A car is something that the groom's family ask for when they go for marriage, in a dowry. And the car model will differ based on the status in the society…These things have to happen - they are laid out in the terms of the wedding or there will be no wedding. The family will say: 'you may well love each other but they are only giving us a Suzuki so the wedding cannot happen'. I've seen it happen (South Asian 5, Delhi, F, 27).

> If the girl's parents have bought the car, then it's part of the dowry. If the boy decides to sell that car as he isn't using it then…well…he can't sell it. You can't sell the dowry…it's rude. There is no way they would believe he was selling it because it was a waste. They would think he wanted to get the money for the car. If you sell the dowry car and buy a more expensive car then that's fine. It means you're not just selling the car for the money (Confucian 3, Guangzhou, F, 27).

The interviewees from the high PDI/collectivist cluster described how individual free will was only allowable for the extremely rich. Divergence from the norm was seen as permissible only when people were sure of a person or family's wealth. This raises the prospect of the symbolic imperative being tied in with wealth stability and longevity. As someone's wealth becomes more solid and is known, regardless of the symbols on show, it may exonerate them from the obligation to show familial status, and invert the symbolic dynamic to allow them to gain kudos for not displaying their wealth.

> But there is another aspect to Confucius, to be humble. So if they know you are a successful businessman for example, but you drive a Vauxhall, then people would admire you for it. They know he's rich because of the occupation, the way he carries himself. His bearing (Confucian 3, Taipei, M, 26).

> Unless your name is very well established you can't afford to be eccentric. People wouldn't respect you. They would laugh at a lawyer on a moped unless he was a very famous lawyer (South Asian 4, Chennai, M, 35).

A view expressed by some interviewees from the high PDI/collectivist cluster that is worthy of further examination, is that some younger people in their society are now seeking to escape the confinements of collective decision-making. This is done through placing distance between themselves and their families, relocating to cities with more individualistic values:

> When we arrived in Gurgaon we moved around by buses and auto rickshaw. But we were away from the relatives… our extended families couldn't judge us by saying 'Oh dear…this girl used to have a car and now she doesn't …it must be a bad marriage'. The new IT centres, Gurgaon, Hyderabad, Pune… younger people get a lot more privacy from their families about this sort of stuff (South Asian 12, Delhi/Gurgaon, F, 29).

In terms of policies to promote a shift from the car onto more sustainable modes, the interviewees from the high PDI/collectivist cluster felt that manipulating normative influences would have a much larger impact than punitive measures such as pricing. As an Indian interviewee described:

> If you wanted to encourage people to stop using cars and use ways of getting around that were better for the air quality, you'd have to make it fashionable. The way not to do it is to beat them up for using a car. People don't respond well to people preaching …you need to change them by making it very fashionable to do something else. Get their role models to do it. Show it in the adverts. That will work better than trying to bring in anti-car policies (South Asian 9, Delhi, M, 48).

The last quote has ramifications for policy formulation in that it suggests that for some, fiscal penalties may not work as well as symbolic incentives when introducing policies to encourage the use of more sustainable transport modes. In terms of utility, the penalty incurred by being subjected to a fiscal cost may be far less than the marginal gain to be made by copying the signs displayed by those who society knows are successful. This is likely to be even more the case when significant income disparity makes the cost of for example a road toll, negligible for some, but significant for others. The issue of penalties

and incentives leads directly into the question of judgement and sanctions for failing to adhere to symbolic norms. This topic is examined in the next and final subchapter of this chapter.

5.5.2 Judgement and sanctions

It seems logical to suggest that in societies with strong symbolic rules regarding showing status when travelling, it is likely that a stringent system of rewards and penalties for adherence to, or contravention of, the rules, will be present. Shavitt et al (2010) states that 'in a collectivist society one shows status or is penalised'. If this was not the case people would be free to ignore the dictates of the cultures within which they operated, placing the culture at risk.

A penalty or castigation could take the form of knowing one has violated a symbolic norm and feeling shame. It could also be an external corrective sanction administered by third parties - for example being mocked, avoided, socially demoted, or being verbally castigated. It also seems logical to surmise that in situations where there is less of an obligation to show status when travelling such corrective mechanisms are not present, or present to a looser or lesser degree.

In subchapter 4.2.3 it was shown how for judgement and sanctions four themes for violating or complying with a symbolic transport imperative were derived. Theme 23 deals with covert approval for complying with symbolic transport imperatives. Theme 24 captures data flagging covert disapproval for breaking symbolic transport imperatives. Theme 25 describes overt rewards or benefits for complying with symbolic transport imperatives. Theme 26 flags occasions where there would be overt criticism or sanctions for breaking symbolic transport imperatives. The detailed description of each of the themes, the delineation points between covert and overt, and when the themes should be coded in the text, is defined in detail in Appendix B. The coding densities for each of the interviewee clusters are shown in Table 13.

5.5.2.1 Covert - interviewees from the low PDI/individualistic cluster

As noted in subchapter 5.4 the interviewees from the low PDI/individualistic cluster stressed that for their cohort there was generally an obligation to blend in with everyone else (not 'show off'). This equated to using more environmentally friendly and modestly priced modes. If people did not stand out when travelling around, the interviewees suggested that they would be thought well of for fitting in. Among this group the approval

dynamic appeared informal and relaxed - barely worthy of note. This is reflected in the moderate level of coding densities for theme 23 for the interviewees from the low PDI/individualistic cluster.

Theme no.	**Theme label**	**Frequency counts per code per 100,000 words**			
Hofstede driven themes – individualism versus collectivism		Low PDI/ Individualistic		High PDI/ Collectivist	
		Anglo	**Nordic**	**Confucian**	**South Asian**
23	Covert approval for complying with symbolic transport imperatives	27.5	32.0	75.0	100.0
24	Covert disapproval for breaking symbolic transport imperatives	51.0	64.0	152.5	164.0
25	Overt rewards or benefits for complying with symbolic transport imperatives	3.9	8.0	22.5	40.0
26	Overt criticism or sanctions for breaking symbolic transport imperatives	25.5	36.0	87.5	122.0

Table 13 Coding densities for the judgement and sanction themes

Conversely for theme 24 - covert disapproval for breaking symbolic transport imperatives - the coding incidence for the interviewees from the low PDI/individualistic cluster was around twice that of covert approval for complying with symbolic transport imperatives. This implies that the interviewees were twice as likely to think poorly of someone for not adhering to the travelling norms within their city, than they are to think well of someone who blends in. This seems logical - transgressors stand out from the mass of people conforming:

> A choice to start riding a bike to work instead of driving…[in] New York City… would be perceived by peers as consistent with the lifestyle in the city. You'd look like you were fitting in (Anglo 2, F, New York City, 28).

> In London people would be bemused about you taking a car anyway; wonder why you wasted your time doing that... You'd think nothing of using public transport. It's just a matter of whatever suits really. I'd view that choice positively (Anglo 7, London M, 44).

> Cycling is a way of life here. It's generally for people who live in the city. I've a friend who works at (global firm x) who travels by bike. For his image it makes no difference…My family would be fine with me selling a car providing we can still see them. In fact, I think they'd support it in practice and admire me (Nordic 9, Amsterdam, M, 42).
>
> If I was on a date and the person turned up on a train or a tram I wouldn't care in the slightest. But if someone rocked up in a Merc I'd probably be a little uncomfortable. It's a bit too much (Anglo 6, Melbourne, F, 49).
>
> In fact if it was the city centre and I had driven to the meeting I might want to keep that a little more quiet than if I'd walked or cycled, as people in Oslo think that driving into the city is a bit stupid or wasteful (Nordic 3, Oslo, F, 31).
>
> Like I said, it is frowned upon to show your economic status. If you saw someone in a Lamborghini people would say they were trying to show off or they were insecure or they were pitiful because they couldn't get a girlfriend without the car (Nordic 5, Oslo, M, 41).

5.5.2.2 Covert - interviewees from the high PDI/collectivist cluster

The coding densities for both covert approval and disapproval were around three times higher for the interviewees from the high PDI/collectivist cluster than the low PDI/individualistic cluster. This suggests that symbolic norms receive a great deal more attention in high PDI/collectivist societies, and that enforcement mechanisms are more explicit and rigid.

Between the two meta clusters there was a clear difference in how wealth was supposed to be displayed, and how people would be thought of for doing so. A seemingly sound example which illustrates the contrast between the meta clusters, was if someone was promoted at work and immediately procured a 'prestigious' sedan car. This was generally thought of as amusing or embarrassing among the interviewees from the low PDI/individualistic cluster, although in most instances the derision would not be expressed to the transgressor's face:

> Ostentation and differentiation from others generally aren't that well liked in Britain. You're supposed to be modest about your money or people think you have no class (Anglo 12, London, M, 49. Also in 5.4, PDI codes).

> Dutch people don't like people wasting money. Modesty is important…there's a saying…'being normal is already wild enough'. If you do something outstanding…don't get a big head about it…a big SUV or a big BMW, they are considered very ill-mannered, a vulgar show of money…'you really want to own that car, that's very arrogant, and you're a bit of a show off' (Nordic 8, Amsterdam, M, 48. Also in 5.4, PDI codes).
>
> People would laugh…if you bought a flashy car the moment you were promoted. People would think it was a bit amusing. It's not expected to do those sorts of things (Nordic 5, Oslo, M, 41).

This was not the view expressed, however, by the interviewees from the high PDI/collectivist culture. There the interviewees stated that within their society buying a prestige car upon receiving a promotion would be seen as 'necessary', 'proper' 'indicative of success', 'appropriate'. This seemed not to be the case, however, if someone's rank indicated that they should not be able to afford to buy a prestige car - if they were incorrectly presenting themselves. An example would be a refuse collector driving around in a sedan. Such instances seemed to provoke indignation for not 'playing by the rules' and upsetting the hierarchy of a tiered service culture, causing embarrassment. It suggests almost an 'honour system' in the way in which people present themselves to those who they interact with frequently (in contrast to the quote in 5.3.4 describing how someone arriving at a destination they were not known, might use an expensive Uber to feign being wealthy).

> I think it is necessary to earn the right level of respect…(to reflect the) car owner's taste and social rank. These things will bring respect from others (Confucian 10, Shanghai, F,25).
>
> The new position makes it proper for him to buy the BMW. I think it's not showing off. He can afford that, so he's not showing off. Senior level people can afford these cars so I think it's the proper thing for them to buy one (Confucian 6, Beijing, F, 31).
>
> It's not bad manners to go and buy a BMW if you get a promotion. You've now got the money so you're buying the car. Even if he did it immediately…I think people would think it was the right thing to do. How else would they know about his success? (South Asian 5, Delhi, F, 27).

> If the garbage man drove a Mercedes then people will think he is doing underworld business and just pretending to be a garbage man. It would be considered embarrassing…they can't see him as someone who should serve them if he is showing the symbols of the richer class (South Asian 2, Chennai, M, 31).

In discussing covert judgement for not complying with symbolic imperatives, the interviewees from the high PDI/collectivist cultures used the word 'embarrassing' frequently, especially if someone from the social cohort in question was seen to be going 'down' by using a mode traditionally used by the poorer in society. Some people said that social gate keepers such as doormen would be scandalised or awkward if a person's occupation did not seemingly match their mode. Using a bicycle in the Indian context was seen as especially shameful as it led to 'sweating', a sign of labour intensivity and being of the labouring classes (see subchapter 5.3.3). Fragility of wealth was also stressed as being important - people stressed a step 'down' the modes could mean that someone would be thought of as having lost all their resources, which in societies where 'wealth could be lost overnight' was risky:

> If I went from a Lexus, a big Lexus to a smaller car, a local car, then I would embarrass my family. They would not say it in front of you. But they would be sad for you (Confucian 3, Guangzhou, F, 27).

> A BMW to a small car? I would make a judgement, think something has happened. In society at large a person's mianzi will suffer. Chinese society is not very stable. It isn't impossible you would lose your money overnight (Confucian 6, Beijing, F, 31).

> I think it would be a little embarrassing for your family if you use an inferior mode. Like a bus. Or a bike….I think richer people on bikes and scooters could be embarrassing their families (Confucian 9, Shanghai, F 28).

> If you go to a serious meeting in a suit on a scooter the guy on the gate would be shocked. And there's no way anyone would go for dinner at a very expensive hotel on a scooter. I would never do that…A lot of people would be embarrassed. If you don't have money to come by car or auto to the hotel it wouldn't be seen very well (South Asian 5, Delhi, F, 27).

> …any signs of sweating paint you as lower class. If you have resources, you are supposed to have someone sweating for you in our culture. If you are rich and doing something that is labour intensive you are odd. If you like exercise trek on a mountain (South Asian 3, Delhi, F, 27. Also in subchapter 5.3.3, non-motorised transport).
>
> He is always telling me to take my bike with him but there's no way I could, even if it is a good opportunity to get healthier. This guy is an interesting guy and he's proud of riding the bike, but I think his family feel ashamed, I can see it in his wife's eyes. His wife she feels ashamed that (her) husband is cycling to work, even though he has a good job. There are no shower rooms or anything in offices in India, so if you arrived dripping in sweat in a suit, then it wouldn't look great (South Asian 1, Delhi, M, 29).

5.5.2.3 Overt - interviewees from the low PDI/individualistic cluster

Themes 25 and 26 examine when a compliance or transgression of a symbolic imperative when travelling, elicits an *outward* response by third parties. This can be verbal, for example praise or disagreement, or come in other forms - for example, access to groups, allowing someone to marry into a family, the provision of gifts, social inclusion, and direct material reward in terms of career prospects. Rather than assuming people will think well or badly of them, the party making the symbolic choice is, in this instance, largely left in no doubt - the cultural enforcement mechanism is tangible. For all groups the coding densities for covert approval or disapproval were much higher than for overt approval or disapproval. People seemed more likely to think than act. Yet again for all groups, the coding densities were far higher for overt criticism than overt rewards. As noted, this suggests conformity is accepted as a given in a society, yet someone breaking rules is more likely to incur direct sanctions to attempt to get them to change their behaviour.

The interviewees from the low PDI/individualistic clusters were far less likely to overtly reward or sanction their peers for complying with or breaching symbolic transport norms, than their counterparts from the high PDI/collectivist clusters. There *was* a general recognition that people who were displaying wealth when travelling might be treated better by service personal on occasion, but it was emphasised that this was in no way the norm. For this cluster it was also stressed, that in making a judgement of wealth, the car

was one of a package of symbols; in low PDI cities one could not assume a lack of a car (or the opposite) correlated with wealth.

> But if the person in the BMW came along he (the hotel doorman) might be nicer …because he thinks he … might tip better (Nordic 1, Rotterdam, M, 48).

> The car's just a marker after all. One of a package of symbols…(but) not as strong in the city…(but) people treat people who they think are rich or important differently. They just do. They give them more time of day. Ask them more questions. Engage with them (Anglo 2, F, New York City, 28).

For the interviewees from the low PDI/individualistic cluster generally, overt rewards tended not to be applied directly to the party complying. The message would be more likely to be conveyed to a third party that the approver was more comfortable with, to be in turn relayed (if needed) to the complier.

> My mum would say (to the daughter) (that) he (the new boyfriend visiting the interviewee's parents for the first time and arriving on a bus) was sensible…She would be concerned if the guy had a Merc. If he's that young, my mum would think it was in bad taste if it was financed. An SUV - that would be worse. My mum would see them as not sensible: 'you're not a good steward of your own resources' (Anglo 2, F, New York City, 28).

As to professional rewards, some interviewees from the low PDI/individualistic group stated that quirkiness or eccentricity would be seen as a sign of independence of thought - being able to think originally. A wealthy lawyer arriving by cycle would be rewarded by being hired, for not being a 'company robot'.

> If I had someone, a professional, visit me, and he was rich or in a suit and came on a cycle…I'd think that he was probably quirky as I wouldn't expect a lawyer to come on a bike…I think I'd be impressed… getting someone different…I think I'd think more of him and be more tempted to hire him. Independent. Not one of those corporation robots. Yes…it would be a good sign (Nordic 6, Amsterdam, M, 41. Also in subchapter 5.3.3 non-motorised modes).

One interviewee from the low PDI/individualistic cluster noted how she had broken off a romantic relationship because of an ex partner's fixation with car status, when it mattered

little to her. Another interviewee was castigated by work colleagues for being overly showy. Most of the time though for the interviewees from the low PDI/individualistic cluster the overt sanctions described took the form of non-engagement rather than severance. The interviewees from the low PDI/individualistic culture flagged that materialism existed within their society but stressed that this was not the norm for their peer group. Others who failed to fit in with the values of their cohort were just ignored - they 'didn't form friendships with people like that'. This re-emphasises the imperative for horizontal sampling when comparing across cultures. The need for further research into verticality in transport symbolism within a national culture is discussed in subchapter 7.3.

> I mean I know people who care about fancy cars, but…I generally try not to form friendships with people like that (Anglo 11, New York, M, 45).

> As for your love life, well I did have a partner who didn't like my (ordinary) car…their fixation with my car became so annoying, the fact that it mattered so much to them, in the end we split up…I found someone whose values were more in tune with mine who didn't worry about rubbish like that (Anglo 5, Sydney, F, 47).

> In traditional Dutch society, to be obvious about the wealth…it's sort of thought of as bad mannered. I had a flashy car for a while through work and most people didn't like it, they said I was arrogant. Then they heard that it was a work car and I was forgiven. But I was given a hard time. Yeah we have a saying that if you act like you are a little bit higher than others you will be cut off (Nordic 9, Amsterdam, M, 42).

Another issue described by the interviewees from the low PDI/individualistic cluster was the degree to which showing wealth was tolerated. Up to a point it was seen as acceptable because a person might simply like a certain car for instrumental reasons, but there seemed a limit where allowable preference stopped and 'bad taste' commenced:

> I'm not sure where I'd draw the line. I guess it's around the Mercedes BMW mark, but they could fall either side of the line. But anyway, those people, they're people generally whose values aren't in sync with mine. It's not I'm not friends with them because I dislike their car. It's just that we have totally different values and the car would reflect that. I think talking about the

> symbols of your wealth like that is ill-mannered (Anglo 11, New York, M, 45).

Practical factors were again shown to play a role in symbolic judgement - if there was not a great deal of city centre parking available, driving would be even more disapproved of in an urban context:

> I would judge how people get to the meeting, and if they drove, I might look down on them a little as there isn't a lot of parking. We would make fun of them. They aren't supposed to do that. They are supposed to take public transport. If they turned up in an SUV or a BMW then we would think they were showing off and that's not good for them. Who wants to work with a show off? (Nordic 5, Oslo, M, 41).

5.5.2.4 Overt - interviewees from the high PDI/collectivist cluster

The *ratios* of coding frequency for overt sanctions to overt rewards for breaching or complying with symbolic transport imperatives, was broadly of the same order of magnitude for both meta clusters - approximately three to one. The magnitude of the incidence of coding, however, was noticeably different - two to three times higher for the interviewees from the high PDI/collectivist cluster than that of their low PDI/individualistic counterparts, for both rewards and penalties. It seems that if one complies with the symbolic transport imperatives within a high PDI culture, society expresses their approval far more than if one does so within a low PDI culture; the same applies for punitive action when violating a symbolic transport imperative. This reinforces the theory that the cultural enforcement mechanisms are stronger in the high PDI/collectivist cultures.

It was also noted that the enforcement mechanisms were of a significantly higher order of magnitude for the South Asian than the Confucian interviewees. The South Asian culture seemed much more rigid, with greater incentives and penalties, than the Confucian.

As to rewards, the interviewees from the high PDI/collectivist cultures noted that showing status in the way one travelled, would allow them to forge bonds so as to be able to conserve wealth within a certain social group. In addition, as noted earlier, a recurrent theme for this group was the collective ownership of assets in showing status: a car represents the family's money not an individual's:

> They have to show…social status with their transport so that they can earn trust and make clients feel they are of the same group, so they can easily get projects or [more] clients, or sell their products (Confucian 10, Shanghai, F,25).

> If you have a good car and your own house, then at least you have a good family, a family with money who will support you. The car is a symbol that represents the family money and [shows] that it is okay for two families to come together (Confucian 3, Guangzhou, F, 27).

> Oh how you get around, it matters a lot because here in Delhi the culture is very much of showing off. So having a bigger car or a foreign car is very much the status symbol. [People] believe in a public display of wealth. It is how you become accepted into…social groups (South Asian 8, Delhi, F, 48).

> My husband's business partner from Agra. He used to cycle around. But just to increase his value in the marriage market he bought a car. Just to say he owned one. I think you have a good chance of getting a better match if you have a car (South Asian 7, Delhi, F, 31).

Making a decision to sell a car to use public transport, was according to the interviewees from the high PDI/collectivist cultures, likely to bring overt sanctions from those around them. This could take the form of questions relating to loss of fortune, one's intellectual capacity, or parents and elders stepping in to rectify the situation either by persistent cajoling or enlisting support from other family members. Not to do so would leave the individual and their family vulnerable in society. One interviewee from the Confucian group stated that not showing wealth clearly through symbols such as cars could lead to the loss of a 'family's name' in marriage, if the male's family portrayed themselves as poorer than the female's:

> If you used public transport all week and decided owning a car was a waste of money and decided to sell it, people would say 'Are you stupid? Did you go bankrupt? Have you got fired?' Your parents might give you a helping hand. People, your peers and family, would panic and try to talk you out of such an existence, buy you a car, nag you, or even start treating you as if you are breaking rules and a bit of a weirdo? A car cannot be replaced by any

other types of modes unless there is really big financial crisis in your family (Confucian 1, Shanghai, M, 36).

The man will lose face if the girl's family [he is marrying into] are richer. If much richer it would be that the man would go to [live with] the girl's family and not the other way around. So it would be embarrassing because they have lost their son. Equal wealth, the girl goes to the boy's family. Richer boy's family then the girl goes over. But the richer girl, then the boy has to go to them. In the older times they [the boy's family] would lose their name. So it's important to consider these kinds of things, and the house and the car, and symbols, show the wealth clearly. It's important. To keep the family surname with the one child policy (Confucian 3, Guangzhou, F, 27).

I have family members in the military. If they drive to the base in a car they have arrived [in terms of status]. The only ones who cycle are the common sailors. I have never seen an officer cycle to work even though the living quarters are practically next door. If they did people would joke and make it a point to push you down a bit, and the weaker man in India is vulnerable. 'So you are trying too hard to fit in with the workers and go to the cycle stand. Why are you mixing with them and not us?' (South Asian 6, Mumbai, M, 32).

Indian society and culture functions on respect….if you are a lawyer, then if you don't get respect then you don't get many clients. It is associated with your occupation. Respect is tied in with power. The more respect you have, the more power you have. For example let's say there is a person who is popular and well respected, he could actually take a bicycle and people would admire him for his simplicity. But he would have to be well known in the first place. If though you are a standard person, who nobody knows, then if you take a bicycle, then you will lose respect. It means you are either stingy or poor (South Asian 4, Chennai, M, 35).

If two families are meeting to discuss marriage and one of them owns a BMW and the others come to their house on a bus! Wow…I think there's no way they'll agree to the marriage - the bus stands for not having much money. It would be the same if they arrived on the metro (Confucian 11, Shanghai, F,28).

> …eventually his colleagues stepped in, said using the bus was bad, it shows up the company. Choices come with cultural loadings and obligations… If you sold your BMW your family has suffered a serious negative financial thing…your occupation will be in danger…you'll lose clients. Some friends might start avoiding you - it could be embarrassing for them (South Asian 4, Chennai, M, 35).

This chapter offered the results of the study. Having described the format in which the findings would be presented, there then followed a series of interviewee quotes which demonstrated how the study's participants acknowledged their national culture (and other cultures operating within it) without prompting by the interviewer. There then followed the results - thematic coding densities and supporting quotes - for each of the sustainable modes across the two meta clusters. These modal connotations set the context for the results for the themes derived from the Hofstede PDI, and individualism versus collectivism indices for the two meta clusters; these were presented in subchapters 5.4 and 5.5. The next chapter summarises the results from this chapter for the Hofstede themes and each sustainable mode, and discusses the key issues arising within the context of the transport crisis facing Indian and Chinese mega cities.

6 DISCUSSION

The purpose of this chapter is fourfold. Firstly, in subchapter 6.1, it seeks to understand to what extent and in what way, the imperatives relating to the Hofstede themes appear to affect the symbolic aspects of transport choice between the two meta cultural clusters. Secondly, in subchapter 6.2, it confirms that the Hofstede themes seemingly offer strong explanatory potential for the differing symbolic connotations of the sustainable transport modes between the two meta cultural clusters. Thirdly in subchapter 6.3 it examines what these apparent differences in modal connotations between the meta clusters might mean for sustainable transport policy formulation within, and transfer from other nations to, the mega cities of India and China; specific policy recommendations are then made. Fourthly, in subchapter 6.4, the chapter concludes by noting study limitations.

6.1 Hofstede codes

At this moment in time, to what extent, and in what way, do the symbolic imperatives relating to:

1. *Hofstede's Power Differential Index, seem to affect the symbolic aspects of transport choice between the two meta cultural clusters?*
2. *Hofstede's Individualism versus Collectivism index, seem to affect the symbolic aspects of transport choice between the two meta cultural clusters?*

The magnitude of the coding densities and the tone of the quotes for the interviewees from both cross-cultural meta clusters, seem to be strongly in sync with the reasoning behind the Hofstede themes. Within chapter 5 there was a great deal of data suggesting that the dynamics mooted within subchapter 4.2 were valid, and that the Hofstede PDI, and individualism versus collectivism indices possess strong explanatory potential as to how the symbolic aspects of transport choice function across the meta clusters.

6.1.1 Interviewees from the high PDI/collectivist cultural cluster

The coding densities and quotes for the interviewees from the high PDI/collectivist cluster suggest a dynamic where there is a strong imperative to show social status when travelling. In doing this a person clearly shows their 'in-group's' place within a social hierarchy to ensure society understands the group's economic capacity. Not to do this would appear to incur societal ramifications - third parties may maltreat someone or their

group due to misclassification, causing the group to lose respect or what is termed 'face' ('mianzi' in Mandarin). This public loss of face appears to make a group vulnerable through potential consequences for wealth generation and conservation - business dealings, marriage prospects and social circles. Modal neutrality seemed disempowering to the interviewees from the high PDI/collectivist cluster: if a mode didn't 'say' something, then it was largely useless in a social context.

In terms of the explanatory capabilities of the individualism versus collectivism indices, the interviewees from the high PDI/collectivist society also described how within their societies modal choices externally reflected upon the collective not the individual. This meant that decisions as to how a group's members travelled took place at the collective level, sourcing normative cues from advertising, peers, and other groups to which the 'in group' wished to be associated. To support this decision-making process and ensure that all group members adhere to the collective's wishes, there appears to be a highly active gossip grapevine passing symbolic information, backed up by a reinforcing system of judgement and sanctions. Contravention of norms is dealt with at the collective level to rule out what might be seen as subversive or risky choices. Whilst covert judgement is more common than overt correction the degree of punitive action for symbolic transgressions still seems far greater than that expressed through coding densities and quotes for the low PDI/individualistic cluster. The coding densities and quotes also show that this tiered dynamic, and rigid environment, seems harsher in the South Asian than Confucian culture, although it *is* strong in the Confucian culture. Hofstede et al (2010) notes the hierarchical legacy of the caste system in India - this was also described in one of the interviewee quotes in subchapter 5.2.

6.1.2 Interviewees from the low PDI/individualistic cultural cluster

The coding densities and quotes for the interviewees from the low PDI/individualistic cluster indicate a relatively relaxed dynamic, where people are typically free from symbolic considerations in how they choose to travel. In contrast to their counterparts in the high PDI/collectivist cluster, symbolic neutrality seemed enabling - if nobody people fraternised with cared about showing status when travelling, then people were free to travel how they wished.

Among the interviewees from the low PDI/individualistic cluster it was stressed that showing economic capacity when travelling was not only *not* an obligation, but would be

frowned upon by their peers for being ill-mannered, due to it differentiating themselves from others. Uniformity or 'fitting in' were constantly cited as being in keeping with their city's and group's value system. If someone stood out by driving an expensive car in the inner city it was generally seen as being bad mannered - one interviewee even described how she avoided telling her colleagues that she had driven to work due to it being embarrassing. If someone violated a symbolic modesty imperative by 'showing off', however, then they *might* be gently teased or thought of as foolish, but harsh recriminations were not mentioned. Most people said they 'wouldn't be friends with people like that in the first place'. Among the interviewees from the low PDI/individualistic cluster, the idea that their families should in any way be involved in their transport decisions for collective symbolic reasons, was seen as ridiculous, infantile, and demeaning. Unlike the interviewees from the high PDI/collectivist cluster, nobody within the interviewees from the low PDI/individualistic cluster suggested the presence of an active 'in-group' gossip grapevine through which symbolic information was passed.

The symbolic dynamics described by the interviewees from the low PDI/individualistic cluster seemingly only applied to the group who met the sampling criteria - relatively young, urban and educated. The interviewees from the low PDI/individualistic cluster stressed that for other groups, in other locations, status concerns when travelling would be likely to be more important. The centres of London or Amsterdam were not the same as the suburbs, and the symbolic imperative would be unlikely to be the same for someone working in a job where there were few formal entry requirements such as commission based sales. The examination of differing urban, suburban, and rural transport symbolism, and the norms of various social groups, within a nation, is noted within further research subchapters 7.3 and 7.4.

It seems reasonable to confirm that on the basis of the coding densities and quotes offered within chapter 5 that, at this moment in time, the Hofstede indices *do* offer strong explanatory capabilities as to why modal symbolism may differ between the two meta clusters. The power differential index describes the presence or absence of an imperative for showing collective hierarchical placement and purchasing capacity when travelling. The individualism versus collectivism indices offer a basis by which to distinguish how this imperative does or does not lead to group decision-making, symbolic information flows, and punitive sanctions for violation. It would therefore seem that the cultural rules inherent within the Hofstede indices used are playing a role in driving different symbolic

connotations for each of the sustainable transport modes examined across the two meta clusters. This, and the ramifications for sustainable transport policy formulation within, and transfer from other nations to, the mega cities in India and China, will be discussed in the next subchapter.

6.2 Differing modal symbolism and sustainable transport policy implications

At this moment in time:

3. *Are there seemingly different symbolic connotations for the sustainable transport modes, between the low PDI/individualistic and the high PDI/collectivist meta clusters (and to what extent are these potentially explained by the Hofstede PDI, and individualism versus collectivism themes)?*
4. *If strong differences seem present between the two meta cultural clusters what might this mean for sustainable transport policy formulation within, and transfer from other nations to, the mega cities in India and China? What is the extent to which symbolism may act as a barrier to, or a facilitator of, a particular policy?*

The results within chapter 5 indicate that within high PDI/collectivist nations efforts to promote the sustainable modes as an alternative to car ownership and usage could be strongly resisted for symbolic reasons. 'Cheaper' modes seemingly violate the cultural imperative of showing social status and economic capacity when travelling. Within such environments, policies to reduce the tiered nature of the modal suite may prove very unpopular. If blending in, sweating, or shared ownership have negative or neutral symbolic connotations, attempts to encourage people to 'trade down' their modes to something which is lower cost at the point of consumption, seem likely to encounter opposition. Highlighting a mode's sustainability will have little effect if there is no social kudos to be gained from showing concern for the environment. Moreover, in encouraging the mass adoption of a mode such as a metro, if the fare is low enough to allow the majority of social groups to use it, this may lower the symbolic value of the mode and potentially push a segment of the wealthier population back into their cars. Maintaining exclusivity when travelling appears key in highly tiered environments, as borne out by a quote from an interviewee from Chennai:

> … role models would be needed to get people onto public transport. The bus is for people who are poor, not seen as important. For others to shift onto

> public transport they would have to maintain a category of exclusivity for some people, people would not think we have to all use this together as one society. If the system goes away of being exclusive, then there will always be the aspiration to move into an exclusive stream. If a politician attempted to reduce the exclusivity…then… simplistically…they will not survive for very long in politics…politicians are funded by the rich people…they will make sure that the exclusivity remains (South Asian 2, Chennai, M, 31).

An earlier quote, where someone from the Confucian cluster described an affluent friend happily using the underground rail system when visiting London, because there it was for the 'right sort of people', but who would never use it Beijing, suggests that within India and China, government attempts to sell the message of communality conferring status in other countries may have limited success. Government campaigns *could* demonstrate how in wealthy countries educated and rich people often travel communally but (as noted in subchapter 2.4.4) national culture is resilient, and self-references when judging new things. Appeals to people in one culture, based on the norms of another, may have only limited success. The lesson of failed 'one size does not fit all' marketing campaigns noted in subchapter 2.4.3, seems pertinent. This is not to say, however, that social marketing techniques which aim to manipulate normative influences to encourage greater sustainable travel should not be attempted. Perhaps the logical first step to gauge likely areas of success is a series of pilot projects.

Rather than market the kudos of communality in other nations, it may be far more productive for governments within high PDI/collectivist cultures such as India and China, to try and harness the outward need for differentiation to effect positive policy outcomes. *In tandem* with marketing approaches attempting to reduce modal tiering and foster communality, governments could utilise the underlying symbolic dynamics, and encourage people out of their cars and onto more sustainable modes by making segments of these modes more exclusive. This raises questions of social equity, but charging higher prices for premium offerings could lead to a growth in overall revenues, which could in turn cross subsidise the necessary levels of transport capacity required for all. The number of tiers within the Indian passenger rail system is significant, with each tier serving both instrumental and symbolic functions at different price levels, but this range of exclusivity has not seemingly incurred a loss of rail mobility for the less affluent in society.

The following subchapters apply this discussion within the context of each of the sustainable modes.

6.2.1 Eco-cars

Subchapter 5.3.1 indicates that for the interviewees from the low PDI/individualistic cluster eco-cars possess significant symbolism, and this is not being driven by price exclusivity except perhaps for models such as very expensive Teslas. The most discussed eco-car, the Toyota Prius costs only slightly more than a comparable petrol or diesel Toyota car, but not enough to make a statement about purchasing capacity. The visual appearance of the Prius and its overt environmental connotations, however, makes the vehicle symbolically stand out from other cars. The interviewees from the low PDI/individualistic cluster stated that this often leads to Prius drivers being judged. The quotes offered, show that in some cases the ownership of a Prius provokes admiration, in others indignation at being 'preached to', and in the case of anti-environmentalists outright hostility.

This dynamic is in strong contrast to the low or negligible symbolic value of eco-cars expressed by the interviewees from the high PDI/collectivist cultures. Except perhaps for niche groups working in certain professions, eco-cars lacked any form of symbolism across their societies, and are thus likely to be viewed as a negative symbol for not appropriately and clearly showing purchasing capacity. One interviewee from the high PDI/collectivist cluster noted that in their culture people *only* use the purchase price of an asset to rank people socially, so at this moment a 'Toyota is a Toyota', and has nowhere the symbolic capital of an equivalent 'prestige' brand costing considerably more. This absence of symbolic value means that choosing an eco-car is likely to be frowned upon by one's collective, and an attempt to purchase one could be blocked or resisted by the group. Zhang et al (2018) stress in Beijing the need to badge early electric vehicle adopters as important reference groups, so as to enhance the technology's normative value, and in turn increase overall purchase intentions. Kim et al (2018) also note the importance of showing early electric vehicle adopters as 'opinion leaders'. Han et al (2017) stress how in China the advertising and marketing of electric vehicles needs to promote the non-instrumental benefits of novelty and innovation to symbolically elevate the technology.

Incentives for purchasing eco-cars such as tax breaks or exemptions from user charges, have proven successful in low PDI/individualistic nations. In high PDI/collectivist nations, however, there may be a mixed reaction to offering fiscal incentives to encourage eco-car uptake. Such 'discounts' may connote to others constrained purchasing capacity or being 'stingy' by not spending to one's limits (see 7.1.1 where 'perceptions of frugality' is discussed as a potential inductive theme). Offering significant fiscal incentives may encourage those segments of the community who are cost conscious to purchase eco-cars, but using this strategy as a starting point may inadvertently 'devalue the brand' and encourage more affluent consumers to retain ownership of their petrol vehicles. Therefore, in complete contrast to the approach taken in other nations, making regular eco-cars *more* expensive than their counterparts, on a par with 'prestige' brands, may actually encourage their uptake in cities such as Delhi. Harnessing the strength of a foreign brand may further raise the positive symbolism of the technology. Post such initiatives, having established eco-cars as symbolically connoting being a member of the elite, affordable domestic models could then be promoted to more price sensitive consumers. In section 5.3.1 it was described how fiscal incentives had increased the sales of eco-cars in China, albeit from an extremely low base - further research into who these new purchasers *were*, would be of benefit.

The fact that the interviewees from the high PDI/collectivist culture stressed that within their societies eco-cars currently lacked symbolic value, however, may be seen as an opportunity to create a positive image within certain contexts. Targeted marketing can show eco-cars as novel, youthful and modern. This may be especially appealing to younger people living in liberal enclaves or mega cities away from the constraints of their collective family dynamics. Within such contexts there may be scope for promoting eco-cars provided, as elsewhere, the practical impediments are not onerous, and do not dilute the symbolic (subchapter 7.1.1 discusses the interface between the instrumental and the symbolic).

6.2.2 Public transport

The interviewees from the high PDI/collectivist cluster stressed that in their societies the use of public transport generally connoted being unable to afford a personal motorised mode. This may be less the case if the public transport mode is a metro system. As noted in subchapter 2.3.2 rail-based systems seem to bring far higher levels of symbolic capital to a city than bus-based systems. Metros are frequently seen as a 'symbol of progress…an

economic and technological leap forward' (Rediff, 2006). Even then, the interviewees from the high PDI/collectivist cluster noted that some wealthier people may only be comfortable being seen using the metro for work trips - there would still be a symbolic need to retain and use their cars for leisure and ceremony related trips. Transport symbolism being driven by trip purpose is discussed as a potential inductive code for further research in subchapter 7.1.1.

The interviewees from the high PDI/collectivist cluster stated that removing a bus-based system's image as a mode for the poorer classes would be extremely challenging in their cultures; the prospect of people from their social class welcoming being frequently seen using a bus seemed incredibly slim. A middle class family known to own a car, using a bus as their primary mode would provoke gossip at the very least, and would likely elicit comments from third parties. Furthermore, on occasions where stressing financial capacity was important - marriage or work related meetings - being seen arriving by bus would be very likely to have overtly negative consequences. It was stated that many families would intervene and insist on people from their collective travelling in a more appropriate manner, to prevent them from being exposed to negative judgement. To a far lesser extent the interviewees from the low PDI/individualistic cluster flagged that buses were sometimes seen as a poorer person's mode in their own cities, but this did not put anyone off using them if it was the most sensible choice for practical reasons.

The negative connotations of bus-based travel for the interviewees from the high PDI/collectivist cluster also applied even if the bus service was upscaled symbolically through the provision of a BRT system. This presents a policy dilemma as BRTs can provide very high levels of capacity for far lower costs than full metro systems. In chapter 2.5.1 it was noted that new BRT schemes are being built in several Indian cities - research into *who* is expected to use these schemes and whether or not they are existing car owners will be informative. Efforts to stress the modernity of BRTs, and their use by *all* citizens in other places may be of some benefit. That said, it may be sensible from a policy perspective for governments to accept the relatively positive symbolism of rail-based systems as a given, and to provide them when they can be afforded (noting that in many cases it may not be the decision of the domestic government if the funding is being provided by an external party - see subchapter 2.6.2). If the middle class in Indian and Chinese cities see metro systems as conferring respect upon both their users and cities,

then it seems sensible to utilise this emotion if cost does not present an insurmountable hurdle.

If metro systems *are* chosen over bus-based options for reasons of positive symbolism, and priced more highly at point of usage to encourage existing car drivers to use them, however, this raises social equity concerns. Lower income groups would be 'priced off' the mode. In some highly status conscious cities, lowering metro fares and funding the decline in revenue through subsidies could have the unintended consequence of pushing more affluent users off the system and into their cars, due to them being forced to mix with what some interviewees described as 'smelly people' or 'outsiders' (it is perhaps for this reason that the new metro in Dubai has first class carriages). A subsidy could, paradoxically, symbolically function in the manner described by one South Asian interviewee when describing tax breaks for eco-cars - it could actually *lower* the symbolic value of the mode. Such notions go against the logic underpinning the suite of transport modelling tools which assume lowering a fare or purchase price will increase the demand for the product. If the financial saving imposes a symbolic cost, then examining how this manifests itself in overall utility is a subject for further research. It would be informative to note which segments of the population the reductions in mass transit fares in Beijing (flagged in subchapter 2.5.1) encouraged onto public transport, and if this pushed any affluent users off the modes for symbolic reasons.

In instances where rail systems are unaffordable, or bus-based systems are mandated by an external funding agency, another policy option is to tier the offering of the bus services. Premium services would be aimed at attracting car commuters keen to differentiate themselves from people who are captive to buses due to income constraints. Making the higher cost of these services widely known would help convince society that those not choosing to use their cars and opt for the premium bus, had made a genuine choice. Again, this solution raises questions of social equity. A public transport system needs to be attractive enough to attract people out of their cars *and* cater to the basic needs of those captive to it. In cases where social tiering is important, improving the symbolic value of a mode may trade off against requirements to provide affordable accessibility for as many people as possible. Offering a model where premium services sit alongside standard, may hopefully allow for cross subsidisation to ensure that all users' needs are catered for, be they practical or symbolic. It seems a reality that modal tiering for symbolic reasons and homogenisation of modes, do not readily go together, as noted by Woolley (2011):

> The status dimension of public transit creates dilemmas…there is a trade-off between providing transport services to the truly needy and creating services that will be appealing enough to get middle class commuters out of their cars. Airlines know that people are uncomfortable with the compression of social distance forced by travel. That's why there is a curtain between first class and the rest of the plane…would buses be more appealing if there were first class?

Another symbolically driven public transport policy option for governments in the mega cities of India and China, which aims to encourage the more affluent from their cars, is to focus on modifying normative influences through targeted marketing campaigns. Taking the words of Mayor Peñalosa of Bogota, and embedding them into social marketing campaigns may prove of use:

> A developed country is not a place where the poor have cars. It's where the rich use public transportation…an advanced city is not a place where the poor move about in cars, rather it's where even the rich use public transportation (City Atlas, 2018).

As noted earlier such initiatives may have limited success, because visitors from high PDI/collectivist cultures may readily use the New York subway surrounded by all social classes when on vacation, but refuse to be seen on public transport in their home nation. Pilot projects can provide further guidance on this issue.

6.2.3 Non-motorised modes

The interviewees from the low PDI/individualistic cluster stressed that walking and cycling were bona fide primary modes of transport within their cities. As barely anyone was so financially constrained to be unable to travel around by public transport, there was no question of the non-motorised modes being seen as a last resort. Walking and cycling demonstrated being fit, active, educated, and environmentally conscious - all of these were high status markers. They also often showed that one was able to afford expensive inner city real estate, which acted as a proxy indicator for wealth.

A totally different set of views was expressed by the interviewees from the high PDI/collectivist cluster, and this contrast was reflected in the coding densities. As a primary mode of transport, walking and cycling were overwhelmingly seen as connoting poverty. It is likely that this is partly a function of practical factors, in that nobody would

assume people who had a genuine choice would choose to expose themselves, in extreme climates, to an extremely dangerous and polluted cycling environment, or wish to walk in muddy areas where there was often no pavement. Labour intensivity, suffering or sweating, appear to show constrained incomes in cities where cheap labour abounds.

Some interviewees from the high PDI/collectivist cluster, stated that it was a sign of status to be seen walking and cycling for exercise, away from the major traffic arterials at certain times of the day. For example, someone cycling in a park early in the morning dressed in cycling clothing would receive appropriate social credit. But any positive symbolism would evaporate if it was clear that the mode was being used to travel more than extremely short distances: beyond a threshold it came to be seen as a primary mode.

If active transport may be seen to epitomise 'best practice' transport policy in other countries, it seems unlikely, leaving practical issues aside, that as the current symbolism stands, walking and cycling would be adopted as primary modes of transport by significant sections of the wealthier populations within the urban cultures of India and China. Schemes such as Ofo in China may possess symbolic novelty value for very short trips within the city, and even offer notions of modernity, but large piles of discarded cycles[32] seems to testify to its failure as a commute mode (Haas, 2017). Producing policy documents stating that walking and cycling should be promoted is one thing, but getting people to walk and cycle is another. If cycling or walking lead to a loss of respect in society and tension with 'in group' peers, then they are likely to remain hard policies to promote. Within the highly status-driven urban cultures of India and China, it is unlikely that anyone of fiscal means would willingly face the embarrassment of being quizzed by a hotel doorman as to their suitability to enter a premises, in front of those they were seeking to impress.

On a more positive note, it is arguable that in the low PDI nations in cities such as London, it is the gentrification of some areas and the 'hipster' retro culture (noted in a quote in subchapter 5.2) that has made cycling fashionable. Replicating pockets of this might be possible in certain areas of Indian and Chinese mega cities. In addition, one interviewee from the high PDI/collectivist cluster noted that walking was acceptable when distances were so small so as to negate any negative symbolism. This points to the promotion of integrated land use and transport initiatives where expensive apartments are within

[32] These cycles are not 'tied down', i.e. there is no docking station.

commercial centres, and one could easily walk to the office. Within such an environment, walking could acquire symbolic value by being associated with working for a certain company or living in a particular apartment block. This may be symbolically challenging, however, in situations where the rich have considerable hired help - maids, cooks, cleaners, and drivers - who live within a family's home or immediate vicinity, and travel by cycle or on foot. Clothing may offer a class differentiator, but different attire may not always be a given outside of work hours.

6.2.4 Car sharing (shared mobility)

The interviewees from the low PDI/individualistic cluster felt positively about car sharing. Many chose not to own their own cars and instead used schemes such as Zipcar when required, to remove the fiscal and practical burden of ownership. This was in tune with the interviewees from the low PDI/individualistic cluster stating that being able to manage one's money and conserve resources conferred symbolic capital within their group. Sharing was seen positively, a social good. Families and friends were likely to be applaud a decision to car share - one interviewee noted how a lot of his peers in London thought he was foolish for owning a car. This group did not mention shared ride-hailing applications, so no insights can be offered into how they feel about the symbolism of such schemes. Ride-hailing has, however, been successfully implemented within many of the cities from which the interviewees from the low PDI/individualistic cluster were sourced, and there seems little reason to speculate that it may incur negative symbolism, at least from the perspective of it connoting limited financial means.

Relinquishing ownership of an important *ceremonial* asset such as a car, however, was expressed as being socially unacceptable by the interviewees from the high PDI/collectivist cluster. The asset did not belong to the individual but the family, and ownership of a certain car brand and model was important as a status marker for mutuality in transactions. Choosing not to own a car if one could afford one, was seen as culturally unacceptable. The notion of being 'car free' was anathema. Interviewees stated how sharing was seen as a 'come down', a way of humiliating one's family by not spending to one's full capacity to show the group in the correct light.

It seems, however, that if modernity brings social capital within the high PDI/collectivist societies, then, there is scope to show sharing as being an intrinsic part of the consumption of a high status brand, via ride-hailing apps such as Uber Pool. The symbolic status in

this instance would come through the ride-hailing brand and the ancillary technology - the smartphone. Ancillary status markers and how they evolve was also described as relevant when noting the symbolic renaissance of the cycle rickshaw when taking people to and from the metro in Delhi.

It already seems that within the cities of high PDI/collectivist nations, wealthy people are embracing ride-hailing - this should set a symbolic norm for others, and hopefully encourage greater sharing. The fact that for destinations where one is not known, ride-hailing also potentially offers a way of pretending that one has a prestigious car and driver, warrants further research. The use of shared mobility apps, is seemingly leading to phenomena such as business networking or dating, provided one is kept with one's own social group. This means that the transference of the symbolism of shared economy norms from low PDI/individualistic nations to high PDI/collectivist environments, may be possible, provided who one shares with is controlled and tailored to cultural norms. For those who believe in communality this may seem an elitist assertion, but it could be argued it is positive from a policy perspective, even if only because it may mean less personal car usage.

6.3 Policy transfer implications and recommendations

The fourth sub research question asks *if* strong modally symbolic differences seem present between the two meta cultural groups, what might this mean for sustainable transport policy formulation within, and transfer from other nations to, the mega cities in India and China? Given strong modal symbolic differences do seem evident between the two meta clusters, if the package of remedial measures being considered consists of promoting greater use of public transport, encouraging a switch to 'eco-cars', a greater use of non-motorised transport, and more car sharing, then it is highly likely that symbolism would act as a barrier to, or a facilitator of, some of these initiatives, within the high PDI/collectivist cultures being studied. Buses (even BRTs), car sharing, and non-motorised modes seem to connote limited financial means. Eco-cars appear to not connote anything at present. Metro systems and shared ride-hailing apps seem to connote modernity.

An attempt to transfer a package of sustainable transport solutions to the mega cities in India and China, would appear to require a suite of measures to construct normative

influences, that steer the collective decision-making process and allow a group to continue to appropriately represent their status. This strategy needs to not only attempt to overcome symbolic barriers but also play to symbolic strengths. Regardless of their respective instrumental capabilities, accepting that metros bring greater status capital than buses seems necessary. Where bus-based systems are mandated then social marketing campaigns stressing their usage by all sociodemographic groups in cities such as Sydney may have some effect at the margin. In addition, tiering a bus offering is likely to lessen symbolic barriers. Eco-cars have a clean symbolic 'slate' so can be marketed and priced for more affluent social groups, to establish a positive symbolic norm, and facilitate the mass production of cheaper models for mass consumption at a later point. Promoting the symbolism of walking and cycling in high PDI/collectivist environments seems especially difficult, but there may be niche opportunities by integrating residential and commercial developments, and targeted marketing to create niche pockets of active transport. Lastly, it seems that asset sharing, and the shared economy is unlikely to replace ownership as a way of conferring symbolic capital in some environments, for some time. What may be hoped for, however, is that the symbolic value of smartphones and ride-hailing continues, and these promote through ancillary positive connotations, shared mobility as an alternative to car usage if not ownership.

Some of these measures may be seen as acting against social equity. In overcoming symbolic barriers and setting social norms, governments need to also ensure that the essential mobility needs of all citizens are not neglected. It is one thing to have a premium service operating alongside a lower cost service. It is another to remove the basic level of service altogether to further disadvantage the poorest citizens. It may be the case that premium levels of service are able to fund social services through a revenue cross subsidy mechanism.

This leads to two overarching *symbolically related* policy recommendations for the Indian and Chinese mega cities. The first is to accept and play to symbolic strengths or realities where they are already present for a mode, or if the mode is relatively new and the symbolism is not yet established, cultivate positive symbolism through targeted marketing. The second is to allow modes to utilise other modes' and technologies' positive symbolism through association. This overarching strategy means accepting that car ownership has a significant symbolic function within the high PDI/collectivist cities of India and China so, within a purely symbolic incentivisation context, the policy thrust

is not on the prevention of car *ownership*, but the discouraging of car *usage* by symbolically elevating the sustainable modes as alternatives which cause no loss of face or respect.

The sustainable transport policy aspirations set out by the Chinese and Indian governments were flagged in subchapter 2.5.1. The findings of this study thus allow suggestions as to how the symbolic potential of these suggested policies may be maximised.

If the investment priorities of the Chinese government have moved towards constructing public transport systems, then where possible metros should be built rather than bus-based systems. China already has forty cities with metro systems, so this seems a feasible aspiration. In addition, the lowering of transit fares in Beijing in 2010 may have attracted more customers onto the metro system, but paradoxically, could have also had a reverse symbolic effect by making the mode less attractive to the affluent. Pilot projects to examine the effects of premium priced first-class carriages - such as exist in Dubai - should offer insights into how car usage may be affected in both the peak and off peak. Furthermore, if the newly emergent optically-guided trackless tram technology currently being trialed in Hunan (Newman, 2019) shows greater symbolic value than BRTs then these should be encouraged where metros cannot be afforded.

In terms of ancillary symbolic capital, the positive connotations of metros and ride-hailing *may* be harnessed through the introduction of smartphone hosted 'Mobility as a Service' (MaaS) apps, which offer a 'whole journey' series of options to a car trip, bundled into a single price (Belmore, 2019). This offers scope to include access and egress (last mile) modes - non-motorised transport, and new motorised micro mobilities such as electric cycles and scooters (Apostolou and Reinders, 2018; Hardt and Bogenberger, 2019) - into the whole trip purchased through the MaaS portal. Common branding may help show that a trip is part of a MaaS product hailed and paid for through a smartphone, so as to play to symbolic value. Both the Chinese and Indian governments should encourage the development of MaaS applications and platforms. As of January 2020 MaaS services are being trialed by Didi in Chengdu.

The Chinese government's recent removal of subsidies to eco-car buyers has led to a decline in sales (Wong, 2019), but at present the market is primarily characterised by domestic brands. The entry of prestigious overseas eco-car brands such as Tesla into the

market- Tesla have recently opened a manufacturing plant near Shanghai - priced at a premium, could help normalise *all* eco-car brands as socially desirable. Furthermore, incentives to encourage Didi and other emerging MaaS platforms to bundle eco cars into premium priced trip offerings may also enhance the symbolic value of the technology.

In India, metro systems are operating with high levels of ridership in Delhi, Bangalore, Kolkata, and Mumbai; they are also being opened and expanded in Ahmedabad, Hyderabad, Lucknow, Chennai, Jaipur, Kochi, and Nagpur. There may, however, be more cost barriers associated with metro systems in India than in China. Therefore, where BRT systems are the only other affordable mass transit option, premium service offerings should be considered. There may also be potential for trackless trams in India, should they prove more symbolically appealing than BRTs, although the distinctive mixed traffic conditions in Indian cities may make optical guidance difficult.

The comment above regarding MaaS platforms symbolically enhancing the symbolic value of the existing (rickshaws) and newer last mile access/egress modes (motor scooters and electric cycles) is also pertinent for Indian cities, although due to road conditions and the traffic mix there are likely to be more safety concerns with the newer last mile modes in India than in China - this may lower their symbolic connotations. Cycle rickshaws have been described in this study as a mode which has had a symbolic uplift due to it taking passengers to and from the metro – formalising this offer through integrated pricing and branding/livery could enhance this trend.

The Indian energy minister has flagged an aspiration that by 2030 not a single petrol or diesel car should be sold in the country, only electric vehicles. Currently Hyundai, Nissan, Tata, and Mahindra and Mahindra, manufacture eco-cars in India. This study indicates that eco-cars may currently have limited or negative symbolic status in India. This could be rectified by not offering subsidies or tax breaks to buyers, and premium pricing the vehicles until they have been normalised as a status symbol for the affluent. Helping imported brands such as Tesla into the market may accelerate this – at present Tesla are supposedly not expanding in India because of tariffs (The Economic Times, 2019). Following normalisation, cheaper subsidised models could be developed, and stronger scale economies in turn be achieved in the charging network.

6.4 Study limitations

An important question is to what degree a nation's stage of automobility drives symbolic transport choices in tandem with its cultural imperatives? In nations where gross domestic product is rapidly rising and mass car ownership is becoming available through local manufacturing, the relative symbolic attributes of each of the modes are likely to be in a greater state of flux than where the modal suite is settled. If everyone can afford a car and cars are no longer novel, some of the symbolic lustre may have worn off. Stage of automobility does not negate the imperatives of national culture, however, only how it manifests itself. Ultimately decoupling the effects of these variables is extremely challenging. 'Stage of development' is noted in subchapter 7.4.1 as a potential horizontal inductive code for formal development and subsequent coding in the dataset.

Furthermore, the symbolism of the modes in question, and the current cultural imperatives, only apply to this point in time. If national culture can be seen as the independent variable driving symbolic imperatives, and is dynamic and in some cases hybridising, then it would be expected that as technologies evolve and mass car ownership becomes a reality, that the symbolism of the sustainable modes will morph in many countries. Uber is a good case in point - the use of Uber seemingly brings more symbolic value than a regular metered taxi in high PDI/collectivist nations. The same may apply to non-motorised modes, not as a primary mode but as an asset consumed communally through hire schemes for short trips ('Boris Bikes' 'Ofos') or to access more symbolically valuable, longer distance modes such as a metro.

As to the method deployed in this study, whilst there has been a strong attempt through purposive sampling to minimise sociodemographic influences among interviewees, it is impossible to guarantee that they have been totally negated. Similarly, other horizontal variables are likely to be at play in shaping people's views - age, gender, locational cultures, being examples. The need for further research into other vertical and horizontal drivers of transport symbolic choice is noted in subchapters 7.2 and 7.3.

Method-specific limitations also need to be flagged. Commentators such as Baker and Edwards (2012) advise that twelve interviewees from a relatively homogenous group should ensure thematic convergence, but this cannot be guaranteed - it is likely that individual preferences inevitably lead to some heterogeneity in the sample. Finally, the coding reliability and thematic validity exercises have been undertaken as robustly as

possible within the resource confinements of the study. But the use of several reliability coders to calculate the coding reliability statistic, and the reliability coding being only undertaken on a small selection of the transcripts, means the coding of the primary coder is not infallible.

To conclude this section, there seems to be a clear rationale for expanding the theory from the interviewees to a local theory for the population in question. The results can thus be seen to have met external validity criteria in that they are extrapolatable beyond the interviewees sampled. There appears to be a justifiable basis for moving to further research to grow the research programme. This is described within the next chapter.

7 AREAS OF FURTHER RESEARCH

A primary goal of this study - theoretical expansion - was described in subchapter 3.1. It was noted how, the early status of the line of inquiry lends itself to an initial task of unpicking the underlying dynamics of symbolic transport modal choice across the cultural clusters. This will demonstrate if the premises mooted from the Hofstede indices appear to have merit, which will in turn facilitate an expansion of theory which can be refined and tested among a larger population of interest. Such a method is in line with Newton-Smith's (1981) research goal of theoretical fertility. Newton Smith is of the view that 'good' theories are fertile and can steer further research. Swanson (1988) also sees a valid theory as guiding further research. Meehl (1992) uses the term - a 'theory's…fertility of fruitfulness'.

The research philosophy within this study is aligned with Lakatos's (1978) philosophy of research programmes, which sees theories not as standalone entities, but webs of complex interlocking premises. To Lakatos, a research programme was seen as valid when it rapidly generated ancillary ideas, whilst protecting the core premise from premature falsification. In this instance the core premise is the meta research question: 'does national culture seemingly affect the symbolic aspects of transport choice?' To examine this, the Hofstede indices were used to generate four ancillary research questions. On the basis of the results offered within Chapter 5, the hypotheses inherent within these research questions, seem to possess validity, but the analysis flags caveats, and notes necessary additional lines of inquiry. These can be seen as the ancillary premises by which the Lakatosian method expands theory and are presented within this chapter.

The chapter is structured in several subchapters. The candidate inductive themes which emerged from the data and need to be further developed, will first be discussed. Following this, suggestions for quantitative work to test and triangulate findings will be provided. There is then a discussion of vertical and other horizontal drivers of symbolism which seemed apparent within the dataset. Finally, other areas of potential work are noted. Further quotes from the dataset are offered to demonstrate there is merit for including a topic within this chapter, but are not discussed in depth.

7.1 Candidate inductive themes

The candidate inductive themes arose from the quotes in Chapter 5 and formed part of the narrative within Chapter 6. They can be seen as caveats emerging from the derived Hofstede themes (Beirão and Sarsfield Cabral's [2007] 'ifs, buts, and maybes'), but for the reasons described in subchapter 3.4.2 they were not formally derived and validated. The validation of inductive themes, the process of which is described in Boyatzis (1998), Braun and Clarke (2006), and Guest et al (2012), would be the next phase in their development. Post validation these themes could then be coded across the dataset to establish coding reliability and differences in cluster coding densities.

Each potential inductive theme will be presented in turn.

7.1.1 The interplay between the symbolic and the practical

Conjecture that the symbolic and the practical motivators of symbolism are to some degree entwined, supplements the work of Steg (2005) and Dittmar (1992). Whilst symbolic motivation in transport choice is isolatable as a factor distinct from instrumental and affective motivation, this does not imply that they are not related in a causal chain. If someone using a mode for cost reasons, presents a symbolic image that may not be in line with how they wish to outwardly present themselves, this could cause feelings of shame and sadness. The need to feel positively about one's place in society, could be why some groups spend more disposable income on status symbols than they do healthcare or education (Linssen et al, 2011; Bloch et al, 2004). The linkage between instrumental, affective, and symbolic motivation, could be further explored through quantitative work.

Interviewees from all groups stressed the interrelationship between symbolic and instrumental motivation. If someone using a mode was seen to be 'suffering' (distance, climate, safety risk, or time, all being indicators) often people assumed it connoted few choices, In such instances, the symbolic value of the mode, if it possessed any in the first place, lessened. This was especially true of walking and cycling, the slowest modes, which both expose the user to the climate within which they are travelling. The way in which the symbolic interacted with the practical was seen to differ between the two meta clusters:

> In London's culture the symbolic stuff is largely irrelevant because the practicality takes over (Anglo 3, M, London, 38. Also in 5.2 'Mention of culture generally').
>
> …transportation wouldn't be relevant. If you stopped buying your lunch people might wonder if you were suffering (Nordic 9, Amsterdam, M, 42).
>
> If I was cycling 40kms in the heat out of necessity, then it would say something but…(Anglo 4, F, Sydney, 32. Also in subchapter 5.3.3 non-motorised modes).
>
> It's the distance that makes you able to tell the difference. If you are close to the office, it means you might not be poor. If you cycle a long distance you can't afford the bus (Confucian 2, Taipei, M, 44. Also in 5.3.3 non-motorised modes).
>
> People do walk to work but the work has to be very close (South Asian 4, Chennai, M, 35. Also in 5.3.3 non-motorised modes).
>
> There's less embarrassment to walking if it is a short distance. Cycling says 'the guy is a fool!' (South Asian 6, Mumbai, M, 32. Also in 5.3.3 non-motorised modes).

An instrumental factor which warrants further attention is trip purpose. In the South Asian or Confucian context this seemed especially true for trips where families came together to discuss marriage union or when the travel is within a business context. Such segmentation of trip types by symbolic importance seemed irrelevant to the interviewees from the low PDI/individualistic cluster:

> If I was hiring a lawyer and he arrived on a bus I would be delighted. I would not judge his professional ability (Nordic 1, Rotterdam, M, 48. Also in 5.3.2, public transport).
>
> If someone showed up at a wedding in a car belching smoke it would be a joke. It's not like people would be shunned on the dancefloor (Anglo 11, New York, M, 45. Also in 5.4, PDI codes).
>
> I don't think sharing would eventually replace ownership. First in Chinese opinion, self-owned is better than sharing. Second, for short trips and informal occasions, it is okay to use shared mobility…but for formal occasions such as

> weddings and business contacts it is not suitable to use shared transport…especially for a wedding, it is a quite big event in China (Confucian 11, Shanghai, F,28. Also in 5.3.4.1, car sharing).
>
> They even joke about Tata releasing a car for people to leave outside their house and not use called 'Tata Seldom' (South Asian 3, Delhi, F, 27. Also in 5.3.4.1, car sharing).
>
> The family wouldn't let them sell the car. They won't go car free. People hold onto their cars. If they do sell their car how will they travel to occasions when they have to show off their status? I've seen people going to weddings dealing with flat batteries because the car hasn't been used for weeks…all dressed up and the car won't start (South Asian 6, Mumbai, M, 32. Also in 5.3.4, car sharing).
>
> If I had gone to a meeting of this nature in a suit and arrived by bus, and been seen by the person I was meeting, then he wouldn't say anything, but he would probably think 'What's wrong with this guy? Why has he taken a bus, is this reflective of something more, can I be doing business with him?' (South Asian 10, Mumbai, M, 45. Also in 5.3.2, public transport).

7.1.2 Perceptions of true modal choice

If one was known, guaranteed, to be able to afford a full modal choice set, but *elected* to choose a cheaper mode, the symbolic imperative to show status seemed to drop off. Generally, full modal choice was assumed as a given for the group interviewed from the low PDI/individualistic cluster (the only exception was bus users whom some interviewees felt might be captive to their mode). This was not the view expressed by their counterparts from the high PDI/collectivist cluster. This group stated, that unless someone was known *without doubt* to be wealthy enough to have a full choice set, that given the fragility of wealth in their culture, it would be assumed they had suffered a drop in income:

> Say I stopped using my car and started taking the bus to work. My friends would assume I was making a responsible choice as an adult and if it was a socially responsible one then they'd respect me for it. No. no embarrassment. Also, who would see me? It's not like anyone in their friends' group is watching what I am doing is it? (Anglo 4, F, Sydney, 32).

> The buses serve the areas of the cheaper housing, and they seem to show that you don't have complete choice, that you have to use the bus (Nordic 10, Rotterdam, F, 33. Also in 5.3.2, public transport).
>
> The type of people who use the bicycle splits into two. Poor people… that's most people who use the bicycle because they live far away but have no choice about how to get to work. But there are also office workers who want to get some exercise (Confucian 11, Shanghai, F,28. Also 5.3.3, non-motorised modes).
>
> A BMW to a small car? I would make a judgement, think something has happened. In society at large a person's mianzi will suffer. Chinese society is not very stable. It isn't impossible you would lose your money overnight (Confucian 6, Beijing, F, 31. Also in 5.5.2, judgement and sanctions).
>
> …a shared car, I wouldn't think anyone who used such a thing in India would be trying be efficient or anything. The Indian people would think he cannot afford to own his own car. Either he has problems maintaining it or can't afford to buy one (South Asian 2, Chennai, M, 31).

7.1.3 Avoidance of showing frugality

The interviewees from the low PDI/individualistic cluster generally stated that showing an ability to conserve resources and spend wisely, was highly regarded among their peers and family as a sign of being a responsible adult. This group stated that some people within their culture *were* under pressure to spend beyond their means to project status when moving around, but these expectations only generally existed for groups other than their own. Examples offered were 'self-made' people, whose professions had low levels of formal educational requirements at entry level (e.g. real estate agents), or new migrants seeking to show they had 'made it' to relatives in their country of origin. 'Stage of wealth' and 'symbolism in migrant cultures' are discussed as potential further research topics in subchapters 7.3.2 and 7.5.

Conversely, the interviewees from the high PDI/collectivist cluster expressed the view that within their society not spending to the full extent of one's disposable income will mark someone as 'stingy' or 'greedy', which within their cultures were signs of poor character, manifestations of 'not treating one's family well'.

I do not know of anyone who would be offended if their son or daughter sold their car for cost reasons, for saving money…it would be the reverse…they would admire them for managing their money well (Anglo 1, London, F, 32).

Who would judge me? People don't care. Some people might judge you positively if you went from car to public transport and walking, and they'd think you were perhaps shrewd. For me being shrewd and clever with money is a positive thing. Why waste money. What's the point? There's no benefit (Anglo 10, London, M, 26).

The way you would get the praise is to show that you can travel economically, that you weren't polluting and were healthy (Nordic 5, Oslo, M, 41).

Dutch people don't like people wasting money. Modesty is important…This issue of social status and transport is irrelevant in Holland (Nordic 8, Amsterdam, M, 48. Also in 5.4 PDI codes).

If someone doesn't want to show the family in the best light, then the family would need complete justification. If you say you want to save money it won't gel with them as they will say… 'don't' be stingy'. There would need to be a very defensible reason for them not to show the family appropriately…they'd be hostile to such views (South Asian 10, Mumbai, M, 45).

People who do not spend all their disposable income when buying a car in India will be seen as greedy or less talented…If I buy an electric vehicle the people will think I am the worst person, a good for nothing, who is seeking help from others. They will think I bought it to charge it at the office…and show me disrespect for being greedy…(South Asian 1, Delhi, M, 29).

If he brought a small car I would think he was frugal or a little stingy and it's not good in my culture for people to think that you are stingy with money (Confucian 2, Taipei, M, 44).

People would think, why not take a taxi? People might think you were saving money and that would be a face issue (Confucian 9, Shanghai, F 28).

For the interviewees from the high PDI/collectivist cluster, the above would only not apply if someone was known, without doubt, to be extremely wealthy. Then the dynamic was inverted and frugality was lauded for being 'humble' or 'eccentric':

> I think some people would admire a rich person cycling. Paying back things to society… people could look favourably on that (Confucian 11, Shanghai, F,28).

> Respect… is associated with your occupation…let's say there is a person who is popular and well respected, he could actually take a bicycle and people would admire him for his simplicity. But he would have to be well known in the first place (South Asian 4, Chennai, M, 35. Also in 5.5.2, Judgement and Sanctions).

7.1.4 Proximity to family and liberal enclaves

It was noted within chapters 5 and 6 that the symbolic imperatives expressed by the high PDI/collectivist interviewees might lessen in the case of younger people living away from their families in major cities or liberal enclaves. Information Technology hubs such as Pune, Hyderabad or Bangalore may, in this instance, prove excellent locations for pilot research programmes, examining the potential for symbolically marketing active transport, eco-cars, and shared mobility:

> My wife's family, though, they have lived in the Shanghai area for many years but not in the city anymore but quite a long way away from the centre…in their area, it's suburban, they know everything about everyone, their economic status. I say to my wife there is no secret in her family. If something private happens then everyone knows. It is different in the metropolitan area. There people are not so visible as they are sometimes not close to their families. It can give them more space to make their own decisions without worrying so much about what the family will think or do (Confucian 1, Shanghai, M, 36).

> We don't even know the name of the electric vehicle brands. But once they are properly marketed there will be an opportunity. As of now the market is clean for electric vehicles as people have no perceptions…only if I am living alone in Bangalore or some IT hub away from the family then I can buy the

vehicle (hybrid car) then tell my father (South Asian 1, Delhi, M, 29. Also in 5.3.1, eco-cars).

The zipcar thing – car sharing – I think it's too early for India at the moment. It could catch on among young people if you presented it in a fashionable, cool, light. And perhaps in places where people are living and working away from their families. So, Bangalore attracts a lot of young people who work in IT and it has awful traffic. And many people who go there don't necessarily intend to stay there all their lives. In this case then perhaps these kinds of ideas could make sense. So, cities like Pune, Bangalore, Hyderabad, cities that aren't so family oriented then then could catch on. It's a young, urban, sort of idea, and if they are away from the traditional family constraints, then it's more out of sight out of mind (South Asian 11, Chennai, F, 32. Also in 5.3.4 car sharing).

7.1.5 Flow of symbolic information to enable positioning

Social comparisons need information flows to allow the behaviour of others to be communicated and calibrated among groups. Among the low PDI/individualistic cluster it was noted that within cities, although perhaps not suburbs (see subchapter 7.4.2), people were generally disinterested in such information.

Say I stopped using my car and started taking the bus to work…who would see me? It's not like anyone in their friends' group is watching what I am doing is it? (Anglo 4, F, Sydney, 32. Also in 5.6.2, perceptions of true modal choice).

My boss wouldn't know how I got here. I've no idea what kind of car he has. I assume he has one. But I've no idea. He couldn't get upset with me having a better car as we'd never even know each other's business (Anglo 10, London, M, 26).

How I travel to my meetings is up to me and nobody would notice or ask…if I didn't turn up to an important meeting in a flashy car. Nobody would know (Nordic 3, Oslo, F, 31).

If I sold my car and began using a bus my parents would not try to stop me….they don't care how I travel…We don't talk about it. We don't watch others and they tend not to watch us (Nordic 12, Amsterdam, F, 27).

The interviewees from the high PDI/collectivist cultures suggested an opposite dynamic. Within their cultures they said an active gossip grapevine existed, through which symbolic information flowed:

> Your family would know what car your boss drives. There's an informal information network… you want to find your right position…know where you fit in the hierarchy. The right watch, the right car. If you upset the hierarchy the crowd will turn against you. Talk about you. Think you are disruptive (Confucian 12, Beijing, M,25. Also in 5.4, the PDI codes)

> If you traded off your BMW for a hybrid car, which normally costs less, your family might think you need some money as it could signal a financial problem. Aunts might gossip, not because it is a hybrid car but because it is a cheaper car with lower cost (Confucian 8, Shanghai, F 30. Also in 5.3.1, eco-cars).

> 'You have a car…why are you cycling?' They were gossiping. So, in the end I had to give up and walk to the office instead of cycling (South Asian 6, Mumbai, M, 32. Also in 5.3.3 non-motorised modes, and 5.6.1 the interplay between the symbolic and the practical).

> If you are seen to be using a lesser mode for a long period of time and not using your car, people would gossip…there would be a lot of 'hush hush' going around…if they found it was not a personal choice then they might not want to be seen with you so much anymore (South Asian 8, Delhi, F, 48).

7.2 Quantitative work – triangulation through mixed methods

Further to this study there is a strong justification for moving to quantitative work. This would be in keeping with goal of abduction noted in Chapter 3. Such a 'mixed methods' approach allows qualitative methods to generate hypotheses and strengthen the core theory, followed by quantitative methods to then test and refine the generated hypotheses. This allows the core proposition to be reappraised, and the cycle begin again to further theoretical growth. Mixed methods has been described as flexible and pragmatic (Bryman, 2012; Tashakkori and Teddlie, 2010; Teddlie and Tashakkori, 2012; Minkov and Hofstede, 2011). This is because it allows the analysis of quantitative data to be

appropriate to the task at hand, whilst facilitating rigorous and insightful qualitative dialogue throughout the research cycle (Mertens, 2007; Howe, 1988; Krathwohl, 1993).

Here, mixed methods would be used for what Hammersley (1996) describes as facilitation - termed 'sequential triangulation' by Morse (1991) - where one approach acts as the basis for the development of research strategies in the other. Morgan (2015) summarises such an approach as letting the derived themes from the qualitative methods generate hypotheses for testing through quantitative methods, translating concepts from the qualitative themes into quantitative variables. Such an iterative approach dispenses with 'epistemological chauvinism' to enrich an understanding of phenomena (Campbell, 1988; Boyatzis, 1998). Harkness et al (2006) deployed qualitative research to generate measures to be used in questionnaires in different cultures.

Quantitative work would first consist of taking the findings of this study, and, as per the work of Steg (2005) using it generate a Likert scale questionnaire for dissemination among the population of interest (DeVellis, 2011; Rubio et al, 2003; Wuensch, 2012). The integration of sociodemographic variables such as age, location and education level into the survey, would allow other drivers of symbolic choice to be explored, i.e. it will help the process of growing the findings vertically *within* a sampled nation. Vertical themes inherent within the current dataset which are strong candidates for further research is the subject of the next subchapter.

7.3 Vertical drivers of symbolism within the dataset

Bourdieu (1984) established that within a culture vertical symbolic behaviour is visible where different classes compete for symbolic capital or status honour using ever evolving symbols to demonstrate placement in a class hierarchy. As the tier below acquires the symbols of those above, members of the tier above discontinue displaying the same symbols and adopt those of the group above them (who in turn adopt another symbol being displayed by the group above them).

It was evident in the data that wealth, stage of wealth, education level and what was termed 'social class' were drivers of symbolic transport choices. There may be a correlation here with other horizontal variables in that certain groups may cluster in specific locations - for example 'new money' may be more inclined to buy larger houses in suburbs. Research into the vertical drivers of symbolic motivation in transport choice

would seek to compare differences across, and within, the clusters developed within this study.

7.3.1 Wealth

The 'rich' were often mentioned by each group:

> In London often the rich tend to disguise their status when they travel. There's a lot of hiding going on.....it's not good....being so obvious...(Anglo 7, London M, 44).

> Walking to work means you are lucky because you live close to your work. Most people live too far away. Richer people live in the city so walking to work is to some extent a sign that you are wealthy (Nordic 3, Oslo, F, 31).

> If the rich people use the bus then people would think they are very strange. High level people wouldn't use the bus (Confucian 6, Beijing, F, 31).

> I think it is more to do with the upper middle class and the rich class, regardless of whether they are driving the car or they are being driven around - it's important for them to show people that they have a car. It's nice as a symbol to be parked outside the house or apartment (South Asian 11, Chennai, F, 32).

7.3.2 Stage of wealth

'New money' - families which had only recently acquired wealth - were often mentioned for being *showier* with assets. This applied across all cultural groups. It may be that through comparing this across and within the cultural clusters, that a different dynamic may be seen within the cultures where the middle class has grown rapidly in recent years, as opposed to one where there has been an established middle class for centuries. 'New money/rapidly growing GDP' may have different symbolic imperatives to 'new money/relatively stable GDP':

> A BMW SUV …is about new money? I think people try to fit in (Anglo 4, F, Sydney, 32).

> Older money in the cities tends to have unflashy, classy cars, or a Volvo or something. The lawyer who shows up in the Lamborghini is new money and the guy who comes in the Jaguar is old money (Nordic 8, Amsterdam, M, 48).

> In China if you are very very rich, people know…so the car doesn't matter so much. I have a rich friend who only drives a normal SUV, but people respect and don't really care. But the middle one, moving up the rich, people will judge you based on your clothing and cars, and to accept you into their circle you need to fit (Confucian 12, Beijing, M,25).
>
> …money has only come to them relatively recently…and they didn't really know what to do with it all, so they…put it into status symbols like flashy cars (South Asian 10, Mumbai, M, 45).

7.3.3 Education level

The interviewees from the low PDI/individualistic cluster stated that education level often tied in with discretion. Conversely, having made money in a career with no formal educational entrance requirements was said to increase the imperative to show wealth. This arguably ties in with stage of wealth. In addition, showing one was sporty and active when travelling seemingly denoted education and conferred social capital:

> I mean even when I have to get into a Mercedes I'm awkward. Not because of the quality of the car but, I think, and I know this is awful, that people would assume I had a lower level of education. That I'm one of those self-made blokes who made his cash in sales. So the car would actually dilute my image. How strange to have to admit that. But it's true. I would be like wearing a big mohair coat or a gold chain round my neck. They're just not the symbols of the group I aspire to be like or am part of (Anglo 12, London, M, 49).
>
> People aren't looking at these sorts of things much…..no…I don't think they are…..no problem at all…in fact you can put it the other way around - well educated people are likely to exercise so walking or cycling - it could be a signal that you are sporty and active (Nordic 4, Oslo, F, 28).

The interviewees from the high PDI collectivist group noted that education level was more likely to lead to environmental awareness, which at present was low in their countries. Within these cultures there seemed to be a stronger correlation with education and financial capacity - translating one's qualifications to money seemed an obligation - and this drove symbolic imperatives when travelling:

> …people with a higher education will welcome good public transport for a better society and realise the problems that the cars cause (Confucian 7, Guangzhou, F 35).
>
> People associate the mode of transport with the level of education and the job people are doing (South Asian 1, Delhi, M, 29).

7.3.4 Social class

The term 'class' arose in both groups. Generally, the interviewees from the low PDI/individualistic cluster felt 'working class' people seemed to be more inclined to show their good fortune through possessions such as cars. This variable would potentially correlate with education level and location status, so illustrates the point that symbolic choice is potentially a complex web of interconnecting influences:

> I never thought there was a stereotype about this sort of stuff …but…it seems to be either working class people who have gained some money….it gives them pride...they seem to be using such things to show they're not at the bottom of the pile in the society - a lot of people like this seems to see cars as status symbols (Anglo 1, London, F, 32).
>
> I'm a Navy officer and we joke about sailors' Ferraris – the sailors drive the flashier cars, pretty expensive cars, and I drive an old Toyota Yaris. I think the officer class is much more discrete. The officers are also a lot more careful with their money because they are older (Nordic 8, Amsterdam, M, 48).

The dynamic was seemingly different for the interviewees from the high PDI/collectivist cluster. In societies where social mobility is low, the concept of a 'monied working class' was anathema. This reflects a theme inherent within the Hofstede indices for high PDI societies, that of everyone having a predetermined place within the social structure to achieve harmony:

> Driving a scooter can mean you are low class, especially an old scooter…I think a scooter is a bad choice to show face (Confucian 9, Shanghai, F 28).
>
> It's all about your social class. If a poor person sees you in a BMW and then he sees you walking around then he will think that you have had a loss. He could get a bit less formal as he would think you've slipped down. He might

ask ‘What happened to your car?’ If you had the BMW he wouldn’t even dare speak to you (South Asian 4, Chennai, M, 35).

7.4 Other horizontal drivers of symbolism within the dataset

In subchapter 2.3.5, when discussing mobility within the context of social divisions, Ohnmacht et al (2009) and Morgan et al (2006) described a horizontal segmentation of societies across groups, with no change in vertical level. Whilst national culture is seemingly one such differentiator of the symbolic aspects of transport choice, the dataset has shown that there are likely to be several others. Four are offered here - stage of development, location, gender, and age.

7.4.1 Nation’s development and automobility status

A nation’s developmental stage and degree of automobility was discussed at the end of Chapter 6.3. As noted, national culture could be argued to be a factor driving a nation’s gross domestic product, and thus be partly responsible for the degree of automobility within a society. This in turn is likely to drive the symbolic value of the different modes within a city:

> Everyone has a car if they want a car now. Less cars in the old days meant more money back then...but not anymore (Anglo 8, London, F, 32).

> We’re at the stage here where the car isn’t the real indicator……probably a really expensive cycle, show who is really in the middle classes. But not cars. Not fancy cars (Nordic 11, Amsterdam, F, 28. Also in subchapter 5.3.1, ‘eco-cars).

> China is still developing country and people are still dreaming about the better life and the car stands for this (Confucian 6, Beijing, F, 31).

> Both development of the nation and symbolism are at play here. Definitely the GDP is going up and more people are buying more cars as their disposable income is going up…the number of iphones is startling. This is a demonstration that people will use every opportunity to say ‘look I can afford this. I can afford an iphone, I can afford a car.’ That symbolism will always be strong in the Indian society; it always has been (South Asian 10, Mumbai, M, 45).

It is also arguable that mass access to credit and leasing may have lessened the exclusivity of a car and affected the relative symbolism of a modal choice set. Srinivasan et al (2007) state that peer pressure and increasing credit card access are influencing car ownership in Chennai. Gomez (2012) describes how eighty percent of vehicles in India are purchased on credit. Waldmann (2005) notes that in India much of the auto boom (unlike China) is being funded with debt and financial over-stretching. The interviewees from the high PDI/collectivist group did not mention access to credit, unlike interviewees from the low PDI/individualistic cluster:

> People buy cars cheaply on credit these days - I think that's devalued owning cars in the same way that some certain groups have devalued certain clothing brand. It's not like cars are exclusive anymore. That was decades ago. (Anglo 9, London, F, 48).

> I either think of it (a sedan) as a company car or someone getting out a huge loan on the car to make a statement. But it's a relatively cheap status symbol compared to flying off to Barbados or buying a huge house, or having the kids at a flashy private school. So it's a cheap and easy status symbol to get hold of, especially through credit lines these days. You can pay it off monthly…so you don't have to be a millionaire to drive a millionaire's car. (Anglo 12, London, M, 49).

7.4.2 Location – urban, suburban and rural

The interviewees from the low PDI/individualistic cluster stressed that symbolic dynamics outside the major cities were very different to within them. The suburbs seemingly have their own automobility and symbolic transport culture, as do the rural areas. The interviewees from the high PDI/collectivist cluster did not express this to the same degree, only that cities afforded more anonymity if one's extended family was not living close by.

Another potential area of further research is city specific culture. It is probable that 'urban cultures', indeed individual city cultures, are sitting within a national cluster. For example, the Indian interviewees frequently noted how Delhi was renowned for having a very outwardly materialistic culture because the Punjabi community who settled there after partition were 'self-made' (7.3.2, stage of wealth). In the absence of city specific

indices, this line of inquiry appears to first lend itself to a comparative case study approach:

> In London everyone uses public transport….in central London…. But then you go out into the suburbs and less middle class people would be on the buses. In 'towns' in little England there are some people who recoil in horror from ever using a bus (Anglo 12, London, M, 49).
>
> ...outside Amsterdam…people do drive lots of (expensive sedans) cars like that. In the suburbs it is about fitting in and a lot of people do have those cars and SUVs and they would wonder why a person would have an old bad car if they could afford better (Nordic 10, Rotterdam, F, 33).
>
> My wife's family, though, they have lived in the Shanghai area for many years but not in the city anymore but quite a long way away from the centre…in their area, it's suburban, they know everything about everyone, their economic status. I say to my wife there is no secret in her family. If something private happens then everyone knows. It is different in the metropolitan area. There people are not so visible as they are sometimes not close to their families. It can give them more space to make their own decisions without worrying so much about what the family will think or do (Confucian 1, Shanghai, M, 36. Also in 5.6.4, proximity to family and liberal enclaves).
>
> Delhi derives its culture mainly from the Punjabis and the Sindhis who settled …after the 1947 partition. They had to build themselves up from scratch and now they have a lot of wealth and they do not shy away from showing it off…There's a movie called 'Do Doohi Chah'…and that movie is about social pressure to buy a car in Delhi. So, it shows the avenue of enquiry is something that is happening in the culture (South Asian 7, Delhi, F, 31. Also in 5.2, the mention of culture generally).

7.4.3 Gender

Although equal gender balance between the interviewees was seen as desirable, and ensured, it was not strictly necessary for the Hofstede indices chosen, as neither the PDI, nor individualism versus collectivism, are seen to vary by gender. Hofstede argues that all members of a society need to cooperate with its value system to ensure that it functions.

That said, there is considerable scope for further work focussing on transport symbolism and gender, examining issues such as perceived and actual safety on public transport. One example would be how the perception of it may differ by gender in contrasting environments such as Delhi and New York, and how this may in turn influence the symbolic value of a mode. This ties in with the interface between practical considerations and symbolic choice described in subchapter 7.1.1.

One thing the interviewees mentioned that did tie in with gender, was the acceptability of heterosexual couples sharing a car, or a man having a larger car than the female in a partnership. This was outside the scope of this study, and even if seemingly true does not dilute the findings of this work. It is plausible that the imperative to show social status, and the need to make mode choice decisions collectively for familial image reasons and wealth conservation (or not), does not exclude accommodating an imbalance in car sizes between male and female partners. If it is true, however, it has ramifications for encouraging single household car ownership, and gender equity:

> …there's not so much 'I'm the man I should have the big car' mentality anymore (Anglo 6, Melbourne, F, 49).
>
> …men tend to care more about cars than women (Nordic 5, Oslo, M, 41).
>
> …older middle aged rich men buy a big branded SUV or they will buy one for their sons (Confucian 11, Shanghai, F,28).
>
> …in the big more progressive cities…there are a lot of women who are doing well professionally and they've bought big cars. I think in these sorts of cases the couples are educated and have been overseas (South Asian 3, Delhi, F, 27).

7.4.4 Age

If symbolism and culture are dynamic, and automobility cycles differ between nations, then it is reasonable to assume that the symbolism of the sustainable modes relative to cars may vary by age group across the clusters. It was for this reason that the maximum interviewee age in this study was fifty years old:

> Perhaps the older generation might not like to see their offspring on a bus. My mother doesn't like them…she sees them as being like charity shops (Anglo 12, London, M, 49).

> Maybe for older people the car was a big thing (Nordic 3, Oslo, F, 31).
>
> …some older people will judge their economic status on this car...older people don't know the car market so well so go off the brand (Confucian 5, Taipei, M, 48).
>
> …the older people like to travel by car compared to the metro as for them the car is still something to be very proud about (South Asian 8, Delhi, F, 48).

An examination as to how the symbolic value of each mode may differ according to a person's age across each culture, is thus a strong candidate for further research. In addition, within collectivist societies, the degree to which older members of a family hold sway in family modal decisions relative to others and the extent to which they are in touch with contemporary symbolism, and the tensions this may bring within a group's dynamic, is also a topic for further work.

7.5 Symbolism in migrant cultures – how culture flows and 'sticks'

As cultures are increasingly spread around the world as a function of migration, symbolic challenges may be encountered when encouraging new migrants to travel sustainably if, in their home nation, the sustainable modes possess low symbolic value. For example, if in India using a bicycle connotes possessing little choice and confers minimal respect, it may be possible that a group of new migrants from India, into a nation such as Holland, may be convinced that travelling by bicycle lowers their social standing (Sheel, 2005; Law and Karnilowicz, 2015).

Social media may accentuate such a dynamic. It may be challenging for a migrant family to present a graphical image of prospering within their adopted nation to relatives in their home nation, if the symbols they used to travel denote poverty to their relatives. Another line of inquiry is the degree to which members of a migrant community mix with members of the recipient nation and how this may affect a shift in symbolic attitudes, and in turn cause tension within a collective.

The nature of 'migrants' differed between the two clusters. For the interviewees from the low PDI/individualistic cluster a 'migrant' was someone who had moved to their city from overseas. The interviewees from the high/PDI collectivist culture, however, defined migrants as people who had moved to their city from rural areas within their nation.

Often, they seemed to associate migrants with non-exclusive modes and low personal hygiene - 'being smelly' was mentioned on a few occasions. This is also a candidate for further research pertaining to cities in high PDI cultures which are rapidly growing and importing cheap labour from all over their nation, which may be reinforcing symbolic transport barriers:

> I know my downstairs neighbours have no money, but they have a big Landover…they barely drive anywhere. But then I've noticed that within their community, the Eastern European first wave immigrants, the car is very much a symbol (Anglo 1, London, F, 32).
>
> Some immigrant groups are obsessed with cars and they can often do the low paid jobs, and they seem to be more bothered…I think it is more for the people back home than the people in Norway. Nobody in Norway cares if you drive a Mercedes (Nordic 5, Oslo, M, 41).
>
> We have migrants coming in from all over the place so we're looking for more and more exclusivity…people who are rich don't want to brush shoulders with those who are lower in the economic chain and that will happen on a bus. Indians like to categorise people, find their group, form their own crowd to distinguish themselves…so imagine if you are surrounded by smelly people on the buses? (South Asian 3, Delhi, F, 27).
>
> Motorbike users…would be migrant workers from provincial places who don't come from Beijing and they'd be working in construction or in a low paid job like delivery…they don't shower every day, they aren't clean, and they are a bit smelly (Confucian 6, Beijing, F, 31).

7.6 Other areas of further research

The timing of the research meant that the emerging cross-cultural meanings of shared ride-hailing platforms were not specifically addressed. Whilst the quotes spontaneously offered by a small number of interviewees show that the arrival of Uber, Didi and Ola, *has* brought symbolic capital to users, no cross-cultural comparison has been undertaken. This would need to be the subject of a new set of interviews using a topic guide formulated from the insights within this thesis. It may be that within this context pooling with 'one's own social class' may be necessary in some cultures but seen as elitist elsewhere. There

is also a strong possibility that the symbolism of hailing a ride through a smartphone is of negligible symbolic value in some places but not others. Finally, using the hailed vehicle to reflect status through size or 'being driven' - in effect pretending to own a large car and employ a driver - may be symbolically advantageous in some places, but seen as ridiculous elsewhere.

The use of the other cultural models offers ample scope for theoretical expansion. There are, a plethora of other models and indices which may be drawn upon to further explore the symbolic aspects of transport across national cultures. Hofstede's other indices, as well as the work of Schwartz (1999), Trompenaars and Hampden-Turner (1997), House et al (2004) and Inglehart (1997), all offer scope for expanding the research programme.

In subchapter 2.6.1 it was stated that this study did not specifically seek to contrast the Global North with the Global South. Even the terminology surrounding such classifications is complex, contentious, often poorly defined, ideologically weighted and misleading (The World Bank, 2015; Solarz, 2014; Neuwirth, 2017; Khaled, 2017). That said, as noted in subchapter 2.5.4, the nations of what are generally termed the Global South, tend to be high PDI and collectivist. The inverse is typically true for the countries termed Global North. This means that the conclusions drawn from this study may be scalable to a broader Global North/south discussion. One issue in doing this would be the presence of modal informality - the degree to which the private sector provides urban accessibility due to the inability or disinclination of governments to do so, or the private sector filling a newly identified market niche.

There are commercially oriented research lines which stem from the work. Subchapter 2.4.4, described how multinational firms have discovered the need to adopt their products and marketing approaches to suit a recipient nation's culture, as opposed to taking a generic stance. This is relevant to suppliers of metro systems, bus rapid transit infrastructure providers, cycle manufacturing firms, car sharing applications, and manufacturers of 'eco-cars', as much as it is to makers of fast-moving consumer goods or electronic appliances. In seeking to market and sell sustainable transport solutions overseas, or develop joint ventures with local partners, an understanding of the symbolic barriers to a product can only help a firm and the procuring state entity's endeavours.

This research also raises a dilemma for funding agencies such as the World Bank, within the context of coercive transport policy transfer (alluded to in subchapter 2.6.2). It seems

metros bring more symbolic capital than bus-based systems, but BRTs are far less costly (both capital and operating costs) than metros, and are therefore often mandated by a funding agency. In nations where mass car ownership is only just beginning, however, encouraging car owners and those on the cusp of being able to afford their first car, to use public transport for environmental reasons, may be symbolically challenging. Cost is often only considered in financial terms, but, if such a thing as lost symbolic opportunity cost exists, then it is arguably a salient consideration when seeking to meet policy objectives. In opting to save money when building a system, funders may be pushing away future revenue streams and environmental benefits, for symbolic reasons. In keeping with this 'push-pull' concept, the role of subsidies or grants within a symbolic context also requires further examination. It was noted in subchapter 6.2.2 that in highly status conscious cities, lowering metro fares and increasing subsidies could have the unintended consequence of pushing more affluent users off a system, by removing its exclusivity. This was also flagged in subchapter 6.2.1 when describing how tax breaks for eco-cars, could actually lower the symbolic value of the mode for some potential purchasers.

Random utility theory, which underpins transport modelling, operates on the basis of least cost equating to higher mode share. For some user segments lower financial costs may equate to higher symbolic cost. There may be scope for trying to extract symbolic costs from the mode specific constant (2.2.1) by using the Hofstede indices as a latent class variable. This would enable, as was noted in subchapter 2.2.1, more robust transport demand forecasting models offering both a sounder rationale as to why outcomes are occurring *and* improved predictability (Klaiber and von Haefen, 2008). Given the Hofstede indices of power differentialism, and individualism versus collectivism, have proven useful in this study, examining their value as proxy variables in hybrid models (Hess and Hensher, 2013) would seem to be a sensible first step. Using Likert scale derived variables such as the Hofstede indices would be in keeping with the method deployed by Walker and Li (2007) as was described in subchapter 2.2.3. There is also strong scope for examining the usefulness of other cross-cultural indices as latent variables. As flagged in subchapter 2.5.3 the phenomenology described by the Hofstede PDI, and individualism versus collectivism indices, are also the essence of proxy variables derived by others: House et al's (2004) in-group collectivism; Trompenaars and Hampden-Turner's (1997) egalitarian commitment versus conservatism, loyal

involvement versus utilitarian involvement, and communitarianism – individualism; Schwartz's (1994) autonomy versus embeddedness, and egalitarianism versus hierarchy; and Inglehart and Oyserman's (2004) survival versus self-expression.

The dataset generated for this study, contains a great deal of rich material on the symbolism of cars - sedans, sports utility vehicles, smaller models, prestige branded models - and can immediately be used for further analysis. Even within the quotes in this thesis speculative differences between the two meta clusters can be surmised on the contrasting symbolism of cars types and models. The dataset contains more, and this work could be used to augment Steg et al's (2001) and Choo and Mokhtarian's (2004) research into why people buy certain cars, but expand the line of inquiry across national cultures.

Finally, this study focussed on observable qualitative differences between two meta clusters - low PDI/individualistic versus high PDI/collectivist. The dataset does, however, offer considerable scope for the analysis of differences *within* a meta cluster. One seemingly strong line of inquiry seems to relate to the South Asian cluster where the thematic coding densities and quotes imply a stronger manifestation of the status imperative when travelling, than their Confucian cluster counterparts. It may be that the legacy of the caste system in India alluded to by Hofstede et al (2010) leads to greater symbolic 'tiering' than in other places.

This chapter has described several topics for further research stemming from this study. It has noted five candidate inductive themes, further qualitative work, additional likely drivers of vertical and horizontal symbolism within the dataset and flagged several other topics to further the research programme. As such, the research has facilitated theoretical expansion and met the Lakatosian criteria of progression.

The next chapter offers concluding remarks.

8 CONCLUSIONS

This study's derived high level meta question is:

'Does national culture seemingly affect the symbolic aspects of transport choice?'

Having disaggregated this question by means of the Hofstede power differential, and individualism versus collectivism themes, and following rigorous deductive thematic analysis, it would be hard not to conclude in the affirmative, and feel that the potential transport policy ramifications are significant.

This study first identified a gap in the existing body of knowledge. Analysis was then undertaken to begin the process of unpicking the underlying dynamics of the symbolic aspects of transport choice across national culture. Reliable and rigorous coding of the derived themes has been undertaken, within limits, and the supporting evidence to back up assertions has been offered through strong contrasts in coding density and pertinent supporting quotes. The work leaves a solid basis by which others can follow emergent lines of inquiry. As a comprehensive study of the symbolism of the suite of sustainable transport modes across cultures it represents the first work of its kind. The work adds to the growing body of evidence that the notion that transport is a disutility to be suffered so one can perform a more worthwhile activity is a fallacy. If it is becoming 'increasingly recognised that rational, instrumental arguments are insufficient' to explain transport behaviour, this work augments that recognition.

The study and its conclusions do not seek to contest the notion of travel utility, merely stress that many of the variables that constitute it are not yet recognised or utilised when predicting travel behaviour. The research reinforces the belief that aspects of utility differ in accordance with cultural norms, and that in societies consumers make choices not just on the basis of the utility of a product in practical terms, but also on its symbolic value. It seems clear that the transport one owns, or consumes, is such a symbol and that different national cultural imperatives affect the connotation of this symbol.

The ramifications of the research for transport policy transfer and formulation in cities that are struggling with rising car ownership are significant. If the sustainable modes are seen as boring or relics of the past, unsuitable for politicians to showcase their achievements and the modernity of their cities (Peng, 2005), then this can only be changed by raising the symbolic capital of the sustainable modes so as to normalise them as desirable. Governments should strongly utilise a mode's symbolic strengths, whilst also

ensuring that the mobility needs of disadvantaged users are not compromised. Echoing Fitt (2015), given symbols influence the way people live their lives, policy makers need to drag social meanings out of the shadows of their disciplines, and recognise and respond to their influence. When one reads…

> 'It's better to put up with congestion and the horrible air than to be judged the wrong way in society' (South Asian 6, Mumbai, M, 32).

…it is clear that transport is much more than a way of just getting from A to B.

BIBLIOGRAPHY

Adorno, T.W., 1974. Minima Moralia: Reflections on Damaged Life (Radical Thinkers): Reflections on a Damaged Life, New Edition. ed. Verso Books, London ; New York.

Agarwal, J., Malhotra, N.K., Bolton, R.N., 2010. A Cross-National and Cross-Cultural Approach to Global Market Segmentation: An Application Using Consumers' Perceived Service Quality. J. Int. Mark. 18, 18–40.

Ajanovic, A., Haas, R., 2016. Dissemination of electric vehicles in urban areas: Major factors for success. Energy, Towards low carbon energy systems: engineering and economic perspectives 115, 1451–1458. https://doi.org/10.1016/j.energy.2016.05.040

Aldred, R., 2013. Incompetent or Too Competent? Negotiating Everyday Cycling Identities in a Motor Dominated Society. Mobilities 8, 252–271. https://doi.org/10.1080/17450101.2012.696342

Aldred, R., Jungnickel, K., 2014. Why culture matters for transport policy: the case of cycling in the UK. J. Transp. Geogr. 34, 78–87. https://doi.org/10.1016/j.jtrangeo.2013.11.004

Alhojailan, M.I., 2012. Thematic analysis: a critical review of its process and evaluation. West East J. Soc. Sci. 1.

Anable, J., 2005. 'Complacent Car Addicts' or 'Aspiring Environmentalists'? Identifying travel behaviour segments using attitude theory. Transp. Policy 12, 65–78. https://doi.org/10.1016/j.tranpol.2004.11.004

Anable, J., Skippon, S., Schuitema, G., Kinnear, N., 2011. Who will adopt electric vehicles? A segmentation approach of UK consumers, in: Energy Efficiency First - the Foundations of a Low Carbon Society. Presented at the European Council for an Energy Efficiency Economy, Stockholm, pp. 1015–1026.

Antaki, C., Billig, M., Edwards, D., Potter, J., 2003. Discourse Analysis Means Doing Analysis: A critique of six analytic shortcomings. Discourse Anal. Online 1. https://books.google.com.au/books?id=2NxaC7nSetAC. (accessed 19.11.18).

Apostolou, G., Reinders, A., 2018. An Overview of Existing Experiences with Solar-Powered E-Bikes. Energies 11, 2129. https://doi.org/10.3390/en11082129

Ashmore, D.P., Christie, N., Tyler, N.A., 2017. Symbolic transport choice across national cultures: theoretical considerations for research design. Transp. Plan. Technol. 40, 875–900. https://doi.org/10.1080/03081060.2017.1355882

Ashmore, D.P., Pojani, D., Thoreau, R., Christie, N., Tyler, N.A., 2019. Gauging differences in public transport symbolism across national cultures: implications for policy development and transfer. J. Transp. Geogr. 77, 26–38. https://doi.org/10.1016/j.jtrangeo.2019.04.008

Ashmore, D.P., Pojani, D., Thoreau, R., Christie, N., Tyler, N.A., 2018a. The symbolism of 'eco-cars' across national cultures: Potential implications for policy formulation and transfer. Transp. Res. Part Transp. Environ. 63, 560–575. https://doi.org/10.1016/j.trd.2018.06.024

Ashmore, D.P., Thoreau, R., Kwami, C., Christie, N., Tyler, N.A., 2018b. Using thematic analysis to explore symbolism in transport choice across national cultures. Transportation 1–34. https://doi.org/10.1007/s11116-018-9902-7

Ayoun, B., Moreo, P., 2009. Impact of Time Orientation on the Strategic Behavior of Thai and American Hotel Managers. J. Hosp. Mark. Manag. 18, 676–691. https://doi.org/10.1080/19368620903170224

Bagwell, L.S., Bernheim, B.D., 1996. Veblen Effects in a Theory of Conspicuous Consumption. Am. Econ. Rev. 86, 349–373.

Baker, S.E., Edwards, R., 2012. How many qualitative interviews is enough? (Working Paper). NCRM. http://eprints.ncrm.ac.uk/2273/ (accessed 13.06.15).

Baker, T., Temenos, C., 2015. Urban Policy Mobilities Research: Introduction to a Debate. Int. J. Urban Reg. Res. 39, 824–827. https://doi.org/10.1111/1468-2427.12252

Bakvis, H., 1981. Catholic Power in the Netherlands. MQUP. https://books.google.com.au/books?id=Puj0AwAAQBAJ, (accessed 21.8.16).

Banerjee, I., Walker, J.L., Deakin, E.A., Kanafani, A., 2010. New vehicle choice in India: household choice among motorized vehicle segment. Presented at the 12th World Conference in Transportation Research, Lisbon.

Banister, D., 2008. The sustainable mobility paradigm. Transp. Policy 15, 73–80. https://doi.org/10.1016/j.tranpol.2007.10.005

Barbarossa, C., Beckmann, S.C., De Pelsmacker, P., Moons, I., Gwozdz, W., 2015. A self-identity based model of electric car adoption intention: A cross-cultural comparative study. Journal of Environmental Psychology 42, 149–160. https://doi.org/10.1016/j.jenvp.2015.04.001

Bardhi, F., Eckhardt, G.M., 2012. Access-Based Consumption: The Case of Car Sharing. J. Consum. Res. 39, 881–898. https://doi.org/10.1086/666376

Barthes, R., 1957. Mythologies. Editions du Seuil, Paris.

Barthes, R., 1967. Elements of semiology / translated from the French by Annette Lavers and Colin Smith, Cape, London.

Batra, R., Ramaswamy, V., Alden, D.L., Steenkamp, J.-B.E.M., Ramachander, S., 2000. Effects of Brand Local and Nonlocal Origin on Consumer Attitudes in Developing Countries. J. Consum. Psychol., Cultural Psychology 9, 83–95. https://doi.org/10.1207/S15327663JCP0902_3

Beckett, A., 2015. Promised You A Miracle: Why 1980-82 Made Modern Britain. Allen Lane, London.

Beer and Biryani, 2015. Tata Motors launches “Seldom”, a brand new series for customers who rarely take their cars out. Faking News. http://www.fakingnews.firstpost.com/business/tata-motors-launches-seldom-a-brand-new-series-for-customers-who-rarely-take-their-cars-out-7995 (accessed 4.7.17).

Beirão, G., Sarsfield Cabral, J.A., 2007. Understanding attitudes towards public transport and private car: A qualitative study. Transp. Policy 14, 478–489. https://doi.org/10.1016/j.tranpol.2007.04.009

Belarafon, 2012. In the “Great Gatsby” what is the signifiance of Gatsby’s cream-coloured car? E-Notes. https://www.enotes.com/homework-help/what-symbolic-metaphorical-meanings-rich-cream-344779 (accessed 2.10.17).

Belgiawan, P., Schmöcker, J.-D., Abou-Zeid, M., Walker, J., Lee, T.-C., Ettema, D., Fujii, S., 2014. Car ownership motivations among undergraduate students in China, Indonesia, Japan, Lebanon, Netherlands, Taiwan, and USA. Transportation 41, 1227–1244. https://doi.org/10.1007/s11116-014-9548-z

Belk, R.W., 1988. Possessions and the Extended Self. J. Consum. Res. 15, 139–168.

Belk, R.W., 1999. Leaping Luxuries and Transitional Consumers, in: Batra, R. (Ed.), Marketing Issues in Transitional Economies. Springer US, pp. 39–54.

Belmore, B., 2019. Mobility as a Service. Institute of Transportation Engineers. ITE Journal 89, 4–4.

Ben-Akiva, M., Morikawa, T., 2002. Comparing ridership attraction of rail and bus. Transp. Policy 9, 107–116. https://doi.org/10.1016/S0967-070X(02)00009-4

Bender, K., Keller, S., Willing, H., 2014. The Role of International Policy Transfer and Diffusion for Policy Change in Social Protection – A Review of the State of the Art (IZNE Social Protection Working Paper 14/1), International Policy Learning and Policy Change: Scientific Inputs for the Dialogue on Social Protection with Global Partners.

Berger, R., 2015. Now I see it, now I don’t: Researcher’s position and reflexivity in qualitative research. Qualitative Research 15, 219–234. https://doi.org/10.1177/1468794112468475

Berth, N., 2011. The importance of being seen to be Green: an empirical investigation of Green Marketing Strategies in Business-to-Business organizations (Thesis). Auckland University of Technology. http://aut.researchgateway.ac.nz/handle/10292/1192, (accessed 29.12.17).

Bloch, F., Rao, V., Desai, S., 2004. Wedding Celebrations as Conspicuous Consumption: Signaling Social Status in Rural India. J. Hum. Resour. 39. https://doi.org/10.2307/3558992

Bloor, M., Wood, F., 2006. Keywords in Qualitative Methods: A Vocabulary of Research Concepts. Sage Publications. Thousand Oaks, CA.

Bohm, S., Jones, C., Land, C., Paterson, M. (Eds.), 2006. Against Automobility, 1 edition. ed. Wiley-Blackwell, Malden, MA.

Bolderdijk, J.W., Steg, L., Geller, E.S., Lehman, P.K., Postmes, T., 2013. Comparing the effectiveness of monetary versus moral motives in environmental campaigning. Nat. Clim. Change 3, 413–416. https://doi.org/10.1038/nclimate1767

Bollen, K.A., 2002. Latent variables in psychology and the social sciences. Annu. Rev. Psychol. 53, 605–634. https://doi.org/10.1146/annurev.psych.53.100901.135239

Bolton, R.N., Myers, M.B., 2003. Price-Based Global Market Segmentation for Services. J. Mark. 67, 108–128.

Bond, M.H., 2002. Reclaiming the individual from Hofstede’s ecological analysis--A 20-year odyssey: Comment on Oyserman et al. (2002). Psychol. Bull. 128, 73–77. https://doi.org/10.1037/0033-2909.128.1.73

Bond, R., Smith, P.B., 1996. Culture and conformity: a meta-analysis of studies using Asch's (1952b 1956) line judgement task. Psychol. Bull. 119, 111–137.

Borsboom, D., Mellenbergh, G.J., Heerden, J.V., 2003. The Theoretical Status of Latent Variables. Psychol. Rev. 110, 203–219.

Bourdieu, P., 1984. Distinction: A Social Critique of the Judgement of Taste. Harvard University Press, Cambridge, Mass.

Boyatzis, R.E., 1998. Transforming qualitative information : thematic analysis and code development / Richard E. Boyatzis. Sage, Thousand Oaks, CA.

Brace-Govan, J., 2004. Issues in Snowball Sampling: The Lawyer, the Model and Ethics. Qual. Res. J. 4, 52–60.

Brand, P., Dávila, J.D., 2011. Mobility innovation at the urban margins: Medellín's Metrocables. City 15, 647–661. https://doi.org/10.1080/13604813.2011.609007

Braun, V., Clarke, V., 2006. Using thematic analysis in psychology. Qual. Res. Psychol. 3, 77–101. https://doi.org/10.1191/1478088706qp063oa

Braun, V., Clarke, V., 2012. Thematic analysis, in: APA Handbook of Research Methods in Psychology, Vol 2: Research Designs: Quantitative, Qualitative, Neuropsychological, and Biological, 57-71. American Psychological Association, pp. 57–71.

Briley, D.A., Morris, M.W., Simonson, I., 2000. Reasons as Carriers of Culture: Dynamic versus Dispositional Models of Cultural Influence on Decision-making. J. Consum. Res. 27, 157–178. https://doi.org/10.1086/jcr.2000.27.issue-2

Bryman, A., 2012. Social Research Methods. Oxford University Press, Oxford.

Buil, I., de Chernatony, L., Martínez, E., 2012. Methodological issues in cross-cultural research: An overview and recommendations. J. Target. Meas. Anal. Mark. 20, 223–234. https://doi.org/10.1057/jt.2012.18

Buja, E., 2016. Hofstede's Dimensions of National Cultures Revisited: A Case Study of South Korea's Culture. Acta Universitatis Sapientiae, Philologica 8.

Burnkrant, R.E., Cousineau, A., 1975. Informational and normative social influence in buyer behavior. J. Consum. Res. 2, 206–215. https://doi.org/10.1086/208633

Cairns, S., Harmer, C., Hopkin, J., Skippon, S., 2014. Sociological perspectives on travel and mobilities: A review. Transp. Res. Part A. https://doi.org/10.1016/j.tra.2014.01.010

Campbell, 1988. Methodology and Epistemology for Social Sciences: Selected Papers, 2nd edition. ed. University of Chicago Press, Chicago.

Castleberry, A., Nolen, A., 2018. Thematic analysis of qualitative research data: Is it as easy as it sounds? Curr. Pharm. Teach. Learn. https://doi.org/10.1016/j.cptl.2018.03.019

Chalmers, A.F., 1999. What Is This Thing Called Science? Third Edition, 3 edition. ed. Open University Press, Indianapolis.

Chandler, D., 2007. Semiotics: The Basics, 2nd edition. Routledge, London.

Chapman, A.L., Hadfield, M., Chapman, C.J., 2015. Qualitative research in healthcare: An introduction to grounded theory using thematic analysis. J. R. Coll. Physicians Edinb. 45, 201–205. https://doi.org/10.4997/JRCPE.2015.305

Chatterjee, D.P., 2008. Oriental disadvantage versus occidental exuberance - Appraising environmental concern in India - A case study in a local context. Int. Sociol. 23, 5–33. https://doi.org/10.1177/0268580907084384

Chen, C.-H., Kan, H.-D., Huang, C., LI, L., Zhang, Y.-H., Chen, R.-J., Chen, B.-H., 2009. Impact of Ambient Air Pollution on Public Health under Various Traffic Policies in Shanghai, China. Biomed. Environ. Sci. 22, 210–215. https://doi.org/10.1016/S0895-3988(09)60047-7

Chen, J., Li, S., 2017. Mode Choice Model for Public Transport with Categorized Latent Variables. Math. Probl. Eng. 2017. https://doi.org/10.1155/2017/7861945

Choi, H., Oh, I., 2010. Analysis of product efficiency of hybrid vehicles and promotion policies. Energy Policy 38, 2262–2271. https://doi.org/10.1016/j.enpol.2009.12.014

Choo, S., Mokhtarian, P.L., 2004. What type of vehicle do people drive? The role of attitude and lifestyle in influencing vehicle type choice. Transp. Res. Part Policy Pract. 38. https://doi.org/10.1016/j.tra.2003.10.005

Chua, W.Y., Lee, A., Sadeque, S., 2010. Why do people buy hybrid cars? Proc. Soc. Mark. Forum Univ. West. Aust. Ed. Cowan Univ. Churchlands WA Pp 1-13.

City Atlas, 2018. Where the rich use public transport. http://newyork.thecityatlas.org/lifestyle/developed-area-rich-public-transport-ways-city/ (accessed 1.13.18).

Clarke, V., Braun, V., 2013. Teaching thematic analysis: Overcoming challenges and developing strategies for effective learning. The Psychologist 26, 120–123.

Clarke, V., Braun, V., 2017. Thematic analysis. J. Posit. Psychol. 12, 297–298. https://doi.org/10.1080/17439760.2016.1262613

Cleveland, M., Rojas-Méndez, J.I., Laroche, M., Papadopoulos, N., 2015. Globalization, Identity, Culture and Consumer Behavior: A Cross-Cultural Study of Chilean and Canadian Consumers, in: Sharma, D. (Ed.), Cultural Perspectives in a Global Marketplace, Developments in Marketing Science: Proceedings of the Academy of Marketing Science. Springer International Publishing, pp. 100–101. https://doi.org/10.1007/978-3-319-18696-2_41

Clifford, M.L., 2016. Chinese Government Subsidies Play Major Part In Electric Car Maker BYD's Rise. Forbes. https://www.forbes.com/sites/mclifford/2016/07/26/with-a-little-help-from-its-friends-lavish-chinese-government-help-for-top-electric-car-maker-byd/ (accessed 10.14.17).

Clifton, K.J., Handy, S.L., 2003. Qualitative methods in travel behaviour research. In: Transport Survey quality and innovation. Publ. Elsevier, London.

Cohen, N., Arieli, T., 2011. Field research in conflict environments: Methodological challenges and snowball sampling, Field research in conflict environments: Methodological challenges and snowball sampling. J. Peace Res. 48, 423–435. https://doi.org/10.1177/0022343311405698

Commuri, S., 2009. The impact of counterfeiting on genuine-item consumers' brand relationships ." 73.3 (2009): 86-98. J. Mark. 73, 86–98.

Compagnoni, R., 2018. Hofstede and Trompenaars compared. Scribd. https://www.scribd.com/document/142818360/hofstede-and-trompenaars-compared-pdf (accessed 12.5.18).

Coolican, H., 2009. Research Methods and Statistics in Psychology. Routledge, London.

Crabtree, B.F., Miller, W.L. (Eds.), 1999. Doing Qualitative Research. Sage Publications, Inc, Newbury Park, Calif.

Crabtree, Benjamin F., Miller, W.F., 1992. A template approach to text analysis: Developing and using codebooks, in: Crabtree, B. F., Miller, W.L. (Eds.), Doing Qualitative Research, Research Methods for Primary Care, pp. 93–109, Vol. 3. Sage Publications, Thousand Oaks, CA.

Craig, C.S., Douglas, S.P., 2006. Beyond national culture: implications of cultural dynamics for consumer research. Int. Mark. Rev. 23, 322–342. https://doi.org/10.1108/02651330610670479

Creswell, J.W., 2012. Qualitative Inquiry and Research Design: Choosing Among Five Approaches, Third edition. ed. Sage Publications, Inc, Los Angeles.

Crossman, A., 2017. An Overview of Qualitative Research Methods. thoughtco.com/qualitative-research-methods-3026555 (accessed 2.6.18).

Cunningham, L.F., Young, C.E., Lee, M., 2002. Cross-Cultural Perspectives of Service Quality and Risk in Air Transportation. J. Air Transp. 7, 3–26.

Dalvi, M.Q., 1986. The mobility problem of the third world. Presented at the Moving People in Tomorrow's World, Thomas Telford, London.

Damasio, A., 2008. Descartes' Error: Emotion, Reason and the Human Brain. Vintage Digital, New York.

Daniell, K., 2014. The role of national culture in shaping public policy: a review of the literature (H C Coombs Policy Forum). ANU, Canberra. https://coombs-forum.crawford.anu.edu.au/publication/hc-coombs-policy-forum/4543/role-national-culture-shaping-public-policy-review (accessed 24.3.17).

Dargay, J., 2007. The effect of prices and income on car travel in the UK. Transp. Res. Part A 41, 949–960. https://doi.org/10.1016/j.tra.2007.05.005

Dargay, J., Gately, D., Sommer, M., 2007. Vehicle Ownership and Income Growth, Worldwide: 1960-2030. Energy J. 28, 143–170.

Dargay, J.M., 2001. The effect of income on car ownership: evidence of asymmetry. Transp. Res. Part A 35, 807–821. https://doi.org/10.1016/S0965-8564(00)00018-5

Dawson, A., 2015. The Road to Srebrenica: Automobility and Belonging in a Post-Socialist/War Milieu. Anthropol. Noteb. 21, 5–25.

Dawson, A., 2017. Driven to sanity: An ethnographic critique of the senses in automobilities. Aust. J. Anthropol. 28, 3–20. https://doi.org/10.1111/taja.12168

De Jong, M., Geerlings, H., 2005. Exchanging experiences in transport infrastructure policies between Denmark and the Netherlands. Int. J. Technol. Policy Manag. 5, 181–199. https://doi.org/10.1504/IJTPM.2005.007520

de Mooij, M., 2003. Convergence and divergence in consumer behaviour: implications for global advertising. Int. J. Advert. 22, 1.

de Mooij, M., Hofstede, G., 2002. Convergence and divergence in consumer behavior: implications for international retailing. J. Retail. 78, 61–69. https://doi.org/10.1016/S0022-4359(01)00067-7

de Mooij, M., Hofstede, G., 2010. The Hofstede model: applications to global branding and advertising strategy and research. Int. J. Advert. 29, 85–110.

DeCuir-Gunby, J.T., Marshall, P.L., McCulloch, A.W., 2011. Developing and Using a Codebook for the Analysis of Interview Data: An Example from a Professional Development Research Project. Field Methods 23, 136–155. https://doi.org/10.1177/1525822X10388468

Denzin, N.K., Lincoln, Y.S. (Eds.), 2005. The SAGE Handbook of Qualitative Research, Third Edition edition. ed. Sage Publications, Inc, Thousand Oaks, Calif.

DeVellis, R.F., 2011. Scale Development: Theory and Applications, Third Edition edition. ed. SAGE Publications, Inc, Thousand Oaks, Calif.

Di Maggio, P., 1997. Culture and Cognition. Annu. Rev. Sociol. 23, 263–287.

Diamond, D., 2009. The impact of government incentives for hybrid-electric vehicles: Evidence from US states. Energy Policy 37, 972–983. https://doi.org/10.1016/j.enpol.2008.09.094

Dittmar, H., 1992. The social psychology of material possessions: to have is to be. Harvester Wheatsheaf, London.

Doctoroff, T., 2012. What Chinese Want: Culture, Communism and the Modern Chinese Consumer, Reprint edition. ed. Palgrave Macmillan Trade, London.

Dolowitz, D.P., Marsh, D., 2000. Learning from Abroad: The Role of Policy Transfer in Contemporary Policy-Making. Governance 13, 5–23. https://doi.org/10.1111/0952-1895.00121

Dowling, R., Maalsen, S., Kent, J.L., 2018. Sharing as sociomaterial practice: Car sharing and the material reconstitution of automobility. Geoforum 88, 10–16. https://doi.org/10.1016/j.geoforum.2017.11.004

Drake, B., 2011. What Is 'Face' In Asian Culture and Why Should We Care? Int. Man. http://www.internationalman.com/articles/what-is-face-in-asian-culture-and-why-should-we-care (accessed 1.20.16).

Dudovskiy, J., 2018. Snowball sampling. Res.-Methodol. https://research-methodology.net/sampling-in-primary-data-collection/snowball-sampling/ (accessed 7.13.18).

Dunn, M.J., Searle, R., 2010. Effect of manipulated prestige-car ownership on both sex attractiveness ratings. Br. J. Psychol. 101, 69–80. https://doi.org/10.1348/000712609X417319

Durvasula, S., Lysonski, S., 2010. Money, money, money – how do attitudes toward money impact vanity and materialism? – the case of young Chinese consumers. J. Consum. Mark. 27, 169–179. https://doi.org/10.1108/07363761011027268

Eastman, J.K., Goldsmith, R.E., 1999. Status Consumption in Consumer Behavior: Scale Development and Validation. J. Mark. Theory Pract. 7, 41.

Edwards, R., Holland, J., 2013. What is Qualitative Interviewing?, annotated edition edition. ed. Bloomsbury Academic, London.

Elliott, R., Wattanasuwan, K., 1998. Brand as symbolic resources for the construction of identity. Int. J. Advert. 17, 131–144.

Erdem, T., Swait, J., Valenzuela, A., 2006. Brands as Signals: A Cross-Country Validation Study. J. Mark. 70, 34–49.

European Commission, 2015. European Commission - Press release - Commission refers Belgium and Bulgaria to court and gives Sweden a final warning over poor air quality. Press Release. http://europa.eu/rapid/press-release_IP-15-5197_en.htm (accessed 1.16.16).

Fairchild, H.P. (Ed.), 1970. Dictionary of Sociology and Related Sciences, New ed of 1944 ed edition. ed. Greenwood Press, Westport, Conn.

Fehr, E., Fischbacher, U., 2004. Third-party punishment and social norms. Evol. Hum. Behav. 25, 63–87. https://doi.org/10.1016/S1090-5138(04)00005-4

Feilzer, M.Y., 2010. Doing Mixed Methods Research Pragmatically: Implications for the Rediscovery of Pragmatism as a Research Paradigm. J. Mix. Methods Res. 4, 6–16. https://doi.org/10.1177/1558689809349691

Fereday, J., Muir-Cochrane, E., 2008. Demonstrating Rigor Using Thematic Analysis: A Hybrid Approach of Inductive and Deductive Coding and Theme Development. Int. J. Qual. Methods 5, 80–92.

Festinger, L., 1954. A Theory of Social Comparison Processes. Hum. Relat. 7, 117–140. https://doi.org/10.1177/001872675400700202

Fischer, D.H., 1970. Historians' Fallacies. HarperCollins, New York.

Fitt, H.M., 2015. The influences of social meanings on everyday transport practices. PhD thesis, University of Canterbury, https://ir.canterbury.ac.nz/handle/10092/11846, New Zealand.

Fitzgerald, F.S., 1925. The great Gatsby / F. Scott Fitzgerald. Charles Scribner's Sons, New York.

Flick, U., 2006. An Introduction to Qualitative Research. Sage Publications. Thousand Oaks, CA.

Food and Agriculture Association, 1990. The community's toolbox: The idea, methods and tools for participatory assessment, monitoring and evaluation in community forestry. http://www.fao.org/docrep/x5307e/x5307e08.htm, (accessed 6.3.17).

Frank, R.H., 1993. Choosing the Right Pond: Human Behavior and the Quest for Status: Human Behaviour and the Quest for Status, New Ed edition. ed. OUP USA, New York.

Friedersdorf, C., 2010. Off the Bus. The Atlantic. https://www.theatlantic.com/projects/the-future-of-the-city/archive/2010/06/off-the-bus/57449/, (accessed 29.11.18).

Fruhen, L.S., Flin, R., 2015. Car driver attitudes, perceptions of social norms and aggressive driving behaviour towards cyclists. Accid. Anal. Prev. 83, 162–170. https://doi.org/10.1016/j.aap.2015.07.003

Ganga, D., Scott, S., 2006. Cultural "Insiders" and the Issue of Positionality in Qualitative Migration Research: Moving "Across" and Moving "Along" Researcher-Participant Divides. Forum Qualitative Sozialforschung / Forum: Qualitative Social Research 7. https://doi.org/10.17169/fqs-7.3.134

Gardner, N., Cui, J., Coiacetto, E., 2017. Harassment on public transport and its impacts on women's travel behaviour. Aust. Plan. 54, 8–15. https://doi.org/10.1080/07293682.2017.1299189

Gartman, D., 2004. Three Ages of the Automobile: The Cultural Logics of The Car. Theory Cult. Soc. 21, 169–195. https://doi.org/10.1177/0263276404046066

Gaskell, E., Watson, E.P., Birch, D., 2011. Cranford, Reprint edition. ed. Oxford University Press, Oxford.

Gaygısız, E., 2010. Cultural values and governance quality as correlates of road traffic fatalities: A nation level analysis. Accid. Anal. Prev. 42, 1894–1901. https://doi.org/10.1016/j.aap.2010.05.010

Geertz, C., 1973. The Interpretation Of Cultures. Basic Books, New York.

Ger, G., Wilhite, H., Halkier, B., Laessoe, J., Godskesen, M., Ropke, I., 1999. Symbolic meanings of high and low impact consumption in different cultures, in: Online Papers. Presented at the Consumption, Everyday Life and Sustainability - Summer School, Lancaster.

Gerhart, B., Fang, M., 2005. National culture and human resource management: assumptions and evidence. Int. J. Hum. Resour. Manag. 16, 971–986. https://doi.org/10.1080/09585190500120772

Gill, D., Prowse, V., 2012. A Structural Analysis of Disappointment Aversion in a Real Effort Competition. Am. Econ. Rev. 102, 469–503. https://doi.org/10.1257/aer.102.1.469

Gingrich, P., 2006. Symbolic interactionism, Sociology Lecture Notes, University of Regina, http://uregina.ca/~gingrich/f100.htm (accessed 3.5.14).

Given, L., 2018. The SAGE Encyclopedia of Qualitative Research Methods. https://doi.org/10.4135/9781412963909. Thousand Oaks, CA.

Goffman, E., 1955. On face-work: an analysis of ritual elements in social interaction. Psychiatry J. Study Interpers. Process. 18, 213–231.

Gomez, C. (2012) Global auto report, December 2012, http://www.gbm.scotiabank.com/English/bns_econ/bns_auto.pdf (accessed 3.2.13).

Gould, S.J., Wong, N.Y.C., 2000. The Intertextual Construction of Emerging Consumer Culture in China as Observed in the Movie Ermo. J. Glob. Mark. 14, 151–167. https://doi.org/10.1300/J042v14n01_08

Goulden, M., Ryley, T., Dingwall, R., 2014. Beyond 'predict and provide': UK transport, the growth paradigm and climate change. Transp. Policy 32, 139–147. https://doi.org/10.1016/j.tranpol.2014.01.006

Grbich, C., 2012. Qualitative Data Analysis: An Introduction. Sage Publications. Thousand Oaks, CA.

Grosvenor, T., 1998. Qualitative Research in the Transport Sector. http://onlinepubs.trb.org/onlinepubs/circulars/ec008/workshop_k.pdf, (accessed 15.7.15).

Guess, C.D., 2004. Decision-making in Individualistic and Collectivistic Cultures. Online Read. Psychol. Cult. 4. https://doi.org/10.9707/2307-0919.1032

Guest, 2016. Structural equation modelling: what is a latent variable? Anal. Factor. http://www.theanalysisfactor.com/what-is-a-latent-variable/ (accessed 1.23.17).

Guest, G., Bunce, A., Johnson, L., 2006. How many interviews are enough? An experiment with data saturation and variability. Field Methods 18, 59–82. https://doi.org/10.1177/1525822X05279903

Guest, G., MacQueen, K., Namey, E., 2012. Applied Thematic Analysis. Sage Publications, Thousand Oaks, CA.

Guiver, J.W., 2007. Modal talk: Discourse analysis of how people talk about bus and car travel. Transp. Res. Part A 41, 233–248. https://doi.org/10.1016/j.tra.2006.05.004

Guo, C., 2015. Cultural Convergence, Divergence, and Crossvergence, in: Wiley Encyclopedia of Management. John Wiley & Sons, Ltd. https://doi.org/10.1002/9781118785317.weom060049

Gupta, V., Wang, J., 2011. Globalization And Convergence-Divergence Debate: Strategic Perspectives For Emerging Markets. J. Bus. Econ. Res. 1.

Haas, B., 2017. Chinese bike share graveyard a monument to industry's "arrogance." The Guardian. https://www.theguardian.com/uk-news/2017/nov/25/chinas-bike-share-graveyard-a-monument-to-industrys-arrogance, (accessed 25.11.17).

Hamamura, T., 2012. Are Cultures Becoming Individualistic? A Cross-Temporal Comparison of Individualism–Collectivism in the United States and Japan. Personal. Soc. Psychol. Rev. 16, 3–24. https://doi.org/10.1177/1088868311411587

Hammersley, M., 1987. Some Notes on the Terms "Validity" and "Reliability." Br. Educ. Res. J. 13, 73–81.

Hammersley, M., 1996. The relationship between qualitative and quantitative research: Paradigm loyalty versus methodological eclecticism, in: Handbook of Research in Psychology and the Social Sciences. BPS Books, Leicester.

Han, L., Wang, S., Zhao, D., Li, J., 2017. The intention to adopt electric vehicles: Driven by functional and non-functional values. Transportation Research Part A: Policy and Practice 103, 185–197. https://doi.org/10.1016/j.tra.2017.05.033

Hannam, P., 2017. Beijing's pollution plight to get worse with climate change in bad news for coal. Syd. Morning Her. http://www.smh.com.au/environment/climate-change/beijings-pollution-plight-to-get-worse-with-climate-change-in-bad-news-for-coal-20170320-gv1tm4.html (accessed 29.3.18).

Hansard, 2012. House of Commons Hansard Debates for 09 Jun 2015, http://www.publications.parliament.uk/pa/cm201516/cmhansrd/cm150609/halltext/150609h0001.htm (accessed 12.23.15).

Hao, H., Ou, X., Du, J., Wang, H., Ouyang, M., 2014. China's electric vehicle subsidy scheme: Rationale and impacts. Energy Policy 73, 722–732. https://doi.org/10.1016/j.enpol.2014.05.022

Hardt, C., Bogenberger, K., 2019. Usage of e-Scooters in Urban Environments. Transportation Research Procedia 37, 155–162. https://doi.org/10.1016/j.trpro.2018.12.178

Harkness, S., Moscardino, U., Bermúdez, M.R., Zylicz, P.O., Welles-Nyström, B., Blom, M., Parmar, P., Axia, G., Palacios, J., Super, C.M., 2006. Mixed Methods in International Collaborative Research: The Experiences of the International Study of Parents, Children, and Schools. Cross-Cultural Research 40, 65–82. https://doi.org/10.1177/1069397105283179

Harris, P.G., 2006. Environmental Perspectives and Behavior in China Synopsis and Bibliography. Environ. Behav. 38, 5–21. https://doi.org/10.1177/0013916505280087

Heffner, R.R., Kurani, K.S., Turrentine, T.S., 2007. Symbolism in California's early market for hybrid electric vehicles. Transp. Res. Part -Transp. Environ. 12. https://doi.org/10.1016/j.trd.2007.04.003

Heffner, R.R., Turrentine, T., Kurani, K., 2006. A Primer on Automobile Semiotics. Inst. Transp. Stud. http://escholarship.org/uc/item/3sk436j6 (accessed 16.1.17).

Helveston, J.P., Liu, Y., Feit, E.M., Fuchs, E., Klampfl, E., Michalek, J.J., 2015. Will subsidies drive electric vehicle adoption? Measuring consumer preferences in the U.S. and China. Transp. Res. Part Policy Pract. 73, 96–112. https://doi.org/10.1016/j.tra.2015.01.002

Hensher, D.A., Mulley, C., 2015. Modal image: candidate drivers of preference differences for BRT and LRT. Transportation 42, 7–23. https://doi.org/10.1007/s11116-014-9516-7

Herman, S., 2015. Asian Cities Choking on Worsening Air Pollution. VOA News. https://www.voanews.com/a/asian-cities-choking-on-worsening-air-pollution/3113194.html (accessed 23.11.17).

Hermans, H.J.M., Hermans-Jansen, E., 2001. Self-Narratives: The Construction of Meaning in Psychotherapy, 1 edition. ed. The Guilford Press, New York.

Hess, S., Hensher, D.A., 2013. Making use of respondent reported processing information to understand attribute importance: a latent variable scaling approach. Transportation 40, 397–412. https://doi.org/10.1007/s11116-012-9420-y

Hidalgo, D., Gutiérrez, L., 2013. BRT and BHLS around the world: Explosive growth, large positive impacts and many issues outstanding. Res. Transp. Econ., THREDBO 12: Recent developments in the reform of land passenger transport 39, 8–13. https://doi.org/10.1016/j.retrec.2012.05.018

Hjelmslev, L., 1953. Prolegomena to a Theory of Language, Revised edition edition. ed. University of Wisconsin Press, Madison, Wisc.

Ho, D.Y., 1976. On the Concept of Face. Am. J. Sociol. 81, 867–884.

Ho, D.Y.-F., Fu, W., Ng, S.M., 2004. Guilt, Shame and Embarrassment: Revelations of Face and Self. Cult. Psychol. 10, 64–84. https://doi.org/10.1177/1354067X04044166

Hofstede, G., 1984. Culture's Consequences: International Differences in Work-Related Values. Sage. Thousand Oaks, CA.

Hofstede, G., 1998a. Attitudes, Values and Organizational Culture: Disentangling the Concepts. Organ. Stud. 19, 477–493. https://doi.org/10.1177/017084069801900305

Hofstede, G., 1998b. Masculinity and Femininity: The Taboo Dimension of National Cultures. SAGE. Thousand Oaks, CA.

Hofstede, G., Bond, M.H., 1988. The Confucius connection: From cultural roots to economic growth. Organ. Dyn. 16, 5–21. https://doi.org/10.1016/0090-2616(88)90009-5

Hofstede, G., Hofstede, G.J., Minkov, M., 2010. Cultures and Organizations: Software of the Mind, Third Edition. McGraw Hill Professional, New York.

Holloway, I., Todres, L., 2003. The Status of Method: Flexibility, Consistency and Coherence. Qual. Res. 3, 345–357. https://doi.org/10.1177/1468794103033004

Holzinger, K., Knill, C., 2005. Causes and conditions of cross-national policy convergence. J. Eur. Public Policy 12, 775–796. https://doi.org/10.1080/13501760500161357

Honan, E., Hamid, M.O., Alhamdan, B., Phommalangsy, P., Lingard, B., 2013. Ethical issues in cross-cultural research. Int. J. Res. Method Educ. 36, 386–399. https://doi.org/10.1080/1743727X.2012.705275

House, R.J., Hanges, P.J., Javidan, M., Dorfman, P.W., Gupta, V., 2004. Culture, leadership, and organizations: The GLOBE study of 62 societies. Sage publications. Thousand Oaks, CA.

Howe, K.R., 1988. Against the Quantitative-Qualitative Incompatibility Thesis or Dogmas Die Hard. Educational Researcher 17, 10–16. https://doi.org/10.3102/0013189X017008010

Iacobucci, E., 2016. Understanding Attitudes and Perceptions of Public Transport: Investigation Through Social Media and Conceptual Analysis. ProQuest Dissertations Publishing. http://search.proquest.com/docview/1810128843/ (accessed 4.11.17).

Idris, A.O., Habib, K.M.N., Tudela, A., Shalaby, A., 2015. Investigating the effects of psychological factors on commuting mode choice behaviour. Transp. Plan. Technol. 38, 265–276. https://doi.org/10.1080/03081060.2014.997451

Indian Express, 2014. Boost for electric and hybrid cars with Rs 1.5 Lakh subsidy, The Indian Express, http://indianexpress.com/article/business/companies/boost-for-electric-and-hybrid-cars-with-rs-1-5-lakh-subsidy/ (accessed 14.10.17).

Inglehart, R., 1997. Modernization and Postmodernization: Cultural, Economic, and Political Change in 43 Societies. Princeton University Press.

Inglehart, R., Haerpfer, C., Moreno, A., Welzel, C., Kizilova, K., Diez-Medrano, J., Lagos, M., Norris, P., Ponarin, E., Puranen, B. (Eds.), 2014. World Values Survey Database, Sixth Wave. World Values Survey: Round Six - Country-Pooled Datafile Version., in: Sixth Wave. JD Systems Institute, Madrid.

Inglehart, R., Oyserman, D., 2004. Individualism, autonomy and self expression: the human development syndrome, in: Vinken, H., Soeters, J., Ester, P. (Eds.), Comparing Cultures, Dimensions of Culture in a Comparative Perspective. Brill, Leiden.

Institute for Transportation and Development Policy (ITDP), 2007. Bus Rapid Transit Planning Guide. Institute for Transportation and Development Policy, New York, https://www.itdp.org/brt-planning-guide-english (accessed 23.11.17).

Ison, S., Marsden, G., May, A., 2011. Transferability of urban transport policy. http://eprints.whiterose.ac.uk/78924/7/Transferability%20of%20urban%20transport%20policy_with_coversheet.pdf, (accessed 18.9.17).

ITDP India, 2018. Growth of bus rapid transit in India. ITDP India. https://www.itdp.in/growth-of-bus-rapid-transit-in-india/ (accessed 19.11.18).

Ivanic, A.S., Overbeck, J.R., Nunes, J.C., 2011. Status, Race, and Money The Impact of Racial Hierarchy on Willingness to Pay. Psychol. Sci. 22, 1557–1566. https://doi.org/10.1177/0956797611419519

Iyengar, R., Lipton, B., 2015. The World's Most Polluted City Gets Even Worse. Time Mag. Novemb. 27, http://timecom3608534india-New-Delhi-Worlds-Most-Polluted-City (accessed 19.11.18).

Jakola, F., 2016. Borders, planning and policy transfer: historical transformation of development discourses in the Finnish Torne Valley. Eur. Plan. Stud. 24, 1806–1824. https://doi.org/10.1080/09654313.2016.1194808

Jakovcevic, A., Steg, L., 2013. Sustainable transportation in Argentina: Values, beliefs, norms and car use reduction. Transp. Res. Part F Traffic Psychol. Behav. 20, 70–79. https://doi.org/10.1016/j.trf.2013.05.005

Jansson, J., Nordlund, A., Westin, K., 2017. Examining drivers of sustainable consumption: The influence of norms and opinion leadership on electric vehicle adoption in Sweden. Journal of Cleaner Production 154, 176–187. https://doi.org/10.1016/j.jclepro.2017.03.186

Jenner, S., Macnab, B., Briley, D., Brislin, R., Worthley, R., 2008. Cultural Change and Marketing. J. Glob. Mark. 21, 161–172. https://doi.org/10.1080/08911760802135582

Jensen, O.B., 2015. More than A to B: Cultures of mobilities and travel, in: Handbook on Transport and Development. Edward Elgar, Cheltenham, pp. 479–490.

Jiang, J., Wei, R., 2012. Influences of culture and market convergence on the international advertising strategies of multinational corporations in North America, Europe and Asia. Int. Mark. Rev. 29, 597–622. https://doi.org/10.1108/02651331211277964

Jiang, Y., Li, Z., 2010. Practices and policies of green urban transport in China. Journeys. https://www.lta.gov.sg/ltaacademy/doc/J10May-p26Jiang&Li_GreenTransportChina.pdf (accessed 17.7.16).

Johansson-Stenman, O., Martinsson, P., 2006. Honestly, why are you driving a BMW? J. Econ. Behav. Organ. 60, 129–146. https://doi.org/10.1016/j.jebo.2004.08.006

Johnson, B., Christensen, L.B., 2004. Educational Research: Quantitative, Qualitative, and Mixed Approaches, Research Edition, Second Edition, 2 edition. ed. Allyn & Bacon, Boston.

Johnson, W.C., Chang, L.C., 2000. A Comparison Of Car Buying Behavior Between American And Chinese People Living In North America: An Exploratory Study. Presented at the Southwestern Marketing Association Conference, San Antonio, Texas.

Jones, M., 2007. Hofstede - Culturally questionable? Paper presented to the Oxford Business & Economics Conference, Oxford, 24-26 June. https://www.researchgate.net/publication/30389134_Hofstede_-_Culturally_questionable (accessed 12.6.16).

Jones, P., 2014. The evolution of urban mobility: The interplay of academic and policy perspectives. IATSS Res. 38, 7–13. https://doi.org/10.1016/j.iatssr.2014.06.001

Jones, T., Novo de Azevedo, L., 2013. Economic, social and cultural transformation and the role of the bicycle in Brazil. Journal of Transport Geography 30, 208–219. https://doi.org/10.1016/j.jtrangeo.2013.02.005

Joshi, R., 2012. Delhi row over bus lane reveals class divide, BBC News. http://www.bbc.com/news/world-asia-india-19572583 (accessed 9.24.16).

Joshi, R., Joseph, Y., Chandran, V., 2016. The Structures of Mobility and Challenges of Low Carbon Transitions in India. Chapter 8, Low carbon mobility transitions: Eds. Hopkins, D. & Higham, J. Goodfellow Publishers, Oxford.

Kahneman, D., 2012. Thinking, Fast and Slow. Penguin, London.

Kahneman, D., Tversky, A., 1984. Choices, values, and frames. Am. Psychol. 39, 341–350. https://doi.org/10.1037/0003-066X.39.4.341

Kan, H., Chen, B., 2004. Particulate air pollution in urban areas of Shanghai, China: health-based economic assessment. Sci. Total Environ. 322, 71–79. https://doi.org/10.1016/j.scitotenv.2003.09.010

Kane, L., Behrens, R., 2002. Transport planning models – an historical and critical review. SATC. http://repository.up.ac.za/handle/2263/7834 (accessed 16.5.15)

Kaplan, C.D., Korf, D., Sterk, C., 1987. Temporal and social contexts of heroin-using populations: An illustration of the snowball sampling technique. J. Nerv. Ment. Dis. 175, 566–574. https://doi.org/10.1097/00005053-198709000-00009

Karasz, A., Singelis, T.M., 2009. Qualitative and Mixed Methods Research in Cross-Cultural Psychology. J. Cross-Cult. Psychol. 40, 909–916. https://doi.org/10.1177/0022022109349172

Karstedt, S., 2003. Strangers, mobilisation and the production of weak ties: railway traffic and violence in nineteenth-century South-West Germany, in: Comparative Histories of Crime. Godfrey et Al (Eds). Willan, pp. 89–109.

Kaus, W., 2013. Conspicuous consumption and "race": Evidence from South Africa. J. Dev. Econ. 100, 63–73. https://doi.org/10.1016/j.jdeveco.2012.07.004

Kębłowski, W., Bassens, D., 2017. "All transport problems are essentially mathematical": The uneven resonance of academic transport and mobility knowledge in Brussels. Urban Geogr. 0, 1–25. https://doi.org/10.1080/02723638.2017.1336320

Kerlinger, F.N., 1964. Foundations of behavioral research: educational and psychological inquiry. Holt, Rinehart and Winston, New York.

Kerouac, J., 1957. On the road / Jack Kerouac. Signet Books, New York.

Khaled, M., 2017. Countries: Avoid glib terms of development status. Nature 550, 188. https://doi.org/10.1038/550188c

Kim, M.-K., Oh, J., Park, J.-H., Joo, C., 2018. Perceived value and adoption intention for electric vehicles in Korea: Moderating effects of environmental traits and government supports. Energy 159, 799–809. https://doi.org/10.1016/j.energy.2018.06.064

Kim, Y.K., Lee, H.R., 2009a. Airline employee's service behavior toward different nationalities. Int. J. Hosp. Manag. 28, 454–465. https://doi.org/10.1016/j.ijhm.2009.01.007

Kim, Y.-K., Lee, H.-R., 2009b. Passenger complaints under irregular airline conditions – cross-cultural study. J. Air Transp. Manag. 15, 350–353. https://doi.org/10.1016/j.jairtraman.2008.11.007

King, N., 2004. Using Templates in the Thematic Analysis of Text, in: Essential Guide to Qualitative Methods in Organizational Research. SAGE Publications Ltd, London, pp. 256–270. https://doi.org/10.4135/9781446280119

Klaiber, H.A., von Haefen, H., 2008. Incorporating Random Coefficients and Alternative Specific Constants into Discrete Choice Models: Implications for In-Sample Fit and Welfare Estimates, North Carolina State University, Centre for Environmental and Resource Economic Policy, Working Paper, http://www.ncsu.edu/cenrep/research/documents/poorpredict040308_von_haefen_000.pdf (accessed 21.1.14).

Koçak, A., Abimbola, T., Özer, A., 2007. Consumer Brand Equity in a Cross-cultural Replication: An Evaluation of a Scale. J. Mark. Manag. 23. https://doi.org/10.1362/026725707X178611

Koppelman, Frank.S., Chandra Bhat, 2006. A Self Instructing Course in Mode Choice Modeling: Multinomial and Nested Logit Models. http://www.ce.utexas.edu/prof/bhat/COURSES/LM_Draft_060131Final-060630.pdf (accessed 11.12.12).

Krathwohl, D.R., 1993. Methods of educational and social science research: An integrated approach. Longman/Addison Wesley Longman, New York.

Kroeber, A.L., Kluckhohn, C., 1952. Culture: a critical review of concepts and definitions. Pap. Peabody Mus. Archaeol. Ethnol. Harv. Univ. 47, viii, 223.

Kuhnimhof, T., Wulfhorst, G., 2013. The Reader's Guide to Mobility Culture, in: Megacity Mobility Culture, Lecture Notes in Mobility. Springer Berlin Heidelberg, pp. 55–64.

Kumar, M., Singh, S., Ghate, A.T., Pal, S., Wilson, S.A., 2016. Informal public transport modes in India: A case study of five city regions. IATSS Res. 39, 102–109. https://doi.org/10.1016/j.iatssr.2016.01.001

Kurani, K.S., Caperello, N., TyreeHageman, J., Davies, J., 2018. Symbolism, signs, and accounts of electric vehicles in California. Energy Research & Social Science 46, 345–355. https://doi.org/10.1016/j.erss.2018.08.009

Kvale, S., 2008. Doing Interviews. Sage. Thousand Oaks, CA.

Lakatos, I., 1978. The methodology of scientific research programmes. Cambridge University Press, Cambridge.

Langbroek, J.H.M., Franklin, J.P., Susilo, Y.O., 2016. The effect of policy incentives on electric vehicle adoption. Energy Policy 94, 94–103. https://doi.org/10.1016/j.enpol.2016.03.050

Lapadat, J.C., 2010. Thematic Analysis, Encyclopaedia of Case Study Research, Sage Publications, ISBN: 978-1-4129-5670-3 978-1-4129-5739-7, Thousand Oaks, CA.

Laroche, M., Mourali, M., Laroche, M., Pons, F., 2005. Individualistic orientation and consumer susceptibility to interpersonal influence. J. Serv. Mark. 19, 164–173. https://doi.org/10.1108/08876040510596849

Lave, L.B., Maclean, H.L., 2001. Are hybrid vehicles worth it? IEEE Spectr. 38, 47–50. https://doi.org/10.1109/6.908852

Law, S.F., Karnilowicz, W., 2015. 'In Our Country it's Just Poor People who Ride a Bike': Place, Displacement and Cycling in Australia. J. Community Appl. Soc. Psychol. 25, 296–309. https://doi.org/10.1002/casp.2215

Lee, Y.M., Sheppard, E., Crundall, D., 2015. Cross-cultural effects on the perception and appraisal of approaching motorcycles at junctions. Transp. Res. Part F Psychol. Behav. 31, 77–86. https://doi.org/10.1016/j.trf.2015.03.013

Leininger, M., 1992. Current Issues, Problems, and Trends to Advance Qualitative Paradigmatic Research Methods for the Future. Qual. Health Res. 2, 392–415. https://doi.org/10.1177/104973239200200403

Leonard, S., Spotswood, F., Tapp, A., 2012. Overcoming the self-image incongruency of non-cyclists. J. Soc. Mark. 2, 23–36. https://doi.org/10.1108/20426761211203238

Lévay, P.Z., Drossinos, Y., Thiel, C., 2017. The effect of fiscal incentives on market penetration of electric vehicles: A pairwise comparison of total cost of ownership. Energy Policy 105, 524–533. https://doi.org/10.1016/j.enpol.2017.02.054

Levi-Faur, D., Vigoda-Gadot, E., 2006. New Public Policy, New Policy Transfers: Some Characteristics of a New Order in the Making. Int. J. Public Adm. 29, 247–262. https://doi.org/10.1080/01900690500437147

Lewis-Beck, M., Bryman, A., Liao, T., 2004. Encyclopaedia of Social Science Research Methods. SAGE Publications, Inc., 2455 Teller Road, Thousand Oaks California.

Li, J., Xu, L., Yao, D., Mao, Y., 2019. Impacts of symbolic value and passenger satisfaction on bus use. Transportation Research Part D: Transport and Environment 72, 98–113. https://doi.org/10.1016/j.trd.2019.04.012

Li, X., Stanton, B., Fang, X., Lin, D., 2006. Social Stigma and Mental Health among Rural-to-Urban Migrants in China: A Conceptual Framework and Future Research Needs. World Health Popul. 8, 14–31.

Lin, X., Wells, P., Sovacool, B.K., 2018. The death of a transport regime? The future of electric bicycles and transportation pathways for sustainable mobility in China. Technological Forecasting and Social Change 132, 255–267. https://doi.org/10.1016/j.techfore.2018.02.008

Linde, J., Sonnemans, J., 2012. Social comparison and risky choices. J. Risk Uncertain. 44, 45–72. https://doi.org/10.1007/s11166-011-9135-z

Lindemann, K., 2007. The impact of objective characteristics on subjective social position. Trames 1 54–68.

Linssen, R., van Kempen, L., Kraaykamp, G., 2011. Subjective Well-being in Rural India: The Curse of Conspicuous Consumption. Soc. Indic. Res. 101, 57–72. https://doi.org/10.1007/s11205-010-9635-2

Loo, L.Y.L., Corcoran, J., Mateo-Babiano, D., Zahnow, R., 2015. Transport mode choice in South East Asia: Investigating the relationship between transport users' perception and travel behaviour in Johor Bahru, Malaysia. J. Transp. Geogr. 46, 99–111. https://doi.org/10.1016/j.jtrangeo.2015.06.011

Lucas, K., 2013. Qualitative methods in transport research: the "action research" approach, in: Zmud, J., Lee-Gosselin, M., Carrasco, J.A. (Eds.), Transport Survey Methods: Best Practice for Decision-making. Emerald Publishing, Bingley.

Maggetti, M., Gilardi, F., 2013. How Policies Spread: A Meta-Analysis of Diffusion Mechanisms. http://citeseerx.ist.psu.edu/viewdoc/summary?doi=10.1.1.397.3637 (accessed 19.01.2017)

Magnusson, P., Wilson, R.T., Zdravkovic, S., Zhou, J.X., Westjohn, S.A., 2008. Breaking through the cultural clutter - A comparative assessment of multiple cultural and institutional frameworks. Int. Mark. Rev. 25. https://doi.org/10.1108/02651330810866272

Mak, M., 1997. Island of Greed. China Star Entertainment. http://www.imdb.com/title/tt0156588/?ref_=fn_al_tt_1 (accessed 6.6.16).

Malhotra, N.K., McCort, J.D., 2001. A cross-cultural comparison of behavioral intention models - Theoretical consideration and an empirical investigation. Int. Mark. Rev. 18, 235–269. https://doi.org/10.1108/02651330110396505

Mallqui, Y.Y.C., Pojani, D., 2017. Barriers to successful Bus Rapid Transit expansion: Developed cities versus developing megacities. Case Stud. Transp. Policy 5, 254–266. https://doi.org/10.1016/j.cstp.2017.01.004

Manohar, N., Liamputtong, P., Bhole, S., Arora, A., 2017. Researcher Positionality in Cross-Cultural and Sensitive Research, in: Liamputtong, P. (Ed.), Handbook of Research Methods in Health Social Sciences. Springer, Singapore, pp. 1–15. https://doi.org/10.1007/978-981-10-2779-6_35-1

Markus, H.R., Kitayama, S., 1991. Culture and the self: Implications for cognition, emotion, and motivation. Psychol. Rev. 98, 224–253. https://doi.org/10.1037/0033-295X.98.2.224

Mars, L., Arroyo, R., Ruiz, T., 2016. Qualitative Research in Travel Behavior Studies. Transp. Res. Procedia 18, 434–445. https://doi.org/10.1016/j.trpro.2016.12.057

Marsden, G., Stead, D., 2011. Policy transfer and learning in the field of transport: A review of concepts and evidence. Transp. Policy 18, 492–500. https://doi.org/10.1016/j.tranpol.2010.10.007

Marsh, D., Sharman, J. c., 2009. Policy diffusion and policy transfer. Policy Stud. 30, 269–288. https://doi.org/10.1080/01442870902863851

Matsumoto, D., Juang, L., 2012. Culture and Psychology, 5th Edition, 5th edition. ed. Wadsworth Publishing, Belmont, CA.

Matsumoto, D., Leong Jones, C.A., 2009. Ethical Issues in Cross-Cultural Research, in "The Handbook of Social Research Ethics (Mertens and Ginsberg)", Chapter 21,. SAGE Publications, Inc., 2455 Teller Road, Thousand Oaks Calif.

Matsumoto, N., 2007. Analysis of Policy Processes to Introduce Bus Rapid Transit Systems in Asian Cities from the Perspective of Lesson-drawing: Cases of Jakarta, Seoul, and Beijing Chapter IV.7, 351–376.

Matthew, M.R., Busemeyer, J.R., 2011. Explaining Cultural Differences in Decision-making Using Decision Field Theory, in: Cultural Factors in Systems Design, Industrial and Systems Engineering Series. CRC Press, pp. 17–31.

Maynard, M., 2014. Curbing Cars: America's Independence From The Auto Industry. Forbes Media, http://www.curbingcars.com/tag/ebook/ (accessed 21.3.17).

Mayring, P., 2000. Qualitative Content Analysis. Forum Qual. Sozialforschung Forum Qual. Soc. Res. 1, http://www.qualitative-research.net/index.php/fqs/article/view/1089 (accessed 20.6.18).

McCann, E., Ward, K., 2010. Relationality/territoriality: Toward a conceptualization of cities in the world. Geoforum, Themed Issue: Mobilizing Policy 41, 175–184. https://doi.org/10.1016/j.geoforum.2009.06.006

McCracken, G., 1986. Culture and Consumption: A Theoretical Account of the Structure and Movement of the Cultural Meaning of Consumer Goods. J. Consum. Res. 13, 71–84.

McGregor, S.L.T., Murnane, J.A., 2010. Paradigm, methodology and method: intellectual integrity in consumer scholarship. Int. J. Consum. Stud. 34, 419–427. https://doi.org/10.1111/j.1470-6431.2010.00883.x

McSweeney, B., 2002. Hofstede's model of national cultural differences and their consequences: A triumph of faith - a failure of analysis. Hum. Relat. 55.

Mead, G.H., 1908. The social settlement - its basis and function. Univ. Chic. Rec. 12, 108–110.

Mead, M., 1928. Coming of Age in Samoa: A Psychology Study in Primitive Youth for Western Civilization. W. Morrow, New York.

Mead, M., 1930. Growing Up in New Guinea; a Comparative Study of Primitive Education, by Margaret Mead. W. Morrow, New York.

Meehl, P.E., 1992. Factors and Taxa, Traits and Types, Differences of Degree and Differences in Kind. J. Pers. 60, 117–174. https://doi.org/10.1111/j.1467-6494.1992.tb00269.x

Mellor, J., Ingram, N., Abrahams, J., Beedell, P., 2014. Class matters in the interview setting? Positionality, situatedness and class. British Educational Research Journal 40, 135–149. https://doi.org/10.1002/berj.3035

Merriam, S.B., Johnson-Bailey, J., Lee, M.-Y., Kee, Y., Ntseane, G., Muhamad, M., 2001. Power and positionality: negotiating insider/outsider status within and across

cultures. International Journal of Lifelong Education 20, 405–416. https://doi.org/10.1080/02601370120490

Mersky, A.C., Sprei, F., Samaras, C., Qian, Z. (Sean), 2016. Effectiveness of incentives on electric vehicle adoption in Norway. Transp. Res. Part Transp. Environ. 46, 56–68. https://doi.org/10.1016/j.trd.2016.03.011

Mertens, D.M., 2007. Transformative Paradigm Mixed Methods and Social Justice. Journal of Mixed Methods Research 1, 212–225. https://doi.org/10.1177/1558689807302811

Metz, D., 2014. Peak Car: The Future of Travel, Amazon Media, http://www.amazon.co.uk/Peak-Car-The-Future-Travel-ebook/dp/B00I8LM6TG, ASIN: B00I8LM6TG., 1 edition (accessed 21.1.14).

Miles, M.B., Huberman, A.M., Huberman, M.A., Huberman, M., 1994. Qualitative data analysis: An expanded sourcebook. Sage. Thousand Oaks, CA.

Miller, D., 2001. Car cultures / edited by Daniel Miller. Berg, Oxford.

Mills, A., Durepos, G., Wiebe, E., 2018. Extreme cases. Encycl. Case Study Res. https://doi.org/10.4135/9781412957397

Minkov, M., 2007. What Makes Us Different and Similar: A New Interpretation of the World Values Survey and Other Cross-cultural Data. Klasika i Stil Publishing House.

Minkov, M., Hofstede, G., 2011. The evolution of Hofstede's doctrine. Cross Cult. Manag. - Int. J. 18. https://doi.org/10.1108/13527601111104269

Minkov, M., Hofstede, G., 2012. Is National Culture a Meaningful Concept? Cross-Cult. Res. 46. https://doi.org/10.1177/1069397111427262

Mishra, D., 2016. Is public transport only meant for the poor? https://www.quora.com/Is-public-transport-only-meant-for-the-poor (accessed 11.4.17).

Moore, T., 2010. Perspectives on sustainable transport, in: Sizing up the City: Urban Form and Transport in New Zealand. P. Howden-Chapman, K. Stuart & R. Chapman (Eds). Steele Roberts, Wellington.

Morgan, D.L., 2008. Snowball Sampling, in: The SAGE Encyclopedia of Qualitative Research Methods. SAGE Publications, Inc., Thousand Oaks, pp. 816–816. https://doi.org/10.4135/9781412963909

Morgan, D.L., 2015. From Themes to Hypotheses Following Up With Quantitative Methods. Qual. Health Res. 1049732315580110. https://doi.org/10.1177/1049732315580110

Morgan, S.L., Grusky, D.B., Fields, G.S., 2006. Mobility and inequality : frontiers of research in sociology and economics, Studies in social inequality. Stanford, Calif.

Morse, J.M., 1991. Approaches to qualitative-quantitative methodological triangulation. Nursing research 40, 120–3.

Mortimer, K., Grierson, S., 2010. The relationship between culture and advertising appeals for services. J. Mark. Commun. 16. https://doi.org/10.1080/13527260802614229

Mourali, M., Laroche, M., Pons, F., 2005. Individualistic orientation and consumer susceptibility to interpersonal influence. J. Serv. Mark. 19, 164–173. https://doi.org/10.1108/08876040510596849

Mulholland, J., 1991. The Language of Negotiation: A Handbook of Practical Strategies for Improving Communication. Routledge, London.

Nakagawa, K., Tada, K., Fukuchi, H., 2017. Organizational Cultural Crossvergence And Innovation: Evidence From Japanese Multinationals In Emerging Markets. Cross-Cultrual Manag. J. 47–57.

Neuwirth, R.J., 2017. Global Law and Sustainable Development: Change and the "Developing–Developed Country" Terminology. Eur J Dev Res 29, 911–925. https://doi.org/10.1057/s41287-016-0067-y

Newman, P., 2019. Why trackless trams are ready to replace light rail. The Conversation. URL http://theconversation.com/why-trackless-trams-are-ready-to-replace-light-rail-103690 (accessed 12.30.19).

Newmark, A.J., 2002. An integrated approach to policy transfer and diffusion. Rev. Policy Res. 19, 151–178. https://doi.org/10.1111/j.1541-1338.2002.tb00269.x

Newson, L., Richerson, P., Boyd, R., 2007. Cultural evolution and the shaping of cultural diversity, in: Handbook of Cultural Psychology. Pp. 454-476. Guildford Press, New York.

Newton-Smith, W., 1981. The rationality of science / W.H. Newton-Smith, International library of philosophy Y. Routledge & Kegan Paul, London.

Ng, S.I., Lee, J.A., Soutar, G.N., 2007. Are Hofstede's and Schwartz's value frameworks congruent? Int. Mark. Rev. 24. https://doi.org/10.1108/02651330710741802

Ni, J., 2008. Motorization, Vehicle Purchase and Use Behavior in China: A Shanghai Survey (PhD). University of California Davies, https://escholarship.org/uc/item/9kn849h1 (accessed 14.11.14).

Nolan, A., 2010. A dynamic analysis of household car ownership. Transp. Res. Part A 44, 446–455. https://doi.org/10.1016/j.tra.2010.03.018

Noppers, E.H., Bolderdijk, J.W., Keizer, K.E., Steg, L., 2011. The importance of instrumental, affective and symbolic functions of electric vehicles. Presented at the 9th Biennial Conference on Environmental Psychology, Eindhoven.

Noppers, E.H., Keizer, K., Bolderdijk, J.W., Steg, L., 2014. The adoption of sustainable innovations: Driven by symbolic and environmental motives. Glob. Environ. Change 25, 52–62. https://doi.org/10.1016/j.gloenvcha.2014.01.012

Nowell, L.S., Norris, J.M., White, D.E., Moules, N.J., 2017. Thematic Analysis. Int. J. Qual. Methods 16. https://doi.org/10.1177/1609406917733847

O'Dell, T., 2001. Raggare and the Panic of Mobility: Modernity and Everyday Life In Sweden, in: Car Cultures/ Edited by Daniel Miller. Berg, Oxford.

OECD, 2016. Shared Mobility: Innovation for Liveable Cities, http://www.itf-oecd.org/shared-mobility-innovation-liveable-cities (accessed 10.6.16).

Ohnmacht, T., Maksim, H., Bergman, M.M., 2009. Mobilities and inequality / edited by Timo Ohnmacht, Hanja Maksim, Manfred Max Bergman., Transport and society. Ashgate, Farnham.

Okimoto, T.G., Wenzel, M., 2011. Third-party punishment and symbolic intragroup status. J. Exp. Soc. Psychol. 47, 709–718. https://doi.org/10.1016/j.jesp.2011.02.001

Oliver, J.D., Lee, S., 2010. Hybrid car purchase intentions: a cross-cultural analysis. J. Consum. Mark. 27, 96–103. https://doi.org/10.1108/07363761011027204

Oltmann, S., 2016. Qualitative Interviews: A Methodological Discussion of the Interviewer and Respondent Contexts. Forum Qual. Sozialforschung Forum Qual. Soc. Res. 17.

Ortúzar, J. de D., Willumsen, L.G., 2011. Modelling Transport Fourth Edition, 4th Edition edition. ed. Wiley-Blackwell, Chichester, West Sussex, United Kingdom.

Osland, J.S., Bird, A., 2000. Beyond sophisticated stereotyping: Cultural sensemaking in context. Acad. Manag. Exec. 14, 65–77. https://doi.org/10.5465/AME.2000.2909840

Papaioannou, D., Martinez, L.M., 2015. The Role of Accessibility and Connectivity in Mode Choice. A Structural Equation Modeling Approach. 18th Euro Work. Group Transp. EWGT 2015 14-16 July 2015 Delft Neth. 10, 831–839. https://doi.org/10.1016/j.trpro.2015.09.036

Pelzer, P., 2010. Bicycling as a Way of Life: A Comparative Case Study of Bicycle Culture in Portland, OR and Amsterdam. Presented at the 7th Cycling and Society Symposium, Oxford.

Peng, Z.R., 2005. Urban transportation strategies in Chinese cities and their impacts on the urban poor, in: Transportation Research Board 85th Annual Meeting. p. 14. https://www.wilsoncenter.org/publication/urban-transportation-strategies-chinese-cities-and-their-impacts-the-urban-poor (accessed 7.2.14).

Perkins, M.S., 2017. People are showing solidarity with London with a symbol in the style of the Tube logo. Bus. Insid. Aust, https://www.businessinsider.com.au/london-terror-attack-tube-symbol-2017-3, accessed 13.11.17)

Peterson, C., Seligman, M.E.P., Seligman, F.L., Association, A.P., Press, O.U., 2004. Character Strengths and Virtues: A Handbook and Classification. American Psychological Association. Oxford University Press, New York.

Piper, W., 2012. The Little Engine That Could, Brdbk Abr edition. ed. Grosset & Dunlap, New York.

Piron, F., 2000. Consumers' perceptions of the country-of-origin effect on purchasing intentions of (in)conspicuous products. J. Consum. Mark. 17, 308–321. https://doi.org/10.1108/07363760010335330

Pojani, D., Stead, D., 2014. Going Dutch? The export of sustainable land-use and transport planning concepts from the Netherlands. Urban Stud. 1–19. https://doi.org/10.1177/0042098014562326

Pojani, D., Stead, D., 2015. Sustainable Urban Transport in the Developing World: Beyond Megacities. Sustainability 7, 7784–7805. https://doi.org/10.3390/su7067784

Pope, C., Ziebland, S., Mays, N., 2000. Analysing qualitative data. BMJ 320, 114–116.

Popper, K.R., 1969. Conjectures and Refutations: The Growth of Scientific Knowledge, Classics Series. Routledge, London.

Prabhu, D.N.R.V., 2012. A comparison of car buying behaviour between American and Chinese people: an explanatory study, Res. J. Commer. Behav. Sci, 1(6).

Press Association, 2014. WHO names and shames UK cities breaching safe air pollution levels, The Guardian. http://www.theguardian.com/environment/2014/may/07/who-names-uk-cities-breaching-safe-air-pollution-levels (accessed 6.25.15).

PTI, 2017. India eyes all-electric car fleet by 2030, says Piyush Goyalhtt, http://www.livemint.com/Industry/JvyUPmrumUS832KL5BKzhN/India-eyes-allelectric-car-fleet-by-2030-says-Piyush-Goyal.html (accessed 9.14.17).

Pucher, J., Peng, Z., Mittal, N., Zhu, Y., Korattyswaroopam, N., 2007. Urban Transport Trends and Policies in China and India: Impacts of Rapid Economic Growth. Transp. Rev. 27, 379–410. https://doi.org/10.1080/01441640601089988

Qian, L., Yin, J., 2017. Linking Chinese cultural values and the adoption of electric vehicles: The mediating role of ethical evaluation. Transportation Research Part D: Transport and Environment 56, 175–188. https://doi.org/10.1016/j.trd.2017.07.029

Rapaille, C., 2001. 7 Secrets of Marketing in a Multi-Cultural World, 1 edition. ed. Executive Excellence Publishing, Provo, Utah.

Rapaille, C., 2006. The Culture Code: An Ingenious Way to Understand Why People Around the World Live and Buy as They Do. Crown Business, New York.

Rau, P.L.P., Li, Y., Li, D., 2009. Effects of communication style and culture on ability to accept recommendations from robots. Comput. Hum. Behav., Including the Special Issue: State of the Art Research into Cognitive Load Theory 25, 587–595. https://doi.org/10.1016/j.chb.2008.12.025

Rediff, 2006. Delhi Metro has become the symbol of India's progress. http://www.rediff.com/money/2006/mar/13binter.htm (accessed 11.4.17).

ResearchGate, 2014. What is the difference between content analysis and thematic analysis as methods used in qualitative data analysis? Helen Peterson's Q&A thread, https://www.researchgate.net/post/What_is_the_difference_between_content_analysis_and_thematic_analysis_as_methods_used_in_qualitative_data_analysis (accessed 2.6.17).

Rhoads, E., 2012. Cycles of Cathay: A History of the Bicycle in China. Transfers 2, 95–120. https://doi.org/10.3167/tranS.2012.020207

Ritchie, J., Lewis, J. (Eds.), 2003. Qualitative Research Practice: A Guide for Social Science Students and Researchers. SAGE Publications Ltd, London; Thousand Oaks, Calif.

Ritzer, G., 2011. Globalization: The Essentials, 1 edition. ed. Wiley-Blackwell, Chichester, West Sussex.

Rowling, J.K., 1997. Harry Potter and the Philosopher's Stone. Bloomsbury Publishing PLC, London.

Rubin, H.J., Rubin, I.S., 2012. Qualitative Interviewing: The Art of Hearing Data. SAGE Publications. Thousand Oaks, CA.

Rubio, D.M., Berg-Weger, M., Tebb, S.S., Lee, E.S., Rauch, S., 2003. Objectifying content validity: Conducting a content validity study in social work research. Social Work Research 27, 94–104.

Rundmo, T., Granskaya, J., Klempe, H., 2012. Traffic culture as symbol exchange – A cross-country comparison of Russia and Norway. Saf. Sci. 50, 1261–1267. https://doi.org/10.1016/j.ssci.2011.12.001

Russell, J., 2015. India's Ola announces carpooling service that matches customers within social groups. Techcrunch.com. https://techcrunch.com/2015/10/13/indias-ola-announces-carpooling-service-that-matches-customers-within-social-groups/ (accessed 4.7.17).

Ryan, G.W., Bernard, H.R., 2000. Data management and analysis methods, in: Denzin, N.K., Lincoln, Y.S. (Eds.), Handbook of Qualitative Research. Sage Publications, Inc., Thousand Oaks, Calif.

Salazar, N.B., 2010. Towards an anthropology of cultural mobilities. J. Migr. Cult. 1. https://doi.org/10.1386/cjmc.1.53_1

Salganik, M.J., Heckathorn, D.D., 2004. Sampling and Estimation in Hidden Populations Using Respondent-Driven Sampling. Sociol. Methodol. 34, 193–239.

Sandelowski, M., 1994. The use of quotes in qualitative research. Res. Nurs. Health 17, 479–482. https://doi.org/10.1002/nur.4770170611

Sanjai, P.R., 2017. India's Traffic Is So Bad It's Changing the Cars People Buy. Bloomberg.com, https://www.bloomberg.com/news/articles/2017-09-10/india-s-traffic-is-so-bad-it-s-changing-the-cars-people-buy (accessed 12.9.17).

Sasaki, I., Yoshikawa, K., 2014. Going beyond national cultures – Dynamic interaction between intra-national, regional, and organizational realities. J. World Bus. 49, 455–464. https://doi.org/10.1016/j.jwb.2013.10.005

Sauro, J., 2015. MeasuringU: 5 Types of Qualitative Methods. Meas. U. https://measuringu.com/qual-methods/ (accessed 6.1.18).

Saussure, F. de, Bally, C., Riedlinger, A., Baskin, W., Culler, J.D., Sechehaye, A., 1916. Course in general linguistics. Owen, London.

Savani, K., Morris, M.W., Naidu, N.V.R., 2012. Deference in Indians' decision-making: introjected goals or injunctive norms? J. Pers. Soc. Psychol. 102, 685–699. https://doi.org/10.1037/a0026415

Savani, K., Morris, M.W., Naidu, N.V.R., Kumar, S., Berlia, N.V., 2011. Cultural conditioning: understanding interpersonal accommodation in India and the United States in terms of the modal characteristics of interpersonal influence situations. J. Pers. Soc. Psychol. 100, 84–102. https://doi.org/10.1037/a0021083

Scherer, M., Dziekan, K., 2012. Bus or rail: an approach to explain the psychological rail factor. J. Public Transp. 15.

Schivelbusch, W., 1986. The Railway Journey: The Industrialization and Perception of Time and Space. Berg, Oxford.

Schmid, S., Kotulla, T., 2011. 50 years of research on international standardization and adaptation—From a systematic literature analysis to a theoretical framework. Int. Bus. Rev. 20, 491–507. https://doi.org/10.1016/j.ibusrev.2010.09.003

Schwartz, S.H., 1994. Beyond individualism/collectivism: New cultural dimensions of values, in: Kim, U., Triandis, H.C., Ç. Kâğitçibaşi, -C, S., Yoon, G. (Eds.), Individualism and Collectivism: Theory, Method, and Applications, Cross-Cultural Research and Methodology Series, Vol. 18. pp. 85–119. Sage Publications, Inc, Thousand Oaks, Calif.

Schwartz, S.H., 1999. A Theory of Cultural Values and Some Implications for Work. Appl. Psychol. 48, 23–47. https://doi.org/10.1111/j.1464-0597.1999.tb00047.x

Schwerter, F., 2013. Social Reference Points and Risk Taking, Bonn Graduate School of Economics Discussion Paper, http://www.bgse.uni-bonn.de/bonn-econ-papers-1/archive/2013/bgse11_2013 (accessed 20.12.14).

Scott, A., 2014. Northern Lights: The Positive Policy Example of Sweden, Finland, Denmark and Norway. Monash University Publishing, Clayton, Victoria, Australia.

Selvam, S.G., Collicutt, J., 2013. The ubiquity of the character strengths in African traditional religion: A thematic analysis, in: Well-Being and Cultures. Springer, pp. 83–102.

Sethi, S., 1971. Comparative Cluster Analysis for World Markets. J. Mark. Res. 8, 348.

Shah, G., 2009. The impact of economic globalization on work and family collectivism in India. J. Indian Bus. Res. 1, 95–118. https://doi.org/10.1108/17554190911005318

Sharma, P., 2010. Country of origin effects in developed and emerging markets: Exploring the contrasting roles of materialism and value consciousness. J. Int. Bus. Stud. 42. https://doi.org/10.1057/jibs.2010.16

Shavitt, S., Toreli, C., Riemer, H., 2010. Horizontal and Vertical Individualism and Collectivism - Implications for Understanding Psychological Processes, in: 'Advances in Culture and Psychology: Volume 1, Gelfand, M., Chiu,Chi-Yue., Ying-Yi Hong (Eds). Oxford Scholarship Online.

Shaw, J., Hesse, M., 2010. Transport, geography and the 'new' mobilities. Trans. Inst. Br. Geogr. 35, 305–312. https://doi.org/10.1111/j.1475-5661.2010.00382.x

Sheel, R., 2005. Marriage, Money and Gender A Case Study of the Migrant Indian Community in Canada. Indian J. Gend. Stud. 12, 335–356. https://doi.org/10.1177/097152150501200208

Sheller, M., 2016. Moving with John Urry. Theory Cult. Soc. https://www.theoryculturesociety.org/moving-with-john-urry-by-mimi-sheller (accessed 3.7.18).

Sheller, M., Urry, J., 2006. The new mobilities paradigm. Environ. Plan. A 38, 207 – 226. https://doi.org/10.1068/a37268

Shmoop Editorial Team, 2008. The Cadillac in On the Road. Shmoop Univ. Inc. http://www.shmoop.com/on-the-road/cadillac-symbol.html (accessed 2.10.17).

Shukla, P., 2010. Status consumption in cross-national context. Int. Mark. Rev. 27, 108–129. https://doi.org/10.1108/02651331011020429

Sicinski, A., 1976. The future a dimension is being discovered, in: Images of the World in the Year 2000: A Comparative Ten Nation Study. Humanities Press, Atlantic Highlands, pp. 121–159.

Siddique, S., Ray, M., Lahiri, T., 2011. Effects of air pollution on the respiratory health of children: a study in the capital city of India. Air Qual. Atmosphere Health 4. https://doi.org/10.1007/s11869-010-0079-2

Sierzchula, W., Bakker, S., Maat, K., van Wee, B., 2014. The influence of financial incentives and other socio-economic factors on electric vehicle adoption. Energy Policy 68, 183–194. https://doi.org/10.1016/j.enpol.2014.01.043

Silvia, C., Krause, R.M., 2016. Assessing the impact of policy interventions on the adoption of plug-in electric vehicles: An agent-based model. Energy Policy 96, 105–118. https://doi.org/10.1016/j.enpol.2016.05.039

Simmel, G., 1957. Fashion. Am. J. Sociol. 62, 541–558. https://doi.org/10.1086/222102

Smith, P.B., Peterson, M.F., Schwartz, S.H., 2002. Cultural Values, Sources of Guidance, and their Relevance to Managerial Behavior A 47-Nation Study. J. Cross-Cult. Psychol. 33, 188–208. https://doi.org/10.1177/0022022102033002005

Snowdon, L.J., Grimmer, M., 2009. Symbolic consumption and consumer identity: An application of social identity theory to car purchase behaviour, in: Proceedings of the 2009 ANZMAC Conference. Melbourne, pp. 1-9.

Soares, A.M., Farhangmehr, M., Shoham, A., 2007. Hofstede's dimensions of culture in international marketing studies. J. Bus. Res., Impact of Culture on Marketing Strategy 60, 277–284. https://doi.org/10.1016/j.jbusres.2006.10.018

Solarz, M.W., 2014. The language of global development: a misleading geography, Routledge studies in development and society ; 39. Routledge, London.

Sorokin, P.A., 1957. Social and Cultural Dynamics. Porter Sargent, Boston.

Srinivasan, K.K. Lakshmi Bhargavi P.V., Ramadurai, G., Muthuram, V., Srinivasan, S. (2007) Determinants of Changes in Mobility and Travel Patterns in Developing Countries, Case Study of Chennai, India, Transportation Research Record: Journal of the Transportation Research Board, No. 2038, Transportation Research Board of the National Academies, Washington, D.C., pp. 42-52.

Stead, D., Pojani, D., 2017. The Urban Transport Crisis in Emerging Economies: A Comparative Overview, in: The Urban Transport Crisis in Emerging Economies, The Urban Book Series. Springer, Cham, pp. 283–295. https://doi.org/10.1007/978-3-319-43851-1_14

Steenkamp, J.E.M., 2001. The role of national culture in international marketing research. Int. Mark. Rev. 18, 30–44. https://doi.org/10.1108/02651330110381970

Steg, L., 2005. Car use: lust and must. Instrumental, symbolic and affective motives for car use. Transp. Res. Part Policy Pract. 39. https://doi.org/10.1016/j.tra.2004.07.001

Steg, L., Vlek, C., Slotegraaf, G., 2001. Instrumental-reasoned and symbolic-affective motives for using a motor car. Transp. Res. Part F Traffic Psychol. Behav. 4, 151–169. https://doi.org/10.1016/S1369-8478(01)00020-1

Stiedenroth, K.S., 2014. Female, Young, Unmarried: The Role of Positionality while Conducting Fieldwork in Pakistan. The Oriental Anthropologist 14, 81–95. https://doi.org/10.1177/0976343020140107

Strauss, A., Corbin, J.M., Corbin, J., 1998. Basics of Qualitative Research: Techniques and Procedures for Developing Grounded Theory. Sage Publications. Thousand Oaks, CA.

Strohschneider, S., 2002. Cultural factors in complex decision-making, in: Online Readings in Psychology and Culture, W. J. Lonner, D. L. Dinnel, S. A. Hayes, & D. N. Sattler (Eds.), (Unit 4, Chapter 1), Center for Cross-Cultural Research, Western Washington University, Bellingham, Washington.

Suwankhong, D., Liamputtong, P., 2015. Cultural Insiders and Research Fieldwork: Case Examples From Cross-Cultural Research With Thai People. International Journal of Qualitative Methods 14, 1609406915621404. https://doi.org/10.1177/1609406915621404

Swaidan, Z., 2012. Culture and Consumer Ethics. J. Bus. Ethics 108, 201–213. https://doi.org/10.1007/s10551-011-1070-z

Swanson, H.L., 1988. Toward a Metatheory of Learning Disabilities. J. Learn. Disabil. 21, 196–209. https://doi.org/10.1177/002221948802100403

Syam, A., 2014. Cultural values: a new approach to explain people's travel behaviour and attitudes toward transport mode (Thesis). University of Auckland, https://researchspace.auckland.ac.nz/handle/2292/23559.

Syam, A., Reeves, D., Khan, A., 2011. The effects of cultural dimension on people's perception about security on public transport. Pratelli C Brebbia Eds Urban Transp. XVII Urban Transp. Environ. 21st Century 575-586, WIT Press, Southampton.

Syam, A., Reeves, D., Khan, A., 2013. Immigrant groups' travel behaviour: does it differ from majority groups? Presented at the Technology, Education, and Science International Conference (TESIC), Johor Bahru, November 4th.

Takahashi, M., 2010. Talking to the driver: a cross-cultural comparison of bus etiquette in Canada and Japan. J. Bunkyo Gakuin Univ. Dep. Foreign Lang. Bunkyo Gakuin Coll. 169–182.

Tansey, R., Hyman, M.R., Zinkhan, G.M., 1990. Cultural Themes in Brazilian and U.S. Auto Ads: A Cross-Cultural Comparison. J. Advert. 19, 30–39.

Taras, V., Steel, P., Kirkman, B.L., 2012. Improving national cultural indices using a longitudinal meta-analysis of Hofstede's dimensions. J. World Bus. 47, 329–341. https://doi.org/10.1016/j.jwb.2011.05.001

Tashakkori, A., Teddlie, C., 2010. Sage Handbook of Mixed Methods in Social & Behavioral Research, Second Edition, Sage Publications, Thousand Oaks, Calif.

Teddlie, C., Tashakkori, A., 2012. Common "Core" Characteristics of Mixed Methods Research A Review of Critical Issues and Call for Greater Convergence. American Behavioral Scientist 56, 774–788. https://doi.org/10.1177/0002764211433795

Temme, D., Paulssen, M., Dannewald, T., 2008. Incorporating Latent Variables into Discrete Choice Models - A Simultaneous Estimation Approach Using SEM Software. BuR Bus. Res. 1.

The Economic Times, 2019. Elon Musk explains why Tesla cars may not come to India anytime soon. The Economic Times, https://economictimes.indiatimes.com/industry/auto/auto-news/elon-musk-explains-why-tesla-cars-may-not-come-to-india-anytime-soon/articleshow/70492810.cms?from=mdr (accessed 1.12.20).

The Economist, 2006. The wheels on the bus. The Economist, http://www.economist.com/node/7970987 (accessed 10.2.17)

The Economist, 2017. In China, bikes are back, The Economist. https://www.economist.com/news/china/21721231-some-officials-wish-they-werent-china-bikes-are-back (accessed 7.2.17).

The Government of India, 2014. National Urban Transport Policy. New Delhi, http://itdp.in/wp-content/uploads/2014/11/NUTP-2014.pdf (accessed 13.4.16)

The Hindu, 2016. Cycling cities, http://www.thehindu.com/opinion/editorial/Cycling-cities/article12743258.ece (accessed 2.7.2017).

The New York Times, 2017. Opinion | China and India Make Big Strides on Climate Change. N. Y. Times, https://www.nytimes.com/2017/05/22/opinion/paris-agreement-climate-china-india.html (accessed 14.9.17).

The Railroad Network, 2011. Trains in Literature, http://www.railroad.net/articles/topics/trains-in-literature.php (accessed 2.10.17).

The UK Department for Transport, 2008. From workhorse to thoroughbred: a better role for bus travel (Report). Department for Transport, London, http://webarchive.nationalarchives.gov.uk/content/20080727005838/http://www.dft.gov.uk/pgr/regional/buses/gen/fromworkhorsetothoroughbreda3567 (accessed 11.2.17).

The World Bank, 2012. Building Sustainable Transport Systems in Chinese Cities. World Bank. http://www.worldbank.org/en/news/feature/2012/08/14/building-sustainable-transport-systems-in-chinese-cities (accessed 9.9.17).

The World Bank, 2015. Should we continue to use the term “developing world”? Data Blog. https://blogs.worldbank.org/opendata/should-we-continue-use-term-developing-world (accessed 9.26.17).

Thomas, J., Harden, A., 2007. Methods for the thematic synthesis of qualitative research in systematic reviews (Working paper No. Number 10/07). ESRC National Centre for Research Methods, London.

Thorne, S., 2000. Data analysis in qualitative research. Evid. Based Nurs. 3, 68–70. https://doi.org/10.1136/ebn.3.3.68

Times of India, 2017. End of road for 10-yr-old diesel cars in Delhi-NCR; NGT refuses to lift ban - Times of India, http://timesofindia.indiatimes.com/auto/miscellaneous/end-of-road-for-10-yr-old-diesel-cars-ngt-refuses-to-lift-ban/articleshow/60515628.cms (accessed 9.22.17).

Tomalin, B., Nicks, M., 2010. The World’s Business Cultures - and How to Unlock Them, 2nd Revised edition edition. ed. Thorogood, London.

Toyotapious, 2017. Toyota Pious, http://toyotapious.com/ (accessed 10.25.17).

Triandis, H.C., Gelfand, M.J., 1998. Converging measurement of horizontal and vertical individualism and collectivism. J. Pers. Soc. Psychol. 74, 118–128. https://doi.org/10.1037/0022-3514.74.1.118

Trompenaars, F., Hampden-Turner, C., 1997. Riding the Waves of Culture: Understanding Cultural Diversity in Business, 2nd Revised edition edition. ed. Nicholas Brealey Publishing, London.

Tuan, V.A., 2015. Mode Choice Behavior and Modal Shift to Public Transport in Developing Countries - the Case of Hanoi City. J. East. Asia Soc. Transp. Stud. 11, 473–487. https://doi.org/10.11175/easts.11.473

Turner, D.W., 2010. Qualitative interview design: a practical guide for novice investigators. Qual. Rep. 15, 745–760.

Turrentine, T.S., Kurani, K.S., 2007. Car buyers and fuel economy? Energy Policy 35, 1213–1223. https://doi.org/10.1016/j.enpol.2006.03.005

UITP India, 2017. Expansion of metro system in India. UITP India, http://www.india.uitp.org/articles/expansion-metro-network-in-india (accessed 6.1.18).

United Nations, 2014. World's population increasingly urban with more than half living in urban areas, UN News, 10th July, 2014, New York, http://www.un.org/en/development/desa/news/population/world-urbanization-prospects-2014.html. http://www.un.org/en/development/desa/news/population/world-urbanization-prospects-2014.html (accessed 5.28.15).

University of Colorado Denver, 2017. The "so what" factor - things to consider when selecting a topic, http://www.ucdenver.edu/academics/colleges/CLAS/Centers/ColoradoHistoryDay/Projects/Documents/The%20So%20What%20Factor.pdf (accessed 1.9.18)

University of Melbourne, 2012. Using quotation marks in writing, http://services.unimelb.edu.au/__data/assets/pdf_file/0009/529776/Using_quotation_marks_Update_051112.pdf (accessed 19.11.17).

Upton-McLaughlin, S., 2013. Gaining and Losing Face in China. China Cult. Corner. http://chinaculturecorner.com/2013/10/10/face-in-chinese-business/ (accessed 1.20.16).

Urry, J., 2004. The 'System' of Automobility. Theory Cult. Soc. 21, 25–39. https://doi.org/10.1177/0263276404046059

Vafeiadis, E., 2012. An interdisciplinary study of transport mode choice (Diploma). Aalborg University, http://projekter.aau.dk/projekter/files/63610389/MasterThesis.pdf (accessed 31.3.18).

Vaismoradi, M., Turunen, H., Bondas, T., 2013. Content analysis and thematic analysis: Implications for conducting a qualitative descriptive study. Nurs. Health Sci. 15, 398–405. https://doi.org/10.1111/nhs.12048

Van Mead, N., 2017. Uber for bikes: how "dockless" cycles flooded China - and are heading overseas. The Guardian, https://www.theguardian.com/cities/2017/mar/22/bike-wars-dockless-china-millions-bicycles-hangzhou (accessed 3.2.17).

Van, H.T., Choocharukul, K., Fujii, S., 2014. The effect of attitudes toward cars and public transportation on behavioral intention in commuting mode choice—A

comparison across six Asian countries. Transp. Res. Part A 69, 36–44. https://doi.org/10.1016/j.tra.2014.08.008

Van, H.T., Fujii, S., 2011. A Cross Asian Country Analysis in Attitudes toward Car and Public Transport. J. East. Asia Soc. Transp. Stud. 9, 411–421. https://doi.org/10.11175/easts.9.411

Varnum, M.E.W., Grossmann, I., Kitayama, S., Nisbett, R.E., 2010. The Origin of Cultural Differences in Cognition: Evidence for the Social Orientation Hypothesis. Curr. Dir. Psychol. Sci. 19, 9–13. https://doi.org/10.1177/0963721409359301

Veblen, T., 1899. The Theory of the Leisure Class. Dover Publications, New York.

Verlinghieri, E., 2014. Planning for resourcefulness: a participatory approach to transport planning. Presented at the Archives of the RGS-TGRG writing transport geography workshop, University of Leeds, http://tgrg.wordpress.com/category/articles/ (accessed 9.10.16).

Vijver, F.J.R. van de, Leung, K., 1997. Methods and Data Analysis for Cross-Cultural Research. SAGE Publications. Thousand Oaks, CA.

Vitell, S.J., Nwachukwu, S.L., Barnes, J.H., 1993. The effects of culture on ethical decision-making: An application of Hofstede's typology. J. Bus. Ethics 12, 753–760. https://doi.org/10.1007/BF00881307

Voicu, M.C., Babonea, A.M., 2011. Using the snowball method in marketing research on hidden populations. Chall. Knowl. Soc. 1, 1341–1351.

Waldmann (2005) In India, today's status comes with four wheels, New York Times, December 5th 2005, http://www.colorado.edu/AmStudies/lewis/ecology/indiaconsumes.pdf (accessed 3.2.13).

Walker, J.L., Li, J., 2007. Latent lifestyle preferences and household location decisions. J. Geogr. Syst. 9, 77–101. https://doi.org/10.1007/s10109-006-0030-0

Wang, N., Tang, L., Pan, H., 2018. Analysis of public acceptance of electric vehicles: An empirical study in Shanghai. Technological Forecasting and Social Change 126, 284–291. https://doi.org/10.1016/j.techfore.2017.09.011

Wang, R., 2010. Shaping urban transport policies in China: Will copying foreign policies work? Transp. Policy 17, 147–152. https://doi.org/10.1016/j.tranpol.2010.01.001

Williams, A., 2008. Enemies of Progress: Dangers of Sustainability. Societas, Exeter, UK ; Charlottesville, VA.

Williams, C.C., Dzhekova, R., 2014. Evaluating the cross-national transferability of policies: a conceptual framework. J. Dev. Entrep. 19, 1450022. https://doi.org/10.1142/S1084946714500228

Williams, J., 2008. Symbolic interactionism (pp. 849-853). Thousand Oaks, CA: SAGE Publications Ltd., in: In L. M. Given (Ed.), The Sage Encyclopedia of Qualitative Research Methods. pp849-853, Thousand Oaks, Calif.

Williamson, D., 2002. Forward from a Critique of Hofstede's Model of National Culture. Hum. Relat. 55, 1373–1395. https://doi.org/10.1177/00187267025511006

Willis, G.B., 2004. Cognitive interviewing: A tool for improving questionnaire design. Sage Publications. Thousand Oaks, CA.

Wind, S., Jensen, O.B., Kaplan, S., Prato, C.G., 2012. Paving the road from transport models to “new mobilities” models. Trafikdage Proceedings from the Annual Transport Conference at Aalborg University 2012.

Witchalls, P.J., 2012. Is national culture still relevant? Intercult. J. 11. ISSN: 2196-9485, http://www.interculture-journal.com/index.php/icj/article/viewFile/178/280 (accessed 4.4.16).

Withers, J., Shea, D.P., 2016. The bicycle as rolling signifier, in: Culture on Two Wheels. University OF Nebraska Press.

Wolcott, H.F., 2009. Writing Up Qualitative Research, Qualitative research methods. SAGE Publications. Thousand Oaks, CA.

Womack, M., 2005. Symbols and Meaning: A Concise Introduction. Rowman Altamira, Lanham. Maryland.

Wong, J., 2019. A Bumpy Road for Electric Vehicles in China. Wall Street Journal, https://www.wsj.com/articles/a-bumpy-road-for-electric-vehicles-in-china-11575546442 (accessed 12.1.20).

Wong, N.Y., Ahuvia, A.C., 1998. Personal taste and family face: Luxury consumption in Confucian and western societies. Psychol. Mark. 15, 423–441. https://doi.org/10.1002/(SICI)1520-6793(199808)15:5<423::AID-MAR2>3.0.CO;2-9

Wood, A., 2014. Learning through Policy Tourism: Circulating Bus Rapid Transit from South America to South Africa. Environ. Plan. Econ. Space 46, 2654–2669. https://doi.org/10.1068/a140016p

Woolley, F., 2011. Riding the loser cruiser. Can. Worthw. Initiat. https://worthwhile.typepad.com/worthwhile_canadian_initi/2011/05/riding-the-loser-cruiser.html (accessed 19.11.18).

World Health Organisation, 2014. Ambient (outdoor) air pollution in cities database 2014, http://www.who.int/phe/health_topics/outdoorair/databases/cities/en/ (accessed 6.25.15).

Wu, I., Pojani, D., 2016. Obstacles to the creation of successful bus rapid transit systems: The case of Bangkok. Res. Transp. Econ., Transportation and Land Development: A Global View 60, 44–53. https://doi.org/10.1016/j.retrec.2016.05.001

Wu, X., Zhi, Q., 2016. Impact of Shared Economy on Urban Sustainability: From the Perspective of Social, Economic, and Environmental Sustainability. Energy Procedia 104, 191–196. https://doi.org/10.1016/j.egypro.2016.12.033

Wuensch, K.L., 2012. A Brief Introduction to Reliability, Validity, and Scaling. http://core.ecu.edu/psyc/wuenschk/StatsLessons.htm#pca (accessed 15.7.16).

Xydias, A., 2015. Bike-sharing schemes thriving, but not in India, CNBC. https://www.cnbc.com/2015/06/12/public-bike-sharing-business-is-thriving-but-not-in-india.html (accessed 5.19.19).

Yabe, K., Shinoda, Y., Seki, T., Tanaka, H., Akisawa, A., 2012. Market penetration speed and effects on CO2 reduction of electric vehicles and plug-in hybrid electric

vehicles in Japan. Energy Policy 45, 529–540. https://doi.org/10.1016/j.enpol.2012.02.068

Yavuz, N., Welch, E.W., 2010. Addressing Fear of Crime in Public Space: Gender Differences in Reaction to Safety Measures in Train Transit. Urban Stud. 47, 2491–2515. https://doi.org/10.1177/0042098009359033

Yoo, B., Donthu, N., 2001. Developing and validating a multidimensional consumer-based brand equity scale. J. Bus. Res. 52, 1–14. https://doi.org/10.1016/S0148-2963(99)00098-3

Zaltman, G., Coulter, R., 1995. Seeing the voice of the customer - metaphor based advertising research. J. Advert. Res. 35, 35–51.

Zhang, X., Bai, X., Shang, J., 2018. Is subsidized electric vehicles adoption sustainable: Consumers' perceptions and motivation toward incentive policies, environmental benefits, and risks. Journal of Cleaner Production 192, 71–79. https://doi.org/10.1016/j.jclepro.2018.04.252

Zhang, Y., Neelankavil, J.P., 1997. The influence of culture on advertising effectiveness in China and the USA: A cross-cultural study. Eur. J. Mark. 31, 134–149. https://doi.org/10.1108/03090569710157106

Zhou, Y., 2017. A beautiful data animation shows the unprecedented development of China's rail system. Quartz. https://qz.com/1010911/a-beautiful-data-animation-shows-the-unprecedented-speed-of-development-of-chinas-rail-system/ (accessed 11.4.17).

Zhou, Y., Wu, Y., Yang, L., Fu, L., He, K., Wang, S., Hao, J., Chen, J., Li, C., 2010. The impact of transportation control measures on emission reductions during the 2008 Olympic Games in Beijing, China. Atmos. Environ. 44, 285–293. https://doi.org/10.1016/j.atmosenv.2009.10.040

Zhu, H., Qian, J., Gao, Y., 2011. Globalization and the production of city image in Guangzhou's metro station advertisements. Cities 28, 221–229. https://doi.org/10.1016/j.cities.2010.12.004

APPENDIX A: PRE AND POST-PILOTED TOPIC GUIDES

Pre-piloted topic guide

- To what extent in your society should the mode of transport you use, or the car you own, reflect your, and your family's social status? (PDI dimension)?
  - What happens if people fail to do this?
- Within your society does the whole family make decisions about what transport modes those in the family own, and use? (collectivism dimension)?
  - What criteria do they/people use? (Exploring normative influences)?
- Can you describe what type of people opt for, use….what does the mode tell you about them:
  - Cars (SUVs, big/sedan/prestige cars, small cars), taxis, a 'car free lifestyle', car sharing schemes (Zipcar) or sharing cars with acquaintances, non-motorised modes, an 'eco' car (hybrid or electric), public transport (bus, metro), motorbike (scooter or larger motorbike)?
- What would people think/ what would happen, if someone opted to (sustainable choices):
  - Use public transport instead of the car?
  - Sell their car if they didn't use it much?
  - Not buy a car (even if they could afford one), and use a car pooling, or car sharing, scheme?
  - Move from motorised transport to non-motorised transport?
  - Move from a petrol car to an 'eco-car' (hybrid or electric)?

Post-piloted topic guide

Questions (preface with 'generally speaking')	**Interviewer prompts**
How do you generally get around your home city?	N/A
To what extent in your society should the mode of transport you use, or the car you own, show, symbolise, your, and your family's social status? (PDI dimension)? What happens if people fail to do this?	Don't use the word 'culture'. Bring out occupation, wealth, and trip purpose: social - marriage, meeting friends, visiting an expensive hotel for lunch; as well as work - meetings with clients, trips by profession. For example: a lawyer cycling; who drives what in the workplace; arriving at an expensive hotel by bus; using a cycle to arrive at a meeting with potential in laws for the first time. Failing to do this? How will others react? Will there be consequences or sanctions?
Within your society does the whole family make decisions about what transport modes those in the family own and use? (collectivism dimension)? What criteria do they/people use? (Exploring normative influences)?	N/A Don't use the word 'culture'.
Can you describe what modes different types of people opt for, use: what does the mode tell you about them? Cars (SUVs, big/sedan/prestige cars, small cars), taxis, a 'car free lifestyle', car sharing schemes or sharing cars with acquaintances, non-motorised modes, an 'eco' car (hybrid or electric), public transport (bus, metro), motorbike (scooter or larger motorbike)?	Have pictures of modes on hand (can email if internet connection unable to accommodate Skype). Explain carefully how car sharing and car-pooling differ. Stress non-motorised are walking and cycling (cycle rickshaws too).
What would people think/what would happen, if someone opted to (sustainable choices): • Use public transport instead of the car? • Sell their car if they didn't use it much? • Not buy a car (even if they could afford one), and use a car pooling, or car sharing, scheme? • Move from motorised to non-motorised transport? • Move from petrol car to 'eco-car' (hybrid or electric)?	Stress situational aspects such as context of the trip.

APPENDIX B: THE THEMATIC CODEBOOK

Themes 1, 4, 7, 10, 13, 16	Mode positive symbolism.
A definition of what the theme concerns	Mode connotes positive symbolism within a culture.
A description of how to see when the theme is occurring (how to flag it)	When interviewees from a particular culture flag that, for someone of their social group, a mode would be seen as appropriate, viewed well by their peers, worthy of their cohort, correctly showcasing the group to which they belong. When it is stressed that people would wish to use this mode for the reason it shows them, and their 'in group', in a positive light, presents them correctly. When using the mode in question would lead to society understanding who the user and their group, 'are'. When friends, families, colleagues, peers, would encourage someone to use this mode due to the image it presents. When it is stressed that using this mode would lead to positive consequences in terms of treatment from society. When it is stated that generally using this mode would be 'seen well'.
A description of when the theme should not be coded	When positive practical reasons are stressed. The positivity should only apply to the *symbolic* connotations. In addition, when there is a neutral connotation having a positive ramification (this should be coded under neutral symbolism).
Examples both positive and negative to eliminate confusion	Positive (code): 'This mode of transport is seen favourably by those in my culture, definitely in my group. People would applaud you for using it – it would say good things about you.' 'Your parents would love you using this mode as it would demonstrate something positive about the family.' 'Yes, this mode shows people care about the environment, have a degree of education and involvement in the debate.' Negative (don't code): 'It's a great way to get around. You can stay dry.' (Practical)

Themes 2, 5, 8, 11, 14, 17	Mode neutral or no symbolism.
A definition of what the theme concerns	Mode connotes nothing within a culture.
A description of how to see when the theme is occurring (how to flag it)	• When people express that the ownership or use of the mode has no symbolism, either positive or negative. • When it is said that normative influences such as advertising or friends never mention the mode as a social marker. • When people state that nobody would care or form a judgement about someone who used this mode. • When there are no reference points by which to judge the mode symbolically. Code this here even if the ramification is positive or negative.
A description of when the theme should not be coded	When practical reasons are stressed for the indifference. The neutrality should only apply to the symbolic connotations.
Examples both positive and negative to eliminate confusion	Positive (code): 'People don't care – it doesn't say anything.' 'Ah, if you were to tell me that the person could still afford an expensive petrol car, but chose to buy this because they cared about the environment, then I would think differently. But I know nothing of these things.' 'The fact that it says nothing would mean that your client would be confused about the success of the person they were hiring'. (Neutral symbolism with negative ramifications). 'Who cares if people travel by bus?' Negative (don't code): 'To be honest the bus and the train take about the same time, so you could use either'. (Practical not symbolic).

Themes 3, 6, 9, 12, 15, 18	Mode negative symbolism.
A definition of what the theme concerns	Mode connotes negative symbolism within a culture.
A description of how to see when the theme is occurring (how to flag it)	• When people state that the mode portrays the owner or user in a negative light. • When interviewees flag that, for someone of their social group, a mode would be seen as inappropriate, viewed poorly by their peers, be viewed as beneath their cohort. • When it is stressed that people would not wish to use this mode purely for the reason that it showcases them and their 'in group', in a poor light, presents them incorrectly in a social context. • When using the mode in question would lead to society misinterpreting who the user and their group, 'are', and treating them inappropriately. • When friends, families, colleagues, peers, would discourage, prevent, someone from using this mode, due to its image. • When it is stressed using this mode would lead to negative consequences in terms of treatment from society. • When derision is expressed towards those using this mode.
A description of when the theme should not be coded	When negative practical reasons are stressed. The negativity should only apply to the symbolic connotations. In addition, when there is a neutral connotation having a negative ramification (this should be coded under neutral symbolism).
Examples both positive and negative to eliminate confusion	Positive (code): 'In my culture this mode of transport would show your family in a poor light. They would discourage you from using it, as it would not play well for the family in social dealings'. 'This is a mode for lower class people.' 'Oh no, this is a showy mode. In our culture you are supposed to be discreet about displaying your wealth or status.' Negative (don't code): 'This is a bad mode – it takes a long time to get to your destination.' (Practical not symbolic). 'It means nothing. People wouldn't treat you well.' (Neutral connotation with negative ramifications).

Theme 19	Obligation for the mode to symbolise social status (PDI)
A definition of what the theme concerns	The mode owned or used, clearly needs to demonstrate to others the status and hierarchical social position of the individual or their collective (family and peer group).
A description of how to see when the theme is occurring (how to flag it)	Any general reference, or comments relating to (for the mode and within society generally) the symbolic aspects of a mode, owned or used (not the practical aspects): • Needing to show status, rank, or place in society. • Needing to show who people '*are'* in terms of status. • Needing to differentiate or travel in a manner that sets one apart from those considered lower in the social hierarchy. • Being suitable'/unsuitable for someone of a certain level. • Being 'above' other people's mode. • When an imperative is stressed - comments such as: 'people *need* to clearly see who they are dealing with'. • When people *have* to do something, not just the fact that they do; there is an obligation, it is not something discretionary. • Agreement with the sentiments of the question, i.e. not finding it ridiculous. • People in society being mindful of 'such hierarchical things' or monitoring them (especially family members or peers).
A description of when the theme should not be coded	When something 'just is' or when 'practical factors' override. Coding only takes place when the imperative is *symbolic*.
Examples both positive and negative to eliminate confusion	Positive: 'Oh yes it is essential in my culture for the mode of travel to distinguish a person and their family from those of a lower social level'. Negative: 'Rich people just tend to travel in comfort.' 'It takes ages to get around by cycle and who wouldn't buy back the time if they had money?' (no symbolic aspects, and there is no obligation stated).

Theme 20	No obligation for the mode to symbolise social status (PDI)
A definition of what the theme concerns	There being no obligation in a society for people to show their economic capacity when travelling. In fact, the inverse would be true – showing equality in travelling would be well regarded. Not showing economic capacity has an intrinsic association with modes that would cost less than others at point of use – modest, discrete, low key, universal, equally affordable to all with a standard level of service.
A description of how to see when the theme is occurring (how to flag it)	Any *general* reference, or comments relating to (for the mode and within society generally) the *symbolic* aspects of a mode (not the practical): • People not standing out or being equal. • An aversion to showing off or an attempt to differentiate oneself. • A preference for homogenisation of people in social contexts. • A clear assertion that 'those types of things don't matter at all'. • Finding questions around transport status ridiculous or asking 'why would that matter?' • Negative comment about people who try and stand out in their usage and ownership of a particular transport mode – e.g. 'being silly' or 'showy'. • Reference to all social groups blending in regardless of supposed social position. • Mention of non-hierarchical societies. • Reference to people's friends, family and other people not noticing these things or caring about them. • Comments such as 'People are judged on other things but certainly not transport.'
A description of when the theme should not be coded	Practical considerations are excluded; coding only takes place for symbolic considerations.
Examples both positive and negative to eliminate confusion	Positive: 'Oh those sorts of status things really don't matter in this culture or country. Nobody cares or notices how you get around'. Negative: 'Buses are always late, so I don't use them' (this is a practical comment which has no symbolic aspect to it).

Theme 21	Collective decision-making drawing upon normative influences (IND/COLL)
A definition of what the theme concerns	When a section of text shows that a mode choice decision – either usage or purchase – is being mandated collectively by the family, for symbolic reasons. When the symbolic norm is established by third parties that the collective is a part of, or aspires to be a part of. The medium of information transmission can be advertising, copying, or word of mouth.
A description of how to see when the theme is occurring (how to flag it)	This code pertains to the symbolic aspects of transport choice only. It can be used when: • Whenever somebody refers to having to seek the advice of the group (or this advice is offered unsolicited) be it for an individual trip (e.g. to and from work) or for a major purchase (e.g. what type of car to buy). • Whenever an emphasis is stressed on the asset belonging to the group. • Whenever it is stated that something would be forbidden by the group. • When somebody says it would be impossible for them to make a decision on their own or not be overruled by the group. • Note in this context the group is the extended collective group not merely the immediate family although it is expected the bulk of the emphasis will be on the immediate family. Key words to look out for are 'consult' 'permission' 'appropriate', 'allow or not allow' 'family' 'advice' etc.
A description of when the theme should not be coded	The code cannot be applied when the reason given by the collective is practical only in nature and there is *no* symbolic aspect to it.
Examples both positive and negative to eliminate confusion	Positive examples (code): 'You have to consult your family. Always these types of things are collective decisions because the face of the family is at stake.' 'There's no way I could decide these sorts of things on my own or just with my wife.' 'My father would never let me sell a car.' 'Oh, there would always be a group discussion – to see what we could afford, what would be good functionally, what image we would want to project.' 'My mother wouldn't like me taking the bus, she would say it's not safe but in reality, she thinks it is embarrassing for the family.' Negative examples (don't code): 'My father would worry about me using a cycle, not because of any status issues, but because he thinks it would be dangerous'. (No symbolism in this decision).

Theme 22	Individualistic decision-making drawing upon individual preferences (IND/COLL)
A definition of what the theme concerns	Possessing free will to make own mode choice decisions with no regard for symbolic norms established by others.
A description of how to see when the theme is occurring (how to flag it)	• Having complete freedom to make a modal decision. • Indignation or sarcasm at the idea of having to involve parents and family in a decision. • Comments as to the all the decisions in the house being up to the individual. • Comments as to how major capital purchases are only made by the primary household members – e.g. the two primary partners.
A description of when the theme should not be coded	As per code 21 only when there is a symbolic aspect to the decision. In addition, when someone states they would speak with their family or friends about a potential decision but there is no obligation for them to accept the advice.
Examples both positive and negative to eliminate confusion	Positive examples (code): 'Consult my family? Why? We're adults.' 'My family would think it was very strange if I asked them if the car represented the family correctly.' 'These are personal decisions for my wife and I….I might ask my father if he thought it was a good car but it would have nothing to do with status or anything like that.' 'No, just my partner and I would decide…' Negative examples (don't code): 'My wife is worried about me cycling in case I get hurt.' 'My mother is always hassling me about my old car because she's worried it's not safe for the family.' 'I always check with my uncle when I buy a car because he's a real car guru'.

Theme 23	Covert approval for complying with symbolic transport imperatives (IND/COLL)
A definition of what the theme concerns	When it is stated that people or society would *think* well of someone for adhering to whatever symbolic transport norm their society expects of them.
A description of how to see when the theme is occurring (how to flag it)	• The interviewee has to use verbs in passive context: 'think', 'quietly appreciate', 'be proud but not say anything'. • Covert action is also when there is no direct consequence for the complier. • Someone being praised by two people in a conversation is only covert if the complier is present. So, gossip not witnessed by the complier is covert even though the act of speech took place. • In cases where interviewee describes the likely speech of others, not actual speech, this is also seen taken to be covert.
A description of when the theme should not be coded	The moment that the approval is transmitted to the decision maker via a gesture, action or comment, then it has crossed into overt, and should not be coded.
Examples both positive and negative to eliminate confusion	Positive examples (code): 'my parents would appreciate me using the metro and blending in with everyone else.' 'People would like you not showing off your money when it came to buying a car'. 'People at work would tell each other you were a responsible person if you started using public transport.' Negative examples (don't code): 'If I cycled instead of drove my mother would be so pleased as it is healthy'. (No symbolic aspect).

Theme 24	Covert disapproval for breaking symbolic transport imperatives (IND/COLL)
A definition of what the theme concerns	When it is stated that people or society would think poorly of someone for not adhering to the symbolic transport norms their society expects.
A description of how to see when the theme is occurring (how to flag it)	• The interviewee has to use verbs in passive context: 'think', 'quietly dislike, 'be ashamed but not say anything'. • Covert action is when there is no direct consequence for the complier. • Someone being criticised by two people in a conversation is only covert if the transgressor is present. So, gossip not witnessed by the transgressor is covert even though the act of speech took place. • In cases where interviewee describes the likely speech of others, not actual speech, this is also seen taken to be covert.
A description of when the theme should not be coded	The moment that the disapproval is transmitted to the decision maker via a gesture, action, or comment, then it has crossed into overt, and should not be coded.
Examples both positive and negative to eliminate confusion	Positive examples (code): 'People would think badly of someone who didn't buy a car that reflected their wealth when they were promoted.' 'A rich family cycling – the neighbours would raise their eyebrows'. 'People would gossip that they had lost all their money if they took public transport and left the car at home – but they wouldn't say anything directly to them'. Negative examples (don't code): 'If I stopped using my car and used the metro my mother would feign a stomach illness until I stopped shaming the family and started using my car again' (this is overt).

Theme 25	Overt rewards or benefits for complying with symbolic transport imperatives (IND/COLL)
A definition of what the theme concerns	Text should be coded under this theme when a person is *openly* praised or rewarded for complying with symbolic transport imperatives.
A description of how to see when the theme is occurring (how to flag it)	• When someone is described as travelling in a manner which fits the symbolic imperative of their peer group and there is *articulated* general approval for this, and/or overt consequences - action takes place. • Key words: 'reward, 'praise'. • External implications are also taken as overt – e.g. choosing to be someone's friend, means a person has not been rewarded directly but an active choice has been made, so this would be overt in that the transgressor has had a social uplift.
A description of when the theme should not be coded	When the disapproval for not showing status and wealth in travel is passive, merely thought.
Examples both positive and negative to eliminate confusion	Positive examples: 'If I bought a Mercedes the doormen at the hotel would treat me better.' 'When Karen started cycling her parents bought her a new bike because they were delighted - it makes her family look environmentally aware.' 'If I upgraded my Prius to a more expensive Tesla then I would get a promotion at work – I'd be socially fitting in with the management team.' 'So if the two families arrived at the hotel appropriately, clearly showing their wealth, then it would be okay for their children to get married.' Negative examples: 'If a doctor took public transport to the hospital the staff would think well of him for not being arrogant.' (covert).

Theme 26	Overt criticism or sanctions for breaking symbolic transport imperatives (IND/COLL)
A definition of what the theme concerns	Text should be coded under this theme when people in society openly react negatively or penalise someone for not adhering to symbolic norms when travelling (as opposed to merely thinking badly of them).
A description of how to see when the theme is occurring (how to flag it)	• When someone is described as travelling in a manner which does not fit the symbolic imperative of their peer group and there is *articulated* general disapproval for this, and/or overt consequences - remedial action takes place. • Key words: 'avoid', 'lose', 'punish', 'ostracise', 'demote'. • External implications are also taken as overt – e.g. not choosing to be someone's friend, means a person has not been confronted directly but an active choice has been made, so this would be overt in that the transgressor has had a social setback. • Overt action has to reflect directly on a person. So, someone being mocked behind their back may lead to people avoiding that person, but it doesn't qualify as overt unless it was stated that the person would be ostracised or knew.
A description of when the theme should not be coded	When the disapproval for not showing status and wealth in travel is passive, merely thought.
Examples both positive and negative to eliminate confusion	Positive examples: 'If you turned up at the golf club for a business meeting on foot, then forget the business deal – people wouldn't talk to you.' 'If I sold my car to use a car sharing scheme my parents would try to talk me out of it.' 'If I drive a better car than my boss that makes him lose face, disrupts the hierarchy – he will demote me.' 'Showing off about a new car? People don't like show offs in our culture – they would tell me I was shallow.' 'When he bought a flashy SUV some of his friends avoided him, and he knew it was because of the car.' 'His colleagues would think he was an idiot for cycling to work as it misrepresents his position – and they'd tell him directly.' Negative examples: 'If a doctor took public transport to the hospital the staff would think he was a bad doctor or couldn't manage his money.' (Covert).

APPENDIX C: INTER RELIABILITY RATING CALCULATIONS

- **OVERALL PERCENTAGE SCORES FOR ALL THE THEMES**
- **AN EXAMPLE OF A MODAL THEME - PUBLIC TRANSPORT (4-12)**
- **CALCULATIONS FOR THEMES 19-26, THE HOFSTEDE THEMES**

OVERALL PERCENTAGE SCORES FOR ALL THE THEMES

Theme	Theme label	Interrater reliability - percentage agreement on presence			
		Anglo	Nordic	Confucian	South Asian
1	Eco-cars' - positive symbolism	100%	100%	100%	100%
2	Eco-cars' - neutral symbolism	100%	92%	88%	100%
3	Eco-cars' - negative symbolism	80%	100%	100%	100%
4	Public transport (generic) - positive symbolism	80%	100%	100%	100%
5	Public transport (generic) - neutral symbolism	100%	100%	100%	100%
6	Public transport (generic) - negative symbolism	100%	100%	80%	100%
7	Metros/trams - positive symbolism	100%	100%	100%	100%
8	Metros/trams - neutral symbolism	100%	100%	100%	100%
9	Metros/trams - negative symbolism	100%	100%	100%	100%
10	Bus-based modes - positive symbolism.	100%	80%	100%	100%
11	Bus-based modes - neutral symbolism.	100%	100%	100%	100%
12	Bus-based modes - negative symbolism.	100%	100%	75%	100%
13	Non-motorised transport - positive symbolism	77%	82%	100%	100%
14	Non-motorised transport - neutral symbolism	75%	100%	100%	100%

Theme	Theme label	Interrater reliability - percentage agreement on presence			
		Anglo	Nordic	Confucian	South Asian
15	Non-motorised transport - negative symbolism	100%	100%	71%	83%
16	Car sharing - positive symbolism	100%	100%	80%	100%
17	Car sharing - neutral symbolism	100%	100%	100%	100%
18	Car sharing - negative symbolism	100%	100%	73%	100%
19	Obligation for the mode to symbolise social status (PDI)	76%	97%	84%	81%
20	No obligation for the mode to symbolise social status (PDI)	73%	82%	75%	100%
21	Collective decision-making drawing upon normative influences (IND/COLL)	100%	100%	77%	88%
22	Individualistic decision-making drawing upon individual preferences (IND/COLL)	80%	80%	100%	100%
23	Covert approval for complying with symbolic transport imperatives (IND/COLL)	100%	100%	86%	80%
24	Covert disapproval for breaking symbolic transport imperatives (IND/COLL)	80%	100%	80%	77%
25	Overt rewards or benefits for complying with symbolic transport imperatives (IND/COLL)	100%	100%	100%	100%
26	Overt criticism or sanctions for breaking symbolic transport imperatives (IND/COLL)	100%	100%	89%	89%

INTERRELIABILITY RATING CALCULATIONS FOR A SAMPLE MODAL THEME – PUBLIC TRANSPORT (4-12)

Theme 4	**Public transport (generic) - positive symbolism**			
	Anglo 1	Nordic 1	Confucian 1	South Asian 1
Number of times both saw the code present	2	1	0	0
Number of times primary coder saw it	2	1	0	0
Number of times secondary coder saw it	3	1	0	0
Percentage agreement on presence	**80%**	**100%**	**100%**	**100%**
Theme 5	**Public transport (generic) - neutral symbolism**			
	Anglo 1	Nordic 1	Confucian 1	South Asian 1
Number of times both saw the code present	0	0	1	0
Number of times primary coder saw it	0	0	1	0
Number of times secondary coder saw it	0	0	1	0
Percentage agreement on presence	**100%**	**100%**	**100%**	**100%**
Theme 6	**Public transport (generic) - negative symbolism**			
	Anglo 1	Nordic 1	Confucian 1	South Asian 1
Number of times both saw the code present	0	0	2	2
Number of times primary coder saw it	0	0	2	2
Number of times secondary coder saw it	0	0	3	2
Percentage agreement on presence	**100%**	**100%**	**80%**	**100%**
Theme 7	**Metros/trams - positive symbolism**			
	Anglo 1	Nordic 1	Confucian 1	South Asian 1

Number of times both saw the code present	1	0	0	2
Number of times primary coder saw it	1	0	0	2
Number of times secondary coder saw it	1	0	0	2
Percentage agreement on presence	**100%**	**100%**	**100%**	**100%**
Theme 8	**Metros/trams (generic) - neutral symbolism**			
	Anglo 1	Nordic 1	Confucian 1	South Asian 1
Number of times both saw the code present	0	0	1	0
Number of times primary coder saw it	0	0	1	0
Number of times secondary coder saw it	0	0	1	0
Percentage agreement on presence	**100%**	**100%**	**100%**	**100%**
Theme 9	**Metros/trams - negative symbolism**			
	Anglo 1	Nordic 1	Confucian 1	South Asian 1
Number of times both saw the code present	0	0	0	1
Number of times primary coder saw it	0	0	0	1
Number of times secondary coder saw it	0	0	0	1
Percentage agreement on presence	**100%**	**100%**	**100%**	**100%**
Theme 10	**Bus based modes - positive symbolism**			
	Anglo 1	Nordic 1	Confucian 1	South Asian 1
Number of times both saw the code present	2	2	0	0
Number of times primary coder saw it	2	2	0	0
Number of times secondary coder saw it	2	3	0	0
Percentage agreement on presence	**100%**	**80%**	**100%**	**100%**

Theme 11	Bus based modes - neutral symbolism			
	Anglo 1	Nordic 1	Confucian 1	South Asian 1
Number of times both saw the code present	1	0	0	0
Number of times primary coder saw it	1	0	0	0
Number of times secondary coder saw it	1	0	0	0
Percentage agreement on presence	**100%**	**100%**	**100%**	**100%**
Theme 12	**Bus based modes (including BRT) - negative symbolism**			
	Anglo 1	Nordic 1	Confucian 1	South Asian 1
Number of times both saw the code present	0	0	3	3
Number of times primary coder saw it	0	0	3	3
Number of times secondary coder saw it	0	0	5	3
Percentage agreement on presence	**100%**	**100%**	**75%**	**100%**

SAMPLE INTERRELIABILITY RATING CALCULATIONS FOR CODES 19-26 (THE HOFSTEDE THEMES)

Theme 19	**Obligation for the mode to symbolise social status (PDI)**			
	Anglo 1	Nordic 1	Confucian 1	South Asian 1
Number of times both saw the code present	17	14	44	45
Number of times primary coder saw it	24	14	55	60
Number of times secondary coder saw it	21	15	50	51
Percentage agreement on presence	**76%**	**97%**	**84%**	**81%**

Theme 20	**No obligation for the mode to symbolise social status (PDI)**			
	Anglo 1	Nordic 1	Confucian 1	South Asian 1
Number of times both saw the code present	54	20	6	2
Number of times primary coder saw it	72	28	7	2
Number of times secondary coder saw it	76	21	9	2
Percentage agreement on presence	**73%**	**82%**	**75%**	**100%**

Theme 21	**Collective decision-making drawing upon normative influences (IND/COLL)**			
	Anglo 1	Nordic 1	Confucian 1	South Asian 1
Number of times both saw the code present	0	0	5	7
Number of times primary coder saw it	0	0	8	8
Number of times secondary coder saw it	0	0	5	8
Percentage agreement on presence	**100%**	**100%**	**77%**	**88%**

Theme 22	Individualistic decision-making drawing upon individual preferences (IND/COLL)			
	Anglo 1	Nordic 1	Confucian 1	South Asian 1
Number of times both saw the code present	12	4	1	0
Number of times primary coder saw it	16	6	1	0
Number of times secondary coder saw it	14	4	1	0
Percentage agreement on presence	**80%**	**80%**	**100%**	**100%**

Theme 23	Covert approval for complying with symbolic transport imperatives (IND/COLL)			
	Anglo 1	Nordic 1	Confucian 1	South Asian 1
Number of times both saw the code present	2	1	3	4
Number of times primary coder saw it	2	1	4	5
Number of times secondary coder saw it	2	1	3	5
Percentage agreement on presence	**100%**	**100%**	**86%**	**80%**

Theme 24	Covert disapproval for breaking symbolic transport imperatives (IND/COLL)			
	Anglo 1	Nordic 1	Confucian 1	South Asian 1
Number of times both saw the code present	2	1	4	5
Number of times primary coder saw it	2	1	5	7
Number of times secondary coder saw it	3	1	5	6
Percentage agreement on presence	**80%**	**100%**	**80%**	**77%**

Theme 25	Overt rewards or benefits for complying with symbolic transport imperatives (IND/COLL)			
	Anglo 1	Nordic 1	Confucian 1	South Asian 1
Number of times both saw the code present	0	1	1	1
Number of times primary coder saw it	0	1	1	1
Number of times secondary coder saw it	0	1	1	1
Percentage agreement on presence	**100%**	**100%**	**100%**	**100%**

Theme 26	Overt criticism or sanctions for breaking symbolic transport imperatives (IND/COLL)			
	Anglo 1	Nordic 1	Confucian 1	South Asian 1
Number of times both saw the code present	0	1	4	8
Number of times primary coder saw it	0	1	4	8
Number of times secondary coder saw it	0	1	5	10
Percentage agreement on presence	**100%**	**100%**	**89%**	**89%**

APPENDIX D: PEER REVIEWED JOURNAL PAPERS FROM THE STUDY

Ashmore et al., 2017. Symbolic transport choice across national cultures: theoretical considerations for research design. Transp. Plan. Technol. 40, 875–900. https://doi.org/10.1080/03081060.2017.1355882

Taylor & Francis Online

Journal
Transportation Planning and Technology ›
Volume 40, 2017 - Issue 8

Enter keywords, authors, DOI etc.

159
Views
8
CrossRef citations to date
1
Altmetric

Articles

Symbolic transport choice across national cultures: theoretical considerations for research design

David P. Ashmore, Nicola Christie & Nicholas A. Tyler

Pages 875-900 | Received 22 Jan 2016, Accepted 17 May 2017, Published online: 20 Jul 2017

Download citation https://doi.org/10.1080/03081060.2017.1355882 Check for updates

Full Article Figures & data References Citations Metrics Reprints & Permissions Get access

Select Language
Translator disclaimer

ABSTRACT

A recently empirically isolated latent variable in transport choice is symbolism, which examines what people believe their transport choices say to others about them and how they are judged in a social context. Whilst it is well established that symbolism differs vertically across different socio-economic groups *within* a country, very little work has been done on how symbolism in transport may differ *between* similar individuals across nations as a function of national cultural values, and how this may manifest itself in transport choices. If significant differences were to be found then this could have impacts for transport policy formulation and transfer. This paper explores and discusses these issues and concludes that the initial goal of any research into symbolic transport choices across cultures is theoretical fertility, and this is best achieved by adopting Lakatosian research programmes, using theory-driven thematic analysis to develop theoretical models for testing.

KEYWORDS: Latent choice motivation, transport symbolism, national culture, Lakatosian research programmes, mixed methods research, thematic analysis

Ashmore et al., 2018. Using thematic analysis to explore symbolism in transport choice across national cultures. Transportation 1–34. https://doi.org/10.1007/s11116-018-9902-7

SpringerLink

Transportation
pp 1–34 | Cite as

Using thematic analysis to explore symbolism in transport choice across national cultures

Authors | Authors and affiliations

David P. Ashmore, Roselle Thoreau, Corina Kwami, Nicola Christie, Nicholas A. Tyler

Article
First Online: 28 June 2018

1 Shares | 226 Downloads | 2 Citations

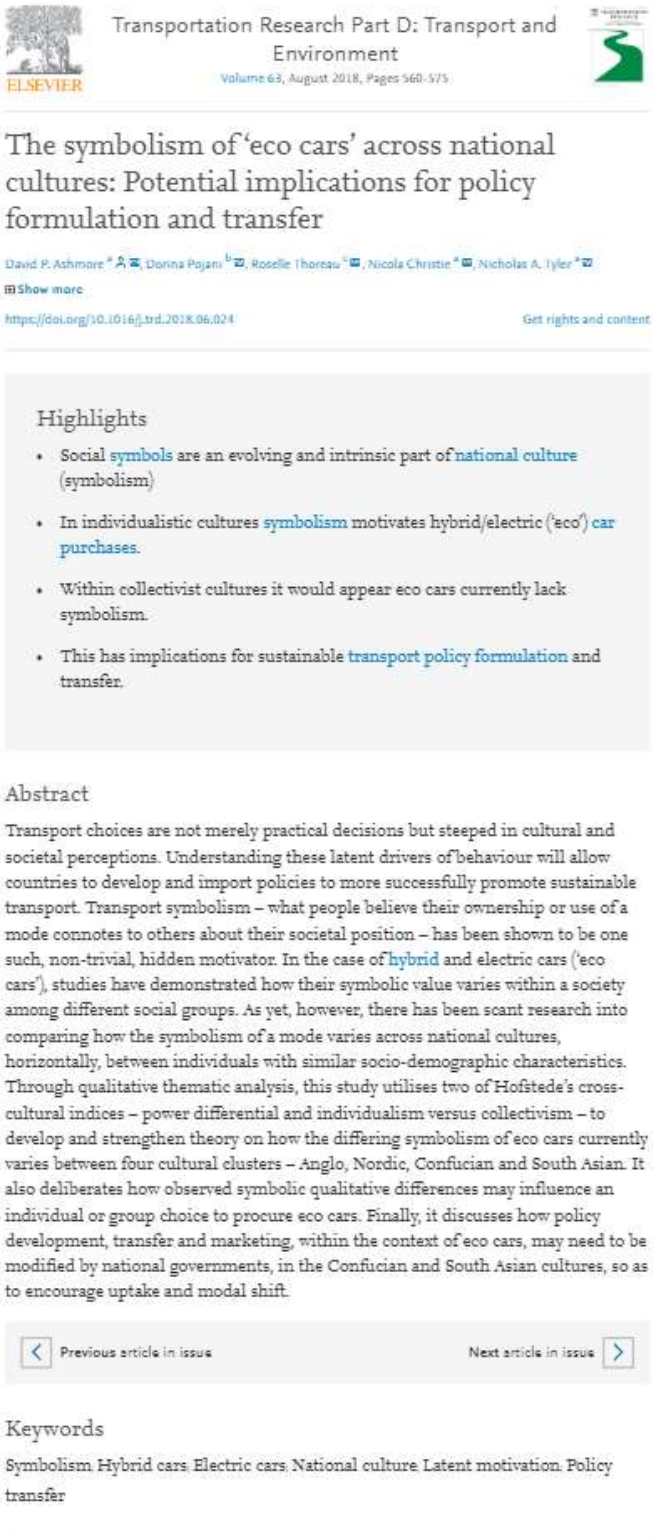
Abstract

Symbolism, what people believe a transport mode tells others about them within the context of a hierarchical society, has been shown to be a significant driver of transport choice. However, despite the common practice of transferring transport policies between nations, no research has focused on how a mode's symbolic connotations vary across national cultures and how this may affect individual and group transport choices. This paper describes research which utilised two aspects of the Hofstede cross-cultural indices—power differential, and individualism versus collectivism—to develop and strengthen theory through qualitative deductive thematic analysis. Forty-eight interviewees from four Hofstede cultural clusters were sampled horizontally, across equivalent income, occupational and educational levels, to attempt to lessen socio-demographic distortions. Semi-structured interviews were then undertaken. Interview transcripts were analysed manually using previously derived symbolic transport thematic codes. The significant differences between the Hofstede groups in both the density of thematic coding, and the quotes offered, suggest symbolism may strongly influence the potential outcomes of transport policies transferred between nations possessing significantly different cultural attributes and imperatives. Given this the authors believe there is sound justification for further deductive and inductive analysis on the existing dataset, and the extension of the theory to a broader population within each cultural cluster.

Keywords

Symbolism | National culture | Latent motivation | thematic analysis | Hofstede indices

Ashmore et al., 2018. The symbolism of ‘eco-cars’ across national cultures: Potential implications for policy formulation and transfer. Transp. Res. Part D, Transp. Environ. 63, 560–575. https://doi.org/10.1016/j.trd.2018.06.024



Transportation Research Part D: Transport and Environment
Volume 63, August 2018, Pages 560-575

The symbolism of ‘eco cars’ across national cultures: Potential implications for policy formulation and transfer

David P. Ashmore [a], Dorina Pojani [b], Roselle Thoreau [c], Nicola Christie [a], Nicholas A. Tyler [a]
Show more

https://doi.org/10.1016/j.trd.2018.06.024

Highlights

- Social symbols are an evolving and intrinsic part of national culture (symbolism)
- In individualistic cultures symbolism motivates hybrid/electric (‘eco’) car purchases.
- Within collectivist cultures it would appear eco cars currently lack symbolism.
- This has implications for sustainable transport policy formulation and transfer.

Abstract

Transport choices are not merely practical decisions but steeped in cultural and societal perceptions. Understanding these latent drivers of behaviour will allow countries to develop and import policies to more successfully promote sustainable transport. Transport symbolism – what people believe their ownership or use of a mode connotes to others about their societal position – has been shown to be one such, non-trivial, hidden motivator. In the case of hybrid and electric cars (‘eco cars’), studies have demonstrated how their symbolic value varies within a society among different social groups. As yet, however, there has been scant research into comparing how the symbolism of a mode varies across national cultures, horizontally, between individuals with similar socio-demographic characteristics. Through qualitative thematic analysis, this study utilises two of Hofstede’s cross-cultural indices – power differential and individualism versus collectivism – to develop and strengthen theory on how the differing symbolism of eco cars currently varies between four cultural clusters – Anglo, Nordic, Confucian and South Asian. It also deliberates how observed symbolic qualitative differences may influence an individual or group choice to procure eco cars. Finally, it discusses how policy development, transfer and marketing, within the context of eco cars, may need to be modified by national governments, in the Confucian and South Asian cultures, so as to encourage uptake and modal shift.

Previous article in issue
Next article in issue

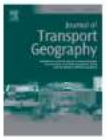
Keywords

Symbolism; Hybrid cars; Electric cars; National culture; Latent motivation; Policy transfer

Ashmore et al., 2019. Gauging differences in public transport symbolism across national cultures: implications for policy development and transfer. J. Transp. Geogr. 77, 26–38. https://doi.org/10.1016/j.jtrangeo.2019.04.008

ELSEVIER

Journal of Transport Geography
Volume 77, May 2019, Pages 26-38



Gauging differences in public transport symbolism across national cultures: implications for policy development and transfer

David P. Ashmore [a], Dorina Pojani [b], Roselle Thoreau [c], Nicola Christie [a], Nicholas A. Tyler [a]

Show more

https://doi.org/10.1016/j.jtrangeo.2019.04.008

Abstract

The use of different forms of public transport connotes different symbolic meanings across national cultures. This has relevance when encouraging the uptake of public transport in Asia's megacities such as Beijing or Chennai, where rapid deterioration in air quality has been partly attributed to a rapid increase in private motorised transport ownership and usage. Yet the social connotations of using public transport might not always be positive. Whilst metro systems may be seen as progressive and uniting, bus-based transit is still often seen as a 'poor cousin'. This may present a significant impediment when encouraging a shift from private to public transport in cities where the national culture mandates visible differentiation between those of differing social status. This study uses deductive thematic analysis based upon symbolic permutations, to explore these concepts across two meta cultural clusters, each consisting of two sub clusters segmented by means of the Hofstede national culture indices: low power differential/individualistic (Anglo, Nordic), and high power differential/collectivist (Confucian, and South Asian). Using horizontal purposive sampling, sufficient differences are observed, as to the symbolism of the public transport modes across the groups, to justify an expansion of theory to the population of interest. The findings of the work should assist the promotion of sustainable transport in rapidly industrialising cities in the Global South, and international policy transfer across different geographies.

Previous article in issue

Next article in issue

Keywords

Symbolism; National culture; Policy transfer; Public transport; Bus; Metro