Commuting and the role of flexible working practices

By

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The candidate confirms that the work submitted is his own and that appropriate credit has been given where reference has been made to the work of others

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Abstract

Considerable reductions in energy demand across society are necessary in order for the UK to achieve its decarbonisation targets by 2050. Significant attention has been given to challenging the carbon intensity of transport to help achieve these targets, with commuting of particular interest. Flexible working practices are promoted as desirable policies to intervene in these journeys; however cutting emissions and reducing demand has proved difficult. Limitations of these predominant individualistic perspectives illustrate why alternative mechanisms and perspectives are required to approach the sustainability challenge. Social practice theory can help in this endeavour, by decentralising the individual and instead placing the practices which constitute individual lives at the centre of analysis.

Exploring and understanding transport as a system of practice draws attention to the ways in which practices bundle together in the organisation of everyday lives. It is through this understanding that alternative avenues for intervention arise; for example into the practice of flexible working, which engender the need for particular modes of mobility. To understand the influence of flexible working, analysis of 29 in-depth semi-structured interviews was conducted, which considered an understanding of work and its connections to other adjacent practices, particularly related to the household and the commute necessary.

The results show that although technology has allowed work practices to change in many ways and to allow for greater spatial and temporal flexibility, it has not, in the sample investigated, led to a major shift in commute behaviours to lower carbon modes. The results also show that it is not the apparent flexibility of different types of work ('creative' vs 'non-creative') that is important, rather that the workplace, for many professions and for many people, seems to hold very strong social, material and professional attractions which influence what flexibilities exist and how they might be deployed or integrated.

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1 Chapter One - Introduction

1.1 Introducing the research context

Considerable reductions in energy demand across society are necessary in order for the UK to achieve its decarbonisation targets, requiring dramatic reductions in greenhouse gas emissions by 2050 from levels recorded in 1990. Transport is the largest consuming sector representing 40% of total energy consumption in 2016 (Department for Business, 2017a) and is considered one of the key contributors to these greenhouse gas emissions, reported at approximately 24% of all UK emissions (Department for Business, 2017b). Transport is a deeply complex and embedded socio-technical system, with cutting emissions in this sector proving difficult (Committee on Climate Change, 2017). Any reduction in its dependence on fossil fuels, in order to address carbon emissions and the sustainability of related energy demand, will require a fundamental transition that goes beyond only technological changes (Watson, 2012). The automobile commute is of central concern due to its contribution to carbon emissions, but has proven stubbornly resistant to established policy approaches (Cass and Faulconbridge, 2016).

Discussions of 'flexible working', such as telecommuting, home-working and staggered work times, suggest that there is potential for both reducing the number of commuting journeys and shifting the timing of these journeys to address congestion and reduce the need for additional infrastructural investment (Røpke and Christensen, 2012, Kim et al., 2015, Cass and Faulconbridge, 2016). As such, flexible working practices are commonly perceived to help reduce demand for travel through both substitution and temporal shift. Substitution involves reducing the need to travel, with home-working considered to be a major means of reducing carbon emissions associated with transport. Temporal shift on the other hand often revolves around two distinct approaches. The first is to 'flatten'

frequently observed daily 'peaks', principally to reduce the burden upon the network during these times (mainly to combat congestion). The second is to encourage the use of lower carbon, more sustainable travel choices through leniency within arrival and departure times at work.

Flexible working practices are therefore currently considered a useful policy tool (whilst also existing for non transport policy reasons such as work-life balance) to help accomplish this shift by aiding in the daily sequencing, synchronisation and co-ordination of interrelated practices that may inhibit performances of lower carbon commute journeys (Cass and Faulconbridge, 2016; Kim et al., 2015; Line et al., 2011; Pooley et al., 2011; Southerton, 2009). These approaches however focus upon individual choices, through which behaviours are an outcome of attitudes (Shove, 2010), and do not acknowledge the underlying complexity of commuting. This thesis questions the feasibility and efficacy of the two dynamics of substitution and temporal shift.

The limitations of these predominant individualistic perspectives towards intervening in the commute illustrate why alternative mechanisms and perspectives are required to approach the sustainability challenge (Spurling et al., 2013, Cass and Faulconbridge, 2016). To this end, this thesis builds upon growing interest in the use of 'social practice theory' (Shove et al., 2012; Shove et al., 2014; Spurling et al., 2013; Watson, 2012). Shove et al. (2014) in particular contend if climate change policy, or reducing mobility demand for that matter, is to make a difference on the scale required, it will have to engage with the bundles and complexes of practice upon which energy demand depends. Critiquing the view that behaviours are the result of individual and linear decision making processes, theories of practice approaches are increasingly underpinning scholarship on sustainable transport and moving beyond automobility (Kent and Dowling, 2013).

Individual practices are defined by interdependent relations between three elements; meanings, materials and competences, referred to as the 'three-elements' model (Shove et al., 2012). This model has proved useful in understanding how practices are accomplished in time and space, whilst underlining the centrality of linkages between elements, practices and daily life. Conceptualising energy through a practice theory perspective reveals that energy is not used for its own sake, but in the course of accomplishing social practices (Shove et al., 2014). Acknowledging the complexity of commuting therefore requires considering commuting not in isolation, but as an interdependent practice that interacts to form bundles and complexes through which daily life is performed. Southerton (2006) explains how practices compete for time and space throughout the performance of daily life, and that the temporal organisation of the day is constituted by both practices that have fixed and malleable positions within schedules. It is through this perspective that we can begin to understand how the sequencing, co-ordination and synchronisation of daily life practices shape patterns of demand for travel. Attention is paid to how flexible working might help alleviate sequencing pressures, in addition to what role practices within the household have in these pressures. Therefore the purpose of this research is to discuss whether flexible working allows for the purported flexibilities in travel highlighted above, with the complexity of these interactions making them worthy of greater investigation and analysis.

Flexibility is argued by this thesis to be a social construct framed as individualistic control over start and end times and the ability to work from home. Current definitions of flexible working practices are argued by this research to be oversimplifications of the complexity and integrative nature of 'work', with little attention given to how and why work is performed in certain ways. For example, the literature focusses upon separations between the temporal (time) and spatial (space) aspects of fixity and flexibility, with constructs such as when, how long, at what start or end time, and where typically associated with flexibility

(Moen et al., 2008; Kelly et al., 2011; Schieman and Glavin, 2008; Schieman and Young, 2010; Baldock and Hadlow, 2004; Yeraguntla and Bhat, 2005). Further, flexibility is often considered a management tool and a property of the employee-employer relationship (Moen et al., 2008; Schieman and Glavin, 2008; De Menezes and Kelliher, 2011; Kelly et al., 2011).

This thesis advances these literatures through conceptualising flexible working as a social practice, where flexibility is considered throughout the constitutive elements of work and their relationships with other contiguous practices. Conceptualising the constitutive elements as being flexible is a significant departure from current descriptions of flexible working, challenging previous definitions and conceptualisations because it includes not just the work done, but where and with what it is done. It is important to have a full understanding of what work is in order to understand which elements are potentially influenced by opportunities that are said to introduce flexibility. The practice of flexible working is conceptualised as operating along a continuum (not dissimilar to Kelly and Moen, 2007), in which interdependent constitutive elements range from exhibiting limited or no flexibility to high flexibility. It is the flexibility of these constitutive elements which are important to understanding the complexity of 'flexible' work as a practice.

This research provides the important initial work to continue the re-conceptualisation of flexible working as a practice. Developing this conceptualisation further will improve understanding of the role of these practices in daily life. This approach requires a move away from the predominance of quantitative analysis for studying the commute (Thorhauge et al., 2016, He, 2013, Hess et al., 2007, Haddad et al., 2009, Helminen and Ristimäki, 2007, Choo et al., 2005, He and Hu, 2015, Kim et al., 2015, Schwanen and Mokhtarian, 2005, Schwanen and Kwan, 2008, Schwanen et al., 2008), with looking beyond travel itself and focussing more upon the role of flexibility essential. These quantitative

analyses continually leave open questions regards the understanding of the social processes underlying commuting practices. One way to capture the complexity of these longer and more diffuse commutes is to focus on the combinations and interactions with other contiguous practices throughout daily life over longer periods of time.

In order to understand these interactions through social practice theory a comparative analysis approach was undertaken which analysed twenty-nine in-depth, qualitative interviews with professionals working within Leeds City Centre. The analysis first examined differences between supposedly *'creative'* and *'non-creative professions'*. Certain professional occupations and managerial status are often described as having greater control over the sequence of work activities, whilst those of lower socio-economic status have less control (Southerton, 2006; Breedveld, 1998; Golden, 2001; Le Vine et al., 2016). However, Hill et al. (2010) contend that workplace flexibility was a result of both occupation and status; with some naturally being more conducive to flexible work options than others. From this perspective, this thesis considers the role of creativity to be important; especially how creativity, the creative-class, creative industries and flexibility have been framed as interlinked and interwoven.

Knowledge, innovation and creativity have recently been identified as powerful economic drivers in the UK and elsewhere (particularly the US and Europe) by several authors, most notably Florida (2002). It is argued that the driving forces of economic development are not just technological and organizational, but human; creating a new phase of capitalist development in the process and entering an age of creativity that is a defining feature of economic life (Peck, 2005). However, amongst the discontent towards Florida's creative class is a critique regards the vagueness in conceptualising creativity and the grouping of occupations (Kratke, 2010). Taking heed of these discussions, this research attempted to classify occupations into either *'creative'* or *'non-creative'* categories. This was difficult,

with creative occupations defined as those which may be more stereotypically flexible in when, where and how they work and include professions such as: engineers; scientists; economists; medicine; architects; academic staff; musicians; photographers; visual and performing artists; as well as media, entertainment and sport related occupations. Non-creative occupations are therefore defined as everything else.

This intentional comparison builds upon a significant gap within the literature and thinking around the role of creativity and flexibility within working practices. The research finds little disparity between participants from these supposedly 'creative' and 'non-creative' categories. Therefore, this thesis rejects the importance of this supposed 'creative' / 'non-creative' divide. The distinction is negligible and is not a defining influence on flexibility within working practices for the sample studied. The little difference found between these typologies is more a criticism of the apparent laxity in definitions of what they are, and an acknowledgement that there are flexible elements in the working practices of each profession.

Having concluded this, attention turned to the elements of working practices which encourage and inhibit opportunities for flexibility; together with their relationships to other contiguous practices throughout daily life. Findings throughout this thesis show commuting to be a complex phenomenon which seldom occurred in isolation, with interactions and relationships with other practices throughout daily life. These interactions and bundles constrained participants both spatially and temporally. It is difficult to assign causality to the reasons for particular commute behaviours across the sample, in particular the effects of flexible working practices on travel. However, the use of flexible working practices to temporally or spatially alter travel for commuting purposes was found to be limited. Temporal flexibility revolved around the idealised notion of a typical working day, with temporally shifting travel demand typically conducted by travelling outside of the 'peak'.

Spatial flexibility typically occurred through home-working for short periods. The practices of work and those within the household were important in the sequencing, co-ordination and synchronisation of daily life.

Of particular importance was the influence of children and associated responsibilities and the processes of 'multi-tasking' and 'inter-weaving' of tasks (Southerton, 2009). This complexity made opportunities for reducing or shifting travel demand or altering travel choices difficult. Further, an important contribution of this research was supporting literature that questioned the efficacy of ICTs to influence levels of travel demand (Line et al., 2011). Whilst considered an important component of flexible working practices, ICTs were found in this research to decentralise practices in both time and space only on certain occasions, rather than eliminating travel (Røpke and Christensen, 2012, Kim et al., 2015). ICTs were therefore found to only be suitable substitutes for some types of interaction, not all.

The limitations of flexible working practices (and in particular ICTs) on travel demand substitution and shift identified within this research question the efficacy of established flexible working policies and behavioural change campaigns to sufficiently interrupt travel demand and contribute towards carbon emission reductions. Changing the overall levels of travel demand (and related energy demand) requires more than the flexibility of working practices because such flexibility can be constrained, with multiple practices affecting and shaping commutes. Flexible working thus does not relate to flexible commuting in any straightforward manner because of the constraints that working practices, and the sequencing of these with other contiguous practices, have upon when, where and why people must travel. Attention should therefore turn away from predominant individualistic behaviour change campaigns and towards alternative mechanisms which acknowledge the underlying complexities of commuting.

There is a need therefore to decentre existing transport policy targeting choice and infrastructure, to acknowledge that other forms of policy are required which target structural-societal barriers to low carbon commuting (Cass and Faulconbridge, 2016). Transport policy thus needs to be about non-transport practices which have implications for travel demand and the possibility of low carbon commuting (Cass and Faulconbridge, 2016). Suggesting this social practice theory approach is notably different to existing policy conceptions which value individual characteristics, emphasise greater flexibility to allow choice of departure time, and focus upon infrastructure provision for modal shift. Cass and Faulconbridge (2016) reiterate the importance of diverging from predominant policy approaches, noting that it is crucial for policies to be configured to address all elements of a practice and consider alleviating sequencing pressures of these commuting practices. Practice theory offers this new way of thinking about making such interventions and offers distinct areas for policy attention.

The policies introduced within this thesis are not stand-alone tactics; rather they are interdependent means of ensuring the elements of work, household and commuting practices are available, and that practice sequencing pressures are alleviated sufficiently to encourage travel demand reduction. Attention should turn towards theoretical perspectives and the re-framing of cultures, meanings and institutional norms which limit opportunities for flexible working – notably those around expectations, obligations and core hours. In this, discussions are necessary regards flexibility outside of heavy workload periods; travel from home to meetings direct rather than passing through the office each day; and an evaluation of school-times to encourage greater off-peak travel. More significant material adaptions are also called for which could encourage performances of active travel such as storage spaces and laundry facilities for clothes and equipment, and technologies which can allow paper-based working to be conducted elsewhere other than

in the office. Finally, as noted, the dichotomous category level of '*creative*' and '*non-creative*' was negligible and should not be focussed on by policy.

1.2 Research aims and questions

The context of this research suggests that there is a need for greater understanding of energy demand within transport and the role of everyday life practices, particularly flexible working, in creating this demand for mobility. Broad research aims were identified to assist and guide the research questions to be addressed throughout this thesis. The broad aims of this research are:

- To contribute towards literature around social practice theory and flexible working practice to establish the theoretical underpinnings of this research
- To examine the potential for working practice and household practices to impact upon daily schedules and travel demand
- To explore implications of flexible working practices and interactions throughout daily life upon travel demand

1.2.1 Research questions

To address the aims set out above a number of research questions are addressed throughout this thesis. These questions encompass a broad range of areas that form the basis of this research and will assist in contributing towards discussions around the role of flexible working upon commuting.

Research Question One: What is flexible working as a practice?

Research Question Two: In what ways does flexibility relate to travel to work?

Research Question Three: How do household practices influence travel to work decisions?

Research Question Four: What impact does the structure of work have on daily schedules?

Research Question Five: What would be required to reduce overall travel demand and/or lead to an increase in lower carbon options for the journey to work?

The first question is focussed upon conceptualising flexible working practices through a social practice theory lens. Before doing so, an understanding of previous definitions regards flexible working is necessary, together with a conceptualisation of work as a practice. A critique of previous approaches towards defining flexible working is undertaken within Section 2.3, with a conceptualisation of work as a practice conducted throughout section 3.2. From this base, flexible working as a practice is conceptualised in section 3.4, contributing towards an area of the literature that is not well understood and answering the first research question.

The second research question is focussed on the role of flexibility in relation to travel to work. Building upon existing knowledge outlined throughout Section 2.5, this question provides an assessment of the potential for flexibility within working practices and daily life to have an impact upon travel to work decisions. The third research question centres upon the interactions between household practices and commuting, with previous knowledge on these relations introduced during Section 2.6. In a similar vein to Research Question Two, investigating household practices further will provide insight into the complexity of commuting and contribute towards knowledge regards the co-ordination, synchronisation and sequencing of daily life and the impacts upon travel.

The fourth research question investigates the impact of work structure on daily schedules, with these structures likely to have influences upon working practice flexibility, travel demand for the journey to work and time and space constraints throughout daily life. This

research question is developed as a result of conceptualising work as a practice during Section 3.3, and is considered important in understanding how work structure impacts upon the time and space of daily activities and schedules. The final, over-arching research question builds upon discussions throughout the literature review chapter regards interactions between flexibility, commuting and household practices to assess requirements for reducing travel demand and/or increasing the use of lower carbon options for the journey to work.

1.3   Thesis Outline

Chapter One has presented an introduction to the context within which this research is placed. It highlights the need for this research to advance existing knowledge regards the influence of flexible working practices on commuting and the interactions throughout daily life. The research aims and questions were presented, together with an introduction to the research location and the methodology developed within this thesis.

Chapter Two presents an examination of previous literature considered important and pertinent to this research. Introductions to the changing landscape of employment structures, working practices and commuting within the UK is conducted, providing context and background for the study and highlighting important trends and patterns regards when, where and how people work in addition to the travel patterns apparent. These investigations illustrate the potential for flexible working to substitute travel, however the extent and success of these practices in doing so is contested. Through a critique of current definitions regards flexible working, this chapter argues that these definitions confine flexible working to individualistic control over start and end times and the ability to work from home, oversimplifying the complexity and integrative nature of flexible working as a practice. Commuting practices are therefore argued to seldom occur in isolation, with relative simplicity or without interconnected relationships to work and the household.

Chapter Three culminates in answering the first research questions through the conceptualisation of flexible working as a practice. The chapter provides a detailed description of social practice theory and introduces discussions concerning 'work' as a practice. A flexible working practice is one which is defined by the flexibility of constitutive elements (materials, meanings and competences) and the flexibility of relationships between both these elements and competing practices. Conceptualising flexibility in this manner is considered a significant departure from current descriptions of flexible working. Framing flexibility through this lens will highlight relationships between elements and encourage discussions regards interactions with commuting and household practices performed throughout daily life.

Chapter Four presents the methodology that was applied in this research. A review of previous approaches to studying the commute is conducted, with a preponderance of quantitative approaches towards studying the commute identified. This preponderance crucially leaves open questions regards the understanding of social processes underlying these commuting practices. The iteratively developed research design is introduced, with justification for the semi-structured interviews comparative analysis approach and development of narratives discussed. A detailed breakdown of the data collection process is provided, with pilot study and participant selection and recruitment discussed. Finally, the methodological weaknesses are discussed, together with the validity and reliability of the research design and methodology.

Chapter Five presents an overview of the approach taken for analysing the data that was collected through the interviews, with thematic and narrative analysis undertaken. The transcription process, coding framework and process of triangulation are introduced. The disadvantages and advantages of the analytical approaches used are then discussed.

Chapter Six introduces examples of when and how participants performed flexible working practices, both temporally and spatially. Limited scope surrounding the performance of these flexible working practices was evidenced, with clear greater use of temporal flexibility than spatial flexibility found. There is found to be little disparity between participants from the 'creative' and 'non-creative' sectors. Therefore, this chapter rejects the importance of this 'creative' / 'non-creative' divide. The distinction between these sectors is negligible and is not a defining influence on flexibility within working practices for the sample studied.

Chapter Seven discusses socially significant and symbolic meanings and 'norms' regards performances of commuting, work and practices within the household. Examples of such socially significant and symbolic meanings found included; obligations and expectations to be physically co-present at particular time and places, the role of meetings in reinforcing meanings associated with work, separation between home and work, and the continued importance of specific 'traditional' ways of working within professions. In focussing more specifically upon how these meanings interacted, linked and bridged within and between practices provided insight into the rhythms and location of everyday life, illuminating implications for both the timing and demand for travel.

Chapter Eight argues that in order to gain a deeper understanding of how practices bundle and form complexes analysis should focus upon the seemingly bounded objects and linkages between constitutive elements of daily life practices. In focussing upon these material elements evidence of two distinctive roles for materiality are visible; revolving around objects and things necessary in the performance of practices throughout daily life, affecting when, where and how participants travelled for work.

Chapter Nine presents the discussion of the findings that have emerged from the analysis. This chapter answers each research question, providing a critical assessment of how the research contributes to what is already known. The chapter discusses how the relationships

and interactions between the phenomena of commuting, flexible working practices and the household influence daily life and whether flexibility impacts upon travel demand or opportunities for use of lower carbon options.

Chapter Ten draws together the conclusions from this research, synthesising the importance of the key findings from this research. The implications of these findings will then be discussed to demonstrate the original contributions to the literature this research has made, in terms of both practice and theory. The limitations of the research will then be acknowledged, with recommendations for future work presented.

2   Chapter Two – Literature Review

2.1   Introduction

This chapter will introduce in greater detail four of the five research questions introduced throughout the introduction that will be addressed in this thesis. An important element of these questions is the objective of advancing the understanding of the influence of flexible working practices upon commuting and how interactions with the household throughout daily life influence these commute practices further. An initial step in achieving this is to review literature concerning flexible working practices, with reference to the changing landscape of work and employment structures within the UK providing pertinent background into which this research is set. In particular, the role of information and communication technologies within flexible working practices is reviewed. Reviewing current definitions of flexible working practices highlights a predominant focus upon individual characteristics, oversimplifying the complexity and integrative nature of flexibility within work. The limitations of current definitions discussed illustrate why a broader practice framing matters, by removing the individual as the focus and turning attention to the interactions and relationships inherent within flexible work as a practice.

Following these discussions, this chapter will review the current situation within the UK regards commuting. Providing background within which this research is set, this section of the chapter outlines important trends and patterns. Interesting dynamics are illustrated, with fewer, longer trips conducted for commuting – perhaps suggesting people may be commuting on fewer occasions. In addition, though the number of commuting trips made by cars has declined, the private car remains the dominant mode for commuting in both number of trips and total distance travelled. Definitive peaks in the morning and evening have also been observed on weekdays, with these corresponding to demand for

commuting and school drop-off and pick-up times in particular. How flexible working practices influence these interesting dynamics has been investigated previously, though only to a certain extent, with empirical evidence limited and not convincingly indicating a relationship. Empirical evidence reviewed within this section typically focusses upon departure times and home-working as substitution, with individual characteristics of flexibility again of prominence. This section of the review reiterates the necessity for shifting attention away from continued individualistic characterisations of flexibility.

One motivation for shifting attention away from individuality is it to investigate the role of the household in these relationships and daily life. This thesis recognises the need to look at home and work and the spaces between in understanding the flexibility of work. Practices conducted within and throughout the household could be construed as defining components in the coordination, sequencing and synchronisation of daily life. Interactions between these practices are reviewed, with gender, children, residential location and employment type and location all considered influential. All of these factors could be associated with different spatial constraints and therefore be of importance to the sequencing and coordination of activities across time and space. Providing an intelligible base upon which this research can assess the role of flexibility in these interactions and relationships is important in understanding how lower carbon commuting practices might develop further.

2.2 *The changing landscape of working practices and employment structures within the UK*

The nature of work within the UK has changed markedly over the last 170 years. Globalisation, developments in technology and other social factors have changed both the way people work and the type of work conducted. Thus, the distribution of workers within each industry has changed. Agriculture, fishing and manufacturing have all decreased,

whilst the service industries have become increasingly dominant (Office for National Statistics, 2013). Manufacturing was the dominant industry in 1841, accounting for 36% of the workforce, whereas in 2011 this has declined to 9%. Employment within the service industry on the other hand has risen from 33% to 81% between the same periods. As technology has developed and changed, classifications of industries have had to develop and change to allow for jobs that previously did not exist (Office for National Statistics, 2013). Together with these large-scale changes to industry sector employment within the UK over the previous 170 years; this research project was conducted upon the backdrop of a sustained record employment rate. 74.8% of those aged between 16 and 64 are in work. This is the joint highest employment rate since comparable records began in 1971, with the continued rise in employment illustrated by Figure 1 below (Office for National Statistics, 2017).

Figure 1: UK employment rate (people aged 16 to 64), seasonally adjusted, March-May 2012 to March-May 2017 (taken from Office for National Statistics, 2017).

Underlying this sustained record employment rate was continued growth in the number of employees and a rise in self-employment. 84.3% of people in work are employees, with 15% classed as self-employed. Self-employment in particular has increased from 3.8 million in 2008 to 4.7 million in 2016 (Figure 2 below); however the data shows that recent growth is

in part related to workers managing their retirement in a different way to previously (Office

for National Statistics, 2014b, Office for National Statistics, 2016).

Figure 2: Number of self-employed workers January-March 1993 to January-March 2016

(taken from Office for National Statistics, 2016)

Self-employment has risen more quickly than the number of employees, coupled with its

share of all employment rising. Part-time self-employment accounted for around half of the

absolute growth in the number of self-employed workers between 2001 and 2015, with

this growth driven in large part by demographic change, worker choices regards

participation, and the nature of employment (Office for National Statistics, 2016).

Further illustration of the changing landscape of working practices within the UK is a record

rate of home-working, which between January-March 2014 totalled 4.2 million people. This

equated to 13.9% of the total working population. Figure 3 below illustrates the growth in

home-working. Home-workers are classified by the ONS as '*those who usually spend at*

least half of their time using their home, either within their grounds or in different places

and using it as a base' (2014a, p. 1). 1.5 million of those worked within their home or its

grounds, while the other 2.7 million home workers used their home as a base but worked

in different places (Office for National Statistics, 2014a).

IN JANUARY TO MARCH 2014
30 MILLION
PEOPLE WERE IN WORK

Home Workers   Non-Home Workers

4.2 million   25.9 million

THE NUMBER OF HOME WORKERS HAS INCREASED FROM
2.9 MILLION IN 1998 TO 4.2 MILLION IN 2014
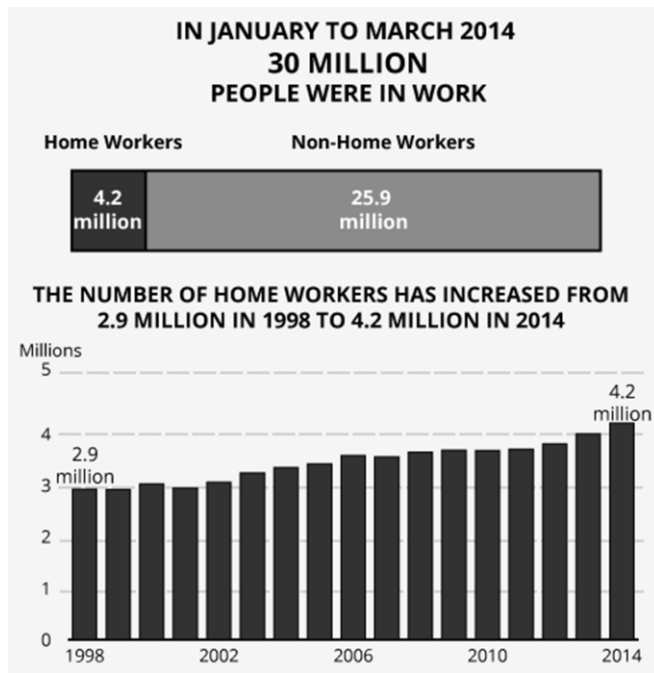
Figure 3: The total number of people in work and the change in home-working from 1998

(taken from Office for National Statistics, 2014a)

The numbers of home-workers has been rising in tandem with the employment rate within

the UK, with the home-working rate increasing from 11.1% in 1998 to 13.9% in 2014.

Characteristically, home-working tends to be concentrated in higher skilled roles, with

managers, senior officials, professionals, associate professionals and skilled trades

representing almost 75% of home-workers in total (Office for National Statistics, 2014a).

Home-working is more prevalent amongst older individuals and the self-employed. Nearly

two-thirds of home-workers in 2014 were self-employed, with just over 30% of home-

workers employees of an organisation.

2.3   An introduction to flexible working

Working practices in many organisations have been transitioning to enable employee's

access to flexible working. These transitions are exemplified by the recent modification to

the Employment Rights Act 1996 by the UK government to enable all employees, not just

those who were parents or carers, that have worked for the same employer for at least 26 weeks to be eligible and having the legal right to request flexible working (ACAS, 2014). This forthcoming section of the review looks into the role of information and communication technologies within flexible working and critiqued current definitions regards flexible working, posing questions of these definitions for investigating the effects of flexibility on commuting.

2.3.1   The role of Information and Communication Technologies in flexible working

Information Communication Technologies (ICTs) are increasingly 'conquering' space, though people still travel. The relationship between ICTs and travel is changing how and when people meet and communicate, with Line et al. (2011) suggesting '*that ICTs remove the need to be in certain places physically, when your presence can be felt virtually. In this sense, there is perhaps less need to travel when you could work, study or be available for your children in one location via your mobile phone or computer*' (p.1495). Mobile communication, particularly via email and mobile telephone, in addition to sharing, exchanging and joint working on documentation have become increasingly prominent features of working practices and flexibility (Lyons, 2013). Line et al. (2011) argue that ICTs have facilitated a more mobile relationship with space, allowing for coordination and re-scheduling on the move and the ability to 'lift activity' out of place (for example working out of the office). ICTs enable remote working, usually from home, but are also employed to enable virtual organisational structures and relationships to operate with little or no face-to-face contact (Halford, 2005).

Røpke and Christensen (2012) consider working from home to be '*probably one of the most visible examples of how the de-localisation of practices through an easing of space-constraints challenges established everyday life structures*' (p.356). Orlikowski (2007) explains that norms of communication were reconfigured through the use of these mobile

devices, altering expectations of availability, redefining boundaries of the workday and intensifying interactions within the communication network. ICTs are therefore anticipated to play a significant role in the performance of flexible working practices, with elements of ICT claimed to have 'opened up' opportunities for flexibility within working practices illustrated by Figure 4 below.
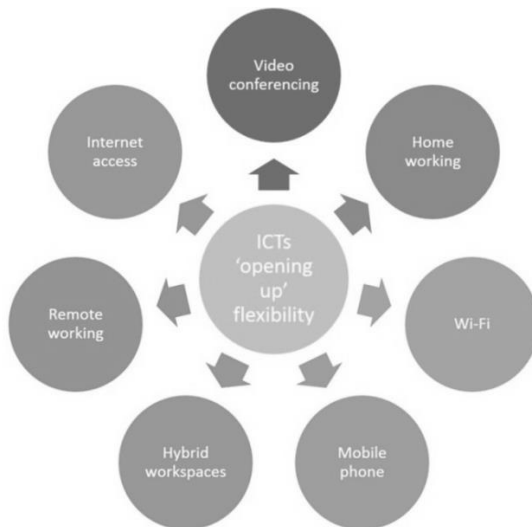
Figure 4: Information and Communication Technologies (ICTs) that have been claimed to 'open up' opportunities for flexibility within working practices

ICTs therefore inevitably have roles in relation to working practice flexibility, with substitution of prominence. Substitution implies replacing face-to-face communication with that of videoconferencing, email communication or telephone conversations. Substitution of these practices might also be on an individual level, with time pressures making attendance impractical in most cases (Lyons, 2013). Lyons states that it is broadly agreed face to face and virtual meetings will likely co-exist in a co-operative manner within business practices, citing Faulconbridge et al. (2009) and Haynes (2010). Pertinent questions arise here as to the role of communication within people's daily lives, to what extent (if any) communication technologies facilitate practices of flexible working and the competencies required in order to do so.

Halford (2005) contends that where work is done makes a difference to working practices and both organisational and personal relationships. ICTs have encouraged a 'hollowing out' of the fixed organisational work-space and a polarisation towards the 'relocation' of work into domestic spaces and a 'dislocation' into cyberspace (Lyons, 2013). Whilst ICTs may enable an overriding of space, places are not interchangeable (Kompast and Wagner, 1998). Halford (2005) argues that the introduction of 'hybrid workspaces' has led to a reclassification of work into two streams; office and home. These two streams of work are characterised by differing working practices and locations. The home stream was considered more routine, with document preparation or self-evaluation undertaken, with isolation and fewer distractions welcomed advantages. The office stream was characterised by a perceived need for team and managerial support, for training in unfamiliar tasks, and for this work to be conducted in 'organisational spaces'. Further, the office stream was considered to have a *'more nebulous reliance on visual methods of problem solving'* (p.25), with organisational space becoming synonymous with more concentrated and challenging forms of work and more intense interactions between teams, managers and staff (Halford, 2005). The use of organisational spaces for 'office days' thus enables an ease and convenience to the coordination and synchronisation required to uphold the intense interactions and demanding forms of co-present working outlined. However, working practices associated with these organisational spaces and office days could be perceived as contributing towards travel for work.

Whilst ICTs might alleviate a number of conflictions through their ability to extend virtual and corporeal relations with others, especially regards meetings and working locations, the extent to which these technologies can influence working practice location and time should not be assumed (Line et al., 2011). Couclelis (2009) discusses how there may be social hierarchies in who has the power to be flexible in time-space, which plays well for this thesis in wanting to decipher the role of flexibility in everyday life and associated travel.

The '*pushes and pulls of flexibility*' should not always be viewed solely as a result of the workplace, as those whose employment is fixed in time and space by others may yet still utilise a range of ICTs to manage competing demands and responsibilities within and beyond the workplace (Couclelis, 2009). ICTs are therefore both helping accommodate uncertainty, yet at the same time helping erode the 'fixity' of schedules and arrangements that are in turn contributing to said uncertainty (Line et al., 2011). Thus, the caution Line et al. (2011) portray towards assuming influence of ICTs on working practices and flexibility is sensible.

2.3.2   Defining flexible working

The precise definition of flexibility is essential in understanding the complex relationships between flexibility, work and home (Shockley and Allen, 2007). Two distinct approaches to defining flexible working practices are identified henceforth. Ambiguity in this matter is borne out of separations between the temporal (time) and spatial (space) aspects of fixity and flexibility. One approach focusses principally upon the temporal aspects, whilst the other brings variations of both temporal and spatial aspects together. Constructs such as when, how long, at what start or end time, and where are aspects associated with flexibility.

The numerous definitions regards flexible working illustrated by Table 1 below are argued by this research to be oversimplifications of the complexity and integrative nature of 'work', in addition to what it might mean to work 'flexibly'. Little attention is given to how and why work is performed in certain ways. More specifically, the majority of the literature considers flexibility to be a property of the employee-employer relationship, with definitions discussed predominantly confining flexible working to individualistic control over start and end times and the ability to work from home. These predominant perspectives illustrate why a broader practice framing matters, by removing the individual

as the focus and turning attention to the interactions and relationships inherent within

flexible work as a practice.

There are very few, if any, overarching or definitive definitions for the term 'flexibility'

when discussing work, working and/or the workplace. Illustrating and discussing these

differences will help frame later discussions in this thesis around the importance of fixity

and flexibility of activities, and the significance of these discussions within a theories of

social practice conceptualisation of flexible working introduced in the proceeding chapter.

Table 1: Terms and constructs of flexible working practices

Author	Term/Definition	Construct/Focus
Rau (2003)	Flexible work arrangements	*Temporal and Spatial* Allow work outside of traditional boundaries of a standard work day
Baldock and Hadlow (2004)	Flexible work schedule	*Temporal* Employee's ability to choose start and end times
Yeraguntla and Bhat (2005)	Flexibility	*Temporal* Late arrival to work
Kelly and Moen (2007)	Schedule control	*Temporal and Spatial* Ability to determine when and where one works and how many hours
	Flexible work arrangements	*Temporal and Spatial* Extent of flexibility varies along a continuum from very minimal, to moderate, to extensive
Moen et al. (2008)	Control over work time	*Temporal and Spatial* Degree of choice over the time, timing and sometimes location of work
Schieman and Glavin	Flexibility	*Temporal and Spatial*

(2008)		Allowance of duties to be performed outside usual workplace arrangements
	Schedule control	*Temporal* Extent to which individuals select start and finish times
	Job autonomy	*Temporal and Spatial* Individuals freedom to decide when, where and how they work
Schieman and Young (2010)	Schedule control	*Temporal* Degree to which workers have control over start and end times
De Menezes and Kelliher (2011)	Flexible work arrangements	*Temporal and Spatial* Allow employees to vary the amount, timing or location of work
Kelly et al. (2011)	Schedule control	*Temporal and Spatial* Employee's control over the timing, number of hours and location of work

Yeraguntla and Bhat (2005) define flexibility as '*the ease to which an employee can arrive 30-45 minutes late to work'* (p.237). Further definitions concerning the temporal nature of flexibility are found in Baldock and Haldow's (2004) work, where they discuss a 'flexible work schedule' and define this as '*an employee's ability to choose when to start and end work on a given day*' (p.511). In addition, Schieman and Young (2010) introduce schedule control, which entails the degree to which workers have control of the start and/or finish time of their work and is more specifically related to an individual's capacity to determine the temporal parameters of their work. Furthermore, Schieman and Glavin (2008, p. 592) explain how '*schedule control', or the 'temporal flexibility in work schedules, involves the extent to which individuals are able to select the times they start and/or finish work'*.

In contrast, schedule control has been approached from a different angle by Kelly and Moen (2007), whom bring both temporal and spatial aspects of flexibility together. Considerations of the spatial aspects of 'flexibility' are apparent from the literature, and are deemed important due to the location of where one works may have considerable impacts or effects on daily schedules, sequencing and decision making. Schedule control is therefore defined as '*the ability to determine when one works, where one works, and perhaps how many hours one works*' (p.491). Moen et al. (2008) continue this bridging of temporal and spatial aspects, albeit tentatively, in their theorising of 'control over work time'. Control over work time is considered an 'employee's degree of flexibility and choice over the time, timing, and sometimes location of their work', and see it as an important complement to the traditional concept of job control (p.416).

Further, and in a later paper, Kelly et al. (2011) continue to define schedule control '*as the employee's sense of latitude or control regarding the timing of their work, the number of hours they work, and the location where they work, which affects their commuting time and total time away from home*' (p.267). Interestingly, Schieman and Glavin (2008) contrast their definition of schedule control to that of 'job autonomy', which involves '*the extent that individuals have the freedom to decide when, where, and how their work gets done*' (p.592). Kelly and Moen's definition of schedule control appears to also incorporate aspects of Schieman and Glavin's '*job autonomy*', adding further confusion regards definitions of flexible working practices. Job autonomy would therefore seem to include the control over how work is done, perhaps stretching the conventional perceptions of flexibility into a different realm.

Overall, Schieman and Glavin (2008) define flexibility as '*the degree to which work duties are allowed to be performed outside the usual spatial and temporal arrangements of the workplace, with spatial and temporal rigidity constraining work to specific time and space*

parameters' (p.591). Rau (2003) defines 'flexible work arrangements' as *'alternative work options that allow work to be accomplished outside of the traditional temporal and/or spatial boundaries of a standard workday'*, with De Menezes and Kelliher (2011) further defining these arrangements as those which allow employees to vary the amount, timing or location of their work. These arrangements usually involve employees working remotely from the workplace (often termed teleworking), at times which differ from standard hours for the workplace (e.g. flexi time and compressed working time), or where employees have chosen to reduce the amount of time they are contracted to work. There are of course some subjective phrases apparent within the definitions of flexible working practices introduced throughout: 'usual arrangements'; 'alternative work options'; and 'standard workday'. These definitions underpin the paradox that flexibility is not 'normal' if it is 'non-standard'. Such descriptions of flexible working practices could therefore be perceived as a comparative position relative to some notion of a standard working day, an implicit benchmark or social construct, from which flexibility allows deviation.

In contrast to previous definitions above regards 'flexible work arrangements', Kelly and Moen (2007) describe their approach as one in which *'practices vary along a continuum from very minimal flexibility (e.g. the ability to request a change in normal hours once per year), to moderate flexibility (the ability to work at home occasionally with a supervisors' approval), to extensive flexibility (e.g. the ability to set one's own hours and perhaps work location with appropriate coordination with co-workers)'*. Approaching flexibility from this 'sliding-scale' angle is useful for the conceptualisation within this thesis, although only to a certain extent. Flexibility may vary throughout differing timeframes and locales as a result of wider practice performance, thus the continued focus upon individual employee-employer dynamics misses these important interactions.

The introduction of co-ordination implies that flexibility is not solely a property of an individual but is instead part of a social negotiation amongst colleagues, clients and others that might be impacted by where and when someone works. Further, it is apparent that flexibility and co-ordination are considered properties of the individual-manager relationship, rather than being necessarily inherent within an industry. The operations management literature treats co-ordination as a scheduling problem and frames coordination as a *'managerial task that requires one to win the co-operation of other individuals whose behaviour is crucial to the procedures that are set up'* (Baldock and Hadlow, 2004, p. 715). Defining scheduling in terms of operations management adds further saliency of temporal and spatial conventions regards working times and locations as highlighted by Southerton (2013). However, it seems narrow to consider the problem solely as one of managed co-ordination within the workplace(s).

This section of the chapter has critiqued flexible working. Definitions regards flexible working practices have been shown to be oversimplifications of the complexity and integrative nature of 'work', in addition to what it might mean to work 'flexibly'. Oversimplification relates principally to the spatial and temporal nature of when and where work is conducted. Flexible working is continuously confined to individualistic control over start and end times, with this control typically centred around deviations from 'traditional' boundaries of a 'standard' working day. The ability to work from home, or in other locations rather than a typical office, is considered a prime example of the spatial flexibility discussed. Undertaking prior discussions regards the role of ICTs in flexibility and the critique of flexible working is useful as it has highlighted the deficiencies in current definitions and conceptualisations, encouraging the research to ask: What is Flexible Working as a Practice? Through a social practice theory lens this first research question is answered within the proceeding chapter. Doing so allows this thesis to decentralise the

individual and instead place focus upon the flexibility of the elements which constitute the practice of flexible working at the centre of analysis.

2.4   The 'fixity' of daily life

As identified above, flexibility is a normative construct and one which is relative to some kind of benchmark (explicit or otherwise implied). One way of understanding what is flexible is to understand what is not. The term 'fixity' relates to activities that are bound by specific times and specific places. Schwanen et al. (2008) for example, explain how *'transportation geographers commonly denote activities as fixed or flexible on the basis of their purpose or type. Roughly speaking, paid employment, education, sleep, and transporting children or other persons are considered fixed, and shopping and leisure are regarded as flexible'* (p.2110). The questions arising here are whether this caricaturing by purpose is actually helpful in understanding flexibility, and in what sense are these activities considered fixed? Hagerstrand (1970) initially drew distinction between fixed and flexible activities, though later investigation suggested that space-time constraints differed in 'rigidity', with some binding activities to places and times more so than others (Cullen and Godson, 1975, Carlstein, 1980). Differences between spatial and temporal fixity constraints were found, with spatial constraints being more frequent but temporal constraints having a larger impact upon overall activity scheduling (Cullen and Godson, 1975). Employment, activities conducted with others and routine activities (amongst others) were found to be most fixed in time and space (Schwanen et al., 2008). As we are aware, Southerton (2006) expressed that the temporal organisation of the day can be viewed as co-ordinated around fixed events usually involving the co-participation of others. Taking this approach, Southerton described how activities with non-household members were most strongly fixed in time. Doherty (2006) also found that activities with others tended to

be more fixed than those undertaken alone, adding further saliency into discussions surrounding the role of co-ordination in the fixity and flexibility of daily life.

Southerton (2009) states that fewer institutionally timed events are 'fixed' within the temporal rhythms of daily life. In this context, Southerton explains that people re-instituted their own fixed events, usually occurring around practices of co-participation. Practices of consumption and work are considered flexible in their temporal scheduling, however many come with sets of constraints and requirements (such as the co-participation of others) that render coordination a contemporary challenge to the scheduling of these practices. Further, coordinating and scheduling practices were challenges that generated 'harriedness' according to density and intensity of practices performed within designated time frames (Southerton, 2009). Issues regarding time shortage and mobility resources have often been 'repaired' through the increased use of private vehicles (which allow for access to fast and convenient transportation), with an increase in potential destinations within a short distance, ultimately reducing the spatial fixity of at least some activity types (for example dropping children at school and then driving to work) (Schwanen et al., 2008, Mattioli, 2014, Shove et al., 2015).

Whilst investigating time-space fixity constraints of activities might have been constructive in understanding wider contemporary social issues (Schwanen et al., 2008), doing so places emphasis upon the activity as a whole, rather than questioning in what sense these activities are fixed. In this manner, this chapter makes three points:

- The first is that one aspect/activity/element may be fixed not because it has to be, rather that it is part of a chain where something else is. Examples of such constraint chains might centre upon daily childcare responsibilities, such as the school-run, where arrival time for school may demarcate fixed temporal and spatial constraints for both the journey to work and then subsequently what time

work is started that morning. Of course, assertions regards the effects of the household on trip-chaining or activity-chains are not new ideas (Strathman et al., 1994, Lee et al., 2007), but nonetheless are important in considering evolutions in understanding relationships and interactions between flexibility, fixity, working practices, commuting and the household.

- The second point suggests that sometimes things may be fixed and sometimes they may be not. It could be conceived that team meetings may be fixed in an otherwise flexible job, or the fixed date for tax returns might impede upon an accountant's ability to home work in the run up to the deadline. Further examples from a non-work perspective might be those of (seasonal) after-school activities or otherwise irregular leisure activities fixed due to a high-degree of co-ordination (Southerton, 2006).

- The third and final point follows that some things may be fixed more in comparison with others from within the same activity. Paid employment for example is argued by this thesis to have some non-fixed elements, at least on average, if not less or more so for some people. Paid employment has justifiably been classed as an activity throughout this discussion, however to understand further the role of flexibility in working practices, and subsequently the influence this flexibility has upon daily life, we have to consider paid employment (and each other interacting activity for that matter) to have elements that are more fixed in time and space than others. Examples of which from an employment perspective might be focussed around the giving of a presentation, attendance at an important meeting, or the co-present working culture demarcating temporal and spatial fixities that outweigh others in their influence.

Schwanen et al. (2008) continue by explaining how strongly fixed activities may circumscribe responses to different urban planning initiatives, perhaps restricting freedom

to use environmentally sustainable transport modes, reduce the timing of activities, or even limit the opportunities to benefit from the spatial and temporal aspects of employment flexibility; something which may be of further consequence for employed parents, particularly women. It is still true today that the mother usually takes on the majority of the household responsibilities, with problems of time shortage (or 'squeeze') among individuals who have to juggle employment and domestic responsibilities usually stemming from incompatible claims on their time and mobility resources placed by fixed activities (Schwanen et al., 2008).

This thesis recognises the need to look at home and work and the spaces between in understanding the flexibility of work, connecting back to Southerton's (2003, 2006) notions of understanding 'squeeze' of practices and their synchronisation, sequencing and coordination, rather than that of time itself. In this vein, Halford (2005) argues that the changes to work, organisation and management experienced demands consideration of the spatial 'package' of working lives, rather than focussing on working practices, organisation or management in just one locale. Further, focussing upon the spatial package shows that working lives are constructed in complex and multiple ways.
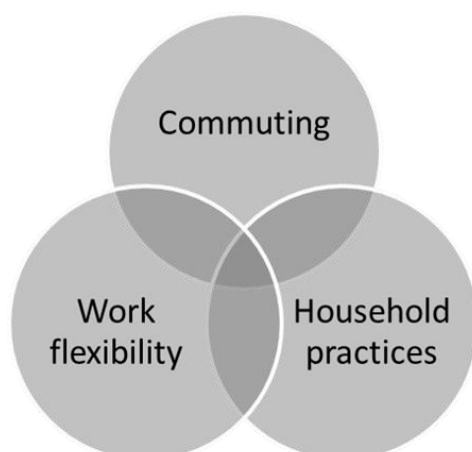
Figure 5: The interconnecting relationships between commuting, work and the household

Considerations as to the construction of complexity within working lives is an important concept to investigations of commuting practices within this thesis, as commuting practices seldom occur in isolation, with relative simplicity or without interconnected relationships to work and the household (represented by Figure 5). Therefore, it is of importance to investigate further the complexity and multiplicity of relationships between commuting, working practices and the household to further our understanding of travel demand for the journey to/from work.

2.5   Commuting – the situation in the UK

Commuting trips, as classified by the , are 'those from home to usual place of work, or from usual workplace to home' (Department for Transport, 2016). Commuting trips of this nature account for 15% of all trips made in UK. Cars have accounted for nearly 80% of all motor vehicle traffic since the 1980s (Department for Transport, 2012), and also account for 65% of all commuting trips. On average, 60% of all trips made by a car are single occupancy (an individual driving themselves), whereas 85% of commute trips undertaken using the car are single occupancy (Department for Transport, 2011). On weekdays (Monday to Friday), traffic peaks between 7am and 9am in the morning and between 4pm and 6pm in the afternoon, with the traffic at these times approximately double the average level due to both commuting and trips to/from school (Department for Transport, 2012). Figure 6 below illustrates a few of these important trends, notably the dominance of the car for mode of commuting in both number of trips and total distance travelled for this purpose.
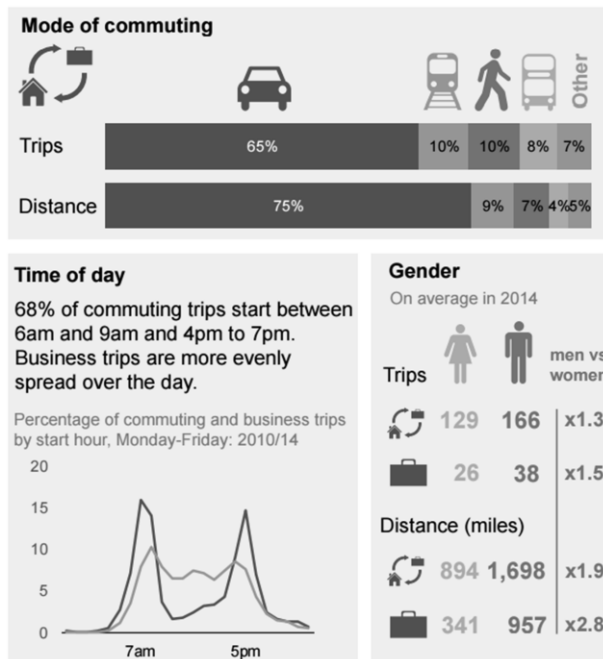
Figure 6: Mode of commuting, time of day and gender of commuting for 2014 (taken from Department for Transport, 2014a).

The number of commuting trips has fallen by 22% per person per year since 1996, and the average distance travelled over a year for commuting has fallen by 9% per person over the same period (Department for Transport, 2016). Despite the dominance of the car in terms of road network and commuting trips share, the number of commuting trips made by cars has decreased the most of all modes; by 19% per person per year(Department for Transport, 2016). In tandem with these figures, the average length of a commuting trip has increased by 9%, from 8.2 miles in 1995/97 to 9.0 miles in 2016 (Department for Transport, 2016). The average journey time to work has increased from 24 minutes in 1997 to around 30 minutes in 20016 (Department for Transport, 2016); with the average journey to work for residents in London over 41 minutes. Table 2 below provides a summary of these statistics. People who live in rural areas travel the furthest to work, with those in metropolitan areas outside London travelling the shortest distance. Individuals with the highest income travel almost 8 times further for commuting per year than those with the

lowest income, and travel more than twice as far to work, on average, than those with the lowest income. These individuals with the highest income also make nearly 4 times as many commuting trips. Therefore, if the average distance travelled over a year for commuting has fallen, but the average length of a commute has increased, then people may be commuting on fewer occasions (possibly due to flexible hours or homeworking), but with slightly longer journeys.

Table 2: Summary of UK commuting statistics (data taken from Department for Transport (2016).

	1997	2016	Change
Average commuting trip rates *(per person per year)*	174	142	-22%
Average commuting distance travelled *(miles per person per year)*	1,425	1,296	-9%
Average number of commuting trips by car	121	98	-19%
Average commuting distance travelled by car *(miles per person per year)*	1,116	924	-17%
Average trip length of commuting trips *(miles)*	8.2	9.0	9%
Average journey time to work (minutes)	24	30	17%

There has also been an increase in what the ONS refer to as '*other*'; '*people who commute to locations outside the UK, offshore installations, and those with no fixed place of work*' (Vale, 2013, p. 4). The numbers of workers in this category doubled in the 10 years to 2011 to over 2 million people, accounting for just over 8% of the workforce in that year. The ONS report offers reasons as to this increase, with proportionally the number of jobs that require travel to multiple locations may have increased or the number of people employed

by agencies and therefore required to travel large distances may also have increased. Further to this, the report also suggest that people who work multiple jobs may have been inclined to place themselves in the 'other' category as they may have no fixed place of work throughout the week. It is interesting to illustrate the changes occurring in commuting statistics and people's working locations, principally to highlight the fluid nature through which working practices are increasingly viewed and to consider in greater details what effects these may have, and be having, upon commuting.

2.5.1   Research on the commute, flexibility and flexible working

This section of the review will introduce previous literature discussions surrounding the effects and role of flexible working practices on travel and commuting patterns and levels of demand. This section takes into account all previous definitions of flexible working critiqued in Section 2.2.1. Types of flexible working apparent throughout the body of literature relating to flexibility working and commuting encapsulate such forms as home-working, temporally flexibility, teleworking, and telecommuting and ICT substitution. Teleworking and telecommuting are travel demand management policies used more commonly within other countries such as the US and Scandinavia which attempts to reduce commuting time, overcome long distance problems and address employee flexibility issues. It is assumed that if an individual teleworks more they commute less, at least during peak hours. According to Hardill and Green (2003), travel demand management policies such as teleworking mean that long distance commuters can spend more time at home, though this is not always possible due to co-ordination and conflictions with work schedules of colleagues.

He (2013) states that '*although the numbers of workers who have flexible schedules has increased remarkably, empirical transportation studies of flexible schedules are limited*' (p.211). Thus, understanding the choice of departure time is important for understanding

how these policies might alleviate congestion through utilising transport infrastructure during non-peak hours (He, 2013). However, He (2013) contends that empirical evidence regards the direct effect of flexible hours on departure time is relatively limited. Where there is research into the effects of flexible working on commuting, de Graaf and Rietveld (2007) point out that '*the empirical information available does yet not convincingly indicate such a relationship*' (p.143). They draw two conclusions; first, that working at home and out-of-home only act as substitutes for travel conditional on individual characteristics, and second that '*changes in commuting time and ICT availabilities have small absolute effects on working at home and out-of-home*' (p.157). Thus, according to de Graaf and Rietveld (2007), working in these locations seems to be more determined by individual characteristics than through changes in commuting time and ICT availability, with age, education, gender and job characteristics (to a lesser extent) important characteristics. Whilst these findings echo Line et al.'s (2011) concerns regards the efficacy of ICTs to affect commuting practices, focus continues to be upon the individual and associated characteristics, leaving questions as to the wider performance and bundles of practices that underlie these relationships between work and commuting.

If people increasingly exercise greater spatio-temporal flexibility within their working patterns, then this could potentially introduce important consequences for patterns and levels of travel (Haddad et al., 2009). However, the indications of information technology for reducing the need to travel are so far less than persuasive that any real reductions have taken place (Haddad et al., 2009). Whilst Helminen and Ristimäki (2007) and Choo et al. (2005) both found similar commute trip reduction rates as a result of teleworking, the overall effects and impacts of telework on commuting frequency was concluded to be marginal. Though considered a significant option on an individual level, Helminen and Ristimäki (2007) concluded that the indirect impacts of telework on commuting were still unexplained. Impacts of telework on total travel were thought not to be substantial due to

assumptions that teleworking will also generate new trips (principally as a result of increased domestic duties), concurring somewhat with Borggren et al.'s (2013), Kim et al.'s (2015) and He and Hu's (2015) conclusions.

Telework in Sweden is considered not to be very common, with most people still attached to 'traditional' modes of commuting-based work. Thus, the potential for travel substitution/reduction has not been powerful, with the effects of ICT-based activities on travel not very clear cut or understood. Highlighting this ambiguity regards the understanding of ICT as a replacement for travel, Borggren et al. (2013) explain that ICT solutions may act as preferable replacements for travel environmentally, however this may be challenged by the possibilities for rebound effects, as less costs and time used for traveling may generate other forms of travel or other activities with environmental impacts. The benefits of videoconferencing do not seem to be making face to face meetings redundant in modern work organizations, a finding from Denstadli et al. (2012) that may prove crucial throughout investigations within this thesis regards work as a practice and the possibility of substituting travel through the use of ICTs.

The substitution effects upon corporeal travel are deemed so far small by Larsen et al. (2006), namely because travel connects dispersed networks in spaces of enjoyed co-presence. The impacts of videoconferencing and mediated meeting technologies upon commuting, travel and business-related travel vary, with substitution and travel replacing considered possible (Denstadli et al., 2012, Julsrud et al., 2012, Borggren et al., 2013, Vilhelmson and Thulin, 2001, Urry, 2003, Larsen et al., 2006). However, face-to-face meetings increasingly necessitate considerable travel, and that '*despite the proliferation of communication technologies, corporeal travel and co-present meetings are of increasing importance because only they produce thick, embodied 'socialities' of corporeal proximity where people are uniquely accessible, available and subject to one another*' (Larsen et al.,

2006, p. 280). Furthermore, face-to-face meetings provide opportunities for engaging in informal conversations and connections that prove crucial in choosing travel (Denstadli et al., 2012). Sentiments similar to these are echoed by Vilhelmson and Thulin (2001), whom state that one conclusion is clear – '*neither the extent of telework nor of teleconferencing has thus far become as great as was expected by many analysts*' (p. 1027).

Hardill and Green (2003) explain that commuting flows have become longer and more diffuse, with the emerging picture one punctuated with many people working from home, or using the home as an office, while others work at the workplace in 'normal' working hours. Alexander et al. (2010) found similar through their analysis, with the majority of respondents working out-of-home during 'traditional business hours', with the timing of home-working spread across time when compared to out-of-home working times. Rasmussen and Corbett (2008) explain that in New Zealand teleworking policies have had limited traction. The rise in teleworking, the authors contend, have been moving at a '*glacier-like*' pace and falling below expectations in terms of commute replacement and effects on travel patterns and levels of demand. Whilst teleworking is likely to increase in importance, Rasmussen and Corbett (2008) do not consider it to become one of the major flexible working practices in the foreseeable future. Whilst there is increasing access to means of communication in tandem with flexible working practices, working at home still remains a marginal issue (de Graaff and Rietveld, 2007).

He and Hu (2015) found that lower income workers were less likely to telecommute, with telecommuting associated with more out-of-home activities. On a similar note, Thorhauge et al. (2016) found that activities other than work carried out during the day strongly affected the willingness to shift departure times. The number of activities other than work and how they were scheduled across chains were relevant to departure times. Importantly, the restriction in daily activities other than work imposes a restriction on the work activity

itself. Telecommuting therefore is considered to increase the number of total trips, pick-up and drop-off trips and discretionary trips, but decrease the number of commute trips (Thorhauge et al., 2016).

From a policy standpoint, Thorhauge et al. (2016) suggest that '*although telecommuting can reduce peak hour traffic, our results suggest telecommuting does not necessarily lead to a lower travel demand at the individual level, as measured by the number of out-of-home activities*' (p.146). The option of telecommuting alone therefore does not necessarily lead to altered travel behaviour in the aggregate, with this finding somewhat replicated by Kim et al. (2015). Their analysis led them to speculate that whilst telecommuting functions as a travel demand management policy that spatio-temporally decentralises travel rather than completely eliminating it. Continuing, Kim et al. (2015) describe that '*whereas telecommuting-promoting policy may be effective for relieving concentrations of traffic and air pollution, it has limitations as an urban policy that aims to reduce the total amount of transportation energy consumption, air pollutant emissions, and greenhouse gas releases*' (p. 211). The short-term effects of the spatio-temporal dispersion of travel demand may mitigate various traffic-inducing issues; however over the longer-term it accompanies energy-consuming travel behaviours.

This section of the review has introduced discussions surrounding the effects and role of flexible working practices on commuting and levels of demand. The literature discussed above establishes the potential for flexible working, particularly that of home-working, to substitute travel. However, the extent and success of these practices in doing so is contested. Therefore, understanding further the influence of flexibility on travel to work is necessary. Investigations into these relationships throughout this thesis will focus upon answering the research question: in what ways does flexibility relate to travel to work decisions? These investigations will offer a new perspective through social practice theory,

shifting attention away from the individual characteristics of flexibility and commuting evidenced above.

2.6   *The role of the 'household' in daily life and interactions with commuting and work*

Coordinating daily life could be viewed as becoming more unpredictable, varied, and increasingly complicated. Thus, with this research investigating the role of flexible working practices in this coordination, with the hope of reducing travel demand, promoting demand shift, or increasing the use of lower carbon alternative for the commute, a consideration of household dynamics and the daily life practices that originate from the household is necessary. Importantly, practices conducted within and throughout the household could be construed as defining components in the coordination, sequencing and synchronisation of daily life, especially those that involve other people and have both temporal and spatial constraints (Southerton, 2006). Conceptualising practices that are likely to influence the sequencing of practices; the bundles and complexes created as a result; and thus overall performance of daily life, will provide the research with an intelligible base upon which to construct investigations into how flexible working practices interact and help shape everyday life. Building upon literature situated within health, gender and transport fields, we can see that a variety of factors have previously been found to influence commuting practices, namely those associated with gender, children, residential location and employment type and location.

Recently, the Department for Transport have been focussing upon the phenomena of 'trip-chaining' and paying attention to an individual's wider trip making within the morning peak period (Department for Transport, 2014b). The analysis undertaken has been centred upon two aspects. First, the more tightly defined chains such as those where an individual breaks from a journey to work to take a child to school, and second those trips where individuals have made one trip for a particular purpose, returned home and then travelled to work.

The Department realise that the National Travel Survey definition cited above regards commuting can obscure changing travel behaviour, commenting that '*understanding travel patterns such as trip chaining in more detail can be helpful in providing insight into such behaviours'* (Department for Transport, 2014b, p. 1). The analysis reveals that most people travel directly to work during the morning peak with a chain of just one link. These journeys account for 88% of trips to work, with the remainder including trips for one or more purposes, with these proportions having changed little from 2002 to 2014.
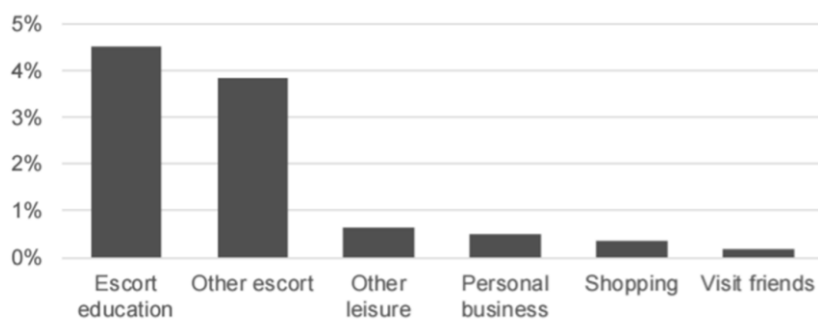
Figure 7: Proportion of trips to work by first destination from home (where this is not work): England 2002-2014 (taken from Department for Transport, 2014b)

As Figure 7 above illustrates, the main reason for non-direct trips to work is related to childcare responsibilities, most notably dropping children off at school. Some of the chains illustrated above could also involve returning home before travelling on to work from there. Gender disparities are found through the trip-chaining analysis, with women (particularly part-time) more likely than men to combine other purposes on their way to work; such as going to work via school, escorting others, or for another purpose (Department for Transport, 2014b). Whilst the Department for Transport have begun to acknowledge the limitations of their own definitions regards commuting and the trips involved, this only looks at the journey to work. Further investigation and analysis is required to understand how the phenomenon of commuting is performed, together with the underlying reasons and influences attributable to these travel patterns.

An interesting facet of these literature bodies is found from research into how the commute affects different genders. One of the most noteworthy results is that commuting time has an important detrimental effect on psychological health of women, whereas men are not generally affected. Roberts et al. (2011) explain that this greater sensitivity to commuting time seems to be a result of women's larger responsibility for day-to-day household tasks, including childcare and housework (Axisa et al., 2012). Furthermore, only those men with pre-school aged children appeared to be adversely affected by commuting, but even then the effect was smaller than for women with or without children (Cassel et al., 2013, Hansson et al., 2011, Axisa et al., 2012). Households with a child are more likely to accept longer commutes in order to provide for their children, with males being more likely to accept commutes longer than 40 minutes (Sandow and Westin, 2010). Sandow and Westin also found that having children of pre-school age in the household did not affect the duration of the commute, but having children aged between 7 and 17 did, due to the reinforcement of place-attachments created as children begin school. Conversely, Goodman et al. (2012) found no evidence that having children predicted regular car commuting, with McQuaid and Chen (2012) highlighting that having children was associated with shorter commuting times. In addition, the authors reported that most full-time men with children commuted longer than those without and those women with or without children are more likely to have shorter commutes, a finding that is echoed throughout the literature (Clark et al., 2003, Sandow and Westin, 2010, Roberts et al., 2011, Axisa et al., 2012).

Roberts et al. (2011) conclude that women find employment in the local service sector, which is usually lower paid and have fewer hours, to ensure proximity to the household to enable them to juggle household responsibilities. This effect also means that the monetary cost of commuting is relatively more expensive for women, especially as male commuters benefit more in terms of the economic outcome of long-distance commuting (Sandow and

Westin, 2010, Cassel et al., 2013). Roberts et al. (2011) also discuss how individuals, usually men, commute for the 'benefit of the household' which could apply further detrimental effects to their psychological well-being. Interestingly, individuals who live in a partnership are able to cope significantly better with the stress created by the commute (Gottholmseder et al., 2009, Roberts et al., 2011).

Lyons and Chatterjee (2008) and Schwanen and Mokhtarian (2005) discovered that long distance commuters are usually found in rural areas and suburbs surrounding metropolitan cities. Goodman et al. (2012) confirmed this, and in doing so describing how commuting distance has a strong effect on respondents travelling by car - 6% of whom living within 5km (3.1 miles) regularly used the car, whilst in comparison 72% whom lived over 10km (6.2 miles) away used the car. Hansson et al. (2011) and Schwanen and Mokhtarian (2005) discuss that residential location is a significant factor in commuting mode choice, as the preference of residential environment prevails over travel mode preference. However, this relationship may be not be applicable or accessible to everyone, with housing prices offering a significant obstacle and constraint to many participating within the commute and thus this relationship may be skewed in favour of those who can afford choice over their residential area. Furthermore, public transport accessibility may be scarce in suburban areas and so car use may be necessary, whereas the physical structure of urban areas may restrict or constrain car use. Concurrently, residential location was also found to be an important determinant of longer commute distance, but again may be tilted towards those living within suburban areas (Besser and Dannenberg, 2005, Nolan, 2010, Goodman et al., 2012).

Interestingly, Redmond and Mokhtarian (2001) found that people actually wanted some commuting time, ideally around 16 minutes. Through modelling responses to a self-administered survey, the authors explain that commute time is not '*unequivocally a*

disutility to be minimized, but rather that there is an optimum to be achieved' (p. 202), with the possibility to commute too little as well as too much. Ideal commute time was found to be influenced by objective and perceived measures of the amount of current travel, liking for travel and commuting, lifestyle traits, attitudes towards utility of travel, and demographic characteristics. In addition, wanting a transition time between home and work (Redmond and Mokhtarian, 2001), enjoying the journey itself (Ory and Mokhtarian, 2005), and being involved in social comparisons that could enhance commute satisfaction (Abou-Zeid and Ben-Akiva, 2011) were also found to influence commute decisions. These results (even though not specifically attributed to the UK) highlight how, even though the 'demand' for commuting appears to have reduced in volume in the UK, may continue as everyday practices continue to compete for time and space, requiring sequencing and bundling within specific time slots – one of which being the commute.

Respondents living in inner city areas were more likely to actively commute (typically bussing, cycling or walking) than respondents living in the outer areas and suburbs (Schwanen and Mokhtarian, 2005, Rissel et al., 2014, Yang et al., 2014). Bopp et al. (2012) identified positive predictors in walking, cycling and driving during the commute. Those for walking included a walking time of less than 20 minutes, parking difficulties at work and self-efficacy. Those for cycling included good weather, being male and employed part-time. Finally, the predictors for driving included time constraints, a walking time of more than 20 minutes, the flexibility or necessity to make stops on route, and minimal or negligible parking constraints. Having the option and accessibility of being multimodal (the use of several modes of transport), having a discounted transport pass and the ability to work flexible hours increases the utility of alternative modes to using the car for the commute, with the use of parking restrictions further increasing the utility of these modes and alternatives (Delmelle et al., 2013, Zhou, 2012).

Other factors that were found to be important determinants of longer commute distance include; employment type (with managerial and scientific positions accruing the longest commutes) (Axisa et al., 2012), being in full- or part-time employment (McQuaid and Chen, 2012), being middle age (Axisa et al., 2012, Goodman et al., 2012, Cassel et al., 2013, Sandow and Westin, 2010), higher household income (Sandow and Westin, 2010, McQuaid and Chen, 2012, Roberts et al., 2011), access to workplace parking (Goodman et al., 2012), and residential location (Besser and Dannenberg, 2005, Nolan, 2010, Goodman et al., 2012, Schwanen and Mokhtarian, 2005).

Constructively for this study, identifying key elements, characteristics and factors attributable to the (re)production of commuting practices, such as children, residential location, employment type and gender, provides an investigatory base upon which this research can build. Therefore, an interesting research question arises, how do household practices influence travel to work decisions? It could be assumed that the presence of children within the household, the residential area within which the household is situated, the necessity to make stops during the commute journey, and the proximity of the household to workplace location all play significant roles in the reproduction of household practices. All of these factors could be associated with different spatial constraints and therefore be of importance to the sequencing and coordination of activities across time and space. Assessing the role of flexibility in these interactions and relationships is important in understanding travel to work decisions and how lower carbon commuting practices might develop further.

2.7   Summary

This chapter has reviewed previous literature considered important and influential towards the approach, methodology and overall aims of this research. Reviewing current situations regards commuting and working practices within the UK has provided this thesis with

necessary information on the background and context within which the research has been conducted. This chapter has introduced in greater detail the research questions to be answered throughout this thesis. These questions concern conceptualising flexible working as a practice, investigating the effects of flexibility on travel, the role of the household in these interactions, and how flexibility impacts upon travel demand or opportunities for use of lower carbon options. Crucially, to answer the research questions posed, this chapter calls for the focus of a different perspective.

Social practice theory offers this new perspective, decentralising the individual and instead placing the practice at the centre of analysis. Previous definitions of flexible working were critiqued, argued to oversimplify the integrative nature of work, confining flexibility to individualistic control over specific temporal and spatial aspects of work. It was also argued that commuting practices seldom occur in isolation, with relative simplicity or without interconnected relationships to work and the household. The complexity of these relationships are an important concept to investigations of commuting practices within this thesis. From these investigations, this research will seek to contribute to knowledge further by offering insight into opportunities for change and reductions in travel demand and the mode of travel for the journey to work. An assessment of this potential will be done through answering a final research question: What would be required to reduce overall travel demand and/or lead to an increase in lower carbon options for the journey to work?

The forthcoming chapter introduces the social practice theoretical perspective utilised throughout this thesis, the dynamics of practices and the coordination of daily life. From these, work as a practice is outlined. Pertinent elements and interactions are identified; with coordination, sequencing, co-presence, culture and materiality all considered important. Flexible working as a practice is then conceptualised, answering the first research question in the process.

3   Chapter Three - Conceptualising flexible working practices

3.1   Introduction

This chapter presents discussions culminating in the conceptualisation of flexible working as a practice, answering the first research question: What is Flexible Working as a Practice? This conceptualisation is grounded within social practice theory, with the theoretical underpinnings of this thesis introduced henceforth within Section 3.2. Prior to this conceptualisation, discussions regards 'work' as a practice are necessary. These discussions begin by outlining important elements inherent within the practice of 'work' as defined by the literature, namely those of coordination and synchronisation; co-presence; culture; and materiality. In doing so, the fourth research question of this thesis is introduced: What impact does the structure of work have on daily schedules? Paying attention to the constitutive elements of work as a practice introduced throughout Section 3.3 is important as these elements will likely structure working practices. It is then envisaged that these work structures will consequently influence the time and space of activities within daily life, impacting upon daily schedules and the travel undertaken as a result.

Central to the conceptualisation of flexible working as a practice is drawing attention to flexibility itself, specifically what is not flexible and the 'fixity' of activities. Flexible working practices conceptualised within this chapter are defined by the flexibility of constitutive elements and the flexibility of relationships between (competing) practices. Conceptualising flexibility in this manner is a significant departure from the current descriptions of flexible working critiqued within Section 2.3, allowing the research to understand and appreciate the relationship between these integrative elements within the performance of flexibility within work as a practice.

3.2   A social practice theory perspective for investigating the 'commute' and daily life

3.2.1   An introduction to Social Practice Theory

A practice is a *'temporally unfolding and spatially dispersed nexus of doings and sayings'* (Schatzki, 1996, p. 89). Reckwitz (2002) further defines a practice as a *'routinized type of behaviour which consists of several elements, interconnected to one another: forms of bodily activities, forms of mental activities, things and their use, a background knowledge in the form of understanding, know-how, states of emotion and motivational knowledge'* (p.249). Practices therefore exist as entities composed of recognisable elements – they can be spoken of, it is possible to have a sense of the entities required to do the practice (Watson, 2012). At the same time, if they are to exist, practices require active reproduction and performance by practitioners. In other words, people have to do them (Shove et al., 2009). *'A practice, forms so to speak a 'block', whose existence necessarily depends on the existence and specific interconnectedness of these elements, and which cannot be reduced to any one of these single elements'* (Reckwitz, 2002, p. 250). When a practice is performed, practitioners make linkages between this diverse set of heterogeneous elements that configure the practice (Røpke and Christensen, 2012). In practice theory, agents (practitioners) are body/minds who carry and carry out social practices: *'the social world is first and foremost populated by diverse social practices which are carried by agents'* (Reckwitz, 2002, p. 256).

What people do is never reducible to attitudes or choices, or to anything simply individual – it can be usefully understood as always focussing on the details of doing. For theories of practice offer distinctive and challenging ways of understanding human action, decentralising the individual and instead placing the practices which constitute individual lives at the centre of analysis (Watson, 2012). Strengers (2010) uses the term everyday practices to mean *'a loosely bundled group of practices which are seemingly*

inconsequential, inconspicuous and mundane, but nonetheless essential to our day-to-day lives' (p.7). Focussing '*upon the complex integration of heterogeneous elements, and on the details of doing, make theories of practices most directly applicable to exploration and description at the level of everyday mundane goings-on'* (Watson, 2012, p. 490). Strengers (2010) explains how '*everyday life is rarely the focus of research, nor is it easy to study. It is mundane, taken for granted and seemingly inconsequential'*... However, '*it is by no means stable. It is dynamic and transforming nature of everyday life, and in particular the everyday practices which constitute it, that make this realm so critical in addressing resource management issues*' (p.6). The alternative change mechanisms that practice theory provides offers new ways of looking at and approaching the sustainability challenge (Spurling et al., 2013). Theories of practice '*increasingly underpin scholarship on sustainable transport and ways of moving beyond automobility*' (Kent and Dowling, 2013, p .87), critiquing the view that behaviours are the result of individual and linear decision making processes. Thus, everyday life practices are interconnected, with practice theory seeking to explore social ordering by tracing stream of events through which a process unfolds (Kent and Dowling, 2013).

For Shove et al. (2014), practice theory highlights basic questions about what energy is for. Energy supply and demand constitute and are woven into bundles and complexes of social practice. Conceptualising energy as an ingredient of social practices and complexes of practice of which societies are made reveals that energy is not used for its own sake, but in the course of accomplishing social practices. Examples of these include cooking, commuting to work, conducting meetings or walking the dog. Therefore, '*understanding trends and patterns in energy demand is in essence a matter of understanding how social practices develop, change and intersect*' (p.47). Framing the problem of energy demand (much like that of climate change) as a problem of human behaviour marginalises engagement with theories of practice, whilst the popularity of the ABC framework shows

responses to these issues is thought to lie with individuals and choice (Shove, 2010). However, if climate change policy, or reducing mobility demand for that matter, is to make a difference on the scale required, it will have to engage with the bundles and constellations of practice upon which energy demand depends (Shove et al., 2014).

3.2.2   Dynamics of social practice

Shove et al.'s (2012) analysis of the dynamics of social practice posit that social practices '*consist of elements that are integrated when practices are enacted'*, whilst these practices *'emerge, persist and disappear as links between their defining elements are made and broken'*. In contrast to social scientific attention that has the tendency to follow actors, the authors explain how their strategy is to *'follow the elements of practice'*, to track changing configurations over time. Though this '*elemental*' approach might seem unconventional, removing the human actor as the foci and instead turning attention to the elements of a practice, encourages description and analysis of '*change and stability without prioritising either agency or structure'* (p.22). Building upon Reckwitz (2002) breakdown of how practices consist of interactions between interdependencies, Shove et al. (2012) introduce a simpler construction that has become known as the *'three elements'* model (Shove et al., 2015). The *'three elements'* model states that practices are *'defined by interdependent relations between materials, competences and meanings'* (p.24), and has proved useful in understanding how practices are accomplished in time and space, and how they emerge, develop and die. These three elements are defined as (Shove et al., 2012, p. 14):

- *Materials* - including things, technologies, tangible physical entities, and the stuff of which objects are made;

- *Competences* - which encompass skill, know-how and technique; and

- *Meanings* - which include symbolic meanings, ideas and aspirations

Whilst this simplistic elemental scheme reveals little about the linking entailed in sustaining practices, who is involved, the distribution of elements, or how new elements are generated, it underlines the centrality of linkages. Therefore, '*if specific configurations are to remain effective, connections between defining elements have to be renewed time and again*'. Stability and routinisation should therefore be '*understood as processes of ongoing accomplishment in which similar elements are repeatedly linked together in similar ways*' (Shove et al., 2012, p. 24). The authors gave an extensive example of (car-) driving to illustrate and emphasise elements of the practice carried over or carried between different practices and how these have changed over time. In addition, highlighting that the linkages and relations '*between the elements of which driving is made are constantly on the move, with new links made and others broken*' (Shove et al., 2012, p. 28-29). In concluding the section on making links, the authors discuss that '*associations between driving and masculinity suggest that elements can, on occasion, bridge between different practices with the result that changes born of one integration have consequences for others... There is consequently more to say about how elements travel and about the necessarily localised sites and moments of their integration* (Shove et al., 2012, p. 33). These two statements are crucial to the theoretical thinking underlying this thesis.

Of importance is the extension of the making and breaking of elements outlined above; to consider the possibility that elements involved in the performance of a single practice might have existence beyond an individual practice and influence the way in which other practices are performed. Doing so may potentially affect both the bundles and complexes of practices throughout daily life. Shove et al. (2012) ask whether '*shared elements bridge between different practices, and if so with what consequences for the different pursuits of which they are a part?*' (p.36). Continuing with the practice of driving, the authors explain '*how links are made and broken not only between the elements that constitute a single practice (driving), but also between the multiple practices of which similar elements are a*

part (driving and repairing)' (p.36). In their example, the meaning of masculinity was used to illustrate how an element can be formed by and constitutive of these two practices (at least) of driving and repairing at once, perhaps hinting at a more complex picture in which diverse elements (not just those of meanings, but materials and competences also) within and between many different practices hold social arrangements in place (whilst also potentially pulling them apart).

Much like the discussion within Shove et al.'s (2012) book, this chapter will continue by introducing the notion that elements have a 'life of their own', thinking about how elements circulate and persist in order to understand how practices are distributed within and between societies. To do this, the authors contend that a shift of emphasis is required to concentrate on generic features, or rather 'elemental' characteristics. Elements travel in ways that practices do not. '*Practices are always in the process of formation, re-formation and de-formation. By contrast, elements are comparatively stable and are, as such, capable of circulating between places and enduring over time'* (Shove et al., 2012, p. 44). In treating elements as if they had a life of their own we can usefully separate them to investigate how they travel, circulate and endure. Remembering throughout that it is only through their integration in practice that elements are reproduced, eroded or carried.

Usefully, the authors pose that rather than thinking about maps of individual practices, doing so for elements might create three separate layers: one that represents the distribution of competence, another showing access to necessary materials, and the final one illustrating the meaning attributed to the practice(s). Performing a practice is only possible when all three layers overlap - '*The fact that requisite elements co-exist does not guarantee that they will be linked together, but the potential is there*' (Shove et al., 2012, p. 34). Therefore, as argued by Shove et al., in thinking about how a practice is produced and performed, it is important to investigate and understand how these constitutive elements

are distributed and travels. To summarise a detailed discussion regards the circulation of elements and how they travel; materials are the only elements that literally move in the sense of being physically transported. Competences and meanings are routinely modified as their reach and range extends or contracts, with the rate and potential of circulation depending on the existence of appropriate infrastructures. Processes of codification and de-codification matter for the circulation of competence and meaning, but not for material (p.56-57). Interestingly, Shove et al. (2012) posit that if '*one element should travel alone, it is likely to remain dormant until joined by others capable of bringing it into the frame of a living practice... Reminding us that relevant elements need to co-exist if practices are to extend or endure*' (p.57).

Of further importance to the theoretical thinking underlying this thesis is how practices relate to one another, in particular how practices link to form bundles and complexes, and what affect these might have on coordinating, synchronising and sequencing daily life. More specifically, how are the practices of work, commuting and those within the household defined (their elemental make-up and characteristics)? How these are then linked to one another in the form of bundles and complexes? And then what effect do these bundles and complexes have upon the temporal and spatial constraints of everyday life? Understanding answers to questions such as these will then encourage the research to investigate how lower carbon journeys to work might be realised, through analysing the daily constraints posed by the formation and performance of inter-locking practices.

Bundles, as (Shove et al., 2012) describe them, are '*loose-knit patterns based on the co-location and co-existence of practices*' (p. 87). Complexes, on the other hand, '*represent stickier and more integrated combinations, some so dense that they constitute new entities in their own right*' (p.87). The authors continue by stating that '*inter-practice relations of these and other kinds have emergent, cumulative and often irreversible effect for individual*

practices, for the elements of which they are composed, and for the spatial and temporal texture of daily life' (p.81). Similar to practices themselves, relations and connections between practices require reproduction if they are to endure for any length of time. Performance of practices in similar locations are not necessarily always connected via co-location alone, though some do have to do with the physical location of elements and these arrangements often underpin potentially important patterns of association. Likewise, temporal relationships of sequence and synchronisation are also crucial; with efficiency and effectiveness paramount in practice relations of co-dependence (Shove et al., 2012). Examples here from a working practice perspective might include those of organising work schedules around start-times, meetings and the school-run.

Intriguingly, Shove et al. (2012) state that *'it is almost impossible to distinguish between the spatial and temporal aspects of inter-practice coordination'*, and that '*when practices do come to depend upon each other (whether in terms of sequence, synchronisation, proximity or necessary co-existence), they constitute complexes, the emergent characteristics of which cannot be reduced to the individual practices of which they are composed'* (p.86-87). Furthermore, *'in such cases where sequences are important (much like that of commuting to work), and where one practice produces elements on which others depend, pre- and co-requisite practices 'collaborate' in the reproduction of more extensive complexes in which all have a part to play*' (Shove et al., 2012, p. 88). Practices therefore, do not arguably just compete for elements; they are united by those in common. The example given is that of the Sony Walkman, and how its introduction combined unrelated practices such as running to that of listening to music.

Departing from the notion that complexes of practices cannot be reduced to any single practice, to that of suggesting practices and elements collaborate in the reproduction of more extensive complexes is essential to the direction of this thesis. Importantly, '*shared*

elements sustain and are sustained by forms of cross-practice 'collaboration' (Shove et al., 2012, p. 89). Continuing, Shove et al. (2012) explain that bundles and complexes of practices are '*implicated*' in the (re-)production of space and time, in addition to the elements of which they are made. Usefully, though perhaps more complicated for analytical purposes, in competing and collaborating with one another, practices establish '*terms and conditions'* (p.91) upon which others interact. Viewing practice reproduction in this manner is interesting, as it opens up opportunities for investigation into everyday practices that are perhaps interwoven, relational and somewhat dependent upon one another – much like how working rhythms and practices potentially influence that of the journey to work, and in turn those of responsibilities arising from the household. As a result, the authors explain how '*relations between practices are important in shaping the availability, distribution and circulation of elements, in configuring loose bundles and dense complexes, and in consequently making some future linkages more likely than others*' (Shove et al., 2012, p. 90). Consequently, the '*temporal and spatial character of daily life are symptomatic of underlying transformations in relations between practices, and in the way they weave together*' (Shove et al., 2012, p. 96).

3.2.3   The coordination of daily life

Coordinating daily life could be construed as becoming more unpredictable, varied and increasingly complicated. In concordance, Southerton (2003) discusses how daily life is more a squeeze of practice sequencing, scheduling and coordination than a squeeze of time itself. In approaching daily life in this context, Southerton describes how the theories of both '*flexibilisation'* and '*informalisation*' imply a weakening of the socio-temporal structures that in the absence of fixed institutional temporalities (like that of 9-5 working) make coordinating and scheduling practices between social actors increasingly problematic. Further, the '*juggling*' of many tasks was not necessarily a result of '*doing more'*, rather

that certain tasks tended to fall together all at once; highlighting the allocation of certain tasks to specific temporal frames demarcated to by fixed institutional temporalities (such as working rhythms and school times). Concurrently, Southerton (2013) discussed how '*practices are not simply distributed in time (and space). Rather, the temporal characteristics of some practices lend themselves to particular locations within time more so than do others... Temporal rhythms frame practices and condition how they are performed. The relationship between practices and temporalities should therefore be understood as recursive and mutually interdependent – temporalities shape practices and practices shape temporalities*' (p.344-345).

Constructively, Cass and Faulconbridge (2016) explain that the spatiality of everyday life is defined by the places in which practices are performed and the paths between them. Specifically, it is the commitment to practices which society view as important and occurs at multiple sites that adds further definition. Consequently, the bundles of practices underlying and producing this spatiality have become ever more complex with the aforementioned 'squeeze' of practices. In later work, Southerton (2006) continues his analysis of the temporal organisation of daily life, explaining that '*the temporal organisation of the day can be characterized as being constituted by practices that have a fixed position within schedules. These are surrounded by interrelated practices that have a more malleable position within sequences*' (p.451). Important for this research are the notions of synchronisation, sequencing and periodicity, as each might impact upon the timing and location of work, which in turn could influence when commuting is conducted and how household responsibilities are organised and performed. Periodicity was interpreted in terms of whether practices were performed with any regularity (be it daily, weekly, monthly etc.), whilst synchronisation was usefully adapted to assess whether or not a practice was pre-arranged and coordinated with other people. Sequencing referred to the 'fixing' and allocation of interrelated practices within specific times slots, with fixed

practices more likely to be those that involved co-participation, obligation and personal commitment.

The degree to which a practice required sequencing, coupled with the extent to which the practice represented a regular periodicity, combined to determine the extent to which a practice required synchronisation with the personal schedule of others. Practices conducted with non-household members were '*overwhelmingly*' fixed, with other practices sequenced in relation to these, highlighting the malleability of practices located around certain fixed performances. Southerton's work focussed principally upon non-work practices, consequently meaning that impacts on the temporal organisation of daily life in relation to paid work were not systematically analysed – a focus upon which this thesis is based.

Engaging in a range of practices with different networks results in movement through a variety of contexts that are often spatially dispersed, adding to the complexities of namely synchronisation and sequencing (Southerton, 2006). Cass and Faulconbridge (2016) offer insight into these complexities, explaining how the spatiality of practices is also intimately related to the production of temporality. Thus, spatiality has also become more complex. Shove et al. (2015) suggest certain '*practices which used to be spatially co-located are no longer so…, and that despite their increased distribution in space, many of these practices remain tightly-knit together in time*' (p.281). Importantly, practices do not always take place in the nearest appropriate venue. It is clear that other dynamics are involved in the complex sequencing and spacing of daily life – those of dual income households, parental choice, and workplace location to name but a few.

3.3   Work as a practice

Schultze and Boland (2000) suggest that it is not always clear what is meant by work practices, positing that '*regarding work practice merely as what people do and the actions they take is inadequate for anticipating long-term impacts (*in their case technology*)… Practices need to therefore be understood in the context of their circuits of reproduction, i.e. the reciprocal, cyclical relationships through which practice creates and recreates the objectified social structures and the conditions in which it occurs. A thorough understanding of practice thus needs to include not only what people do, but also 'what doing it does'* (Schultze and Boland, 2000, p. 195).

Building upon this suggestion, and continuing with a theory of social practice approach to this endeavour encourages us to decipher the underlying, inherent complexity associated with 'work' as a practice. In the process, asking questions as to the constitutive elements and necessary conditions through which work as a practice is performed and in what doing this practice does for the daily reproduction of working practices. Once this task has been undertaken, a more thoughtful account of 'flexibility' within the practice of work is required – how flexibility is conceptualised and where flexibility might arise.

Working practices could be considered 'integrative practices' that are thought to be *'the more complex practices found in and constitutive of particular domains of social life' (Schatzki, 1996, p .98)*. Examples of which include farming practices, cooking practices and business practices (Warde, 2013). Extending further these examples and analysing working practices will illustrate them as integrative practices. In taking this approach, we can begin to conceptualise what underpins the performance of flexible working practices and how these performances interact and bundle with other practices (namely those of commuting and within the household) throughout daily life. As Southerton (2006) described within Section 3.2.3, temporal characteristics of some practices lend themselves to particular

locations more so than others, with the temporal rhythms of these practices framing and conditioning how practices are performed. The recursive and mutually interdependent relationships between practices and temporalities is of paramount importance to the conceptualisation of flexible working practices. The shaping of work practices will have corresponding effects upon the sequencing, coordination and synchronisation of everyday life, with interactions between the household, work and commuting of importance to these relationships. Henceforth, an a priori estimation based on the literature will introduce elements inherent and important within work as a practice. These elements are Coordination and synchronisation; Sequencing; Co-presence; Culture and Materiality (which is further broken down into paper-based working, communication and meetings). It is possible that additional elements regards practices of both work and flexible working will become apparent as a result of the interviews.

3.3.1 Coordination and synchronisation

The '*temporal organisation of a day can be hypothesised as one coordinated around fixed events that usually involve the co-participation of others*' (Southerton, 2006, p. 445). Southerton (2006) explains that if non-household members are involved in these fixed events the degree of arrangement is likely to be high as social and spatial proximity demands a greater degree of coordination between actors. Whilst Southerton's work explored the relationship between 'non-work' practices and time, the discussion surrounding coordination and synchronisation is of importance to any discussion regards 'work' practices. It is envisaged that coordination and synchronisation with temporal regimes of other people and institutions will feature heavily throughout. Constraints related to space are expected to feature heavily within the coordination and synchronisation of work practices. Synchronisation was usefully adapted to assess whether or not a practice was pre-arranged and coordinated with other people, with '*the degree to*

which a practice involved others and the extent to which the practice represented a regular or routine engagement combined to determine the extent to which a practice required synchronization with the personal schedules of others' (Southerton, 2006, p .444).

'*Coordination usually involves one-on-one relationships with superiors, clients, peers, subordinates, and outsiders*' (Trevelyan, 2007, p. 191). Gittell (2006) argues that rather than occurring through more commonly perceived coordinating mechanisms of supervision, routines, scheduling, pre-planning or standardisation, effective coordination is facilitated through relationships of shared goals, shared knowledge and mutual respect. Trevelyan, whilst investigating technical coordination within engineering practice, discusses how coordinating people, and gaining their willing cooperation, are prominent features that rely on technical knowledge and expertise as much as interpersonal communication skills. Trevelyan (2007) continues by introducing pertinent descriptors of coordination, including coordinating clients and their staff; supervising staff, contractors and others; delegating aspects of work; and networking to support coordination. Coordination is therefore expected to be particularly relevant in situations concerning locations of activities such as meetings, project/team work, client situations and supervision (amongst many others). However, it remains to be seen what affect flexible working practices have upon the synchronisation of work, the household and commuting.

3.3.2   Sequencing

Sequence, according to Southerton (2006) refers to the order in which activities are conducted. 'It *is a dimension of time found in debates surrounding the changing distribution of time spent in paid and unpaid work*' (p.438). Southerton explained in Section 2.5 that women in dual-income households experience a 'dual burden' as a consequence of having to juggle both paid work and responsibility for the domestic arena and matters. As a result, multi-tasking is performed and an inter-weaving of many tasks alters the sequencing of

activities. Tasks within the domestic sphere are continuously broken down into their component parts (fragmented) and then re-sequenced to maximize temporal, and perhaps spatial, efficiency. Overall, Southerton (2006) posits that '*increasingly more spheres of daily life are regulated by principles of the efficient sequencing of tasks within designated slots of time*' (p.438). The sequencing of practices might therefore be critical to both coordination and synchronisation. According to Breedveld (1998), those employed within professional occupations have greater control over the sequence of their work activities. Breedveld contends that professionals are able to conduct work outside of the '9 to 5' model and can sequence work with leisure activities more easily than those whom are of lower socio-economic status (whose sequence and synchronisation of work and non-work practices is restricted). Practices conducted with certain people may be fixed due to arrangement and coordination, whereas other practices might be sequenced in relation to those fixed within particular time slots. Southerton explains that the allocation of practices conducted alone were contingent upon the emergence of temporal gaps within the sequence of practices. Practices therefore conducted at the same time every day or week may only be able to do so because those time slots were routinely caught between more fixed practices. Similarly, having greater opportunity to work from home or elsewhere could open up new opportunities for within household sequence rearrangement.

3.3.3   Co-presence

Traditionally, focus regards co-presence has been on the physical proximity of other people, assuming co-presence to be a given, objective condition (Campos-Castillo and Hitlin, 2013). Co-presence should rather be treated as the degree to which an actor perceives mutual entrainment with another actor, with physical presence of these other actors not necessary nor sufficient for co-presence – interactions of co-presence occur through a variety of modalities, such as face-to-face and computer mediated (Campos-Castillo and Hitlin, 2013).

However, some travel in the course of work have destinations that are spatially fixed, be those as a result of delivering a parcel, servicing equipment or attending a meeting (Lyons, 2013). The pertinent question arising from co-present work practices is if information exchange could be conducted electronically, rather than involving travel to conduct these co-present practices. Co-presence offers the prospect of multi-sensory experience of encounter and exchange, with face-to-face interaction considered a better medium of communication for more complex information (Lyons, 2013). From a business perspective, Faulconbridge et al. (2009) discuss that an intermittence of face to face meetings might help minimise the future need for travel, though Urry (2003) contends that from a social or business perspective face to face meetings aid in addressing obligations and help sustain networks. Co-presence could therefore be considered to enhance the socially and symbolic significance of participation within the practice of work, perhaps entraining participants within particular locales and at certain times, possibly affecting travel for these performances. Co-presence could further be construed as an expectation of how employers wish participants to work, or how the wider social construction of working is perceived. The pervasive nature of ICTs throughout many contemporary working practices is likely to have impacts upon business meetings and related travel (Lyons, 2013), with investigations in relation to flexible working practices necessary to understand further travel to and for work.

3.3.4 Culture

Sveningsson and Alvesson (2003) explain how organisational culture can be difficult to get a grip on as it does not lend itself to measurement, with understanding requiring a degree of imagination and creativity. When talking about culture, it is usually thought of as people sharing something. Sharing refers to traditions of doing and thinking in particular ways, or systems of meanings and basic assumptions helping govern people in certain directions.

Most of the definitions within the broad array of research on organisational culture have focussed on some form of shared meaning, interpretations, values and norms. Important for this research are characteristics of culture that contribute to the performance of work as a practice (in principle how, when, where, for how long and with who work is conducted), and to the reproduction of flexibility within these working practices. Culture is therefore considered an emergent phenomenon conveyed through traditions and customs, most commonly referring to ways of thinking, values and ideas of things (Sveningsson and Alvesson, 2003). Culture is socially constructed and significant, with broader values and assumptions (Lewis, 1997). Organisational and workplace culture, in addition to the hierarchical manner in which work is organised, also underlie work/family conflict. Workplace culture can often block the implementation of workplace flexibility, with employees' also perceiving negative repercussions if they use or even ask for such flexible practices (Eversole et al., 2012). On this note, '*workplace culture may either advance or thwart development and effectiveness of work-family programs'* (Starrels, 1992, p .261), with managers and supervisors often not considering work/family management an appropriate business concern (Eversole et al., 2012), in addition to the persistent belief that hours worked equals productivity (Rodgers, 1992, Lewis, 1997). Workplace and organisational culture clearly contribute to the performance of work as a practice, with the flexibility of these practices further affected by these cultures. Questions remain however as to how culture influences travel to work, especially given the reported importance of culture on working practices. It is envisaged that culture could perhaps demarcate times at which employees see it is as normal to start/finish work requirements, presence within the office during certain times/on certain days, whom they work with, meetings they attend, amongst many other potentially temporal and spatial constraints on daily working practices.

3.3.5   Materiality

Orlikowski (2007), whilst considering any organisational practice, explains how it is evident that a considerable amount of materiality is entailed in every aspect of organising. Contending that visible and less visible forms and flows of materiality are present, ranging from desks, computers and documents to electricity infrastructure and data and voice networks. However, '*despite such pervasive examples, materiality has been largely ignored… and [perhaps] does not matter very much in everyday organisation*' (p.1436). In conclusion, the author proposes for recognition that *'all practices are always and everywhere socio-material, and that this sociomaterality is constitutive, shaping the contours and possibilities of everyday organising'* (p.1444). Extending this approach on materiality from the organisational research literature into further discussions regards materials constitutive of working practices is useful in that it will highlight how materials (and subsequent materiality of these practices) are fundamental in the reproduction and performance of working practices, with this fundamentality extending into other daily life practices associated with the household and commuting. Below are examples of pertinent materials inherent within work as a practice.

3.3.5.1   Paper-based working

The materiality of working practices might perhaps be exemplified through paper-based working practices. In this context, access to and use of documentation might play a decidedly important role in the location in which work can be conducted. Hindrance to the location in which work can be conducted might be exacerbated further by access to and use of confidential and sensitive documentation. Further, specialist drawings for professions such as architecture may also impact upon where work is conducted. In addition, printing may well be evident within a number of working practices, especially those that deal with documentation. Yli-Kauhaluoma et al. (2013) in their chapter regards

mundane materials at work discuss differing notions of paper-based working present throughout the working practices of participants within a university back office. The seven 'essential' paper-based practices outlined by the authors revolve around social coordination, remembering, anticipatory, sketching, modelling, verifying and back-up. It could therefore be anticipated that a number, if not all, of these practices might be visible throughout the interviews conducted as part of this research, especially those of sketching, anticipatory, modelling and verification considering the professions featured – namely those of architecture, graphic design and accountancy.

3.3.5.1   Meetings

Development of society within Europe is coupled with a slow and non-linear increase in the number and levels of meetings, in addition to the development of a continually broader networks of meetings (van Vree, 2011). Meetings take up large amounts of time for many employees, especially those in white-collar employment, and are considered important as one of the main arenas in which organisational knowledge and culture are created, negotiated and disseminated (Svennevig, 2012). Meetings are central to organisational life, with few signs of meeting activity levelling off or waning (Rogelberg et al., 2007). Crucially, meetings involve various modes of communication, with inherently multimodal practices a characteristic of meeting interaction (Svennevig, 2012). There are typical 'artefacts' associated with meetings, with the practices '*generally held in 'meeting rooms' where the architecture, furniture and the technological equipment are specifically constructed for or adapted to the activities associated with meetings*' (Svennevig, 2012, p. 8). In addition, interactions within meeting often involve presentations, writing on whiteboards, inspecting illustration and figures in documents. These interactions stem from what Svennevig (2012) says is a dependence on certain types of written documents, organised by references to a pre-formulated, written agenda. The materiality of meetings will no doubt differ between

professions. Investigating how differences and similarities in the materiality of meeting practices influence (flexible) working practices is considered important for further understanding associated travel for meeting purposes.

3.3.5.2 Communication

Building upon discussions conducted within the previous chapter, Section 2.2.1.1 regards the role of ICTs within flexible working practices, Orlikowski (2007) discusses how ongoing monitoring of email communication via mobile telephone devices leads to the production of even more communication. The inadvertent outcome of these 'collective sociomaterial enactments' being an almost continual electronic communication within the equity firm researched. Orlikowski explains that norms of communication were reconfigured through the use of these mobile devices, altering expectations of availability, redefining boundaries of the workday and intensifying interactions within the communication network (Orlikowski, 2007). ICT substitution of paper-based and meeting practices are considered important, with substitution of meeting practices in particular perhaps arising as a result of time pressures making attendance impractical (Lyons, 2013). Pertinent questions regards the roles of ICTs within the performance of work as a practice arise, specifically how these technologies influence the flexibility of location and time of these practice performances. Furthermore, questions concerning the interaction of necessary competencies and meanings such as social norms inherent within the performance of these practices are also of importance.

3.3.6 Summary of work as a practice

Schultze and Boland (2000) suggested that it is not always clear what is meant by work practices. Therefore, more thought into the practice of 'work' and how work is done was deemed necessary. Important elements were found from the review above to be those of

co-ordination and synchronisation, co-presence, culture and materiality. Paying attention to these constitutive elements is important as combinations of and competitions between these elements will likely structure working practices. It is envisaged that these work structures will then consequently influence the time and space of activities within daily life, impacting upon daily schedules and the travel undertaken as a result. In order to investigate these relationships in greater detail and identify additional elements that may influence the structure of work other than those outlined in the review above, this thesis will answer the research question: What impact does the structure of work have on daily schedules? Doing so encourages focus upon competitions and combinations not only inherent within the performance of working practices, but also between commuting and household practices.

3.4 The 'flexibility' of constitutive elements and the performance of 'flexible' working practices

Introduced above and within Chapter Two have been explorations into 'flexible working practices', the 'fixity' of daily life and work as a practice. What follows, with the guidance of social practice theory, is a discussion regards the performance and constitutive elements of flexible working practices. This discussion will answer the first research question: What is flexible working as a practice?

It is conceptualised that '*flexible working practice as a practice'* is one that is defined by the flexibility of constitutive elements, in addition to the flexibility of relationships between these interdependent constitutive elements in the performance of work as a practice. Furthermore, how these elements individually or cumulatively influence or demarcate associated temporal and spatial constraints is important, particularly regards working time, location, coordination and synchronisation. The practice of flexible working could therefore be said to operate along a continuum (or sliding-scale), in which interdependent

constitutive elements range from exhibiting limited or no flexibility to high flexibility. Combinations of and competitions between these interdependent elements will influence the overall flexibility (or lack thereof) of the working practice being performed in a particular location at any given moment in time.

Through a practice theoretical lens, this research conceptualises flexibility within working practices to be framed and conditioned as a result of flexibility within, and as a result of, the integration between the three interdependent, constitutive elements of practices outlined by Shove et al. (2012): materials, meanings and competences. In this context, it is considered that whilst current definitions of flexible working focus upon the overall temporal and spatial flexibility of 'work', this research argues it is the flexibility of these constitutive elements (and their integrations in the performance of work as practice) that are key to understanding the complexity of 'flexible' work as a practice.

Conceptualising flexibility in working practices to be as a result of the combinations and competitions of constitutive elements is useful in considering how flexible working might be performed throughout a person's working day. Certain fixities and constraints in both time and space might arise from a particular element or combination of elements, such as expectation or obligation to attend specific meetings or the use of certain materials. Southerton (2006) noted possible limitations to 'flexibilisation' concerning the adequacy of this process to reduce sequencing, synchronisation and coordination conflicts within daily life. Of concern is the ability of increasingly deregulated and scattered working times and locations to reduce conflicts, especially as collective time structures and the continued existence of collective patterns of action suggesting that temporal sequences remain salient within everyday life (Southerton, 2006, Røpke and Christensen, 2012). Understanding how these salient temporal (and conversely spatial) sequences are

produced and performed is essential in understanding and investigating how flexibility might reduce conflicts and contribute towards lower carbon commuting practices.

Conceptualising constitutive elements as being flexible is a significant departure from current descriptions of flexible working. Doing so allows the research to further understand the relationship between these integrative elements within the performance of work as a practice. Further, it encourages investigations into the elements that might exhibit greater 'flexibility' than others and how the interactions and relationships with other less/more flexible elements might influence the overall flexibility of work as a practice. Conceptualising the practice of flexible work in this manner also aids in the consideration of how these practices then sequence, bundle and form complexes with other everyday practices such as the school-run and commuting. The approach may then provide insight into the relative obduracy and flexibility of interdependent elements in the performance of temporally and spatially constrained work practices. It is anticipated that further interdependent elements that exhibit flexibility along this continuum will become apparent as a result of the data analysis. In particular, it is the combinations of and competitions between all these elements that are likely to influence and demarcate further associated temporal and spatial constraints, namely regards working rhythms, times and locations.

3.5   *Summary*

Bringing thoughts from this and the previous literature review chapter together, it is important to clarify the theoretical discussions undertaken throughout, the social practice theory approach taken in this thesis, and finally how the thesis will proceed. It was argued throughout that to answer the research questions posed and contribute to knowledge a different perspective regards the relationship between commuting, flexible working and daily life was necessary. The necessity for this shift in perspective was evidenced forthright by the critique of previous flexible working definitions, with these oversimplifying the

integrative nature of work and confining flexibility to individualistic control over specific temporal and spatial aspects of work. The conceptualisation of flexible working as a practice introduced above offers this new perspective, decentralising the individual and instead places the practice of flexible working at the centre of analysis.

Doing so allows this thesis to recognise the combinations and competitions between elements inherent within the performance of flexible work as a practice. In addition, this practice theoretical perspective allows the thesis to focus upon the complexity of relationships between practices throughout daily life, as commuting practices were argued to seldom occur in isolation, with relative simplicity or without interconnected relationships to work and the household. The sequences, bundles and complexes created through these interactions shape the performance of daily life, thus influencing the time and space in which daily life is performed. As a result, commuting is considered more complex than just the journey to work and back again, involving the interplay between numerous other interrelated practices, the performance of which could be argued to be dictated in the most part by these other practices.

This thesis will continue by outlining the methodology designed to investigate the relationships discussed above, providing an overview of the data collection method of semi-structured interviews. A description of the interview process is undertaken, with the research location and participant selection also discussed. Finally, justification for the use of narrative and thematic analysis is introduced, with these analytical approaches appropriate for investigating commuting and the role of flexible working practices.

4   Chapter Four - Methodology

4.1   Introduction

This chapter describes the methodology developed to investigate the interactions and relationships between flexible working practices, commuting and practices related to the household identified within the previous chapters. As a result of the preponderance towards quantitative approaches in studying the commute, a call for more in-depth qualitative approaches that go beyond just looking at travel itself was necessary (Røe, 2000, Watson, 2012). Given the overarching goals of this research to understand further the role of flexibility in daily work schedules and implications for travel through a social practice theory lens, it was deemed necessary to proceed with such a qualitative approach. Doing so encourages the research to go beyond looking at travel itself and focus more forthrightly upon the role of flexibility of work in these schedules and to explore what effect flexibility has on commuting and the interactions with work and the household.

To investigate these interactions, the chapter will introduce an overview of the data collection method of semi-structured interviews, with a justification for the use of this method also outlined. A description of the interview process, research location and how the participants were both selected and recruited is conducted. To fully capture these interactions and relationships between commuting, flexible working and the household, narrative and thematic analysis is necessary and the justification for this approach is set out in Section 4.8 and also throughout the proceeding Chapter Five. The intention of building this narrative was to build a story of how these practices interact, with the interviews conducted building the material in order to conduct the analysis in the search for understanding how these practices interact and relate throughout daily life. Finally this methodological chapter concludes with a description of the pilot study and discussions regard the validity, reliability and weaknesses of the chosen methodology.

4.2   Review

Røe (2000), in his critique of traditional quantitative transport geography, argues for a qualitative and interpretive approach to the study of everyday travel, calling for alternative perspectives and methods to create a new understanding of travel experiences, which constitute, without a doubt, a legitimate area of study of transport geography (Røe, 2000). As illustrated throughout the previous two chapters, quantitative analysis, time-space geography and choice led models are the predominant methods for studying the commute, particularly in the modelling of travel behaviour, traffic flows and the flexibility of departure times and substitution patterns in daily travel (Thorhauge et al., 2016, He, 2013, Hess et al., 2007, Haddad et al., 2009, Helminen and Ristimäki, 2007, Choo et al., 2005, He and Hu, 2015, Kim et al., 2015, Schwanen and Mokhtarian, 2005, Schwanen and Kwan, 2008, Schwanen et al., 2008). However, this preponderance for quantitative analysis leaves open questions regards the understanding of the social processes underlying these commuting practices. In order to capture the complexity of longer and more diffuse commutes, it is important to focus on the daily, weekly and monthly movements undertaken, together with combinations of household practices such as childcare (Hardill and Green, 2003). Qualitative techniques, and interviews in particular, '*provide a much more sophisticated understanding of the issues, which will facilitate the formulation of more effective policy, and is politically and ethically sensitive' (Ezzy, 2013)*. Moreover, Roe continues by explaining that the main argument for developing a qualitative approach within transport geography is borne out of the need to closely study social practice to generate an understanding of behaviour and interpret meaning and '*contextuality*' (p.101).

Watson (2012) in his influential paper on transitioning to a decarbonised transport system explains how social practices '*focus upon the complex integration of heterogeneous elements, and on the details of doing, make theories of practices most directly applicable to*

exploration and description at the level of everyday mundane goings-on' (p.490). The point of practice theory therefore is to firstly observe the role of the practice in the routines of everyday life, unlocked through the use of qualitative and ethnographic methods. Through these methods it is possible for this research to *decentre 'individual choices to a narrative of the evolution of practice, and with it the co-evolution of the technologies, competences, meaning and temporalities which converge in a performance of the practice*' (p.490). Usefully, Watson contends that practice theory moves the field of transport geography beyond the limitations of psycho-social approaches. Ehn and Löfgren (2009) explain how people might respond to being asked to narrate their daily lives by mentioning something that occurred 'out of the ordinary', proclaiming that it is *'rare that people start listing all the minor routines that carried them from the bed to work, and if they did, all the details would probably feel extremely tedious'* (p.99)… but continue by saying that '*we have to observe behaviour or ask people to describe it and tell us about its importance*' (p.110).

In this light, Pooley et al. (2011), investigated the use of more sustainable travel modes for everyday travel. Whilst exploring attitudes to and perceptions of walking and cycling, they examined the process of household decision making for everyday travel, and the constraints that these impose. The authors explain that much of the recent research into walking and cycling '*focusses on issues such as journey purpose, time, distance, and the physical environment whilst neglecting the effects of personal and household factors or, at best, reducing them to a series of summary variables relating to personal characteristics such as age, household size and gender… and that arguably the most innovative recent research focusses upon the micro-scale aspects of individual and household behaviour'* (p.1602). Exploring and understanding transport as a system of practice draws attention to the ways in which practices bundle together in the organisation of everyday lives, and it is through this understanding that alternative avenues for intervention arise, for example into the practice of working, which engender the need for particular modes of mobility

(Watson, 2012). This is evident in the work of Kent and Dowling (2013), whom explain how *'unpicking the intricate details of the practices of sharing a car and examining the way this practice might bundle together with other systems, structures and practices, contribute to contemporary claims for a more focussed consideration of car sharing as an important part of the system of mobility'* (p.87). These extracts highlight the way in which practices bundle together is significant for changes to both the elements of practices and processes of recruitment.

Hargreaves (2011), combining interviews with ethnography in order to observe the performance of practices, explains how the use of qualitative methods *'may restrict the ability of practice theory accounts to make universal generalisations that hold true across different contexts, an issue that would be seen as a significant disadvantage in the conventional quantitative paradigm, although at the same time it leads to richer and more subtle accounts of action in context that, whilst more modest, might also be more valuable'* (p.85). Hitchings (2011), combining social practice theory and serial interviews, explored the phenomena of air-conditioning addiction and explains that although his data collection sample was small, he reasoned that it was *'not a matter of simply collecting opinions of respondents, but to reveal and explore the reasons why they had come to possess particular routines and what it was to live in particular ways'* (p.2844). Moreover it was hoped that this approach could still provide a good understanding of the wider subjectivities characterising the group studied.

To summarise, from a preponderance of quantitative approaches towards studying the commute, there is a call for more in-depth qualitative approaches and ones which go beyond just looking at travel itself. Given the overarching goals of the study are to assess the role of flexibility in daily schedules and travel demand, it is deemed necessary to take a more qualitative and inductive approach to understanding different working practices and their relationship with commute behaviour across households.

4.3 *Research Design Diagram*

A diagram illustrating the research design steps and the interactions with the research questions can be found in Figure 8. The research design was iteratively developed, building upon knowledge and subsequent research gap(s) attained through the literature review. In order to answer these research questions, previous literature was consulted to assess the most appropriate method to use, with justification for both the semi-structured interviews and research location discussed during this chapter. The interview structure and protocol was constructed, with key themes and potentially interesting discussion points helping formulate the running order and amount of time allocated to each key theme. This structure and protocol is discussed in-depth, along with an explanation of the running order, length and content. The research location is then introduced, outlining why the city of Leeds was chosen, with necessary background information regards the economy and transport within the region introduced.

The interview protocol was tested during the pilot study, with both feedback and post-pilot study analysis contributing towards alterations and modifications to the protocol. These changes are discussed within section 4.9, Pilot Study. Once the protocol was defined and honed, participant selection and recruitment could take place, with recruitment in particular taking a greater length of time than anticipated, due in part to time constraints of prospective participants. The selection and recruitment process is introduced, with the difficulties briefly introduced above explained in greater detail. Once the participants were recruited the data collection began, with a detailed breakdown of this process provided in the latter part of this chapter. Discussions of the analytical approaches used throughout this research, both thematic and narrative, are conducted within the subsequent chapter, Approach to Analysis. Finally, the methodological weaknesses are discussed, together with the validity and reliability of the research design and methodology.

Commuting and the Role of Working Practices

Research Design   *Research Questions*
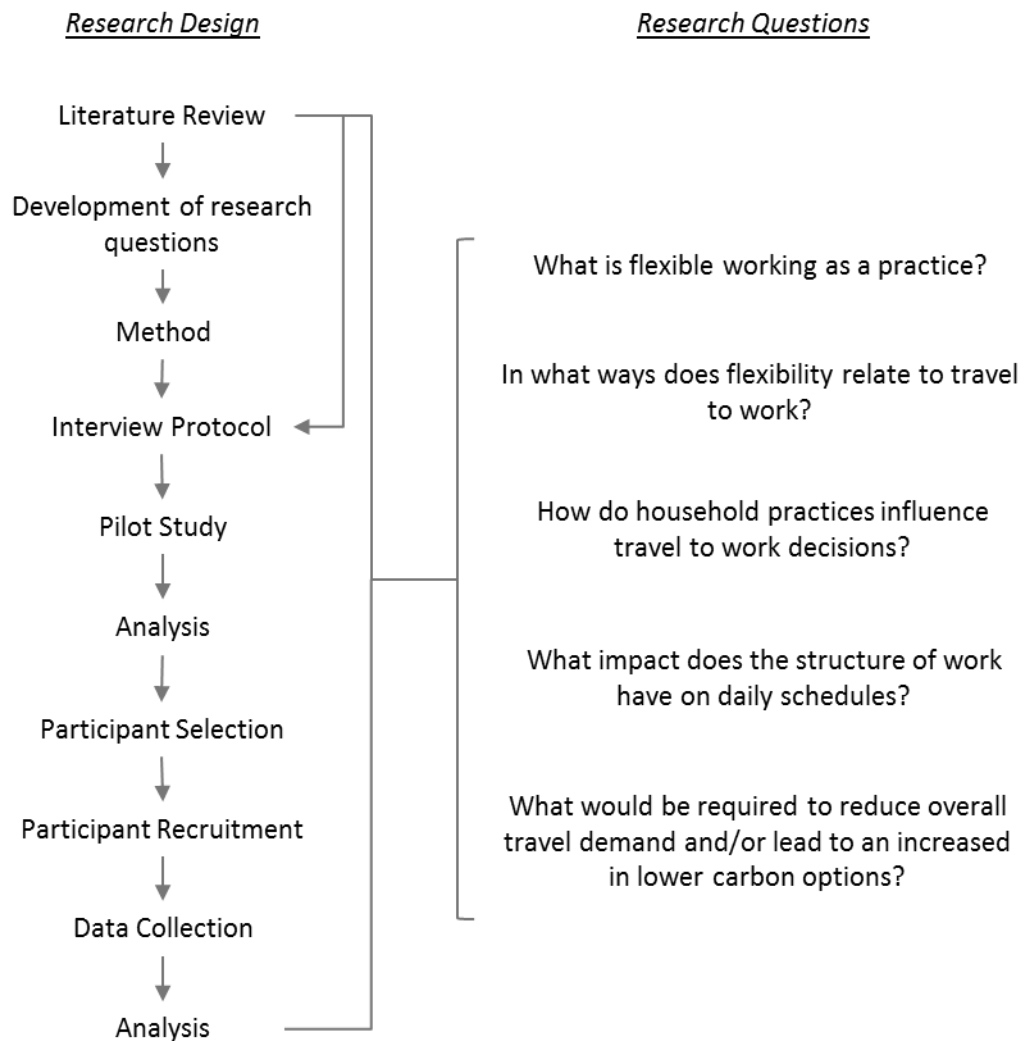
Figure 8: Research design process with interactions to the research questions

4.4   *Method of data collection: Semi-structured Interviews*

Interviews are one of the most commonly used methods of data collection. Structured and semi-structured interviews are used, however for qualitative research semi-structured interviews are most common (Mason, 2002). Semi-structured interviews are defined by Longhurst (2016) as '*a verbal interchange where one person, the interviewer, attempts to elicit information from another person by asking questions. Although the interviewer prepares a list of predetermined questions, semi-structured interviews unfold in a*

conversational manner offering participants the chance to explore issues feel are important'
(p.143).

Semi-structured interviews allow all participants to be asked the same questions within a flexible framework. This encourages the research to maintain focus on the research interests, though at the same time allowing for further exploration, clarification and questioning of themes arising from the interview, expected or unexpected. Semi-structured interviews create challenges for the interviewer that range from allowing the time for respondents to digest information and questions and respond, listening to and deciphering these answers, handling situations of emotion and/or areas of sensitive/confidential information, and remaining patient throughout. The interviewer also requires an appropriate amount of background knowledge, not only on the subjects and topics discussed within the interview, but that of the participant and their working practices, commute and household in order to steer discussion throughout the interview. Of particular importance for qualitative interviews is the structure and flow of the interview itself. This does not mean creating a completely static structure, as semi-structured interviews do not warrant such an approach, but instead use intellectual and social skills to garner and maintain a relationship and conversation with the participant (Mason, 2002).

It is crucial, for the purpose of this research, to capture the intricacies of everyday practices and to examine the relationships between (flexible) working practices, people's daily commute and their household responsibilities and decisions. Semi-structured interviews, as Hitchings (2012) outlines, offer a unique opportunity to explore these complex relationships and the practices involved, whilst offering chances to further question and challenge answers, statements and information and provide space for clarification from both the interviewer and interviewee. Semi-structured interviews also encourage the researcher to be mindful towards the flow of discussion, ensuring content remains pertinent and (hopefully) interesting. Furthermore, semi-structured interviews enabled the

researcher to reconstruct events and offer sites of a hypothetical nature to foster thought from the participant as to the similarities or changes that may occur to their daily life if practices were configured in different ways to that currently observed. Utilising this approach through semi-structured interviews encouraged the researcher to explore context specific events in depth, rather than generic responses that a questionnaire would yield or feedback which is difficult to capture in a focus group.

Although Hargreaves (2011) and other practice theorists advocate the use of ethnographic methodological techniques capable of observing practice as a performance, interviews are still considered an intelligible and sensible method as they principally encourage discussion, reflection and contemplation about the practices in question, and offer alternate avenues in which to view the practice as opposed to that of performance. Reasoning behind the use of semi-structured interviews in this research is three-fold, is supported by, and takes heed from, Hitchings' work outlining how people can talk about their practices (Hitchings, 2012). Before entering into the justification with Hitchings' work as evidence, this section of the methodology will compare and contrast other methodological techniques to that of semi-structured interviews and provide an explanation as to why they were deemed inappropriate for use in this research. To begin, and in comparison with other, similar data collection methods such as focus groups, as participants were interviewed individually, the confidentiality issues and pressures that might limit focus groups are not as problematic. Furthermore, given this research is focussing upon areas of an individual's household, confidentiality and privacy issues were paramount, thus an individual interview with the participant in a private location was advisable. Using interviews in this manner allowed for more detailed information about the individual and household to be relayed, whilst also allowing for flexibility in data being collected. Moreover, opportunity for discussion, clarification and explanation of both questions and responses is available, as the participant is answering questions asked directly by the researcher (Clifton and Handy, 2001).

Second, the use of travel/activity diaries in tandem with interviews was considered. Although this approach would have provided extensive background material to help formulate questions during the interviews, intrusiveness was again considered to be a deterrent. In addition, in order to generate a dataset large enough to provide the extensive background material (perhaps a week-long diary) from which to formulate questions on the possible practices and routines evident, reporting fatigue would have been a danger. One day diaries often mislead the analyst or decision maker in overestimating the stability of the behaviour under study, with multiple-day diaries capable of providing insight into variability (Axhausen et al., 2007). Though a short pre-interview question sheet was used to determine specific aspects of how people travelled to and from work, how, where and for how long they worked and household characteristics, these questions were designed as a reflexive activity to prompt the participant into thinking about their daily life and the practices involved within it.

Finally, to challenge the deviation from currently popular ethnographic techniques in social practice research, the researcher considers an approach such as observation or participant-following to have been overly intrusive and perhaps overbearing on the participant. By this, it was felt that observing or following a participant for a whole day (or longer), especially within their workplace, may have created this feeling of intrusiveness. Moreover, a research design that sought to follow participants for a whole day or more during their commute, work time and in their household may have restricted overall recruitment, given the intensity of the data collection. The difficulties found in recruitment would have only been compounded with the addition of ethnographic methods. Fears of compounding these issues stems from the increased intensity of the data collection, in both time and space, as the researcher may have needed to observe at least a portion of a participant's day (preferably a whole day) in order to assess the everyday practices being performed. Entering participant's private lives (namely their household activities) may also have

created tension and awkwardness, but may also have created difficult ethical considerations, especially if children are involved (as they probably would have been for those participants required to partake in the school-run). Whilst this research is not solely focussed upon the routine of a day or even a week, but potentially longer periods of time, research design techniques that facilitated exploring these expansive timeframes were deemed appropriate.

'*In order to get at the experiences, motives, meanings, and perceptions of those being studied, the main approach consists of communicating with the subjects. This can be done through interviewing, where the aim is to study the phenomena in their own terms'* (Røe, 2000, p.104). In this vain, (Hitchings, 2012) argues that although other techniques may access alternative aspects and intricacies of every day practices, '*we should not discount interviews on practice because they superficially seem inappropriate'*, but rather '*researchers reject the common qualitative interview at their peril, as interviews offer such an efficient means of understanding how it is to embody certain practices when it may be exactly such understandings that could prove crucial in initiating positive change'* (p.66-67). Therefore, and in conclusion, Hitchings explains that '*encouraging people to talk about their practices may not always be easy, but that does not mean it is not worth trying'* (p.67).

Hitchings (2012), through reflection on two of his own contrasting interview examples, explains that respondents '*emerged entirely able to talk about relatively mundane actions, that may in some part, usually be performed unthinkingly… and indeed doing so provided various insights regarding the ease with which routine practices become entrenched and how doing differently could be encouraged*' (p.65). It may be possible however that not all groups may be able to talk about their practices so freely, or that certain kinds of practices may be harder to discuss than others. Having said that, Hitchings found no issue when talking about routine practices to both professionals and ageing retirees, thus concluding that '*the point is surely to find out instead of dismissing certain research endeavours as*

impossible before we have even tried' (p.65-66). Furthermore, and in comparison, the ease and extent to which participants were able to discuss their daily commute practices and the interaction between these, those within the household and work, evidently struck a chord with those taking part and showed that the topic resonated with them on one level or another.

Interviewing professionals within this research was not only a result of purposive sampling to provide a potentially interesting juxtaposition between 'creative' and 'non-creative' professions, but also justified through (Hitchings, 2011 and 2012) experiences; as he contends that the educated individuals he interviewed liked the intellectual challenge of working through the factors sustaining their routines. Recruiting professionals throughout encouraged the research to focus more strongly upon the working practices of participants. Doing so enabled the research to assess what impact these practices, and the structure of work, might have on daily schedules - rather than focussing upon differences in employment, educational attainment or job status. Once they had been convinced about the value of his project, the professionals were able to build a reflexive awareness of how their routines and practices worked. Citing that professionals were used to giving matters careful thought seemingly helped respondents discuss their routines, with the author saying that '*once the interview had assumed an appropriately contemplative tone, it was relatively easy to talk about their routines and whether they could feasibly institutionalise alternative modes of mundane existence*' (Hitchings, 2012, p. 64).

4.5   The interview process

In order to help the interview process along, Hitchings (2012) offers a few tips upon which this research based its approach (p.66):

- Being willing to ask about the 'seemingly obvious' in the face of possible awkwardness initially.

Asking questions of this nature, and consequently being faced with initial awkwardness, was evident throughout this research as participants (although able to grasp the concept of the research in looking at their commute, household and working practices) often found it challenging to realise the intention was to focus on the 'very mundane aspects of their lives'. Being committed to asking these types of questions throughout helped, and being aware of these issues beforehand brought the need for explanation of the project to the fore, aiding in the reduction of awkwardness and possible incomprehension of the research and the interview.

- Introducing hypothetical situations or circumstances helped foster thought on the logics sustaining existing practices, whilst comparison proved very effective in identifying why the practices of respondents were similar or different to others.

The use of hypothetical situations and comparisons were extremely useful throughout this project, particularly as focus often centred upon how respondents might react or change to changes in their household, commute or work and how these changes may affect the organisation of their daily lives. Doing so prompted interesting and immersive discussion as to the logics of sustaining existing practices, something that Hitchings found.

- Allowing time. The time to allow respondents to think through the reasons behind certain everyday actions, whilst enabling the researcher to think through effective lines of further questioning.

Giving participants time both before and throughout the interviews was essential. Upon agreement to take part participants were sent the short pre-interview question sheet which contained questions that prompted both initial response and prolonged thought before the interview on how their daily activities were organised and constructed, focussing upon how the household, commute and work interacted. Utilising this approach was beneficial as it enabled time to be both reflective and contemplative towards their

practices, prompting richer discussion from the outset of the interview as participants were aware of the line of questioning and familiar with the subject. Semi-structured interviews were conducted to encourage thinking time and provide structure to the discussion, something which Hitchings supports, confirming that using the *'serial approach helped respondents work through the reasons behind certain every day actions'* (p.66).

With Hitchings' guidelines in mind, the interviews were scheduled for one hour. However, given time constraints of the majority of the participants, the average length of the interviews was 45 minutes. Though not initially anticipated, this loss of time was negated by the pre-interview question sheet, which enabled the researcher to formulate specific questions prior to the interview and the participant time to think about the sort of questions they will be answering. The pre-interview question sheet proved exceptionally helpful and was a key component in steering the conversation and provided useful and interesting discussion points. A copy of the pre-interview question sheet can be found within Appendix One.

Telephone interviews were conducted with six few participants. This was due to diary constraints stretching over a few weeks and so a telephone interview was deemed sensible to help alleviate temporal and spatial pressures of meeting face-to-face for the hour's interview. Furthermore, a couple of the interviews were conducted via telephone as these participants did not have access to a private meeting space within their office. Interviewing over the phone was deemed more appropriate and convenient than trying to find an out-of-office meeting space familiar to both researcher and participant. In total, around six interviews were conducted over the phone. The telephone interviews were conducted in the researcher's home office with the participant on speaker to enable the interview to be recorded as normal. The consent form and pre-interview question sheet were sent and responded to via email. These emails were then deleted upon saving of documents onto the University computer system.
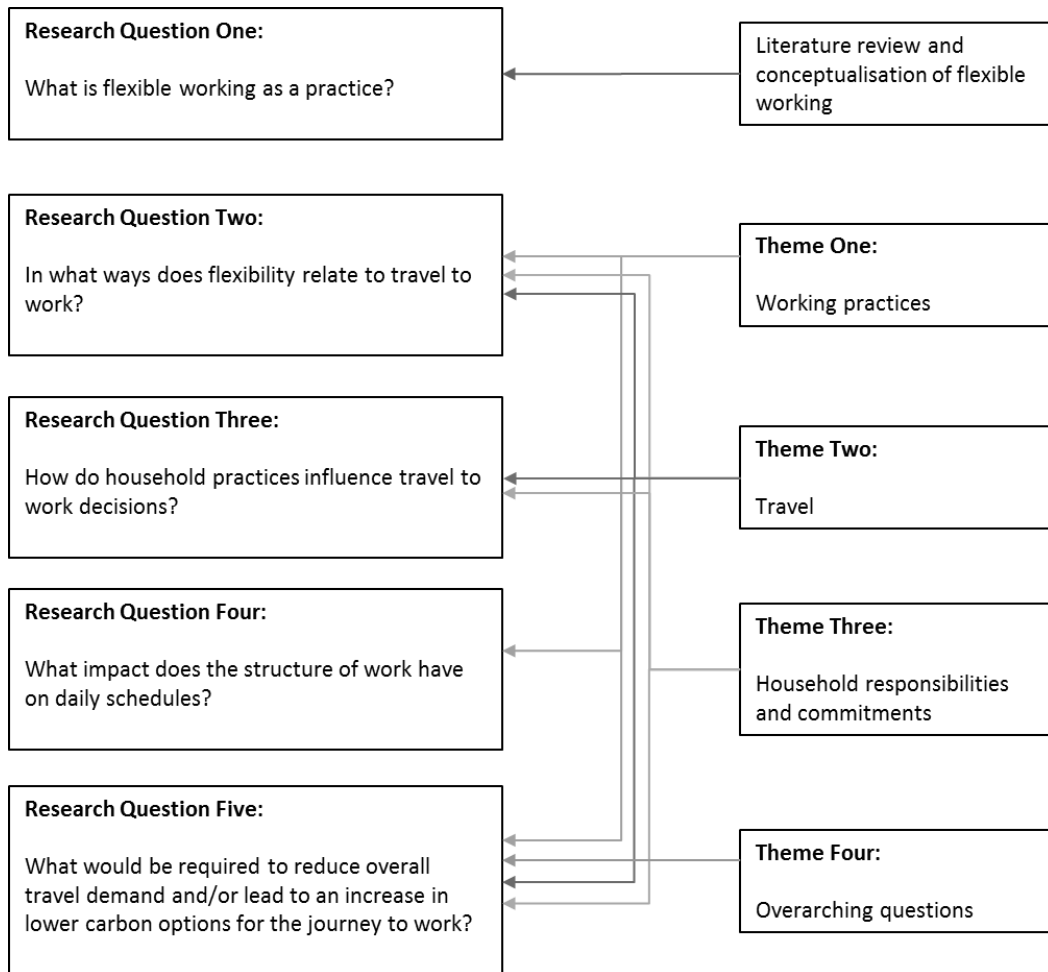
Figure 9: Links between the research questions, literature and key themes within the interview structure and protocol

The semi-structured interview protocol used throughout the research was structured into three key themes; working practices, travel, and household responsibilities and commitments, whilst a final theme of overarching questions was introduced at the end of the interview. The expected duration of questioning during themes is illustrated within the break-down of each theme, ensuring the interview remained within the one hour timeframe considered ideal. The interview protocol and structure was developed in this format as it enabled the researcher to understand and investigate the working practices of the participant. Answers to these questions then formed the base for the next two themes, with both travel and household responsibilities hypothesised (from the literature review) to affect, and be affected by, working practices. These three key themes are broken down

below with discussion and reasoning of the content within each theme, and why these questions were asked, and how they relate to the research questions introduced within the Literature Review. Figure 9 above illustrates which key themes were designed to answer each research question. A more in-depth discussion of these key themes within the interview structure and protocol follows.

All the interviews were digitally recorded. Each interview started with a brief introduction and recap revolving around the information sheet and consent form, with copies of these handed to the researcher and witnessed by the participants. The first topic to be discussed focussed on the working practices of the participant, to establish how they worked, where they worked, when, with whom, etc. Table 3 below introduces the structure of the first theme 'Working Practices'. With the first research question asking 'What impact does the structure of work have on daily schedules?' it was felt pertinent to ask participants about what type of work they conducted, when (in time and duration) they conducted this work and how they did it, with specific focus upon the materials they required to do their work (for example printers, drawings, specific software packages, etc.). The discussion around materials was further complemented when the researcher probed as to the technology used/required for the participant to carry out their work (such as computers, smartphones, video-conferencing technology, etc.). The questions looking at the location of a participant's work and how often they worked with others asked questions that may have had direct influences towards the impact that structure of work has on daily schedules, including the discussion about which elements participants considered fixed and the decisions regards meetings and schedules – all of which may directly influence work structure – and therefore may have an impact on daily schedules. Finally, questions regards the meanings associated with going into work, their own perception of flexibility and how flexible expectations and norms associated with their work were asked to investigate areas

such as dress code, and what influence (if any) such norms had on the structure of participants' daily schedules.

Table 3: Interview Structure and Protocol - Theme One: Working Practices

Theme One – Working Practices (20 minutes)	This topic will ask a variety of questions related to working practices: • What work does the participant do? (Brief overview of the sorts of things they do – Tasks etc.) • When do they do it? (Time) • How do they do it? (What materials they need etc.) • What technology they use (remote access software, smartphones, tablets, printing etc.) • Where they do it? (Office/home/other etc.) • How often do they work with others? (Individual/team/boss etc.) • Is there much flexibility whilst working with others? • How flexible do they perceive their working practice to be? • What are the expectations/norms associated with their work? (Principally in the office – for example dress code, attendance) • How flexible are these norms? • What elements of their work would they consider fixed? (In both time and space – i.e. office location, materials needed) • Who decides meetings, schedules etc.? • What are the meanings associated with going into work?

The second theme, 'Travel' was heavily contributed towards by the pre-interview question sheet. Building this theme using the pre-interview questions enabled the researcher to gain initial information regards mode of travel used over differing periods of time; used in last year, in the last week, and most often. In addition, the pre-interview question sheet asked participants to think about the time they left for work, returned from work and how this may have varied over the last month. Further to this, participants were asked what they took with them when travelling to work, whether this varied, and if there were any regular commitments that affected their journey either to or from work. These 'scene-building' questions enabled the researcher to begin to understand how the participant travelled,

how long these journeys took and when they were undertaken, allowing the questions within the interview to focus more on the why rather than the what. This approach, it is hoped, made the interviews more efficient and interesting, stimulating participants to think about why and how they were recruited into certain practices, rather than describing what they did on a day-to-day basis for the duration of the theme, as this may have been tedious and boring (as Hitchings pointed out). Theme Two, as shown in Table 4 below, was designed to reintroduce to the participant their travel habits, and question why these are structured in this way. Linking back to Theme One to assess whether specific elements of a participants day were contributing towards the need to travel (i.e. a 9am meeting in an office in the city centre), and looking forward to Theme Three to investigate initially the household responsibilities and commitments that may constrain travel or influence what time these journeys were conducted.

Table 4: Interview Structure and Protocol - Theme Two: Travel

Theme Two – Travel (15 minutes)
 	
 This topic will be a recall/reflect activity. Ask about their previous week - 'tell me about Monday etc.'
	This topic will ask a variety of questions related to travel to work:
	 • Do they travel to and from work each day?
	  If no, then how many days and why?
	 • How do they usually get to work?
	  Is there a norm?
	  Is there any variance?
	 • What time do they usually leave home?
	 • What time do they usually leave the office?
	 • How long does the journey take them?
	 • What do they take with them?
	  Is this a norm?
	  Is there any variance? (Different tasks need different materials perhaps etc.)
	 • What are the main determinants of route, time and mode used for the journey?
	 • Who/what decides how and when they travel? (Children, spouse etc.)

Theme Three of the interview focussed upon the household responsibilities, commitments and constraints that a participant may have, how these responsibilities interact with their work and travel, and whether they felt constrained by any of these activities, and what they did to alleviate these constraints. Theme Three was also complemented by the pre-interview question sheet, which asked participants to consider what their main responsibilities were, whether certain responsibilities influenced work or travel, and how decisions were made in the household concerning work, travel and the household. Furthermore, participants were asked to think about the planning that may have been undertaken in the household, be that during a day, week, month etc., and what sort of activities, people or commitments take precedence in this planning (for example going to work, the school-run or after-school clubs).

During the interview, Theme Three (as shown by Table 5) began by asking participants what they perceived to be both their main responsibilities overall and their main household responsibilities. Distinction was made between the two as responsibilities to themselves, others or organisation etc. may play a key role in a person's day, whilst household responsibilities may revolve around others such as spouses and children. Separating the two allowed the researcher to investigate and probe the responsibilities individually, assessing which, if any, brought the most influence to the organisation of daily life. Questioning continued through a deeper discussion of the participant's household, whether they cared for any dependents, what their spouse/partner did and how decisions were made in the household regards responsibilities and commitments. Participants were asked to explain how their week was arranged, and what constraints they felt in both time and space as a result of any responsibilities they were a part. Asking the participant to explain the arrangement of their week encouraged the researcher to probe as to why this arrangement was constructed, and how each of the three main themes interacted with one

another, with attention paid to the relationships between how work and travel were incorporated into these weekly plans.

Looking at the week also encouraged the researcher and participant to think about both daily activities and those further ahead/behind, to try and understand why these practices occurred, whether there was any variation in the performance of these practices, and why this variation occurred. Questions were then asked regards the way work and travel was influenced by the responsibilities, commitments and constraints discussed previously, in addition to any plans they make towards the time and location of particular constraints and what affect these have on their spouse/partner. Questions regards effects on spouse/partner hoped to provoke thought on how travel, work and the household interact not only with themselves but with their relatives, especially as household may be restricted in travel choices or have competing schedules and commitments.

Table 5: Interview Structure and Protocol - Theme Three: Household Responsibilities and Commitments

Theme Three – Household Responsibilities and Commitments (20 minutes)	This topic will ask a variety of questions related to household responsibilities and constraints:
	• What do they perceive to be the main responsibilities? To themselves? To others? (Elderly care etc.) To other organisations etc.?
	• Do they have any dependents they care for? (Children, elderly relatives etc.?)
	• What do they perceive as the main household responsibilities?
	• What does their spouse/partner do (work etc.)?
	• Who decides who does what within the household, responsibility wise? (With focus on spouse and children etc.)
	• How are things within the household arranged? Is there any freedom/negotiation in this?
	• How is their week arranged?
	• Do they feel constraints in time and space due to these

	responsibilities?
	How do these constraints impact upon/effect their time?
	How do these constraints impact upon/effect the location of activities etc.
	• How is work (or the way they work) influenced by these responsibilities and constraints?
	• How is travel to and from work influenced by these responsibilities and constraints?
	• Have they (or do they) plan the time and location of such constraints?
	If so, how far ahead have they planned?
	Who/what, if anyone or anything, gets preference in the planning? Are there any effects on spouses/partners?

Theme Four, as shown below in Table 6, introduced overarching questions and was used primarily as a summary and recap portion of the interview to encourage participants to think about the interview hence, considering particular areas of interest the researcher may have introduced throughout the interview, and also reflect upon the discussion as a whole. The first question assessed the participant's actual preferences towards the themes discussed in the interview, principally towards their flexibility in working practices and within the household, and how these might differ to what they experience already. The discussion then moved onto what elements of flexibility the participant deemed (potentially) helpful in reducing conflicts within their daily life and effects these may have on the household and travel. Finally, participants were asked to discuss a scenario(s) in which reducing their travel demand and/or increasing lower carbon travel for the journey to work would become feasible. Approaching travel demand reduction in this way hopefully provoked participants to think through and examine the elements necessary for them to reduce their travel demand or increase their use of lower carbon travel choices. Reflecting in this way hopefully provided avenues for further analysis into the constraints and barriers to travel demand reduction.

Table 6: Interview Structure and Protocol - Theme Four: Overarching Questions

Theme Four – Overarching Questions (5-10 minutes)	- What are the participant's actual preferences towards all the things discussed; namely flexibility and working practices? - From the discussion previously, are there any elements of flexibility they would perceive to be helpful in reducing the time and space fixed aspects of their work/responsibilities/travel? - What effects/impacts would result from making these more flexible have on the household and travel? - What would be a scenario, in terms of what we have been chatting about work and structure, that would be conducive to lowering travel demand and/or increasing lower carbon travel?

4.6   Research Location

The Leeds City Region is a city region in the North of England centred upon Leeds. The Leeds City Region Enterprise Partnership brings together the local private sector, the West Yorkshire Combined Authority and covers the whole of West Yorkshire, in addition to parts of neighbouring North and South Yorkshire. The city region includes the surrounding local councils of Barnsley, Bradford, Calderdale, Craven District, Harrogate Borough, Kirklees, Leeds City, North Yorkshire County, Selby District, Wakefield Metropolitan and the City of York (Cabinet Office, 2014). The West Yorkshire Combined Authority was established to receive devolved powers for transport, economic development and regeneration. The City Region as a whole has a population of 3 million people, 1.4 million employees and around 109,000 businesses. Figure 10 below succinctly introduces an overview of the key assets within the City Region. The region is the largest city region economy outside London, with the UK's largest manufacturing centre and largest regional financial and professional services sector. Other growth sectors within the region include: electronics and optical; communications; health and public services; and digital and media. The region houses nine higher education institutions, including eight world-class Universities, in addition to fourteen further education colleges. Of the five cities, Leeds is the largest in geographical

area, population and economy (Leeds City Region Enterprise Partnership, 2017b) and is also the economic centre of the Leeds City Region (Leeds City Region Enterprise Partnership, 2017a).
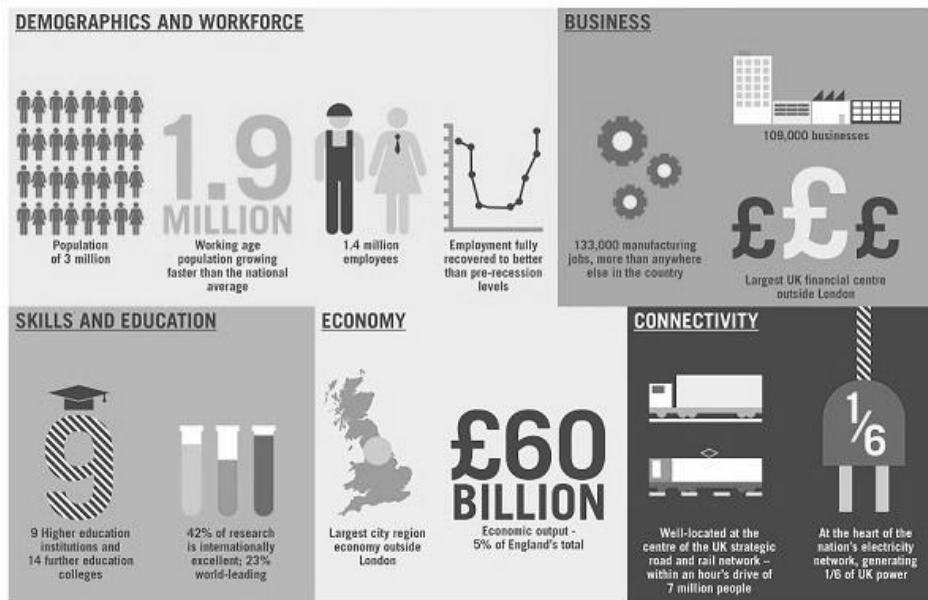
Figure 10: Leeds City Region (taken fromLeeds City Region Enterprise Partnership, 2017b)

4.6.1   The city of Leeds

The city of Leeds economy is worth around £18 billion, has a growth rate of nearly 40% over the last decade and has the highest ratio of private to public sector jobs of all major UK cities (Leeds City Region Enterprise Partnership, 2017a). The growth of the city has been built upon diversity and innovation, transforming from a town of industry and commerce to a services-dominated city, retaining important elements of manufacturing whilst evolving into a regional administrative and commercial centre (Meegan, 2015). Leeds was considered an appropriate location in which to base the research as it provided the research not only with an ease of access due to proximity for the researcher, but principally because the size and structure of the local economy supported the data collection ambitions and participant selection criteria (as outlined in section 4.7).

The city of Leeds offered the researcher an abundance of each industry and profession chosen for the study, in particular those of accountancy, soliciting (legal), academia and graphic designers (digital and media). Leeds is considered the fastest growing city in the UK and the largest financial and business services centre outside of London, with other key sectors within the economy being those of construction, manufacturing, academia and creative and digital industries. Finance and business services account for around 38% of total output, with the financial sector alone having eleven subsectors employing more than 5,000 people, who include legal and accounting – two professions chosen within this study. Leeds also has the second highest concentration of knowledge intensive jobs by local authority area, making academia another sensible choice for participant recruitment (Leeds City Council, 2016b).
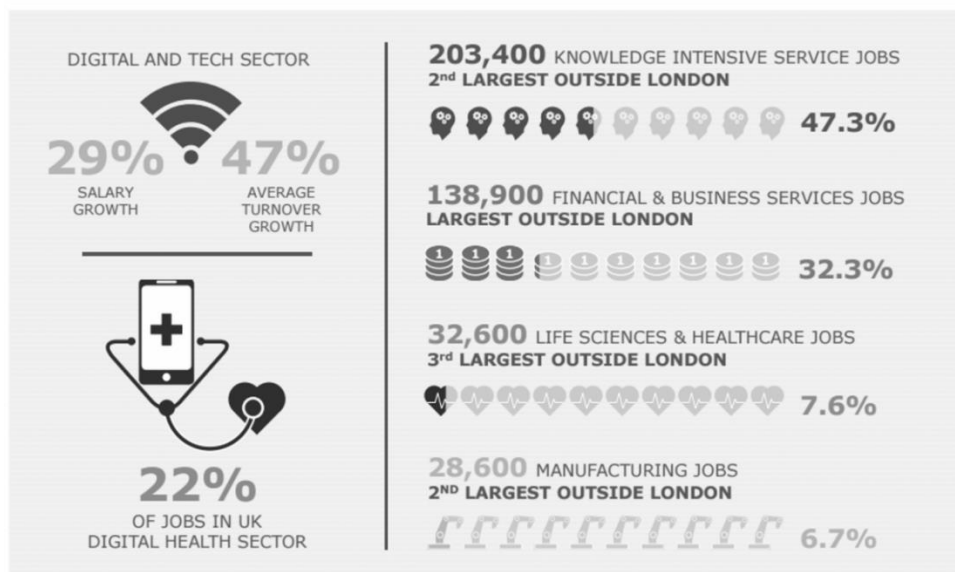
Figure 11: Key sectors within the City of Leeds economy (taken from Leeds City Council, 2016a)

'*Leeds has developed its regional importance as a centre for specialist financial and business services through growth in regional demand and expansion of local firms*' (Dutton, 2003, p. 2562). The key sectors within the Leeds economy can be found above in Figure 11,

taken from the City Council's breakdown of their local economy. Whilst most sectors have been affected by the 2008 recession and subsequent national austerity measures, most notable in terms of growing sectors were those of professional, scientific and technical jobs, utilities, and business administration and support services. Further, the health and medical sector and the city's growing creative and digital industries are also targeted for growth (Meegan, 2015). Therefore, the abundance and relative proximity of the researcher to these professions were key motivations in deciding not only which sectors, industries and professions to recruit from but also reaffirming the decision to choose Leeds as the research area.

4.6.2 *Transport within Leeds and the City Region*

The West Yorkshire Combined Authority (WYCA) is responsible for transport within the city region and is developing a transport strategy for West Yorkshire (2016-2036) that supports the Leeds City Region Enterprise Partnership's Strategic Economic Plan for sustained and healthy economic growth. In 2014, the WYCA secured £1bn of funding to establish the West Yorkshire plus Transport Fund. The aims of this fund are to reduce congestion, improve the flow of freight, and make it easier for people to commute to and from expected major growth areas (West Yorkshire Combined Authority, 2017). The development of transport networks and the running of day-to-day services within the combined authority are done so under the Metro brand name, which in the main are responsible for subsidising the cost of train services within the authority and managing most of West Yorkshire's bus stations and stops (WY Metro, 2017). In addition to the WYCA and Metro, governance of transport within the city region is supported by a connectivity partnership that includes the Highways Agency, Network Rail, Yorkshire Forward, business groups, bus and rail operators, and the Government Office for Yorkshire and The Humber (English and Spear, 2009).

The travel characteristics for the journey to work within the Leeds City Region are comparable to the commuting figures for the UK at a national scale, as introduced during Chapter Two, section 2.5. For example, 70% of all travel to work during 2011 was conducted via a car or van, with bus and walking accounting for 11% each, train 4% and bicycle, motorcycle and taxi all representing 1% modal share. The average journey distance for travelling to work also rose in line with that on a national scale, rising 14% from 11.3km (7.1 miles) to 12.9km (8 miles) between 2001 and 2011. Walking and cycling have seen increases in trip numbers in the decade up to 2011, with the number of cycling trips in particular rising 49% within Leeds alone. Leeds and Bradford also experienced increases of 18% and 12% respectively in the number of trips conducted via walking, with a near 10% increase overall within the city region (West Yorkshire Combined Authority, 2016d). Aside from the plans and the commuting data for the city region briefly outlined above, a discussion regards the transport networks within Leeds city centre is required. Doing so will provide further case-study context towards the size, location and routes of these transport networks within the city, namely rail, bus, road and air. The boundaries of the city of Leeds cover around 550 square kilometres with built-up areas in the centre and south surrounded by a variety of separate small towns and villages in a polycentric pattern (Meegan, 2015).

4.6.2.1   Rail

Leeds City Station is the busiest railway station in the North of England and is used daily by over 120,000 passengers, nearly 30 million a year. The station is the third busiest British railway station outside of London. Comprising of seventeen platforms, it is also the largest in terms of platforms in England outside of London, with eleven terminus platforms and six through platforms (Network Rail, 2017). On a daily basis, Leeds station welcomes around 27,000 passengers during the AM peak arrivals, classified as the three-hour morning peak from 7-10am. In addition, the percentage of passengers in excess of capacity across the

morning peak on a typical autumn weekday stands at 2.2%, with only Manchester, Birmingham and London experiencing worse levels of overcrowding during the morning peak (Shaw, 2016).

The station is served by a variety of train operators: Virgin East Coast, CrossCountry, TransPennine Express, Norther and East Midlands Trains, with journey times to London around 2 hours (Leeds City Council, 2016a). The station is the terminus of the Leeds branch of the East Coast Main Line, whilst also being a major hub for local and regional destinations across the region, including York, Sheffield and Hull. Figure 12 overleaf illustrates the rail network serving Leeds City Station. The connectivity of Leeds station and the region is demonstrated by the increases in total rail journeys from Yorkshire and the Humber to all other regions, except to Wales, in the UK. Journeys from Yorkshire and the Humber to regions such as the North West, the Midlands and London grew by 6.5%, 4.25% and 2.6% respectively (Office of Rail and Road, 2016). Future developments of the railway station include those for phase two of the high speed rail lines HS2 from the West Midlands to Leeds and Manchester. Phase two forms a 'Y' shape from the West Midlands, with the route up to Leeds and the North East including proposed stations at Leeds, the East Midlands and Sheffield Meadowhall (HS2, 2016a). The UK government wishes to serve Leeds City Region by constructing new HS2 platforms south of the existing station, connected via a common concourse within the fully integrated station. Connectivity to other forms of public transport is key, in addition to Leeds becoming a true hub for transport with local, regional and national connections (HS2, 2016b).
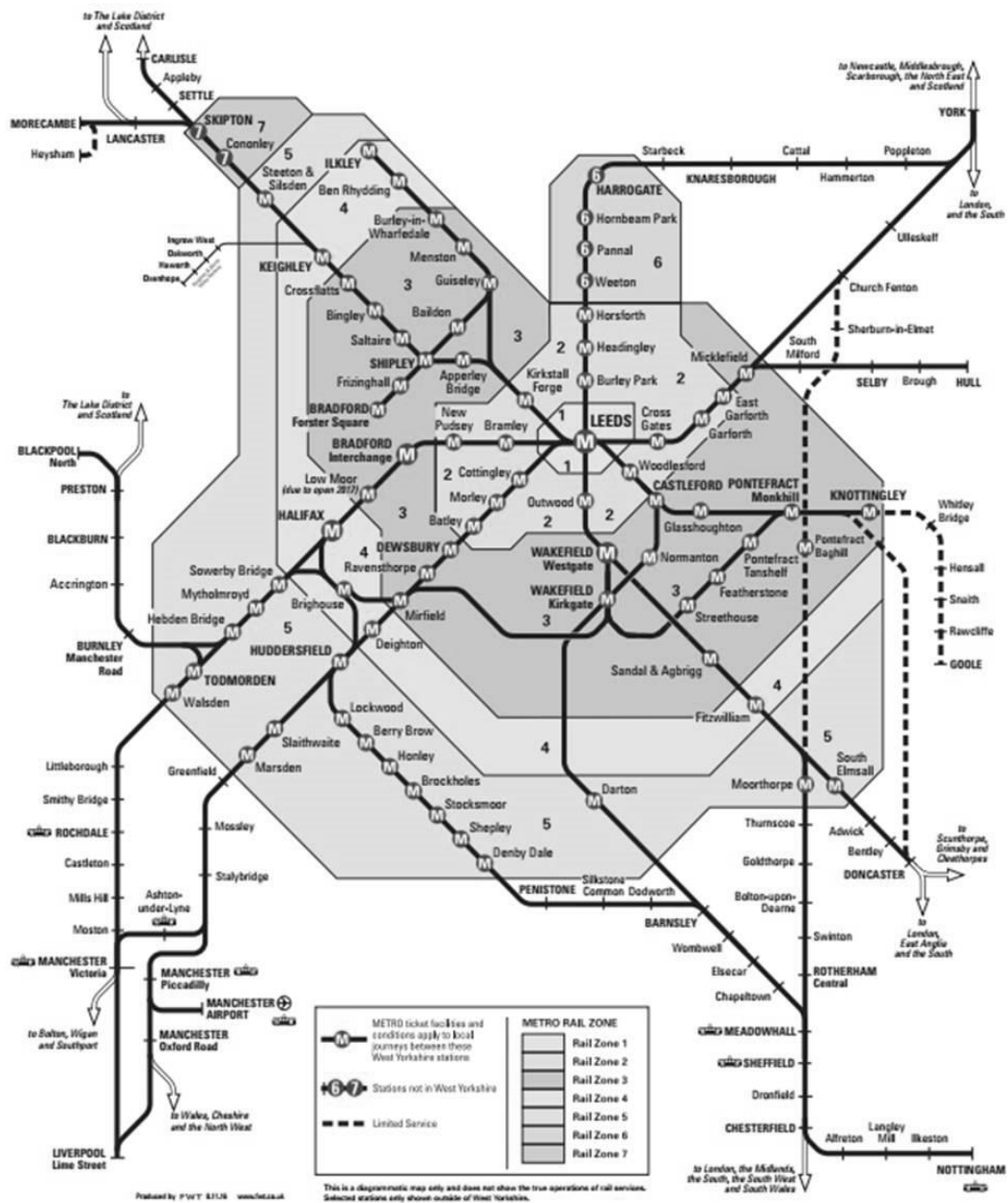
Figure 12: West Yorkshire Metro Rail Network Map for Leeds (WY Metro, 2016)

4.6.2.2   Bus

There are around 186 million bus journeys in West Yorkshire each year, with more people travelling by bus than any other form of public transport in the county. This accounts for 21% of all journeys in the morning peaks and almost two thirds of all public transport journeys. Significantly more people travel by bus than by rail or any other public transport

mode each day (West Yorkshire Combined Authority, 2016b). West Yorkshire's buses are run by around 40 private companies who are responsible for deciding the majority of routes, timetables and fares with Arriva, First and Transdev run around 90% of all these services. First West Yorkshire is the largest operator with circa 60% of the market, with Arriva operating around 25% of the local market within West Yorkshire. Figures 13 and 14 both illustrate the route maps of both bus service operating companies. Arriva operate predominantly in the south of the city, whilst First have routes operating across the whole city. Yorkshire Tiger (also an Arriva company) operate a number of further routes within the region. Transdev have a 6% market share and run services through Keighley and District, Yorkshire Coastliner and Harrogate & District into Leeds City Centre (West Yorkshire Combined Authority, 2016b). The WYCA is not responsible for operating any buses within the region, however does contract bus companies to run about 15% of the county's services, those which are important but do not make much money (West Yorkshire Combined Authority, 2016a).
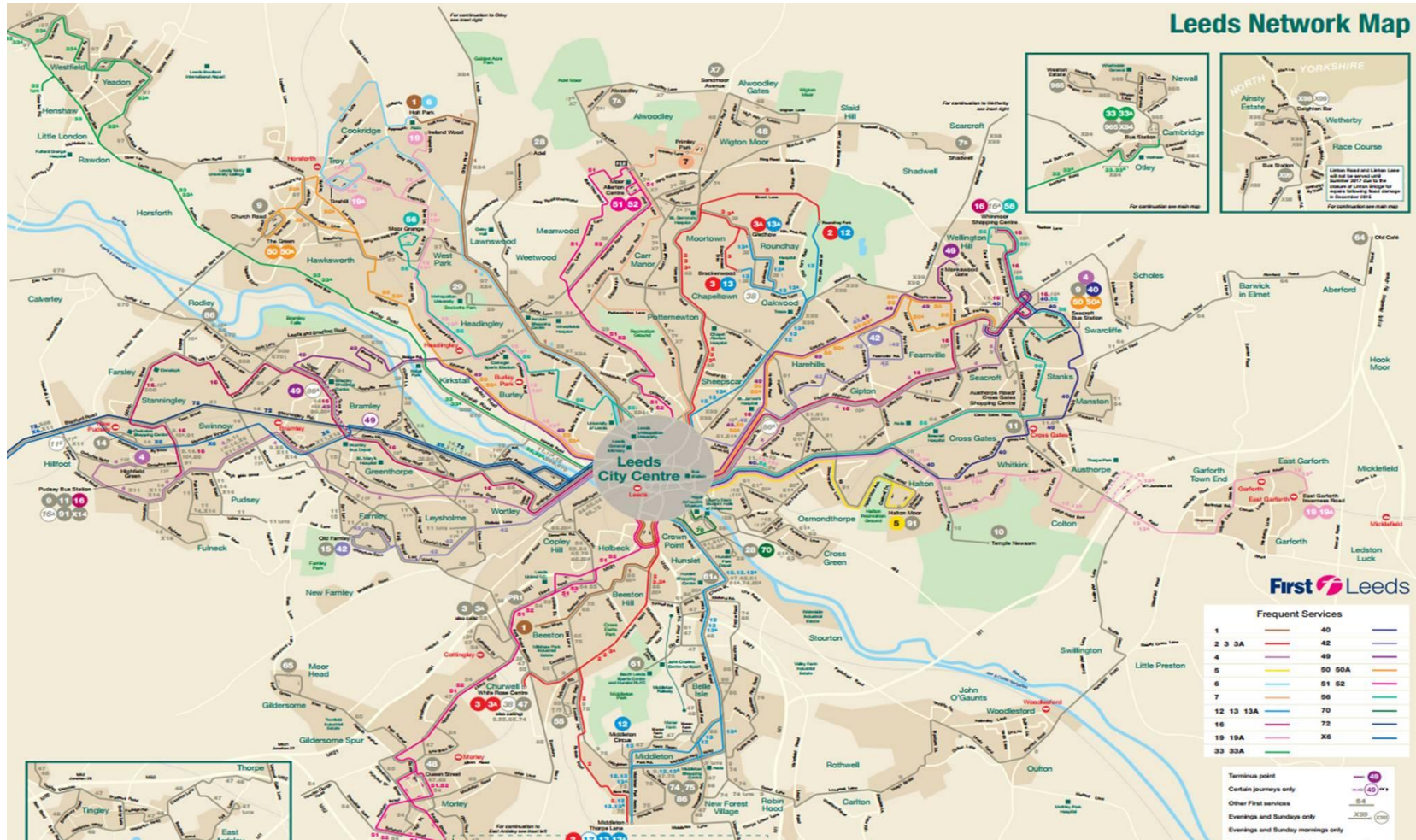
Figure 13: First Bus Leeds network map (First Group Leeds, 2017)
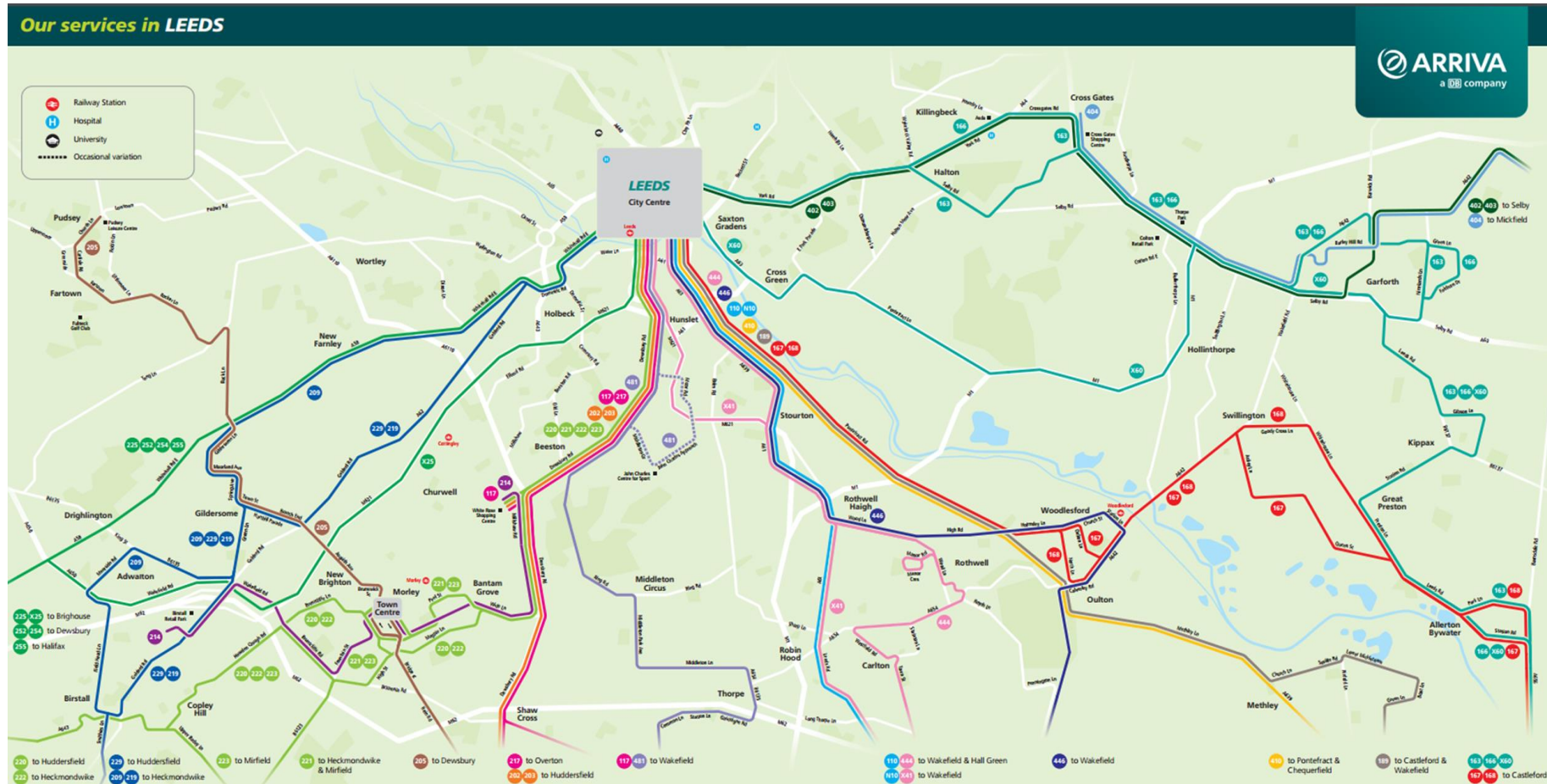
Figure 14: Arriva Bus Network Map for Leeds (Arriva, 2017)

4.6.2.3   Road

Leeds is the principal hub of the motorway network thanks to the intersecting of the M1, A1 (M) and the M62. The city is directly linked with London and Edinburgh via the M1 and A1 and with ports on both east and west coasts via the M62 (Leeds City Council, 2016a). The road network is an essential part of the transport system, with 100 miles of motorway managed by Highways England and 6000 miles of local roads managed by the five West Yorkshire Local Authorities (West Yorkshire Combined Authority, 2016c). Figure 15 below introduces the key route network of roads within West Yorkshire. Management of these roads is often difficult, with a range of users including drivers and passengers in cars, vans, Lorries, cyclists, pedestrians, coaches, buses, and motorcycles. The network is often congested during busy times of the day, making journeys slower, more unreliable and inconvenient. Managing these roads by both the local authorities and Highways England are essential to the functioning of the local and city region economy (West Yorkshire Combined Authority, 2016c).
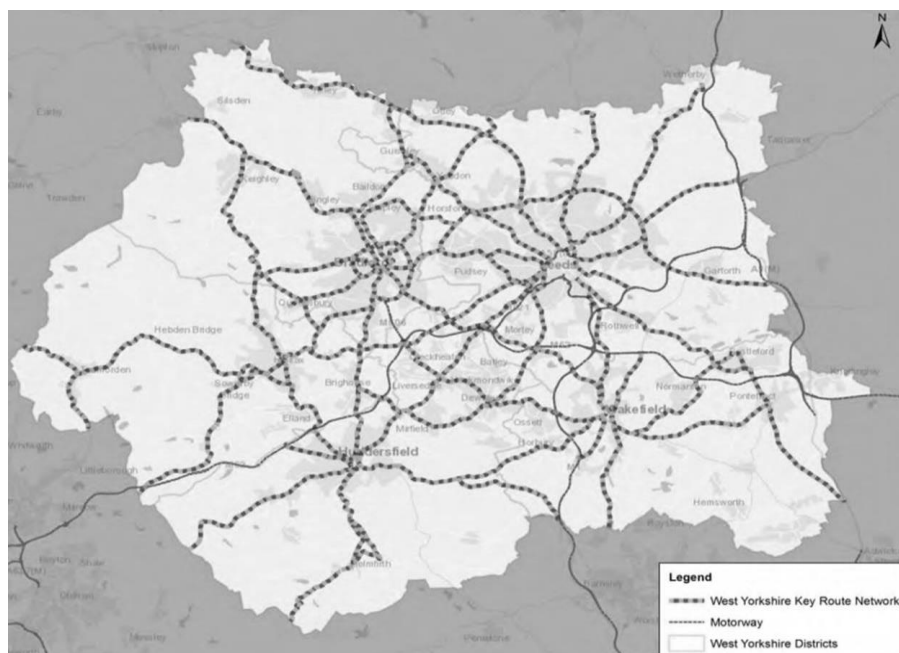
Figure 15: West Yorkshire Key Road Route Network (West Yorkshire Combined Authority, 2016c)

Leeds city centre features both an inner ring road and a city centre loop. The inner ring road largely carries through traffic across the city, whilst the city centre loop distributes local traffic around the city centre. The inner ring road is designated as a motorway with numerous a roads feeding in and out, and with large sections of the road running underneath the city centre through tunnels. The city centre loop acts as a one-way system that carries the main body of traffic within the city clockwise around a central pedestrianised area. The loop directs traffic past the railway station, through the financial district, past the town hall and the Merrion centre, to the bus station and along the calls back past the station (Leeds City Council, 2012).

4.6.2.4   Air

Leeds Bradford International Airport connects the Leeds City Region internationals, with a better connected airport anticipated to help promote business growth in key sectors and other industries, in addition to attracting more investment (Leeds City Region Enterprise Partnership and West Yorkshire Combined Authority, 2016). In recent years the airport has outstripped the percentage growth of many other UK airports, making it one of the fastest growing regional airports in the UK, exceeding 3.4 million passengers per annum in 2015 representing a 27% increase in the decade from 2005 (Leeds Bradford Airport, 2016). The airport is located approximately 7 miles (11km) from both Leeds City Centre and Bradford, with the catchment area dominated by the districts that comprise the Leeds City Region. Over two-thirds of the total passengers using the airport originate from the city region, with over 30% from Leeds alone (Leeds Bradford Airport, 2016). Whilst air travel may not feature as a daily travel practice for the majority of participants interviewed within the sample, it was considered worthwhile providing the above background context so as to be aware of all the transport networks available within the region.

4.7   Participant Selection and Recruitment

'*When the objective is to achieve the greatest possible amount of information on a given phenomenon, a representative case or a random sample may not be the most appropriate. This is because the typical or average case is not often the richest in information…. Random samples emphasising representativeness will seldom be able to produce this kind of insight; it is more appropriate to select some few cases chosen for their validity*' (Flyvbjerg, 2006, p.229). It is argued therefore, that it is more important to investigate the deeper cause behind a problem, rather than describing the problem and how frequently it occurs. In the case of this research, interactions and relationships between commuting, flexible working and household practices. To underline the importance of these investigations, this section of the methodology provides justification for the intentional selection and recruitment of, and comparison between, 'creative' and 'non-creative' professions. To focus this investigation, this thesis considers the role of creativity to be important, especially how creativity, the creative-class, creative industries and flexibility have been framed as interlinked and interwoven.

Returning to Southerton's (2006) work, and his brief introduction of the '*flexibilisation*' process, Breedveld (1998) contends that those in professional occupations have greater control over the sequence of work activities and can therefore develop strategies whereby the type of work they conduct outside the 9-5 model can be synchronised with leisure activities. In contrast, those of lower socio-economic status have less control over the sequence of work activities, with synchronisation of work and non-work practices rarely possible. Golden (2001) also found disparity in access to schedule flexibility through occupations, with managerial, professional, technical, sales, service and labourer/handler having greater flexibility, and craft occupations yielding less flexibility. Hill et al. (2010)

contend that workplace flexibility was a result of both occupation and profession, with some naturally being more conducive to flexible work options than others.

From this perspective, knowledge, innovation and creativity have recently been identified as powerful economic drivers in the UK and elsewhere (particularly the US and Europe) by several authors, most notably Florida (2002). It is argued that the driving forces of economic development are not just technological and organizational, but human; creating a new phase of capitalist development in the process and entering an age of creativity. Moreover, human creativity is theorized as the defining feature of economic life and that systems have evolved to encourage and harness its potential because new technologies, industries, wealth and all good economic things 'flow' from it (Peck, 2005). However, amongst the discontent towards Florida's creative class is a critique regards the vagueness in conceptualising creativity and the grouping of occupations.

Florida's (2002, 2005) creative class is composed of three different occupational groups. The first group consists of highly creative occupations known as the 'supercreative core', with occupations including engineers, scientists, economists, medicine, architects and academic staff. The second group is the 'bohemians', containing occupations within the arts (musicians, photographers, visual and performing artists etc.), as well as media, entertainment and sport related occupations. The third and final group is entitled the 'creative professionals' which includes highly qualified occupational groups such as technicians, consultants, brokers, mediators and professionals within finance, real estate, politics and management. However, Krätke (2010) claims that these three sub-groups should be disaggregated further, with '*the group of high-ranking professionals from finance, real estate, management and consulting do not represent a relevant driver of regional economic success, compared with the productive impact of scientifically and technologically creative occupations*' (p. 839). Therefore Krätke (2010) argues that only the first two groups have a specific relevance to regional innovation capacities and thus should

be categorised as creative. Therefore, occupations within the '*supercreative core*' and '*bohemians*' are considered '*creative*', with each other occupation subsumed into the supposed '*non-creative*' classification.

This classification of occupations into '*creative*' and '*non-creative'* - those which may or may not be more stereotypically flexible in when, where and how they work – assumes that creative occupations are associated with greater flexibility. This comparison represents a gap within the literature and extends previous distinctions above between professions and hierarchy into the role of creativity in flexibility. These assumptions between creativity and flexibility need challenging however, with this thesis providing insight into the accuracy of this supposed disparity.

From a methodological perspective, in order to investigate these disparities, three professions from the 'creative' and 'non-creative' industries were selected. These six professions gave the research a breadth of working practices between and within the industry classifications, offering diversity in both profession and working practice which would hopefully provide the research with an interesting comparative lens between stereotypically 'flexible' and 'non-flexible' professions.

This approach would then provide greater insight into the role of flexibility and working practices of the two industry classifications and professions than might have been the case with a single comparison between two professions, one 'flexible' and one not. A comparison of this nature provides insight into these distinctions, the role of flexibility in daily life, how practices are produced, performed and bundled throughout the day, and what affect these bundles; complexes and constraints have on travel demand, shift and lower carbon travel for the journey to/from work.

Structuring the research in this manner complemented the research questions (introduced previously) as it encouraged a focus upon different working practices, flexibility and the

role both of these play in daily schedules, travel and practices associated with the household. In addition, there is an abundance of each chosen profession within the city of Leeds. According to Leeds City Council, Leeds is the fastest growing city in the UK and is the largest financial and business services centre outside of London. Furthermore, other key sectors include that of construction, manufacturing, academia and creative and digital industries. The city also has the second highest concentration of knowledge intensive jobs by local authority area (Leeds City Council, 2016b). The number of and proximity to these professions was a key motivator in deciding which professions and industries to recruit from, hopefully aiding recruitment of participants and ensuring recruitment reached an acceptable level. Reasoning for this approach stemmed from the anticipation that recruitment would be challenging given the length of time required for the interview and the topics covered. Introduced below in Table 7 are these professions and the number of participants recruited from each.

Table 7: Number of participants recruited from each profession within both the 'creative' and 'non-creative' industries

'Creative' profession		'Non-creative' profession	
Architects	7	Accountants	7
Academics	4	Solicitors	3
Graphic Designers	4	Senior University Staff	4

The professions of architecture, academia and graphic designing are considered to be 'creative' as all three are identified within the 'supercreative core' and 'bohemians' categories outlined above, being scientifically and technologically creative. The three 'non-creative' professions chosen (accounting, soliciting and senior university staff) are considered 'non-creative', as they are identified as being high-ranking professionals from finance, management and consulting from the discussion above. The senior university staff

participants in particular comprise those within senior management whom have roles within finance, research management and business development. It is therefore considered that this profession justifies inclusion given the supposed 'non-creative' nature of their working practices. These participants are also considered comparable to others within the sample that are at the same, or higher, hierarchical level (such as some of the solicitors and accountants).

Each of the professions chosen, and subsequently all of the participants recruited, are considered to be professionals. Each of the participants had at least a higher education (University level) degree, with some having completed further education, be it through University in the form of Masters Degrees or through industry qualifications. As outlined previously within the justification of data collection method section, Hitchings (2011 and 2012) discussed the advantages of interviewing professionals, something upon which this research is based.

Once the recruitment selection parameters of the research outlined above were decided, the recruitment process followed a three-stage approach. Firstly, family contacts whom were employed within the desired professions were approached and asked to consider taking part. This approach was successful, providing the research with its first six participants. The second stage of the recruitment process was to contact 'friends' of the University of Leeds whom had either worked with the institution in the past or were currently in partnership with the University. It was considered that these 'friends' of the University might be more amicable to the research, given their involvement with the University, and so proved fruitful, as a further six participants were recruited through this method. The third and final approach to the recruitment process was cold-calling/emailing businesses based within the Leeds area, speaking to the owner/director/manager of these businesses, outlining my research with the information sheet and asking whether they or any of their colleagues would be interested in volunteering to take part.

This approach was laborious and time-consuming and yielded low return for number of businesses contacted. However, this method of recruitment did provide the research with a further ten participants. Businesses were located through a Google Maps search, Chamber of Commerce webpage database and local telephone directories within the Leeds city centre area. Throughout the recruitment process snow-balling was undertaken. This involves asking participants whom were already recruited to suggest others who may be interested in taking part, and either passing the information on to them or providing the researcher with contact information. The process of snow-balling enabled the researcher to gain a further seven participants, bringing the total number of participants involved in the research to twenty nine.

After the prospective participants were contacted an information sheet and consent form were sent, via email, to those interested in taking part in the research. These were to be completed and a copy of both handed to the researcher on the day of the interview, with the participant keeping a copy for their records. The information sheet provided the participant with details on the purpose of the project, why they had been contacted. Whether they had to take part, what they had to do, benefits and risks of taking part and the process of recording the interviews. Furthermore, confidentiality procedure, type of information sought and publication of results information was also contained within the sheet, to ensure the participant knew exactly what was being asked of them and what their participation within the research entailed and meant. A copy of this information sheet is contained within Appendix Two.

Ethical concerns and considerations are of particular importance for any research project. Not only surrounding the research topics but the participants themselves. Due to the nature of the research and the focus of topics on potentially sensitive areas such as household decision making, all participants were required to complete a consent form which outlined how their interview answers and subsequent data would be stored and

reported as anonymously as possible, removing names, places and location of activities as thoroughly as possible without altering the context of the discussion. All consent forms were kept in a locked filing cabinet on University campus and also scanned onto the University's secure computer system. A copy of this consent form is held within Appendix Three. This research project, associated documentation and fieldwork risk assessment were given favourable ethical opinion by the University of Leeds ESSL, Environment and LUBS (AREA) Faculty Research Ethics Committee, reference AREA 14-148 response 2.

Once a participant had agreed to take part in the research a date, time and location were set for the interview. The date and time were organised to be mutually convenient, with the researcher as flexible as possible to accommodate the busy schedule of the participants. The interview took place in a secure and private location, each held within the office of the respective participant (unless it was a telephone interview, as explained above). This approach incurred numerous journeys for the researcher, however was more convenient and easier for the participant if the interviews were held in their office. Throughout the interviews just the participant and the researcher were present, ensuring confidentiality and privacy. Table 8 below outlines the interview schedule for the data collection of the research project.

Table 8: Interview schedule for the data collection of the research

Date	Participant	Date	Participant
30th Sept 2015	Accountant A	18th Jan	Architect G
	Accountant B	20th Jan	Accountant F
26th Oct	Architect A	21st Jan	Graphic Designer D
16th Nov	Accountant C	27th Jan	Solicitor B
	Architect B	28th Jan	Solicitor C
17th Nov	Architect C	1st Feb	Accountant G

26th Nov	Accountant D	8th Feb	Senior University Staff A
30th Nov	Architect D	12th Feb	Senior University Staff B
1st Dec	Architect E	15th Feb	Academic A
	Architect F		Academic B
11th Jan 2016	Graphic Designer A	23rd Feb	Senior University Staff C
	Graphic Designer B		Academic C
	Graphic Designer C	26th Feb	Academic D
12th Jan	Solicitor A	7th March	Senior University Staff D
14th Jan	Accountant E		

4.8 Developing a narrative

'*Case studies often contain a substantial element of narrative. Good narratives typically approach the complexities and contradictions of real life'* (Flyvbjerg, 2006, p.237). Narrative inquiries cannot start from explicit theoretical assumptions, they are undertaken to develop descriptions of the phenomena under study from the perspective of the participants, researcher and others (Flyvbjerg, 2006). The purpose of conducting the semi-structured interviews using a case-study approach was to help develop a narrative through which the researcher could conduct thematic analysis; the process of collecting data to both deductively and inductively create conceptual groupings from the data organised by themes (Riessman, 2005). The importance of developing a narrative and the subsequent approach to analysing this narrative will be discussed in the following chapter, Approach to Analysis. Grounding for the analysis is found in previous literature in which household decisions, commute preferences and flexible working practices were all found to play important roles in the journey to work. The intention of building this narrative was to build a story of how these practices interact and the relationships between the three key areas outlined above (household, commute and work).

The interviews conducted by the researcher and the data gathered from the participants build the material in order to conduct the analysis in the search for understanding how these practices interact. Semi-structured interviews lend themselves to narrative analysis as they require texts to be constructed for further analysis of interview transcripts for close inspection. Narratives do not speak for themselves and require interpretation when used as data in social research (Riessman, 2005). Discussed previously in section 4.5, the interviews were designed to contain three stages of discussion; a participant's working practices, their journey to and from work, and any household decisions or responsibilities that interacted with these. Designing the interviews in this way allowed both the researcher and participant to cross interview topics to discuss the most prevalent, pertinent and relevant areas, whilst encouraging focus upon the areas that were deemed most crucial and important to the participant, allowing the narrative to do the same.

4.9   Pilot Study

The pilot study was conducted with five participants whom, whilst aware of the research project and its overall ambitions, were not actively involved in any area of the project itself. These five participants were recruited due to their expertise within both the transport and working practices fields. It was hoped that recruiting participants with knowledge of these areas for the pilot would provide the research with constructive criticism and revisions (if any were required) to the interview protocol and pre-interview questions. Furthermore, each participant had experience of interview technique and so were able to give helpful and useful tips, comparable to those expressed by Hitchings (2012) as to effective and productive interview technique. Table 9 below introduces the pilot study schedule.

Table 9: Pilot study schedule

Date	Study

13th July 2015	Pilot Study A
20th July 2015	Pilot Study B
	Pilot Study C
25th July 2015	Pilot Study D
16th September 2015	Pilot Study E

As for the interview questions, some changes were suggested in tone of question, running order and content. Changes of tone were made to questions within the Household Responsibilities and Commitments theme, as a few were considered to be overly personal and sensitive when compared to others within the theme. Initially, the questions altered probed into the activities of a participant's children and how these activities might influence their travel and/or work. It was not necessarily the content of these questions that was the issue, rather the deep attention paid and number of questions asked concerning a participant's children. Therefore, focus was shifted towards more general questions that allowed the participant to elucidate as to the role of dependents within the household and how these interact with travel and work – as introduced previously whilst discussing interview structure and protocol.

In terms of running order, the pilot studies conducted placed the Travel theme at the end of the interview, with reflections about household responsibilities and working practices feeding into this theme. However, upon reflection of suggestions by a number of the pilot study participants, the theme of travel was moved into the middle of the interview, to provide a bridge between the themes of working practices and the household. This way, the researcher was able to probe for what effect working practices had on their travel and look for insight into the household that influence these travel decisions, before delving deeper into the household theme. Content of the interviews (and therefore the questions asked) aid in both investigating and answering the research questions proposed. Content

that is ill-placed, misguided or irrelevant may hinder the effectiveness of the research, perhaps also damaging reliability and validity.

Therefore, it was essential to ensure questions asked throughout were in keeping with the research aims and supported the investigation. As a result of the pilot study interviews, a few questions were removed. These questions focussed upon an overarching theme of previous changes within a participants work, travel and household and also hypothetical views towards the impacts of future changes within these areas. Though not completely irrelevant to the study, these questions were considered unnecessary; as discussion around these areas took place previously within the three main themes of the interview, and were therefore deemed repetitive. Removing this repetition hopefully contributed towards interviews that were interesting and had a sense of flow.

The changes outlined above were implemented before taking to the field for data collection. Approaching the pilot study from this angle allowed for a greater degree of feedback from participants helped shape and focus questions for the data collection in the field, ensuring that the questions were of the correct tone, had suitable content and ensured interview technique of the researcher was honed and confident to allow navigation of potentially awkward or challenging discussions within the field, given apprehensions Hitchings (2012) had regarding talking with people about their social practices.

4.10   Validity and Reliability

Perhaps due to the plethora of research methods and tools available within qualitative research there has been criticism that qualitative research is not based on precise methods that may '*contribute to lack of rigor*' (Whittemore et al., 2001, p.525). However, as Diefenbach (2009) explains, this criticism is borne mainly from a positivistic understanding of research, and that because of the complexity of focus qualitative research can only be

comparatively general guides but not algorithms aiming at an exact outcome. Moreover, Diefenbach continues by explaining how it is often not the methods themselves that raises concerns, but the way they are used. Furthermore, the author explains how there '*seems to be a certain necessity to equip qualitative empirical research not only with the usual references to methods, but to take methodological issues more seriously into account'* (p.878). Onwuegbuzie and Leech (2007) explain that '*utilising and documenting legitimation techniques should prevent validity and qualitative research from being seen as an oxymoron'* (p. 247).

Diefenbach (2009) elucidates how representativeness gets confused between quantitative and qualitative. Explaining criticism of gathering empirical data site(s) as coming more from convenience than purposive sampling, the author posits that '*assurance is needed that the site and unit of investigation are suitable for the type(s) of problem(s) that shall be investigated. They are suitable if they can provide the objects of reasoning as well as all relevant criteria and circumstances that are needed to be taken into account in order to investigate the research problem appropriately'* (p.879). This approach is precisely that which was conducted during this research. Purposive sampling was conducted within the study location, however as the results are not to be generalised assurances can be made that the site of study was indeed suitable for the type of problem investigated and has provided sufficient reasoning previously, both within this chapter and throughout the thesis.

Criticism of representativeness and the selection of interviewees being neither systematic nor objective can be found in the work of Deem (2001), arguing that little attention is paid to interviewee selection, therefore making generalisation unsustainable. Diefenbach (2009) also explains that, although a serious criticism in a qualitative sense, the least a researcher can do is '*describe clearly which persons were interviewed, their status, to limit the findings and conclusions to these particular worldviews, which are only a certain part of social*

reality, and put them into perspective' (p.880). In addition, both interviewees and interviewers may influence the interview situation and therefore questions arise as to the reliability of both the data and source of that data due to unconscious bias or deliberate attempts to mislead the interviewer. These points have been addressed by Diefenbach (2009), explaining that interviewing is a social interaction and that there is no such things as *'a neutral, non-intervening and non-existent interviewer'* (p.880). The interviewer is therefore an active part of this interaction, and although true the interviewee can be influenced by the interviewer, it is the *'very nature of data stemming from 'normal' interview situations that they mirror what people regards and reveal as their conscious thoughts in a social setting – nothing more or less'* (p.880-881).

Furthermore, and onto the perhaps more problematic issue of interviewee answer reliability, Diefenbach (2009) explains that such behaviour (deliberate attempts to mislead the interviewer) is usually greater with people of higher social status – professionals being one – and that they are aware of being politically correct and not saying the wrong thing, perhaps providing only answers of stereotypes, management buzzwords or official strategy. The author concludes that the interviewer should always treat statements critically and at a distance, since the possibility that an interviewee did not say what they really thought is a possibility. It was felt however that throughout the data collection for this research all participants responded in a truthful manner, eliciting very few occasions in which questions would not be answered or when the interviewer felt 'cheating' was occurring from the participant. Having said that, it may not be a case of dishonesty in the participants describing what they do, it might be whether the participants gave truthful answers as to why they do certain things, or participate in practices a certain way. It is not necessarily their views on whether things were good or bad, or what they believed they should do and the societal norms associated with the practices recruiting them, but the connections between activities that may cause untruthfulness. Stemming from the nature

of questioning as to the connection between participant's activities and daily lives, focussing upon 'what ifs' or hypothetical situations may therefore illicit greater possibility of less honest answers, as participants may be guarded whilst discussing how and why the practices they are recruited into are sustained and bundled.

Criticism over the quality, quantity and timeframe of interview data has also been addressed by Diefenbach (2009), with the author describing how the quality of interview data can be bolstered through increasing the amount of interviews conducted. In this case, the research collected data from multiple persons over the course of six months and through the literature review, studied multiple sources to formulate categories and themes by which the study both collected and analysed data. It is hoped that building the methodology upon previous qualitative studies within the transport and social practice arenas helped further validate the study, and in turn increased reliability. However, this approach may have brought similar fallacies into this study as those found in previous ones. Awareness of these fallacies is paramount for ensuring that this research remains as valid and reliable as possible, whilst taking note building upon previous methodologies may not necessarily contribute towards a more or less reliable or valid study.

Interviews were used as they provided the research with the necessary methodological and content quality necessary for answering the research questions. In terms of quantity, 29 semi-structured interviews were conducted across the six professions chosen. Criticisms of quantity are again related to the 'quantitative representativeness of statistical validity'. Diefenbach (2009) explains that this complaint is irrelevant as there are no quantitative relations between interview data and their interpretations. Although considered in a different light, the greater number of interviews conducted, the broader the picture of the issue being researched. The greater number of interviews conducted also enables the researcher to cross-check and compare data, whilst potentially creating deeper insights through emerging trends. The author explains how there is no way of determining which

number is sufficient, citing that it is up to the researcher to decide if he or she feels enough interviews were carried out, as '*validity is not a numbers game*' (p.883). It would have been advantageous for this research to have interviewed more participants, with a small number of interviewees in some categories making saturation difficult to reach.

Although the results may not be directly replicated, the methods of using single case-study and semi-structured interview approach can be. As this research is focussing upon a single case-study and the subsequently generated context-specific knowledge, attempts to replicate the findings of this research are near impossible, as '*knowledge of single events identified under specific conditions and circumstances cannot be repeated or accumulated*' (Jensen and Rodgers, 2001, cited in Diefenbach, 2009, p.887). Analysis of findings from several case studies can provide a powerful test of generalisation. However, this approach is heavily reliant on the researchers' willingness to review existing literature comprehensively and systematically.

4.11 Weaknesses

This section of the chapter will discuss certain weaknesses of the methodology, providing reasoning for highlighting these weaknesses and their overall impact upon the strength of the methodology and subsequent findings attained from using the approach outlined throughout this chapter. To begin, the inconsistency of interview length is an important issue. These inconsistencies were as a result of time pressures on behalf of the participant, due in part to interviews being conducted during 'work hours', thus restricting the amount of time the participant could devote to participating. These inconsistencies generated data that was diverse in both breadth of topics discussed and in the depth of these discussions. Although the pre-interview question sheet developed to help focus discussion on relevant and specific areas negated some of these temporal constraints, it is the view of the researcher that a couple of the interviews lacked sufficient time to explore points and

remarks made by the participant in greater detail. These deficiencies are unfortunate and were unable to be rectified, principally thanks to difficulties in participant recruitment and the temporal issues discussed throughout. In addition, the telephone interviews that were conducted with a small proportion of the participants arose because of the temporal issues discussed above. However, this approach was not desirable and may have impacted upon the quality of the data collected. Whilst these interviews all lasted around the average of 45 minutes, a rapport with the participant was difficult to produce and therefore may have contributed towards further probing of answers, as body language and enthusiasm towards certain topics was difficult to read over the phone.

Regards the breadth and depth of some interviews, it was evident throughout a few that there was inequality in answering certain sections of the interview protocol and the topics covered within. The researcher considers the topic of household responsibilities/activities to have been under-represented within a number of the interviews. With the research hypothesising that the household interacts upon daily decisions and the relationships with both the commute and work, it could be perceived that these deficiencies might affect the validity of the data. However, with the research purposively sampling for 'creative' and 'non-creative' professionals, discrepancies between participants' working practices, commute preferences and household responsibilities were anticipated, and although a few participants reported very few household activities that influenced them temporally and spatially, other aspects of their daily life did so, therefore contributing a different and interesting angle towards the data collection and analysis.

A further weakness of the methodology was perhaps the participant recruitment process. Contacting friends of the researcher and University of Leeds was a productive approach, as was the process of snowballing, however the cold-calling approach utilised throughout the majority of the recruitment process was not as fruitful. Unfortunately, perhaps due to the intensity of the data collection process and the hour long interview, this approach yielded

few participants. In addition, the timing of the recruitment was an issue, particularly with accountants. Falling over the months of September 2015 to March 2016, this period included notably holiday periods such as Christmas and New Year, but also more importantly critical stages in work calendars, including tax-returns and end-of-year account reporting. Attempting to recruit participants over this period, in hindsight, was an error, as the researcher was confronted with several prospective participants explaining how they simply did not have the time to participate due to their increasingly busy schedules and mounting workloads in the run-up to such deadlines.

A particular weakness of the research regards the reliance of the interviews on memory recall and the discussion of participant's everyday practices that constitute their days with regards their working practices, commute and household responsibilities/activities. Relying upon memory recall may distort the accuracy of the data collected as participants, rather than discussing every morsel of their day and the practices involved, may only report on ones of note, or ones that stand out. For example, discussion may have focussed upon a particular practice that hampered a participant's ability to travel to work in a certain way, or the impact of an 'in work hours' dentist appointment on the structure of that day, and therefore little focus may have been paid to other days or events that may have impacted (or otherwise not) upon the relationship and interactions between these practices. The researcher was aware of these potential issues and hopefully through vigilance and experience was able to steer discussion away from cases of overwhelming significance and encourage the participant to report on all their everyday practices, with examples discussed in more depth.

4.12 Summary

This chapter has introduced the methodology utilised throughout this thesis. The methodology was designed to collect and analyse data in order to answer the research

questions outlined in previous chapters; with the links between these questions and research design outlined in the research design diagram in Section 4.3. A review of previous approaches to studying the commute was undertaken, which found a preponderance of quantitative approaches towards studying the journey to work. In light of this, a more in-depth qualitative approach which goes beyond just looking at travel itself was deemed necessary. Taking a more qualitative approach will encourage a deeper investigation regards the role of flexibility in daily schedules and travel demand, helping the research to understand further the relationships between different working practices and commute behaviour across households. In order to undertake the qualitative approach deemed necessary to investigate these complex relationships semi-structured interviews were considered the most appropriate data collection method. Justification for using semi-structured interviews was built principally upon Hitchings (2012) work, which felt that interviews offer an efficient means of understanding everyday practices, especially as it may be exactly such understanding that could prove crucial in initiating positive change.

People can talk about their practices, none more so than the professionals interviewed throughout this research. Interviewing professionals was justified through previous literature that discussed how educated individuals interviewed liked the intellectual challenge of working through the factors sustaining their routines. This encouraged the research to focus more strongly upon the working practices of participants; to assess what impact these practices, and the structure of work, had on daily schedules. Once convinced about the value of the project, it was relatively easy for professionals to build a reflexive awareness of how their routines and practices worked, whilst discussing whether they could feasibly institutionalise alternative modes of mundane existence. Taking further advice from Hitchings' work, the methodology then introduced the interview protocol, explaining in detail the four main themes of the interviews; Working Practices, Travel, Household Commitment and Responsibilities, and Overarching Questions. Discussions

focussed upon how questions throughout the interviews were conceived and how they related to the research questions.

Methodological discussions moved onto the research location, principally why the city of Leeds was considered a suitable location in which to conduct the data collection for the research. In short, Leeds provided access to a burgeoning array of professionals within the methodological scope of the research; with sectors and industries such as finance, legal, academia and architecture all prominent within the city, complemented by rapidly growing and diverse areas such as graphic design. Further introductions into the significance of the Leeds City Region and its economy were undertaken, together with the transport networks found within the region that service the city. Building upon these discussions the participant selection and recruitment process was outlined, together with the interview schedule for the research. From here the chapter moved onto discussions regards why developing a narrative was necessary for the analysis and how semi-structured interviews would help in accomplishing this need. Discussions regards narratives and semi-structured interviews were followed by pilot study introductions and schedule, together with changes made to protocol and interview structure as a result of pilot study analysis. The validity, reliability and weaknesses of the methodological approach taken within this thesis were then discussed. This chapter concludes that whilst some issues may have been present regards length of interviews, recruitment process and reliance upon memory recall of participants, these were mostly overcome through experience, vigilance and as a result of the strong methodology designed and discussed throughout this chapter. Discussion within this thesis moves forward to introduce and explain in Chapter Five the analytical approach taken towards the data created as a result of the semi-structured interviews conducted with participants, with these analytical approaches building upon the narrative developed during data collection and featuring a thematic analysis.

5   Chapter Five - Approach to Analysis

5.1   Introduction

Investigating the everyday social practices involved in daily life, specifically the interactions between commuting, work and the household, are key to understanding and exploring avenues of travel demand reduction and the use of lower carbon transport for the journey to work. Of further importance are how people are recruited into these practices and how these practices are subsequently maintained. Important discussions regards these interactions and relationships have been conducted throughout this thesis, with the culmination of this approach introduced in section 3.4. Thus, how these commute practices interact and are related to both working practices and household responsibilities will play an important role in this investigation. In order to answer the research questions outlined throughout this thesis, analysis of qualitative interview data was required. This chapter introduces the analytical approach undertaken to investigate these practices and their relationships, beginning with a brief introduction to qualitative data analysis.

The focus on text is the most important feature of qualitative analysis, with this text often being transcripts of interviews (Schutt, 2012). Qualitative data analysis is an iterative and reflexive process, with most of the analysis done with words. Analysis of text can be used as a way to understand what participants in particular settings really thought, account for, manage, or did in a situation or at some point in time (Miles et al., 2013). The meanings of these texts are negotiated by the interpreter(s), with the text only one possible interpretation among many. From the start of data collection, the analyst is beginning to decide what things mean, noting patterns, flows and explanations (amongst other things) (Miles and Huberman, 1994). Qualitative data analysis tends to be inductive, as the analyst identifies important categories in the data, along with patterns and relationships (Schutt, 2012). '*Qualitative data analyses are also distinguished by their focus on the inter-related*

aspects of the setting, group, or person under investigation… and so the social contexts of events, thoughts, and actions become essential for interpretation. Within this framework it doesn't really make sense to focus on two variables out of an interacting set of influences and test the relationship between just those two' (Schutt, 2012, p.3). Case-oriented understanding attempts to understand a phenomenon from the standpoint of the participants, an approach undertaken throughout this research project. Understanding cases in this way allows for a reflexive, interpretive approach that is not geared towards identifying causes, but provides a different way to explain and investigate social phenomena (Schutt, 2012), or in the case of this research, the social practices of everyday life.

The prior methodological chapter discussed the most appropriate ways of collecting data for the analysis, highlighting that narratives needed to be created, with the most appropriate data collection method considered to be semi-structured interviews. This Approach to Analysis chapter begins with a description of the transcription process, followed by a description of existing approaches to analyse qualitative methods such as semi-structured interviews. The chapter continues with a description of the analytical approaches used, namely those of thematic and narrative analysis, to analyse the interviews collected throughout this research. An introduction to the a priori coding framework deduced from the literature and theoretical underpinnings of the research discussed within Chapters Two and Three will be undertaken. Further, the thematic analysis conducted in tandem with this framework will be discussed. The triangulation, disadvantages and advantages of the analytical approaches used are then discussed, with a summary provided at the end of the chapter.

5.2   Transcription of the Interviews

Transcription is a form of representation involving analytical judgements about what to represent and how to represent it, with the process used to render data into a representational form (Gibson and Brown, 2009). The semi-structured interviews, as discussed in the Methodology chapter, were digitally recorded. Prior to conducting the analysis, the digitally recorded interviews were fully transcribed by the researcher. Although the process of transcription was time consuming, it enabled and encouraged the researcher to gain an increased level of familiarity with the interview data, providing the opportunity for further reflection and critical thought. Each hour of interview took between 2 and a half to 3 hours to transcribe completely. The transcriptions were completed using the (mainly) qualitative data analysis software package QSR NVivo. NVivo facilitated the transcription process through enabling playback speed of recordings to be altered, slowing the rate of conversation allowing the researcher to listen and type in sync with the recording, making the transcription process more efficient. NVivo is one of a number of different computer based software packages for data analysis, such as ATLAS.ti and RQDA. Further, NVivo was chosen as the qualitative data analysis software package by the researcher due to previous experience of using the package. In total, 29 semi-structured interviews were recorded, with the process of data analysis started once all of these had been transcribed.

5.3   The Narratives

Narrative is a term often used interchangeably with the term 'story' in literature on narrative research, and although narrative clearly involves stories, it is more than a single story with the term embracing the collective *'stored wisdom' of people's individual stories. A narrative is therefore a scheme by means of which human beings give meaning to their experiences of temporality and personal actions'* (Emden, 1998, p.35). It is the story that

provides the basic building blocks of narrative. Without it there is no narrative. A story implies a change in situations as expressed by the unfolding of a specific sequence of events, with the chronological sequence being a crucial ingredient of any definition of a story (Franzosi, 1998).

Sociologists have typically not been interested in analysing the linguistic nuances of texts, it is more the patterns that they are after, but not the patterns of texts, the patterns of social relations. It is often shaped as a teasing out of the common threads (themes) from which they can count and tabulate those themes, providing snippets of those common themes. In analysing respondent's stories the data is cut up and recomposed into pieces of new stories with the coherence and context of the original narrative often forgotten. There may be no escape from one form or another of the kind of thematic analysis proposed by content analysis or similar approaches (Franzosi, 1998). Vaismoradi et al. (2013) agrees, confirming that thematic analysis aims to analytically examine narrative materials from life stories by breaking the text collected into relatively small units and submitting them to descriptive treatment. Thematic analysis thus provides a purely qualitative, detailed, and nuanced account of data (Vaismoradi et al., 2013).

5.4   Analysis of the Interviews

The method of analysis chosen for this study was a dual approach of qualitative methods of both narrative and thematic analysis, incorporating both deductive and inductive approaches for the latter. Discussions regards these two approaches will follow. As a brief introduction into thematic analysis, deductive approaches are aimed at testing theory, whilst inductive approaches are concerned with the generation of 'emergent' trends and theories from the data itself. The deductive a priori approach conducted within this research was developed based on the research questions, theoretical framework and the literature reviewed within Chapters Two and Three; specifically concerning theories of

social practice, work, commuting and the household. Approaching the data analysis from both the narrative and thematic perspectives complemented the research questions as it allowed further interactions between commuting, the household and work to come to the fore. In addition, encouraging other themes to 'emerge' direct from the data through inductive coding (Bryman and Burgess, 1994, Fereday and Muir-Cochrane, 2006). Qualitative approaches can be criticised for the space they afford the subjectivity of the researcher, with questions often asked as to the bias of these approaches (Madill et al., 2000). Thus, objectivity and reliability of data analysis is sought, which can be demonstrated principally through triangulation. Triangulation is important in order to control bias and establish valid propositions (Golafshani, 2003). In order to improve the analysis and understanding, triangulation is a step taken by qualitative researchers to involve 'several investigators or peer researchers' interpretation of the data at different time or location' (Golafshani, 2003, p. 604). A description of the triangulation process undertaken within this analysis is discussed later in section 4.8.

5.5   Narrative Analysis

Narrative analysis refers to a family of approaches to diverse kinds of text, which have in common a storied form. What makes these diverse texts narrative is sequence and consequence. '*Events are selected, organised, connected, and evaluated as meaningful for a particular audience*' (Riessman, 2005, p. 1). Storytellers interpret the world and experience in it, with narrative representing storied ways of knowing and communicating. Personal narrative encompasses long sections of talk, as in the case of this research, extended accounts of lives in context that develop over the course of single (or multiple) interviews. Differing definitions of narrative lead to different methods of analysis, but all require construction of texts for further analysis; selecting sections of interview transcript for close inspection for example within this research. Narratives, as Riessman (2005)

highlight, do not speak for themselves or have any unanalysed merit. They require interpretation when used as data in social research. Cresswell and Uteng (2008), whilst discussing gendered mobilities, explain that there are aspects of mobility usually considered by philosophers, theorists or academics; those being that mobility involves the meanings associated with movement, the narratives and discourses that make movement make sense culturally (Cresswell and Uteng, 2008). Earthy et al. (2008) describe that social scientists have become interested in using narrative analysis as a means to gain greater understanding of the social world , with this interest part of a wider move towards a more 'interpretive turn'. Using narrative analysis means that uncovering the truth no longer becomes the object of analysis, with a move away from the 'what' to the 'how' (Earthy et al., 2008).

Through narrative analysis the researcher chooses to understand and analyse interview data from the perspective of the story-telling components and social interactions between interviewer and interviewee, rather than focusing solely upon the content of the interviews or the conversational forms and rules that underlie the interaction (Earthy et al., 2008). A '*narrative approach will take account of both the content and the form of the interviewee's account and interactions with the interviewer, but more importantly will ask questions such as 'Why is the interviewee narrating this incident in this particular way?', 'What is the purpose of this story?', and 'How does this excerpt fit with other parts of the interviewee's life story as narrated during the interview as a whole?*' amongst other considerations (Earthy et al., 2008, p. 469). Several typologies of narrative analysis exist, with thematic analysis being one of these typologies. A deeper description of this typology and how it was used throughout the analysis of the interview data generated within this thesis follows in Section 5.6. Thematic analysis emphasises context of a text, 'what' is said more than 'how' it is said. A typology of narratives organised by theme is the typical representational strategy, with case studies providing illustration – an approach utilised throughout the data

collection within this research. The thematic approach to narrative analysis is useful for theorising across a number of cases, finding common elements across participants and the events reported (Riessman, 2005).

5.6   Thematic Analysis

'*Thematic analysis is a method for identifying, analysing and reporting patterns (themes) within data*' (Braun and Clarke, 2006, p. 79). Qualitative researchers should become more familiar with thematic analysis as an independent and reliable approach to analysis, with thematic analysis providing a rich and detailed (yet complex) account of the data thanks to it being a flexible and useful research tool (Vaismoradi et al., 2013). Thematic analysis therefore entails searching for and identification of common threads that extend across entire interviews or sets of interviews (Vaismoradi et al., 2013). In this respect, a theme can be described as: *'a generalized and decontextualized category of contextually specific aspects of social life that become treated as 'of generalised type' in order to compare them with other instances of data that are labelled in the same way*' (Gibson and Brown, 2009, p. 129). Thematic analysis essentially minimally organises and describes data in rich detail, yet frequently goes further, interpreting various aspects of the research topic. It is often not explicitly claimed as a method of analysis due to not appearing to exist as a 'named' method of analysis in the same way as others, such as narrative analysis or grounded theory (Braun and Clarke, 2006).

Important in thematic analyses *'is that the theoretical framework and methods match what the researcher wants to know, and that they acknowledge these decisions, and recognize them as decisions*' (Braun and Clarke, 2006, p. 80). The theoretical position of thematic analyses is important, as any theoretical framework carries assumptions regards the nature of the data, what this represents and so forth. '*A good thematic analysis will make this transparent*' (Braun and Clarke, 2006, p. 81), and in the context of this research, theoretical

assumptions relate to the performance of individual practices throughout daily life, the constitutive elements of these practices, and the bundles and sequences that influence the time and space of these performances.

To explain the dual approach taken to analysis within this research we have to explore further what inductive and deductive approaches regards thematic analysis entail. An inductive approach means the themes identified are strongly linked to the data themselves, whereas a 'theoretical' or deductive approach tends to be driven by the researcher's theoretical or analytical interests in the area (Braun and Clarke, 2006). Whilst deductive approaches may provide a less rich description of the data overall they can provide a more detailed analysis of an aspect of the data. As the research is focussed upon the social practices of everyday life, commuting and work it was considered sensible to approach the analysis using a deductive form of thematic analysis, with a preconceived coding framework (outlined in section 5.7 below) drawn from theoretical interests that provided a 'top-down' approach (Boyatzis, 1998).

Whilst it is not possible to code in a vacuum or free oneself from theoretical and epistemological commitments (Braun and Clarke, 2006), the researcher also wished to encourage other themes to be strongly linked to the data themselves. To do so, an inductive approach of thematic analysis was introduced to the data after the deductive coding framework was applied. Inductive approaches to thematic analysis could often be described as allowing themes to 'emerge' from or be 'discovered' whilst analysing the data. Accounts of themes emerging or being discovered is passive and denies the active role the researcher plays in identifying themes and patterns, deciding which are of interest and then reporting them for the reader (Braun and Clarke, 2006). In this light, themes that '*captured something important about the data in relation to the research question, and represents some level of patterned response or meaning within the data set' (Braun and*

Clarke, 2006, p. 82) were searched for during the latter inductive approach to analysis conducted.

Qualitative research is '*often depicted as a research strategy whose emphasis on a relatively open-ended approach to the research process frequently produces surprises, changes of direction and new insights*' (Bryman, 2006, p. 111). Due to the exploratory nature, interpretivist research lends itself to unexpected findings, some of which might be surprising to the researcher throughout analysis (Onwuegbuzie and Leech, 2007). Given the focus of this investigation into the performance of daily life and the relationships between commuting, the household and flexible working, surprising findings could perhaps have been anticipated. Rather than ignoring or dismissing these unexpected and surprising findings, researchers should follow up on them. Miles and Huberman (1994) suggest that following up on these surprises have three aspects. First, you reflect upon the surprise to surface your violated theory. Second, you consider how to revise it. Then finally, look for evidence to support your revision (p.271).

When an incident within the data that surprises the researcher occurs, it becomes a stimulus for reflection (Schein, 1985), with this reflection then leading to a decision regards the incident's criticality (Angelides, 2001). Reflection therefore encourages the researcher to not be dependent upon categories of established theory and technique, constructing new theories or understandings of the unique case under investigation (Schon, 1984). Miles and Huberman (1994) thus suggest that the cases that do not fit emerging explanations are 'your friends' (p.208), surprising the researcher, making them rethink, expand, and revise theories. As such, surprises should not be cast as errors, exceptions or irrelevancies, something in which the analysis conducted throughout this research did not do. A detailed discussions as to the surprises and new insights produced as a result of the exploratory research and analysis undertaken throughout this thesis are introduced henceforth within section 5.7.

5.7   Coding Framework

A code draws attention to a commonality within a data set, with distinctions between both

a priori (defined prior to the examination of data) and empirical codes (generated through

the examination of the data itself) (Gibson and Brown, 2009). The decision of which data

shall be used (and therefore which is not) is primarily a problem of qualitative data analysis.

The assumption is that the data will give a valid description of what has been investigated

and that the data selected have been done so objectively. However, there is no formula for

deciding the relevance, weight or importance of data, and how they are related. The

selection, grouping and coding of data in qualitative research and analysis is based solely

on the subjective decisions of the researcher. This, therefore, leads to the result that no

two researchers will analyse the data in the same way, again leading to selection based

upon subjective criteria (Diefenbach, 2009). '*Even the most detailed coding – in the hope*

this guarantees a higher level of objectivity – still requires subjective decisions concerning

the inclusion and exclusion of data' (Diefenbach, 2009, p. 885).

In light of the discussions above an introduction into the coding framework applied

throughout the thematic analysis of the interview data is required. As stated, both

inductive and deductive approaches were applied, with the analysis guided principally by a

deductive a priori framework established from the theoretical underpinnings of the

research and the researcher's interests. The researcher decided to select, theme and code

the qualitative data initially according to the research interests surrounding flexible

working practices, commuting and the household. Further codes and themes were

deduced aligning to the theoretical underpinnings of the research, specifically those in

relation to theories of social practice and the 'three-elements' model constructed by Shove

et al. (2012) and discussed throughout section 3.2. The three elements of meanings,

materials and competences were therefore introduced into the coding framework. Figure

16 below succinctly illustrates the coding framework as constructed through use of the qualitative data analysis software package QSR NVivo.
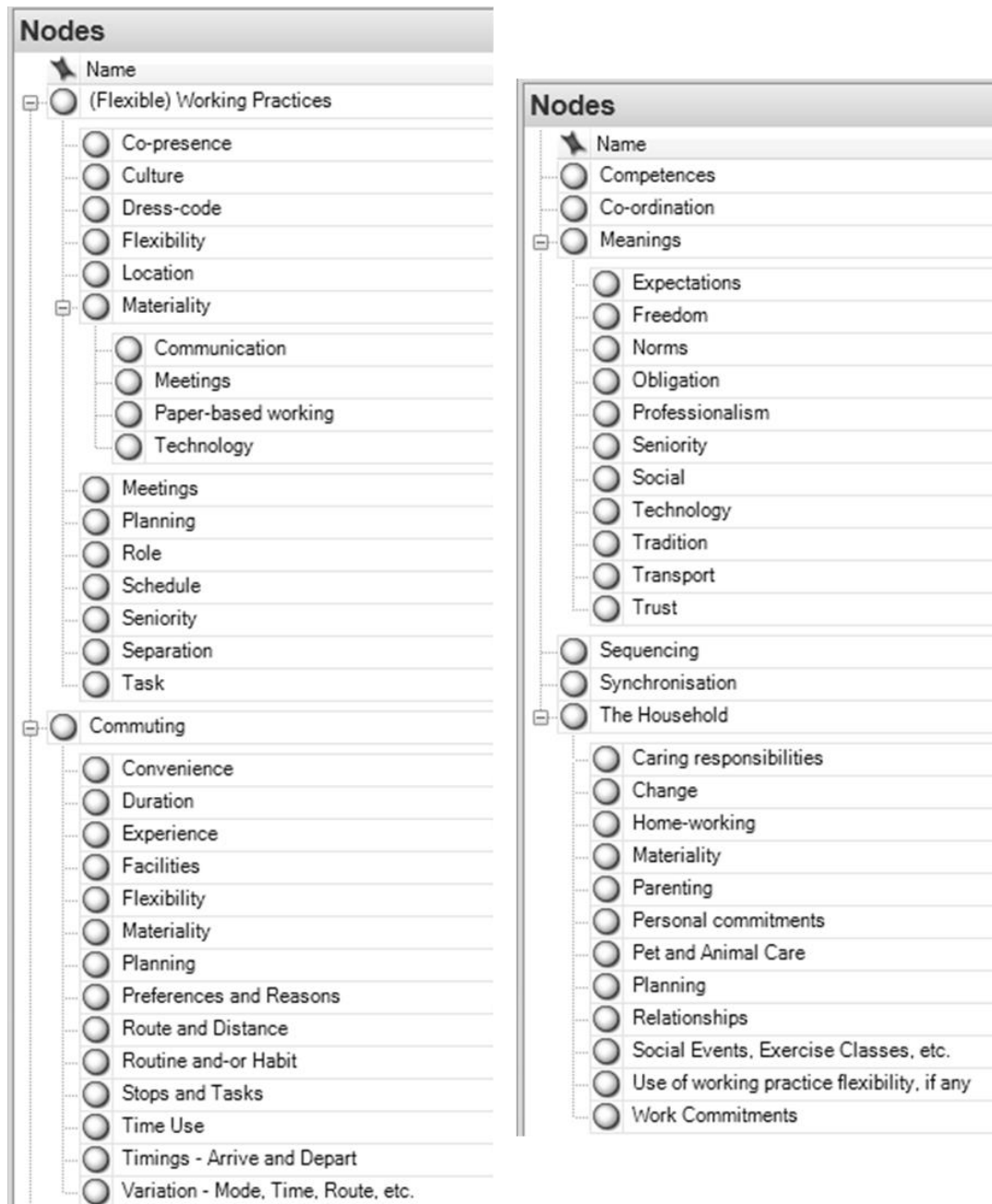
Figure 16: Coding framework

The glossary illustrates the pertinent and important codes within the framework that were deduced from the literature discussed within Chapters Two and Three. Further pertinent and important codes were deduced as a result of the theoretical discussions undertaken throughout Chapter Three. These codes pertained to work as a practice, the fixity of daily

life, and the flexibility of working practices. Of importance were: co-presence; culture; sequencing; and synchronisation and co-ordination. Materiality of work as a practice was broken down further into three sub-codes of: communication and ICTs; meetings; and paper-based working.

The inductive thematic analysis was conducted after that of the deductive coding framework, with a few instances of 'surprising' themes or 'new insights' identified. Inductive themes considered important and represented some level of patterned response were given a unique code within the framework. These themes and codes arose as a result of both the pilot study analysis and analysis of participant interviews. Structuring the coding framework in this way enabled the researcher to organise thoughts and avenues of interest into specific themes and individual codes.

Inductive sub-codes of pertinence were found within the main codes of the household, working practices and meanings. Those from the household were 'pet and animal care' and 'social events and classes'. Sub-codes within working practices were the meanings of 'dress-code' and 'separation', together with the sub-code of 'task'. Those of 'seniority', 'trust', 'obligation', 'expectation', and 'tradition' pertained to the code of Meanings. Pet and animal care is a pertinent example of an inductive sub-code from a participant interview, with an excerpt from Architect A below describing the temporal and spatial constraints associated with their dog on a daily basis:

> *'The only sort of tie now is the dog... you know he requires walking and all the rest of it, and you think 'oh I've got to get back to feed him', but other than that no we are free agents… The dog is a time constraint, because you can't leave him all day and all night, you have to get him out of the door.'*

Definitions regards these important inductive codes can be found within the glossary at the conclusion of this thesis. These important themes and codes could be described as

'surprises', given they were not expected from the deductive approach outlined throughout. Surprises were generally interpreted through an expansion of the coding framework, rather than requiring a recasting of themes or hierarchy. Further freedom was afforded by the thematic analysis undertaken and the broad definitions of the 'three-elements' discussed by Shove et al. (2012). Both allowed the researcher to interpret these elements and code themes of pertinence and importance to the research questions and interests direct from the interview data.

5.8   *Triangulation*

In order to ensure the repeatability and reliability of the coding framework introduced above, multiple triangulation exercises were undertaken. Triangulation in social research is the observation of the research issue from (at least) two different points (Flick, 2004). '*Triangulation is typically a strategy for improving the validity and reliability of research or evaluation of findings*' (Golafshani, 2003, p. 603). Thus, collection and comparison of this data enhances the quality based on the principles of idea convergence and the confirmation of findings (Baxter and Jack, 2008). Furthermore, to improve the analysis and understanding of the phenomena, triangulation is conducted to involve several other researchers' interpretations of the data at different times or locations (Golafshani, 2003).

Three triangulation exercises were conducted with three fellow research colleagues from within the Institute for Transport Studies. These colleagues were unaware of the project before the triangulation exercises, with a brief overview and explanation given to familiarise them with the project, its aims, research questions and approach. Each triangulation exercise lasted about an hour and involved the analysis of data from multiple interview transcripts to ascertain the accuracy of the coding framework used throughout this research. All interview transcripts were anonymous to uphold confidentiality and data protection. The triangulation exercises were productive, with the fellow researchers

agreeing in the most part upon the accuracy of the coding framework. Of note from these discussions, and as an example of how this process was useful for the research, was the addition of the sub-code '*planning*' in to each of the three codes arising from the research interests of flexible working practices, commuting and the household.

Planning was considered implicit within both the commuting and working practices framework, whilst it was explicitly present as a defined sub-code within the household coding framework prior to the triangulation. To ensure consistency of coding across data sources and in order to minimise the subjectivity and bias of the researcher, those undertaking the triangulation advised to make planning an explicit sub-code within both commuting and working practices; an approach agreed and implemented upon by the researcher. Planning within working practices was coded typically in relation to co-present working practices; with the number, duration and location of meetings and periods of coordination important. For commuting practices, planning was coded more in relation to active travel and dress-code, with appropriate clothing and materials for the day ahead often considered by participants. A pertinent example from Senior University Staff C revolved around the planning, communication and organisation of work schedules with a colleague. The excerpt below also offered insight into the relationships inherent within flexible working practices and the role planning plays in these, particularly for days out of the office and the communication necessary:

> '*It works between me and her. Equally, she has had occasions when she has had to leave early in the afternoon... I have no problem with that because I cover her time. Between me and her we manage what I would consider flexible working conditions. We will never leave each other in the lurch. We know the planned times out of the office... there is that planning communication that goes on. It is more of an informal flexible working arrangement*.'

Whilst it would have been desirable for the triangulation to be conducted with each of the interview transcripts and with a greater number of fellow researchers, time and resources did not allow for such an expansion. However, possible limitations expressed do not pose questions as to the usefulness of the triangulation; which as discussed above was helpful for data analysis within this research. Triangulating different data sources and researcher perspectives enhances the credibility and the transferability of the findings. Findings consistent across data sources and confirmed across multiple researchers provide greater confidence in the credibility of the interpretations (Farmer et al., 2006).

5.9   Advantages and Disadvantages of Analytical Approaches

The approach to analysis developed for this research and introduced throughout this chapter offers many advantages that are common to both thematic and narrative analyses. The dual approach devised allows for close consideration of unique anecdotes and phrases from which major impressions, themes and narratives can be drawn. The characteristics of the interview methodology created and described in Chapter Four to produce the narratives and stories encouraged participants to give details into the areas they felt important regards the research interests around commuting, flexible work and household responsibilities. The narratives were developed through interaction and communication with other human beings via the semi-structured interviews.

5.9.1   Narrative analysis

'*Narrative analyses are not suitable for studies of large numbers of nameless and faceless subjects*' (Riessman, 2005, p. 6). Narrative research can reify the interior self, pretend to offer an authentic voice, and idealise individual agency (Riessman, 2005). Further, there is a danger of over-personalising the personal narrative, however, the 'truths' of the narrative are not faithful in their representations, therefore offering a way for storytellers to re-

imagine their lives and forge connections between personal biography and social structure. '*Narratives do not mirror, they refract the past… with imagination and interests influencing how storytellers choose to connect events and make them meaningful for others*' (Riessman, 2005, p. 6).

This makes narratives useful in research as this allows storytellers to interpret the past rather than reproduce it as it was. From a validity perspective, the credibility of a narrative analysis must contain an explicit acknowledgement by the researcher that any analysis is the production of particular discourses or theoretical frameworks, which this research does duly acknowledge. Further, any analysis conducted should not claim to be more 'truthful' than another, rather rendering the analytical process transparent through which the interpretation of the narrative and the stories has been reached (Earthy et al., 2008). Through introducing and discussing the narrative and thematic approaches to analysis undertaken throughout this research it is hoped that transparency regards these approaches has been reached.

5.9.2   *Thematic analysis*

Thematic analysis is relatively straightforward and does not require the same detailed theoretical and technical knowledge of comparable approaches such as content analysis and discourse analysis. One of the benefits of thematic analysis is its flexibility, offering a wide range of analytical options. Further, it is not just a collection of extracts with no analytical narrative or comment, with this narrative and use of comments illustrative of the analytic points made by the researcher (Braun and Clarke, 2006). Braun and Clarke (2006) make the point to avoid using the data collection questions as the themes within the analysis, as no analytic work would have been carried out or sense made of the patterns of response from participants. The researcher ensured that this did not occur, using the research questions, interests and interview schedule only as guides to the inductive

thematic analysis undertaken. Idiosyncrasy is another issue posited by Braun and Clarke (2006), though explain to avoid such circumstances the researcher must depart from, and be wary of not, referencing one or few instances of a phenomena reified into a pattern or theme.

Misrepresentation of the data in this manner was actively avoided, with the a priori coding framework combating this issue in the most part and the inductive thematic analysis conducted in an honest and representational manner. '*A good thematic analysis needs to make sure that the interpretations of the data are consistent with the theoretical framework*' (Braun and Clarke, 2006, p. 95), something which was actively pursued throughout with the research grounded within social practice theory and the thematic analysis conducted through the deductive a priori coding framework devised from the literature and theoretical underpinnings of the research. Many of the disadvantages inherent within thematic analysis depend on poorly conducted analyses or inappropriate research questions rather than the method itself. The analytical approach has limited interpretative power beyond that of mere description, though when used in tandem with an existing theoretical framework it anchors the analytical claims that are made (Braun and Clarke, 2006). Finally, when compared with other analytical methods such as narrative analysis or biographical approaches, thematic analysis is unable to retain a sense of continuity or consistency across individual accounts provided through the interview data, which may of course be revealing. Coupling the thematic analysis with that of narrative analysis, as explained in section 5.5 above, hopefully minimised this disadvantage.

5.10 Summary

This chapter has introduced the narrative and thematic analytical approaches undertaken throughout this research. Deductive thematic analysis was conducted according to the preconceived, theoretically driven coding framework outlined, whilst the inductive analysis

encouraged other themes to be strongly linked to the data themselves. Examples of these approaches were given throughout the chapter, with the annexed glossary defining these inductive codes. These analytical perspectives complemented the research questions by allowing further interactions between commuting, the household and work to come to the fore. The triangulation exercises conducted were introduced, with the code of planning an example. Finally, the disadvantages and advantages of the analytical approaches were also discussed.

6   Chapter Six - Flexible working practices and the 'creative' / 'non-creative' divide

6.1   Introduction

It was argued during the methodological chapter that it is more important to investigate the deeper cause behind a problem, rather than describing the problem and how frequently it occurs. To underline these investigations, the role of creativity was considered important, especially how creativity, the creative-class, creative industries and flexibility have been framed as interlinked and interwoven. Previous literature contended that workplace flexibility was a result of both occupation and profession, with some naturally being more conducive to flexible work options than others. An intentional comparison between 'creative' and 'non-creative' professionals - those which may or may not be more stereotypically flexible in when, where and how they work - was therefore undertaken. This chapter will investigate the accuracy of this supposed disparity. To do so, this chapter is structured principally through the sub-code of flexibility within the working practices code (Figure 16); evidencing examples of when and how participants performed flexible working practices, both temporally and spatially. Furthermore, initial insight regards elements found to be influential within these performances are also introduced.

There was found to be little disparity between participants from the 'creative' and 'non-creative' sectors interviewed regards spatial and temporal flexibility. Therefore, this chapter argues that the importance of the 'creative' / 'non-creative' divide is not a defining influence on flexibility within working practices for the sample studied. Temporal flexibility described by participants typically revolved around 'traditional' fixed working hour norms of 9-5, whilst spatial flexibility was typically performed through home-working. Home-working however was minimal, with these practices conducted on a basis of 'making-up' time lost through the week or as a base for more 'efficient' travel to work.
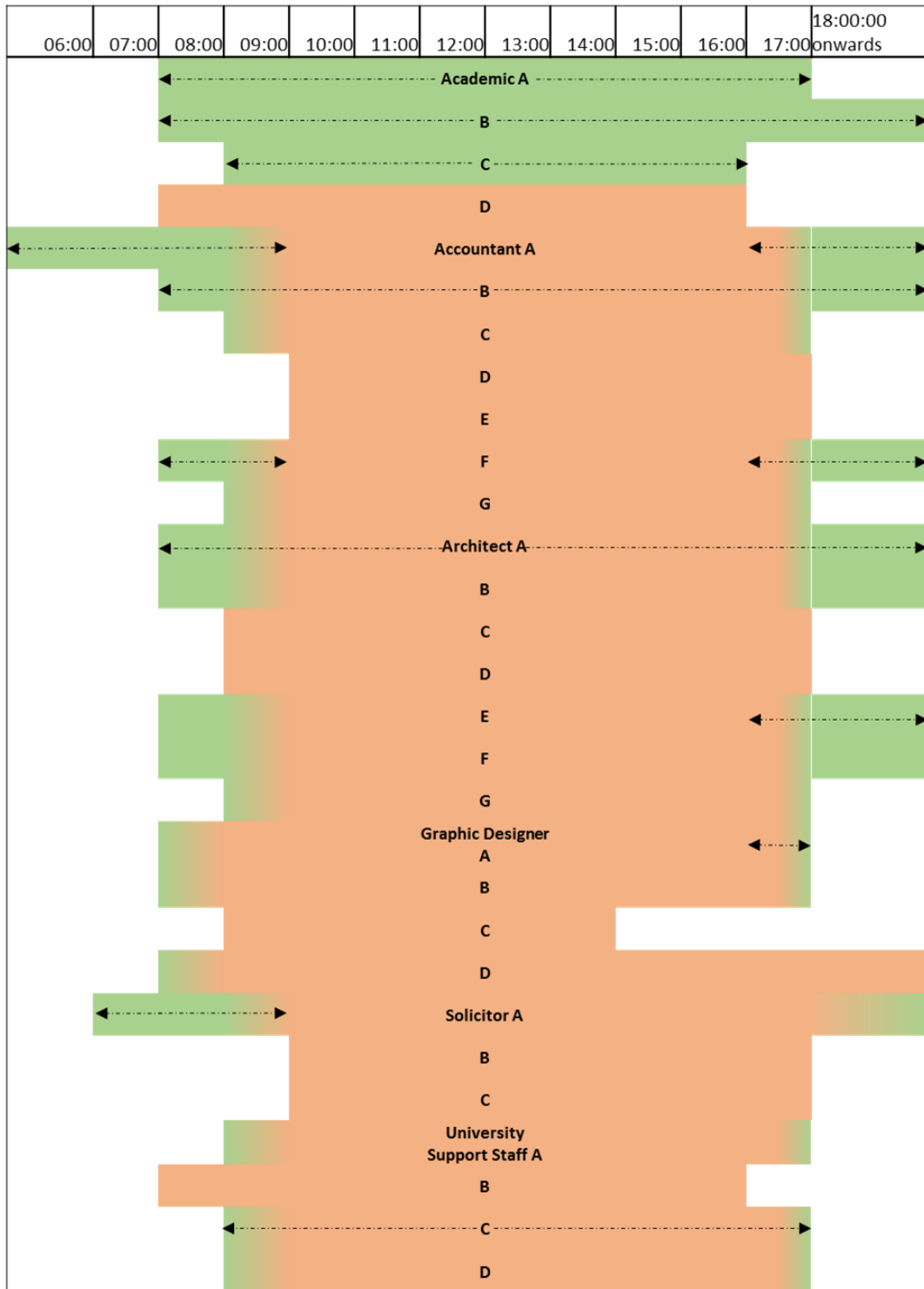
Figure 17: The flexibility of participant working practices.

Figure 17 above succinctly introduces the flexibility of working practices for each participant. Temporal flexibility described by participants is depicted in green, with the periods of spatial flexibility illustrated by arrows. Performance of temporal flexibility was

predominant either side of the described 'working hour norms', with most participants reporting flexibility between the hours of 08:00 and 09:00 in the morning, and 16:00 and 18:00 in the evening. In terms of spatial flexibility, the differing lengths of dashed arrows illustrate the participants which had access to spatially flexible working practices, and through which times of the day this flexibility is typically performed.

6.2   Temporal flexibility

Beginning with temporal flexibility, Table 10 below shows similar levels of disparity between those professions purportedly 'creative' and those 'non-creative' as did overall access to flexible working practices. As can be seen below, each profession is represented by at least two participants whom utilise temporal flexibility. The majority of participants perform their work during 'traditional' working hour norms of 9-5, with core hours playing a key role. Reasoning for utilising temporal flexibility is introduced within this section, with participants outlining why and in what situations temporal flexibility is used.

Table 10: The participants whom utilised temporal flexibility

'*Creative*' participants:	'*Non creative*' participants:
Academics A, B, C and D	Accountant A, B, D and E
Architects B, E, F and G	Solicitors A and C
Graphic Designers A, B, C and D	Senior University Staff A, C and D

As an initial example, Accountant A and Solicitor A both exhibited occasions when travelling outside the 'peak', principally to avoid the traffic encountered during these times. Both participants did some work whilst at home before travelling, however this did not negate their need to travel into the office, it just allowed them to 'beat' the rush-hour and the traffic. Accountant A for example said:

'I start usually at 6, so quite an early starter. Mostly that is to avoid traffic, if I'm honest. Partly, because I am an early starter… So I do some work at home and then travel in but I always try to avoid the rush hour, because life is too short to be stuck in the rush hour. Yeah so that is kind of a conscious decision to avoid the traffic.'

Solicitor A echoed these sentiments, although his avoidance of the rush-hour is borne out of his want to keep fit and go swimming before work in the morning, as evidenced previously. On these occasions the participant explains that;

'I'll try and go for a swim at 7 o'clock 3 days a week. And if I can I will do that, well I do it near home, and go to the pool, quick half hour in the pool, and then set off to work. But if I do that, I am automatically opening myself up to being stuck in traffic. So if I do that, what I'll tend to do is, I'll come back from the pool, have some breakfast, I might do a bit of work at home, and then I come in when the rush hour is over. This might be I might leave at 9 or something like that... I've got some flexibility, so I use it. But I don't like sitting in traffic. I hate it.'

Doing work either in the morning before or in the evening after work is something that Architect B advocated, to ensure 'focus time' to do some work on his own and not be interrupted by colleagues. This approach often led to him:

'*Come in early and go home late to just have those two hours, an hour or so either side to do some stuff on my own, be it at home or in the office. Usually I will do it in the office though, just to prepare myself for the day*'.

One process evident throughout the use of temporal flexibility was the concept of '*making up*' time that had been lost or replaced due to starting later. A number of participants reported using flexibility in this way, to both arrive later and leave later, or arrive earlier in order to finish earlier and usually complete personal tasks, such as going to the dentists or

doing some shopping in the city centre, as evidenced by Graphic Designer C and D, Senior University Staff C, Solicitor C, Architect E and Academic D. These processes therefore enable the participants to shift their demand outside of the peak and contribute to reducing the burden on the network. However, with access to temporally flexible working practices reaching around 70% of participants, there are nearly a third of participants that need to travel at peak times. Furthermore, the excerpts introduced above are illustrating the limited scope surrounding temporal flexibility. Architects E and F provide insight into this limited scope, explaining how owning and running the architecture firm themselves allows them to have flexibility over when they start and leave;

> *Architect E: 'The benefits of doing a company yourself is the flexibility, because I can choose if I have got a dental appointment I can just walk out and get it sorted. If I have a hangover I can turn up a little bit late in the morning and make it up at some other time… I will say sort of I will come it tomorrow at 10 o'clock and leave at say 6 half 6.'*

> *Architect F: 'It is very flexible. With us owning it ourselves we can come in at like, we say 9 till half past 5, yet today I have come in at half 9, so I will leave at 6. Or I will leave at 5 o'clock and tomorrow I am just going to work an extra hour and a half.'*

It is again evident throughout a number of these excerpts that the use of temporal flexibility is not solely available for those participants whom are considered to be '*creative*', with Accountant A and B and Architect E and F reporting similar flexibility use to one another. Their use of flexibility stems more from the ownership and running of the organisations themselves, the limited number of responsibilities arising from each of their respective households, and perhaps most important - their ability to co-ordinate, manage and negotiate colleagues and clients regards meetings and site visits.

It is very much a case of '*getting the work done*' and providing that the tasks are completed and the work finished at the end of the day/week, it would seem that there is little difference in being a '*creative*' or '*non-creative*' worker in the use of temporal flexibility. Accountant B, building upon the expectation to be in work, discusses how:

> '*On a normal, average week when my boss is in the office, I am. If I don't have a drama or need to anything for someone I come in at 9 and leave at 5, and I am happy with that. So there is that expectation, but it is very flexible if you need to adjust it. I would just make that time up [if arriving after 9], possibly later that day or later in the week. It is more about getting the work done.*'

Senior University Staff A also exhibits elements of this process, whilst Graphic Designer A explains how, even though he may arrive up to an hour past 9am on some days, he '*makes sure I am doing my hours*'. Architect G shares this approach, noting in reference to both his colleagues and himself utilising temporal flexibility in their start and finish times:

> '*So our core hours are usually 08:30-17:00, but we are very flexible about that. So if someone can't make it in, if they have an issue or something, if we all do the overall hours a week, we are not that bothered. If they want to work a bit later or come in early and leave early it is not an issue, we are quite flexible about that… So basically as long as the work gets done, we don't have a problem. We have one guy who needs to leave earlier to miss the traffic, but that is not a problem because he comes in a bit earlier.*'

Senior University Staff D explains that '*nothing is going to drop dead*' if they arrive half an hour late due to a delay in travelling in on the bus, and that apologies would be made and time '*made back up*', usually by working half an hour (or however long) later that day. Having said that, SUS D considers her use of the bus to be quite restrictive in when she can

utilise her flexibility, with use generally reactive rather than out of choice. Discussing this, the participant explains:

> '*The bus is fine, works perfectly well, and is very good. But, I would probably drive if it was easier to park. It is more convenient. It gives me the opportunity to leave when I want. You can do that extra half hour, quarter hour, or whatever, and you can work it round that. You've got more flexibility going home, popping to the shops on the way back, just silly things like that, just those things that make it a little bit more convenient.*'

In addition, and uniquely, Accountant D combined his use of temporal flexibility with a reduction in travel demand later in the week. However, as this participant works to contracts of usually predefined or in-determinant length, access to and use of temporal and spatial flexibility varies between contracts:

> '*When I was working in Manchester, they were on flexi-time anyway, once I had been there a while I said to them 'this is hard work to me' so I would rather do extended hours, so I would set off early and set off late back, so I would do 10 hour days, or whatever it was 9 and a quarter hour days, instead of 7, and then I would just have Friday off, which also missed all the traffic you see. So if you went in early you would miss all the traffic. If I set off at 8 o'clock I am only going to get there for half 9, quarter to 10, so setting off early helped me miss the traffic.*'

Interestingly, with two of the Academics interviewed working part-time, they illicit different approaches to using temporal flexibility, with the majority of their travel conducted outside of at least one of the two peak times observed throughout the day. Though expectations arise through needing to be in the office for meetings, socialising and other research purposes, times at which these occur are almost always negotiated in advance, as both

participants have '*extensive flexibility*' in planning their own diaries, whilst negotiating times/days/length of meetings is a practice undertaken by most in their profession. Continuing, Academic A explains how '*I have completely flexible hours and am trusted to do the number of hours required. As I have said, I can plan my own calendar and negotiate meetings*'. The desire and preference to travel outside 'peak' times, or rather during 'off-peak', comes from a financial standpoint, in that it is cheaper to do so, though as Academic B contends it is often difficult to do so due to the specific travel times and confliction with work commitments expressed above.

6.3   Spatial flexibility

Moving on from the influence of temporal flexibility to focus more prominently upon the reduction of travel demand due to the use of spatial flexibility, Table 11 introduces those participants whom reported spatially shifting or reducing their travel demand, primarily through working at home. Similar to temporal flexibility, there is very little disparity between the number of both '*creative*' and '*non-creative*' participants whom exercised spatial flexibility. The same number of participants (six) from the two profession classifications reported the use of spatial flexibility, in turn potentially reducing their demand for travel into the office/studio. However, what is noticeable is that there is a much greater use of temporal than spatial flexibility.

Whilst nearly a third of the participants claimed to have access to spatial flexibility, the use of these practices was sporadic for many, with only a few participants capable of utilising spatial flexibility for periods of a few hours or a day. For example, Accountant A and Architect A, whom performed spatially, dispersed working practices over periods of days. Four further participants described access to and occasional use of spatial flexibility, typically home-working, at either both or one end of the working day.

Table 11: The participants whom utilised spatial flexibility

Examples of spatially shifting demand	
'*Creative*' professions:	'*Non creative*' professions:
Academics A, B and C	Accountants A, B, E and F
Architects A and B	Solicitor A
Graphic Designer A	Senior University Staff C

Spatial flexibility on these occasions is as a result of the processes of 'making-up' time 'lost' during the week or 'catching-up' on work not completed. The ability to do so revolves around several elements. As we shall see in the forthcoming chapters, being trusted by your employer and colleagues to work effectively whilst away from the office is critical, along with the ability to influence when and where co-presence is required and when interactions take place. Finally, information and communication technologies are also and important elements for the performance of flexible working practices.

Accountants A and B (whilst working together) had interesting interactions regards flexible working performances. These interactions centred upon when Accountant A was either out of the office visiting clients, delivering training sessions, or busy attending internal meetings all day. Accountant B could, on these occasions, work from home as the process of supervision and training would be negated by Accountant A being unavailable. In his own words, Accountant A explains how this process works and his feelings towards his colleague working from home:

> *'I am very happy if she wants to work from home. So there are some days where being involved in this business here, this company, I will come in and I will have meetings in here from 9 until you know sort of 1 o'clock, and then in the afternoon I*

will be with other businesses where I might need to, typically I think it is Tuesday, frequently I will be in meetings in here in the morning and then meetings all afternoon over in Wetherby and places like that. What is the point in her coming in as I will just be like 'hi how are you' and in some ways I give her complete flexibility to work here or work at home. We speak on the phone, we email, and I think the thing is there is a trust issue around that. Definitely a trust issue and I feel we have got a fair balance. I say 'well work from home and manage your hours'. And that's generally how I feel about it. I know she won't rip me off and I am not going to rip her off.'

In the subsequent interview, Accountant B then confirms this practice by explaining that when her boss is not in the office she does not need to be and often works from home. She then goes on to note that because of the laptop they use she can work anywhere, appreciating her boss allowing her '*to manage my own time, he has trust and faith in me. It works, I really like it.'*

The majority of the academics interviewed (3 out of 4) have access to and used spatial flexibility, and meant that work was conducted on a regular basis from home. The flexible nature and type of work undertaken by these academics in the sample were perhaps due to spatial constraints not being as great as other participants, with the number of meetings lower and the need for face-to-face interaction and co-presence in the office not as important or essential as other professions. Furthermore, these flexible working practices were complemented by the competences and knowledge associated with certain essential technologies; using a computer, accessing email and printing documents. The fourth Academic interviewed did not have this luxury however, as a result of a want for separation between home and work and his childcare practices. These important elements and interactions are discussed in greater within Sections 7.5 and 8.3 respectively. Academic C

for example frequently works from home twice a week, Thursday and Friday, as this is when meetings rarely occur and is when focussed writing is conducted. This approach is somewhat reflected by Solicitor A, who works from home when it is more '*efficient*' to do so, usually when there is a client meeting elsewhere than near the office in Leeds city centre and thus does some work at home and then travels to the meeting from home:

> '*I work from home where it is more efficient for me to stay at home and go to see a client or go and have a business appointment in Manchester for example in the morning, I wouldn't come into Leeds, because I am just wasting my time travelling, so if I have some time in the morning I would work from home and then go to Manchester - if that is possible. Because it is not always possible, because sometimes I have an appointment here first thing, in which case I will be crying because I will have to drive into Leeds and then go to Manchester from the office… The other times I will work from home is if I need to apply myself to a piece of advice or something I am doing for a client, and to do that in the office where I get disturbed is really difficult, so I will probably stay away at home and not come into the office for a while, I'll hide!*'

Working from home for part of the day has thus been found to temporally displace one or both commute trips, with Solicitor A often scheduling his meetings for later times in the day to get that work period at home or the client meetings attended in the morning. Accountant E and F both performed periods of working from home, but were constrained by commitments in their diaries. Accountant F in particular tries to work from home as and when he is allowed the time to do so, explaining how he '*doesn't need to go into the office every day and keeps in constant contact with the office*' (assisted by having a PA there), but needs to go in to '*catch up on odd things*', done on an ad-hoc basis. Further to this, he continues by outlining how his time at home is scheduled:

'It is definitely ad-hoc and on odd days. With me it is usually two days, but could be three, however my diary is so full, so if it is a full day at home even then I may be going out for a meeting or an event, like for example today I am going out to a craft brewer's that I am involved with this evening, so I use it to mainly catch up on emails and thinking time. You know, normally the whole day is full and my diary ahead is pretty full as well. So that is how it happens really.'

Working elsewhere on ad-hoc and odd days is something both Graphic Designer A and Senior University Staff C discussed, with the latter explaining how her working from home is variable, dependent on meetings and something which she controls:

'I do have that flexibility. Occasionally, well I haven't done it so much recently, but over the past 12 months or so I have had times when I have said 'oh I am having a day at home, working at home' so I do have that flexibility to do that when I don't have meetings. I think I did that sort of about a month ago; I had a medical appointment in sort of the middle of the day so I said I was going to work at home tomorrow, and that way I can manage my own time. I manage that myself; I don't have to discuss it with anybody as such.'

6.4   Summary

This chapter has introduced examples of when and how participants performed flexible working practices, both temporally and spatially. Limited scope surrounding the performance of these flexible working practices was evidenced; with temporal flexibility revolving around 'traditional' fixed working hour norms and spatial flexibility typically performed through home-working. There was found to be a clear greater use of temporal flexibility than spatial flexibility. Importantly for this thesis, there was found to be little disparity between participants from the 'creative' and 'non-creative' sectors. Therefore,

this chapter rejects the importance of this 'creative' / 'non-creative' divide. The distinction between these sectors is negligible and is not a defining influence on flexibility within working practices for the sample studied.

Very few individual elements unique to either a participant, profession or occupation classification were found. Therefore, the little disparity between participants is said to revolve more around the combinations and competitions of elements constituting work as a practice. These findings support the conceptualisation of flexible working as a practice introduced throughout Chapter Three, as it conceptualised that flexibility within working practices is framed and conditioned as a result of flexibility within, and as a result of, the integration between the these constitutive interdependent elements. More thorough investigations into the combinations of elements and interactions of practices in the performance of flexible working practices, and their relation to travel and the household will be discussed throughout the proceeding two analytical chapters. Of importance to these forthcoming discussions, as initially highlighted throughout this chapter, is the norm of 'traditional' working hours. For some of the participants these are rigid, but for others they are less so. Core hours in particular create expectations that constrain temporal and spatial opportunities for flexibility, resulting in limited capacity to shift travel demand.

7 Chapter Seven - The importance of 'meanings' within the performance of daily life

7.1 Introduction

'Meanings', one of the constitutive elements of a practice, are simplified by Shove et al. (2012) from Reckwitz (2002) and considered 'as *a term used to represent the social and symbolic significance of participation at any one moment'* (p.23). This simplification took mental activities, emotion, and motivational knowledge into the one broad element of meaning defined above. Furthermore, Shove et al. describe the lack of agreement over how to characterize meaning, emotion and motivation. In contrast to Schatzki's (1996) view, meanings are treated as an element of practice and not something that is stand alone or a motivating or driving force. Schatzki's view that the sayings and doings forming a practice are linked in three distinct ways: first, through understandings of what people say and do; second, through explicit rules, principles and instructions; and finally through 'teleoaffective' structures that embrace ends, projects, tasks, beliefs, emotions and moods (p.89). That these linkages are central to the organisation and location of social practice within 'timespace' is helpful, especially if we consider meanings to encapsulate socially significant and symbolic participation which reinforces the participation of the practitioner in the performance of the practice in time and space.

Throughout this chapter socially significant meanings and 'norms' regards performances of commuting, work and practices within the household will be investigated. Within these three key themes, examples of theoretically deduced nodes (as described throughout Section 5.7) were evident. The deductive nodes investigated within this chapter include: obligations and expectations to be physically co-present at particular times and places; the structure of school times confining drop-offs and pick-ups within particular times and locations; and the adherence to 'traditional' ways of working within professions, such as

paper-based documentation and dress-sense. An important inductive node was found to be the separation between home and work.

Prior to investigations throughout the two forthcoming analytical chapters, and to appreciate interactions and implications upon travel demand in greater detail, a brief introduction of how commuting practices are performed by participants is necessary for context. The commuting mode(s) reported by participants are those used over the duration of a week, in line with the interview protocol detailed in Table 4 within Section 4.5.

Table 12: Participant commute practices by mode

All car	All non-car	Mix
Architect C, G	Architect D	Architect A, B, E, F
Accountant B, C, D, E, F, G		Accountant A
	Academic D	Academic A, B, C
	Graphic Designer B, D	Graphic Designer A, C
Solicitor A, B	Solicitor C	
Senior University Staff B, D		Senior University Staff A, C

Table 12 above shows that 24 participants (>80% of the sample) reported using the car for commuting. Half of these participants used only the car, whilst the other 12 participants used the car in combination with non-car modes such as the bus, train, cycling and walking. However, the car remained predominant even within the mix category. Five participants reported all non-car modes over the course of the week, with a mixture of walking, cycling, bus and train used. Reasons for the predominance of car use within the sample are discussed at greater length throughout the forthcoming chapters. It is found that specific interactions between meanings, materials and competencies inherent within these practices influence car use for the commute, with temporally and spatially constrained sequences of practice also important. In focussing more specifically upon meanings within

this chapter, important interactions within and between practices are identified which illuminate possible implications upon the timing of and overall demand for travel.

7.2   Expectations and obligations

Throughout the interviews meanings of both 'expectation' and 'obligation' were found during discussions of the practice of work. These expectations and obligations came from a participant's employer, client or the participant themselves, representing social and symbolic significance of participation in the practice of work. This heavily influenced when, where and with whom work was conducted, in addition to presence within the office. Expectation in this sense is defined as '*the action or fact of expecting something as rightfully due, appropriate, or as fulfilling an obligation*' (Oxford English Dictionary, 2015a), and relates in this thesis to meeting expectations of others, either to be as good as expected (in work) or to satisfy or fulfil preconceived ideas hoped for, expected or demanded. Obligation on the other hand is defined as '*an act or course of action to which a person is morally or legally bound; what one is bound to do; a duty or commitment*' (Oxford English Dictionary, 2016b), and therefore relates more to the performance of work as a practice and the duties, tasks, and commitments inherent within.

7.2.1   Core hours

A pertinent example of both expectation and obligation within the interviews was the, use of core hours (or office hours). These are the hours in which a participant has to be at work and play a significant part in determining the timing of travel and presence within the office. Senior University Staff (SUS) D explains how:

> '*There is a kind of core hours approach. I think that core hours are sort of seen as like 10 while 4, you need to be around for those hours. I generally tend to do a 9 while 5, half 5 kind of day'.*

In total, ten participants reported an expectation to be present in the workplace between specific times of the day, with the process of core hours therefore constraining over a third of participants in both time and space. Architects (Arc) C and D both explain how they are required to be in the office before 09:00 and that most of their colleagues are also expected to be in at the same time, with minor exceptions:

> Arc C: *'Half 8 until quarter past 5, so I get in between 8 and quarter past. That is observed by all of my colleagues too, so we are all in the office before 9. Then, maybe once or twice a week, probably once a week I will stay for an extra hour if needs be, but nine times out of ten I will leave at quarter past 5.'*

> Arc D: *'Work is 9 until half 5, but I like to be at my desk a little bit earlier just to set up the day. What I mean by that is there is an expectation that you are at your desk at least between 9 o'clock and half 5 during the week. I haven't had any need for flexibility, if that makes sense, so far. I don't have any other obligations that would mean I wouldn't be able to work on certain days or whatever, but saying that, our office manager works three days a week and can chop and change as and when needed, so there might be access to that if I needed it. But I don't, so it is fine for me.'*

Additionally, when probing further into the interactions of these elements within the structure of daily working rhythms within organisations, both Accountant C and E (whom are colleagues) noted that start and arrival times for the majority of employees are demarcated by the *'traditional'* nature of the family that own the organisation. By this, Accountant E explained that:

> *'The organisation is relatively rigid; largely people are expected to be around during working hours between 08:30 and 17:00. There isn't really anything in the office about working flexibly.'*

As can be seen from the excerpts above, expectations arising from employers play a key role in determining both the demand and timing of travel. The examples given highlight how over one third of the sample were 'expected' to be present within the office between certain times of the day, with this expectation producing an obligation upon which participants were required to adhere. Adherence to these expectations and obligations subsequently influenced the overall demand for travel (as participants were required to be present within the office on a daily basis), and the timing of travel (with the hours in use centred on societal norms of 9-5 working rhythms). Returning to Southerton's (2013) work, temporal rhythms frame practices and condition how they are performed. Pertinent here is that the conditioning of working practice rhythms and locales will invariably condition and frame the sequencing of practices in bundles and complexes, as practices compete for finite resources in time and space.

Whilst numerous participants cited meanings of expectation and obligation regards presence within the office on particular days and between certain times, many also noted expectations they place upon themselves to be present at work. Concurrently, Cass and Faulconbridge (2016) expressed how timely arrival matters even to those with flexible working, with target arrival time at work defined personally. Graphic Designer D expressed these sentiments succinctly, explaining how constraints in terms of work are heavily influenced by his (and his colleague's) expectations, framing the temporal and spatial characteristics of their working practices. These constraints structure their working week, planning when and where they will be and whom client-wise they need to be in contact with. As a result, they aim to be as 'strict' as possible in setting their work schedules to ensure the work that needs to be done by the end of the week is completed, and that they do not have to work 'outside of work'. Graphic Designer D thus explains:

> 'I think it is as strict as that. Because there are other people we have to run it past.
>
> It has to go to the client and they have to sign off and things like that, so it ends up

being in the calendar and really structured like that. I think we are pretty good at trying not to work outside of work. So we are quite strict on when we get in and when we leave. We are always starting work at 9, so like we are already in and at the computers and we are quite good at pushing each other to meet 9 until 6, Monday to Friday. [If needing to leave earlier than 6] we come in an hour earlier with the understanding in that [we can] leave at 5. That's how we work, we kind of shift the day back if we have to leave earlier. I guess that is the only way we are flexible. We do the same hours, we just pay it back.'

Visible within Graphic Designer D's account are the processes of coordination and synchronisation with others, specifically clients that dictate when, where and with whom work is conducted. As we shall see later in this chapter during the discussion regards meetings, coordination and synchronisation with others play significant roles in the framing and conditioning of practices both temporally and spatially. Subsequently, the framing of these individual working practices have effects for the sequencing of bundles and complexes of practices found within daily routines (Southerton, 2003). Solicitor C places further emphasis on these client 'expectations' and 'obligations', citing the key role these play in her 'need' to be in the office, with both presence and contactable nature being a 'stress-relieving' factor for her clients:

'Very interestingly I am not at odds with my work. My employer has asked that I be in the office between those hours [9-5], so if I had a dentist appointment at 4 then there is no problem and they don't stress about it, there is no problem. But I think they are right on that. You know if a client rings at half past 3 saying I want you to help with a purchase and I am not there, then they might ring another firm. So we just need to be there for our clients all the time. They just assume it. I have never really mentioned it to them, and some clients have asked if I work part-time, but I said no, I am in all the time. Because of the nature of the work, because you are

overlooking buying property, and if I told them I was not in until the next Monday they get really stressed. So being always in and contactable is a stress-reliever in some ways.'

Apparent from discussions above are that these expectations and obligations from clients generate transport needs for a number of participants. Similar sentiments to Solicitor C above regards presence and contactable nature are expressed by the Senior University Staff within the sample. Attributable constraints surrounding the meaning of '*providing a service*' arise, with duties stretching from answering the reception phone to offering research office services. In each account providing this service to others, be they colleagues, external parties or clients etc., are deemed to have considerable impacts upon the temporality and spatiality of their work:

SUS A: '*We have to man the phone, especially when there is only one person in the office. That is a new function now my office has become the reception.*'

SUS C: '*I mean the standard office hours are 9-5, and as a research office we are providing a service… because we can get people just, if you were like in a business, we can get people just walking in off the street and say 'oh by the way, I am putting in a research bid and the deadline is tomorrow lunchtime', and then we generally deal with that sort of thing. If you are not about then there is a diminishing of the service that you providing.*'

SUS D: '*I think face to face you get a lot more out of it. Because what I do is a support service, you have to build a relationship and build trust with them so they will involve you in what they are doing and you will get more, and that only happens when you have a personal relationship and you are there when they need you, so I think being in a support service makes you a lot more adaptive to things in that sort of way.*'

Additionally, as witnessed in SUS D's excerpt above, face-to-face relationships are important. These help build relationships and trust that is considered important in the performance of the participant's working practice, insofar as improving effectiveness and involvement. Evident however throughout the excerpts above regarding service and trust is perhaps a conflation of presence with the capacity to do work. A distinction such as this may not be of importance to the participants whom feel constrained by their working practices, particularly those concerning expectations to be present and providing a service. Despite the capacity to work more remotely through ICT use, there are norms of provision by a combination of employer, sector and employee behaviours which appear to continue to structure the day around some sort of core hours even when those are not formally stated.

As outlined in Chapter Three, Section 3.5, mobile technology such as call forwarding and home- and remote-working could render physical tethering to an office deck for contactable reasons unnecessary. It is argued ICTs have facilitated a more mobile relationship with space, and allowed for activities to be 'lifted' out of place (Line et al., 2011), however discussions throughout this chapter illustrate the efficacy of these technologies to do so should not be assumed. It is evident from the discussions above that physical presence at one's desk retains important socially and symbolically significant meanings and emotions for the participants performing these co-present, service practices that take precedence over the use of mobile communication technologies. Importantly, meanings of presence and service introduced above might be subsumed into the following discussion surrounding 'co-presence' and its role in determining the spatial and temporal characteristics of working practices for a number of participants.

7.3 Co-presence

Co-presence, '*the degree to which an actor perceives mutual entrainment*' (Campos-Castillo and Hitlin, 2013, p. 171), has been implicit throughout the majority of this discussion so far, as it is subsumed within the practice of 'doing' work, particularly through face-to-face meetings. As an element of meaning within the practice of work, co-presence could be considered to enhance the socially and symbolic significance of participation within a practice. As Lyons (2013, p. 51) describes, co-presence offers '*the prospect of a multi-sensory experience of encounter and exchange… matters of eye contact, body language and indeed smell can strongly colour the proceedings and outcomes of an activity*.' Co-working and meetings are two archetypal examples of these working practices. Such face-to-face practices are something which the majority of the participants were actively engaged in. Examples of this nature are introduced below, highlighting the significance of these working practices in the production of temporal and spatial constraints. Allied to the issue of location dependence, and the subsequent impacts upon travel, is the question of whether two or more people actually need to be present in a location for the activity to be achieved, as Lyons (2013) asked. Pertinent to this question, he contends, is '*where the activity concerns information exchange and where it may appear that the information could have electronically transcended the distance between the individuals involved rather than the individuals having to travel to be co-present*' (Lyons, 2013, p.51).

Travelling for occasions of co-presence highlight the importance of these encounters (Jain and Lyons, 2008), reinforcing the socially symbolic and significant meanings associated with these co-present practices such as meeting. Issues relating to the materiality of co-presence will be introduced in the subsequent chapter, with the meanings associated to co-presence within the workplace and during meetings (for example) being discussed at greater length in this proceeding section. Possible difficulties may arise when trying to reduce travel demand for the journey to work as the significance of these practices may be

further increased by continued co-present reproduction. As an initial example into how co-presence is framed within one workplace, Architect G elucidates that:

> *'I think it is working in an open plan office and being interactive a lot. It is not like you are in a cellular office cut off from everyone, you are chatting about with each other about the various jobs and bouncing ideas off each other and if you have got a query you don't know the answer to you just ask someone. I find it a lot harder to work at home, so it is a lot better for us to come in and you know work together really. We can solve problems together as well. Things like communication side of it when I am at home I can log on to my computer and work, we are all on mobile phones now, so that isn't an issue, it is more that it is best to be with all the other guys to sort of, so we can question each other and get a bit of advice and things like that.'*

Co-presence, coupled with the confinement of working practices to within shared spaces and times aids Architect G in creating a social setting within the workplace that is interactive, problem-solving and communicative. The desired attributes of an open plan office and 'central culture', as Solicitor A introduces, would appear to outweigh the potential of materials (specifically those attributable to ICTs) to displace working locations and times. Rather than de-localising practices through an easing of time-space constraints (Røpke and Christensen, 2012), the socially significant reproduction of these co-present working practices seemingly contribute towards collaboration and communication within the working practices of these participants. The communication practices detailed throughout these co-present working practices above are not framed as interruptions, rather as collaborative environments that ease discussions, interaction and problem-solving. Home-working on the other hand is considered problematic for Architect G, principally due to the de-location of collaborative working practices caused by ICT use.

These discussions perhaps initially reaffirm Line et al.'s (2011) argument that assumptions should not be made as to the effectiveness of ICTs to influence levels of travel demand. The creation of a 'central culture' and a central body from which to work is clearly a two-way mechanism that could be seen to draw colleagues and clients into the office, but also contributes towards the synchronisation and coordination of wider working rhythms. The spatially confined nature of a 'central culture' and 'central body' are reiterated by Shove et al. (2015) whom contend that these institutionally determined patterns of timing and synchronisation relate to contingent forms of co-presence, coordination and power (amongst others). Therefore, the reproduction of this socially significant central working space, culture and associated rhythm coordinates a distinctive organisation of practices. Solicitor A elaborates upon the benefits of establishing a central culture within their firm:

> '*We wouldn't want staff to work from home all the time, there needs to be that central body that you are working within, a central culture, so to speak. If you have people working all around the country and you are trying to work in an office which requires input from different specialisms you need some heart to the place – that's the main draw for people, that's the main reason we have an office.*'

Within these discussions regards timings and synchronisations of working practices and rhythms, and how these might affect the timing and spaces in which other practices are performed and bundled, an important meaning to consider is that of power – more specifically those of seniority, role and position within an organisation. Accountant C, though placing emphasis on co-presence and the need for face-to-face interaction with other people, discussed how both his seniority and position played key roles in the structure of his day, with specific reference to the timing, demand and method of travel:

> '*Once you get to a senior level of an organisation [like I am] what you become very clear about is sort of the buck stops with you, so if anything of any sort isn't working very well then I have got to make sure it is sorted out. Whether that is as mundane*

as the photocopier or a shareholder group being very unhappy with what we are

doing. The responsibility is very varied, but that's the key really, that the directors

are the last line of defence, if you like… As I say it is what I achieve, I achieve

through face-to-face interaction with other people here'.

Continuing his rhetoric surrounding seniority, Accountant C explained that flexibility within

his own arrival and departure times was a result of not being lower down in the

organisational hierarchy, with flexibility aligned to responsibility and the freedom to decide

where work is conducted and how it is done. Roles lower down the hierarchical ladder are

considered 'more prescriptive and about being in a certain place at a certain time, doing

things to order'. Uniquely, the meanings of power through seniority, role and position

discussed throughout Accountant C's interview influenced heavily the location from which

he conducted the majority of his daily working practices - the office - whilst citing further

the impact of these meanings of power on his travel to the office:

'I am quite happy to come into the office and to get people to make me cups of tea

and people treat me with respect, so being here is quite pleasant… Part of my

package [as a Director] is a company car, so I drive in and I can park in my parking

spot. It is very convenient, a very easy journey in the car.'

The meanings and changes discussed by Accountant C illustrate important meanings of

status, respect and particular ways of working attached to being a director within the

organisation. The use of a company car contributes further towards presence within the

office and how travel to work is conducted. It is apparent throughout this section that co-

presence is an important aspect of working practices for the majority of participants, with

examples of co-present working contributing towards both temporal and spatial

constraints, in addition to travel decisions for work. Discussions within this chapter

continue henceforth by focussing upon meeting practices of participants, the meanings

associated, the coordination and organisation of these practices, and what influences these may have upon travel demand and the timing of travel.

7.4 Meetings

Several participants cited the impromptu nature of some meetings, with organisation and coordination not necessarily the go-to things within the office, especially those that are open-plan and 'more conducive' to brief discussions. Academic D explains how he often chats to his boss in the hallway or coffee room, sparked by chance, and focussing around something which they have both read or the previous day's thinking. In summarising, the participant explains that it is co-presence, both of them being in the office, which enables these types of discussions to be produced:

> '*Sometimes I'll catch him [my boss] in the hallway or coffee room when he's going to get tea and I'm coming up and I'd be like 'oh hey, did you read that', and he'll be like 'oh yeah that is interesting but you should really be looking at this, this, and this', so again it is face to face, but it's really helpful as it is helping us scope the work. They are obviously not scheduled meetings; they are 5, 10 minutes, so that's very flexible. And that's because we are both always at work, we are physically present, we are in the same building and so close that we pass each other in the hallway.*'

Academic A expresses how it feels and what it means for her to work within the office, how this differs to working from home and the relationship she has generated with work colleagues. Furthermore, the space for impromptu and spontaneous meetings is invaluable to the participant, with a sense of professional identity also created as a result of working within, and therefore travelling to, the office:

> '*I always feel differently about working when I am in the office. I'm not quite sure why this happens but often I work more productively than I do from home,*

especially if I can avoid being interrupted. It is almost as though I have a more professional identity in the office. I also feel more a member of the team when I am surrounded by colleagues around the office and there are opportunities for spontaneous informal meeting with others. I feel much more sociable in the office and often suffer isolation when working from home. A key meaning about work for me has always been sociable.'

The meanings, competences and materiality of the meeting practices expressed by Academic A above are important to the wider discussions regards flexible working, specifically those of ICT use and remote working. Whilst the knowledge economy and the creative industries could be seen to comprise tasks that can be done remotely, actually the ability for spontaneous interchange, idea sharing and discussion all become more important. Sentiments regards co-presence above by the academics within the sample are similarly expressed by SUS D, explaining how her job revolves mainly around '*being in and talking to people'*, whilst being involved within the workings of the department, schools and University as a whole. Expressly mentioning that sometimes '*if you are out of sight, you are out of mind*', something that she does not advise whilst working in her role as it is the interactions and having a presence within the University that enables her to do her job and know what is going on, a process enhanced through co-presence.

Meetings were thus portrayed as an essential component of working practices and rhythms throughout the day for twenty-two participants (79%). The other seven participants within the sample reported meetings only on a sporadic basis (once or twice a week perhaps), with these meeting practices not viewed as prominent within their daily working practices. Prominence and essential nature of meetings came principally as a result of seniority and job role within the sample. The seven participants whom did not feel necessarily driven by their meeting practices were all employed lower down the hierarchical ladder and in positions where meetings with others were not considered a prominent feature. Three

Senior University Staff reported requiring only sporadic meetings, with emails and impromptu conversations often conducted as a replacement. The Accountant, Architect and two Graphic Designers within the sample whom reported few meetings was a result of working to task, with meetings with bosses and clients (principally the former) usually undertaken when the task was complete. The coordination, periodicity and location of meetings differed for each participant, as did the '*compulsory*' nature of particular meetings. Academic D gives a succinct explanation as to the critical nature of these meetings and a definite obligation to attend, especially those involving colleagues whom are more senior:

> '*When you do the face-to-face you get everyone round the table, so there's a quality if you are going to be there, everyone is going to put the work in… So I think the meeting quality is enhanced, and in particular it is enhanced because the face to face and also enhanced because they are so infrequent because you know they are going to be there, so there is a hyper awareness that any decisions we are going to make need to be there… You need to go.'*

Client meetings, certainly for the architects, accountants, solicitors and graphic designers, play a key role in not only defining travel demand into the office, but also travel between locations; be those site visits, court hearings, photoshoots, account discussions, and so on. The coordination and synchronisation of others was of importance in the performance and reproduction of these co-present meeting practices. Although telephone communication and video conferencing technology use has risen in recent years, and are considered to be changing how and when people meet and communicate (Line et al., 2011, Røpke and Christensen, 2012), a large proportion of the meetings conducted by participants continue to revolve around the co-presence and interaction of certain people in certain locations; influencing time-space constraints within the working practices of participants.

Within the interviews participants were asked what proportion of meetings attended during the previous week were the timing and location determined by themselves. Further to this, participants were also asked who, if it wasn't them, decided and scheduled the meetings they were involved in. Five participants were interpreted to have '*little*' control, with a further twelve participants each having '*some*' or '*more*' control. As an initial example, Academic A '*always negotiates times and days for meetings',* thus having more control. Architect C on the other hand had the majority of their meetings prescribed, usually from a client's perspective, in that '*they are already pre-organised in advance and I just turn up... It is all sort of from the client point of view*', thus Architect C had little control. Depending upon the circumstances, usually a particular client or due to periodic meetings such as monthly catch-ups and regular site visits, participants featured within each of the categories reported occasional periods of fluctuation regards control.

Those within the '*some*' category experienced periods of '*little*' or '*more*' control, whilst those in the two extremes of '*little*' and '*more*' often experienced periods of '*some*' control. Whilst it might be feasible for a participant to have meetings or moments where they have '*more*' and then '*little*' control (and vice versa), perhaps aligning with a client's demands, this was not reported by any participant. Thus, it would appear that (in the sample at least), participant control over meeting schedules and locations did not vary to a great extent. The linear Venn diagram of Figure 18 is utilised to illustrate these potential overlaps in meeting control for participants.

Reinforcing the findings of Chapter Six, there is no difference between 'creative' and 'non-creative' participants in terms of meeting control. Interestingly, many of the architects are clustered having little or some control over their meetings, with only Architect B having reported more control regards the organisation and location of meetings throughout his working week. Lack of control for the architects within the sample is attributable to attendance at site visits, client meetings, training sessions and internal project meetings;

many of which Architect B was able to control. If we contrast this with the graphic designers, whom are all clustered in having access to more control over their meetings, one could infer that the nature of the work provides an explanation as to the difference. Each graphic designer interviewed had fewer structured meetings, and of those meetings very few required movement away from the office. Therefore, whilst the 'creative' – 'non-creative' divide seems false, the practices of particular professions are more or less demanding of co-presence and mean firm-client relationships are also quite different. This will undoubtedly impact on how travel is structured.

Little | Some | More

Architects A, C & D
Accountants B & G

Architects E, F & G
Academics C & D
Accountants D & E
USS B, C & D
Solicitors A & C

Architect B
GD A, B, C & D
Academic A & B
Accountants A, C & F
USS A
Solicitor B
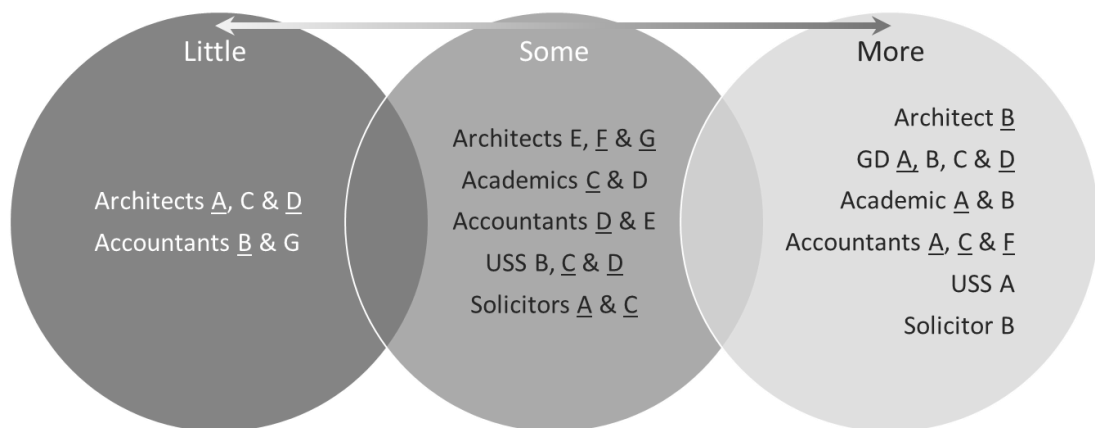
Figure 18: An interpretation of participant's own control over the scheduling and location of meetings

In addition, it is apparent that control over the scheduling and location of meetings is also not necessarily a function of seniority. Only a small majority of the sample (62%) reported being in a senior position, with the participants underlined within Figure 18 (for example Architect A and D categorised as having '*little*' control) representing those whom are senior within their respective organisations. As illustrated, seniority did not weight control over meetings for those whom were senior towards having '*more*' control, likewise not weighting those whom were not senior towards '*little*' control. What is striking however

are the few participants whom considered themselves to have '*little*' control. Over 80% of the participants were interpreted to have '*some*' or '*more*' control over their meeting schedules and locations.

Of further importance to the above discussion regards meetings is the prescriptive nature of client meetings, which clearly plays a role in determining the location and timing of meetings. Invariably, especially regarding site visits and out-of-office client visits, coordination, synchronisation and organisation are very much from the client's perspective for the majority of participants, with time and location driven principally by the client. Interestingly, the split between participants whom have client meetings predominantly out-of-office and those that have predominantly in-office client and internal meetings is almost 50-50.

The split in predominance of meeting location is outlined in Figure 19. It is worthwhile noting that meetings in the sense spoken about above are probably 'typical' for participants. By this, we might perceive conference attendance by Academics for example to be 'out of the ordinary', as in they do not have the same levels of periodicity (Southerton, 2006) that project meetings or site visits might have for architects and so are less relevant for the daily commute practices under investigation throughout this thesis. 'Out-of-office' relates to a meeting taking place in a different location to a participant's own office. These could take the form of site visits, but may also mean out-of-office engagements on campus but within different departments for Senior University Staff. 'In-office' on the other hand relates to the meetings conducted within the same office or department with colleagues, clients, etc. The reporting of predominantly out-of-office meetings by architects might be as a consequence of the collaborative working environments discussed previously, insofar as informal, internal discussions might not be perceived as meetings due to the collaborative working environments in use by a number of architecture firms within the sample.

The split between professions in terms of meeting location is especially interesting, with each architect interviewed describing the majority of their meetings occurring out-of-office on both site and client visits, with each Graphic Designer quoting the opposite in exclaiming how the majority of their meetings are internal with colleagues or clients in their office/studio.
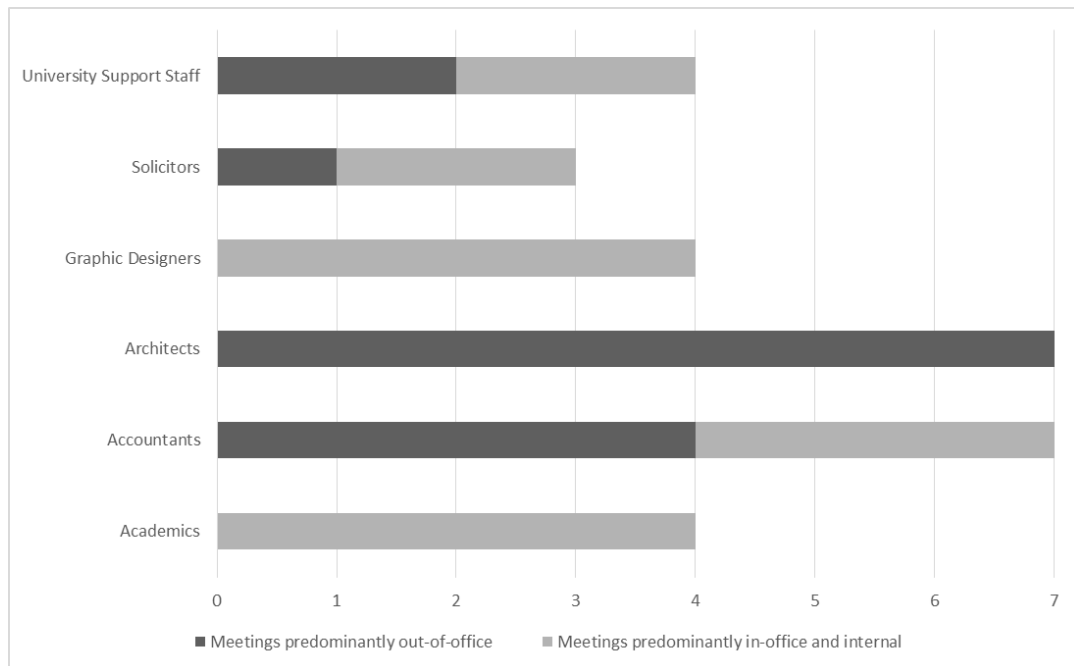
Figure 19: The split between the predominance of meetings in-office and out-of-office

Accountant A explains that 'o*n a regular basis we are out of the office. Certainly 3 out of 5 days we would go somewhere to have a meeting and come back again'.* Accountant B expresses these sentiments further, explaining that meetings are organised very much from a client perspective, '*whatever suits them*'. That could be the '*client going to them on the rare occasion, or we more frequently visit the client, be it in their office, a coffee shop or their homes, wherever really*'. Accountant C agrees though contends that due to their frequent dealings with solicitors, the reasoning for his frequent out-of-office meetings is monetary:

> *'Typically, if I am meeting with solicitors, which I do quite often, and they are working on a transaction for us, the papers will be in their office. I will then try and go to their offices because the more we drag them out here the more it costs us. If people are working for us on time then it is better to go to their office than for them to come here'.*

Concurrently, three of the four solicitors interviewed expressed that their meetings usually occur within their own office, with clients frequently visiting them and occasionally speaking over the telephone or via email communication. Solicitor C expresses this by saying:

> *'I have meetings with clients which can be in the office, over the phone, email based, or even via Skype – which is new! Occasionally, and very occasionally, I will go and see them'. So there are three things: I go see them, which happens really, really rarely; they come and see me, which happens very often; or we have a chat over the phone or Skype, which is becoming a lot more regular'.*

Of interest throughout these excerpts is perhaps the presence of a meeting hierarchy that probably exists in a range of contexts. These dynamics, where one side of the equation is much more expensive time wise than the other regards meeting practices, could be viewed as a 'norm' of sorts which structures travel. Call out charges or monetary implications may result in travel for one party involved in the meeting, especially if combined with expectations for these meeting practices to involve co-present, face-to-face interactions. In the case of the solicitors sampled within this study, it is their clients who typically do the travelling, whereas in contrast the architects in this sample are required to do much of the travelling for meeting purposes.

Of further importance to these meeting practices is the changing nature of interactions with ICTs. ICTs are considered a suitable substitute for some types of interaction, but not all, especially in terms of quality of experience. Whilst Solicitor C discusses the changing

nature of her meeting practices regards communication, the majority of her meetings are still conducted co-presently within her own office. The continued performance of these monetarily weighted meeting practices reinforces these norms and expectations, which in turn reinforces travel demand for these meeting practices and raises questions regards the substitution capabilities of ICTs for meeting purposes (Line et al., 2011). The substitution capabilities of ICTs are discussed at greater length within the proceeding chapter focussing upon materiality.

Solicitor A described how he aims to be in the office each day, though would frequently be out visiting clients, and depending upon client locations and what he is doing, he '*might not physically be in the office, I may well be all over the country*'. On these occasions, Solicitor A explains how it might be more efficient for him to work from home in the morning and then travel to the client from home, rather than driving into the city centre of Leeds and travelling out again in time for the meeting. The example given was when visiting a client in Manchester, scheduled for 11:00, the participant worked at home from 07:00 and set off at 09:30 to arrive in time for the meeting in Manchester, afterwards travelling back home and continuing work from there. Describing this recent meeting:

> '*I suppose with clients I have got less flexibility, because I have to meet their demands. So, if we don't meet their demands then they won't use us, and that's it really. So with client demands, my flexibility gets compromised. Especially with regards time and location of meetings. It is their agenda I am running to*'.

Visible from the excerpt above are meanings of both expectation and obligation. Solicitor A is expected by the client to run to their agenda, being as flexible in the process in order to meet their demands. These expectations are then compounded further, with Solicitor A somewhat obligated to continue adhering to these expectations to ensure work is commissioned. By contrast, each graphic designer and academic reported that meetings were either predominantly based within their office or internal, either in a colleague's

office or in the case of academics, on University campus and only a walk away. Again, this may be down to the type of work conducted, especially regarding academics, whom often attend internal meetings with peers and visitors, with infrequent visits to 'clients', funding bodies and conferences. Graphic designers on the other hand may have more propensies to visit their clients in order to finalise production or receive feedback on work. However, as Graphic Designer A explains, this is seldom the case, with clients preferring to visit him in the studio to view and discuss the work:

> *'It would seem more often they are coming to us, which is great advantage of having this studio where it is. They are usually clients coming to look at the work we have been doing, keep in touch, but also new clients coming to visit, see what we are all about. Also, we pitch ideas to clients and investors and things like that, and these things usually happen here too. It is really only on the odd occasion we are out of the studio and that can be for anything from client visits to photoshoots, which we have gotten into recently*.'

Graphic Designer D reiterates this, and explains that as they are based in open, collaborative workspace with a number of other firms and businesses, they have the opportunity to book adjacent meeting room space which they use when clients visit. These meeting rooms are accessible to each business within the workspace and are easily bookable, encouraging the participant to use them for meetings rather than travel to see the client. Furthermore, the proximity to the studio is a bonus, with Graphic Designer D exclaiming that:

> *'we try to meet them here, if only for how easy it is to pop back into the studio and grab my laptop or anything else I might need to show clients the work we have been doing, it is definitely a bonus having the meetings rooms so close and easy to use'*.

Meetings are something that SUS A *'tries not to spend too much time on, as I am a doer more than a talker'*, explaining that her only regular meetings occur once a week with her boss and once every couple of months faculty-wide. In order to do so, SUS A utilises a variety of technologies and strategies for reducing the number of meetings she has to both organise and attend, discussing how:

> *'I do a lot of email, telephone, via LinkedIn, Skype and WhatsApp. The latter three are very ad-hoc, but are very, very productive for chatting with alumni, which is part of my role… I try to reduce meetings through constant communication. I think rather than storing it up and saying we need a meeting, I will produce a summary, rather than pinging off individual emails, I will write an 8 bullet point email asking for answers to this, this, and this for example. That way I can get a response quickly without having to sit there for half an hour discussing things. We are both busy, my boss more than I, so it helps us both. The faculty meetings come about because there are so many of us, it would be hard to email everyone, so once every couple of months we'll meet for an update or whatever, but that's the only reason really, just because there are so many of us*!'

As can be seen from SUS A's excerpt above, a combination of materials (technologies) and competences (know-how and skill) have enabled the participant to manage and reduce the number of meetings required to both organise and attend throughout the week. However, whilst these strategies contribute towards fewer temporal and spatial constraints throughout the week regards meetings, her role as part of the department reception team and subsequent expectation to be present within the office during particular times supersede any possible travel demand reductions as a result of these meeting practices. Evident throughout is the importance of competitions between interdependent elements within SUS A's working practices that influence her overall flexibility. Whilst there is a possibility to be flexible in time and space as a result of reducing and lessening meeting

constraints through (mainly) technological strategies, the meanings associated with the role - principally those of expectation and obligation – and having to '*man the phone*', take precedence in the structure of her working rhythms and locations. Ultimately these meanings influence when and where work is conducted, contributing heavily towards the demand for travel into work on a daily basis.

Throughout the discussions within this section it was apparent that meetings were considered an essential component of working practices for the majority of participants. As Lyons discussed, there is a '*richness of insight possible in closely examining empirical evidence of how individuals engage in meetings and with what effect. There is still much to learn about how individuals judge the extent to which participation in meetings is worthwhile and the efficacy of different media*' (Lyons, 2013, p .56). Commentary throughout this section has shown that prominence and essential nature of meetings came principally as a result of seniority and job role within the sample, though control over the scheduling and location of meetings was found to be not necessarily a function of this seniority. Furthermore, control over schedules, locations and in organising meetings overall was not considered an attribute of purely 'creative' or 'non-creative' occupations, highlighting again little disparity between this classification regards working practices. Of particular pertinence is evidence that meanings of expectation and obligation play key roles in the performance of meetings, in addition to the co-ordination and synchronisation of others. The prescriptive nature of meetings is influenced by these interactions between elements, with co-presence often contributing towards travel for either the participant (in respect to the majority of architects within the sample) or the client (principally regards the graphic designers within the sample). Whilst there was evidence of ICT influencing the need for and participation in certain meetings, the efficacy of these technologies to do so were challenged when in competition with other elements in the production of work as practice. Of importance were competitions between meanings of co-presence and expectation

regards working times and locations, taking precedence in structuring daily working rhythms and locations.

7.5   The separation of work and the household

'*Separation*' was identified during the inductive thematic analysis to represent a level of patterned response (as explained within Section 5.7). As a result, '*separation*' was considered a 'surprise' arising from the data and an important narrative to explore. Separation is defined by the Oxford English Dictionary as '*the action of separating or parting, of setting or keeping apart; the state of being separated or parted*' (Oxford English Dictionary, 2016e), and is instructive for the practice theory perspective taken within this thesis. However, rather than being considered an action or state, this thesis recognises separation to be an element of 'meaning'. Separation from this practice theory perspective refers to a participant's desire and need to explicitly keep apart individual practice performances in time and space. The need and desire for participants to keep separate individual performances of work and household practices are evident throughout a number of the interviews. As forthcoming examples will illustrate, separating these individual practice performances creates demand for travel. Academic D explains that the complexities of his commuting practices are due to own personal expectations regards separating the practices of work and the household. When he is at home with family he is a father and husband, and when he is at work he is '*at work*':

> '*I am at a point in my life where I am trying to separate family and work, so it's an explicit decision so far on my part, so when I go home I am a father and husband, and when I come into work I am at work... Because of the vagueness of my job, insofar as the work is never done until the project is over, you could work all the time basically, I need to both physically get out of my seat to help you think clearly about the job but also clearly about everything else, which the separation helps. I*

anticipate I will be leaving later than usual soon in order to fit everything in, which my wife is not too pleased about, but something that needs to happen to ensure these boundaries stay where they are. So I think I'll be heading off from work at about 17:00 soon, as opposed to 16:30 now, but that's me not wanting to take work home or have to work at home'.

Additionally, Academic D is cautious of ensuring that current separation persists, though with a minor change of having to stay a little later due to work demands. However, he explains that he '*cannot treat this job like his PhD*' and considers structure in both his working rhythms and working locations to be of paramount importance. Defining personally these arrival and departure times, in addition to the constant separation from the household, is undertaken to cement that '*work*' feeling:

'I need to treat it, I cannot treat this job like I did my PhD, and I need to treat it like a job, and if I'm going to treat it like a job, although it's got the flexibility of being an academic, I need to treat it like a job, so I need to get to work at a certain time and leave at a certain time to help me ensure that... because of the vagueness of what I am actually doing you can work all the time basically... so you treat it like a job and take breaks.'

Upon further explanation, Academic D explains the introduction of these temporal and spatial constraints are partly a result of his daily childcare responsibilities and want to be a '*good father*'. The opening times of the day care principally frame and condition the temporal rhythms of both his working and commuting practices within the morning on three occasions during the week, whilst his want to be a good father and contribute towards equitable childcare responsibilities frame and condition those rhythms within the evening:

'So day care, I drop the first child off and my wife [who is on maternity leave] picks him up... She looks after him all day, whilst the other kid only goes to day care three

days a week – Monday, Tuesday and Friday. I've been starting to adjust my routine of what it actually means to live and work here and family arrangements. I like to think I have a pretty good understanding of when I physically need to leave the house in order to be at day care for 08:15, as I can't get to day care earlier. By the time I get home [from work] she's picked the second one up and by 16:30, 17:00 she is ready to crack, so she basically gives them to me and then I take care of them. Wanting to be a good father, whatever that means. So I just find it is important to be there both mentally and physically. So when I am there I am a father and husband, and when I'm not I am not, if that makes sense.'

The meaning of separation is exacerbated further through recent residential relocation, that whilst in the process he and his partner '*got rid of a bunch of computers'* that have not yet been replaced. Lacking appropriate facilities required in order to do work from home is a conscious decision of not wanting to take work home. Although discussed between his partner and himself, the temporal constraints of fatherhood outweigh any potential opportunities to conduct work, be it in an evening or at a weekend because '*Saturday and Sunday I definitely take most of the kids. So I just write off the weekend*'. The meanings and competences associated with this separation are compounding, in that Academic D desires the time away from the household to '*do*' work, but also the time away from work to '*be a father and husband'*. Therefore the meanings attributable to separation contribute towards travel demand for work. Separation could therefore be considered a temporal and spatial solution to dealing with competing practices of work and those within the household. Actively separating oneself between home and work is clearly an attempt to resist the growing issues of work-life balance and familiarity of blurring boundaries between work and home, especially for those whom exhibit flexibility within their working schedules (Kelliher and Anderson, 2009, Sullivan, 2000, Moore, 2006, Van Dyne et al., 2007).

Solicitor B, Graphic Designer A, Architect E and SUS D all report similar attitudes towards the separation of work and home to those of Academic D above. Predominantly, this is due to childcare responsibilities and the need for '*space*' between work and home. Although those who have childcare responsibilities are relatively few (under 20%) in relation to the entire sample, separation is a clear, defining factor upon the coordination, synchronisation and structure of these participants' daily lives. Understanding reasoning for this separation will hopefully assist in assessing how the practice of work is bundled with the household and commuting in the sequencing and reproduction of daily life practices. Solicitor B and Architect E explain this separation from the perspective of having young children within the household. Solicitor B having one child aged two and Architect E two children aged two and six. Due to this, working from home has become increasingly difficult, with the opportunities to do so reduce in part due to the expectation to participate in household chores and domestic tasks, such as shopping and childcare.

> Solicitor B: [when asked about working from home] '*No, I try not to. When I get home I try not to do it. I don't have the time to be honest with you. Two young children in the house make it near impossible. Coupled with the fact I am too tired anyway when I get back from work*'.
>
> Architect E: '*Most of the work is in the office. I try not to do any at home. Mainly, it's a personal choice, because I don't want to take up my family time. From when we started out, they both just merged and bled between each other and I didn't feel like I was either spending enough time with the family or enough time at work. I felt the two were conflicting so I wanted to create a big dividing line. I found that I wasn't very productive, because of being asked by my partner to do other tasks, household tasks and chores and other things, and I think for myself I would always procrastinate as well and start making cups of tea and think I could do something else. What would then happen is my work time would bleed into my sort of family*

time. I would try to do a sort of 9-5, but it would end up being like an 8- half 10, 11 at night, varied with different domestic duties in-between. I therefore try very hard not to work at home. Sometimes it might end up that there will be something at the weekend that I take home, or I will leave everything at the office and come here at the weekend, so there is a specific divide.'

SUS D expresses these concerns, attributing the separation as a means to '*reduce the blur between home and work*', explaining that she likes the separation and the structure her working rhythms afford her. Continuing, being able to almost construct two identities; '*this is me at work, and then I can go home and be totally different*', helps contribute towards a need and want for separation, with emphasis again on reducing potential '*blur*'. In a similar vein, Graphic Designer A expresses how before taking on the responsibility of hiring a studio for his business he would work entirely at home. In doing so, '*working long hours got to a point where I didn't leave the house; it got a bit stir crazy. So it was more for my sanity I think, to provide that separation and get out of the house*'.

Evidently, the meaning of separation is important in discussions surrounding both the timing of travel and travel demand. Furthermore, it is apparent from accounts above that a number of participants are exhibiting resistance to flexibility; actively seeking not to incorporate flexibility into their working rhythms and daily lives. Whilst the majority of those pursuing separation felt they had access to flexible working practices in one guise or another, Solicitor B was constrained more by employer expectations regards presence within the office. Separation from Solicitor B's revolved around not wanting to take work home in the evenings or on weekends. An interesting account regards possible conformity to societal working norms is evident from Graphic Designer A, whom discusses that due to renting their studio, business has increased. The participant puts this increase down to the location of the studio within the city centre, with local businesses commissioning his services as a result of being located within close proximity. The participant contends that

working from home did not encourage face-to-face interactions that have increased as a consequence of the studio relocation, and working primarily in line with the rhythms of clients encourages these interactions further.

Additionally, having a '*professional space*' in which to receive clients for meetings and discussions contributes towards a more '*personal approach*', therefore increasing his want and propensity to travel into the studio on a daily basis. Therefore, the notion of resistance to flexibility is especially pertinent to travel demand discussions. The want and desire for separation between work and the household, in addition to structure within individual working practices and conformity with societal rhythms and expectations, all contribute towards the necessity of travel for these purposes.

7.6   Summary

Throughout this chapter socially significant and symbolic meanings and 'norms' regards performances of commuting, work and practices within the household were investigated. Examples of such socially significant and symbolic meanings found included; obligations and expectations to be physically co-present at particular time and places, the role of meetings in reinforcing meanings associated with work, separation between home and work, and the continued importance of specific 'traditional' ways of working within professions. In focussing more specifically upon how these meanings interacted, linked and bridged within and between practices provided insight into the rhythms and location of everyday life, illuminating implications for both the timing and demand for travel.

Expectations and obligations regards presence within the office between certain times of the day was found within a large proportion of the sample, with adherence to these influencing overall demand for travel and timing of travel. Pertinent here is the conditioning of working practice rhythms and locales, with co-ordination and synchronisation playing key roles in this framing. It was evident that physical presence at

one's desk retains important socially and symbolically significant meanings and emotions, taking precedence over opportunities for mobile communication technologies and impacting upon the location and timing of work. Along these lines, co-presence was found to be significant in the re-production and performance of daily working practices for the majority. These co-present practices were thus found to have significant effects upon daily temporal and spatial constraints.

Co-present working practices were found to enhance socially significant reproductions of collaboration and face-to-face communication, as desired attributes associated with open plan offices and 'central cultures' outweigh the potential of materials to displace working locations and times. Central cultures and central bodies from which to work also contributed towards the synchronisation and co-ordination of wider working rhythms. Whilst the knowledge economy could be seen to comprise tasks that can be performed remotely, the ability for spontaneous interchange, idea sharing and discussion all become more important. Thus, the continued existence of collective patterns suggests that temporal sequences such as core hours remain salient.

Meetings were portrayed as an essential component of working practices and rhythms throughout the day for the majority of the sample. Seniority and job role contributed to the prominence and essential nature of these meetings. Client meetings played a key role in defining both travel demand into the office and between locations. Co-ordination and synchronisation were once again found important within these co-present working practices. Meetings conducted by participants were invariably done so through co-presence and interaction of certain people in certain locations. Control over work schedules was found to be not necessarily an attribute of purely 'creative' or 'non-creative' occupations or a function of seniority. The prescriptive nature of meetings is influenced by interactions between elements, with co-presence often contributing towards travel for either the participant (in respect to the majority of architects within the sample) or the

client (principally regards the graphic designers within the sample). Whilst there was evidence of ICT influencing the need for and participation in certain meetings, the efficacy of these technologies to do so were challenged when in competition with other elements in the production of work as practice. Of importance were competitions between meanings of co-presence and expectation regards working times and locations, taking precedence in structuring daily working rhythms and locations.

Finally, separation between the household and working practices was important. The meanings attributable to this separation contribute towards travel for work, with separation considered a temporal and spatial solution to dealing with competing practices of work and those within the household. The meanings of domestic responsibility, particularly parenting, seem to remain strong and significant in keeping work more physically separated from home than it might necessarily be from a purely 'work' perspective. This was only really reported as true for those with (young) children however. Of note from these discussions was an exhibition of resistance to flexibility; with participants actively seeking not to incorporate flexibility into working rhythms and daily lives. Resistance to flexibility is therefore pertinent to travel demand discussions as the want and desire for separation between work and the household, in addition to structure within working practices and conformity with societal rhythms and expectations, all contribute towards the necessity of travel for these purposes.

8   Chapter Eight - Materiality of the household, work and commuting

8.1   Introduction

Understanding the bundling of everyday life depends, to some extent, on understanding the social role of material infrastructures (Shove et al., 2015). In doing so, recognising that car driving is not necessarily performed for its own sake, rather it is bundled with many other practices and aspects of daily life. Examples of bundling in these circumstances may include commuting to work and dropping off/picking up children at school. Whilst Shove et al. (2015) agree that the 'three elements' model utilised throughout this study in conceptualising the relationships between the household, work and commuting has proved useful, it is also limited. The authors argue that although it provides a way '*of conceptualising the constitutive role of seemingly bounded objects with which practitioners interact*' (p.279), it does not do justice to the forms of materiality that co-exist and upon which the functioning of these objects depend – the material infrastructures.

Building upon the 'three elements' model (Shove et al., 2012), this research argues that in order to gain a deeper understanding of how practices bundle and form complexes, in turn affecting how people travel to work, analysis should focus upon these seemingly bounded objects and the linkages *between* constitutive material elements of differing daily life practices. Materiality was identified as an important code throughout the analysis conducted within this research. Section 5.7 illustrates this importance, with materiality prominent within each individual practice, whilst also often coded across practices and with other aspects of the study. Objects and infrastructures necessary for the performance of individual practices of commuting, flexible working and the household were identified, with linkages between these material elements of further importance in the bundling of everyday practices. Focussing analysis within this chapter upon these individual material elements and their linkages between practices will provide insight into the relative

dependence (or not) of these elements in the performance, reproduction and bundling of practices associated with the commute.

Introductions to such elements will be discussed throughout this chapter, with a more thorough focus upon material contributions towards constraints within time and space discussed. Evidence of two distinctive roles for materiality in the temporal and spatial organisation of the day is visible. These two distinctive roles centre on the objects and things necessary in the individual and collective performance of practices within the household and work, and how these bundle together with commuting practices to affect when, where and how people travel for work.

Prominent materials found from work include printing; software and data; supervision; home-working; and meetings; with the materiality of parenting and childcare featuring heavily within household practices. Materials inherent in the performance of daily working practices often determine both the temporal and spatial location in which these practices are performed, examples including access to architectural drawings or the use of printing facilities. A deeper consideration of how the materiality of these practices and elements combine with meanings and competencies in the performance of daily life practice bundles is explored throughout this chapter, prompting discussions as to the influence these practice bundles might have upon travel and levels of demand for journeys to and for work. Doing so brings to the fore interesting examples of co-ordination, synchronisation and ultimately co-dependence. Importantly, this co-dependence may be difficult to interrupt or reframe, as dependence upon private car mobility becomes increasingly engrained within society (Mattioli, 2014).

8.2   Materiality of 'work'

The facilities and materials needed throughout the 'working day' will affect the temporal rhythms and spatial location in which work is conducted. Materiality in this sense is related

to the facilities and materials required for a practitioner to perform the practice of work on a daily basis, principally the tasks and duties necessary for this practice to be performed and reproduced. Materials inherent within working practices are likely to have some bearing on not only what practitioners need to perform their work, but also on when and where this work can be conducted; be it out and about using ICT technologies in differing locales or in an office. Henceforth discussion regards the materiality of printing, software and data, supervision, home-working and meetings will be conducted.

8.2.1 Printing and documentation

Materiality at the workplace was considered a critical aspect of daily working practices within thirteen interviews. Archetypal examples of this materiality associated with 'doing work' was the need to print documents or have access to specific drawings, technologies and documents. Printing could be thought of as a key component in a number of participant's days, with each of the four Academics reporting the need to access printing facilities over the course of the week, with this access then playing a large part in attendance within the office. Academic C in particular noted that:

> '*If I ever need to print something out I do it in the office, as I do not have a printer at home, so this is a big draw for me if ever I do need a printer. In honesty, it is only occasional printing, but it does come in waves of lots to little usually, either urgently in response to what I'm working on, in preparation for meetings, to do some work at home, on the weekend or whilst on the train home.*'

Academics A and B discussed similar sentiments, though whilst having a printer at home still did the majority of printing in the office. Printing practices of this kind were explained to be more from wanting to save paper and toner for personal use at home, together with the ease and accessibility of printing facilities available throughout the University campus. In addition, Solicitor A, Architect A and Senior University Staff C all express similar

sentiments. These participants though consider printed material to not play such a defining role towards their presence in the office. The printed material associated with their working practices is something of a '*by-product*', specifically associated with meetings and briefings. Senior University Staff C for example explains that although 'rare' the printing done is in concordance with other commitments and responsibilities from work and therefore considered an essential part of preparation and daily work.

Uniquely, Academic D explicitly tries to reduce his printing and not print too much out, with '*the only things I really print are journals that I want to read, and even then I print them in a book so I feel better. So you can print them out so they look like a booklet, and that saves some paper*'. These paper-reducing practices are perhaps reliant upon the participant's competence of using a printer in this regard to reduce the number of pages printed. During the same discussion, Academic D described that his reliance on paper-based note taking and reading might perhaps be a 'generational thing', one borne out of technology not yet being able to substitute these practices:

> '*So printing, I try not to print too much. I haven't got an iPad yet, or some kind of pad, whatever they are called. The only things I really print are journals that I want to read, and I print them in a book so I feel better. So you can print them out so they look like a booklet. So aside from that that is all I am printing. It might be a generational thing, as I am quite paper orientated. So when I take notes it has to be on paper.*'

Whilst discussions regards reliance upon paper-based note taking were considered a 'generational thing' by Academic D, participant age was not especially significant for the performance of these paper-based practices. Similar paper-based note taking practices were not only reported by the other three Academics, but by a further twelve participants from other professions within the sample, whose ages ranged from 26 to 62. Whilst obviously not conclusive, it is clear that these paper-based practices conform somewhat to

Yli-Kauhaluoma et al.'s statement that *'flexible navigation and manipulation of paper is essential in order to read and write across documents'* (2013, p .69), with paper enabling an ease through which to make notes and annotations whilst encouraging a bridging between work practices in time and place (Yli-Kauhaluoma et al., 2013).

Printing is not a particularly novel narrative and is something to have been expected, with little distinction between professions in terms of printing on a daily basis. Considering the professions investigated throughout this analysis it is perhaps of little wonder that printing is a distinctive component of working practices for many. Of interest therefore is why printing does not factor as a distinctive practice for all within the sample. It is the persistence of these practices, in particular the retention of some distinct aspects of printing whilst other diminish, which are important. The 'specialist' printing practices of the architectural participants sampled are succinct illustrations of persistent material dependencies. These material dependencies are then further reinforced when linked with meanings regards 'generational' working routines and competencies of preparation for working whilst travelling. The 'tradition' of paper-based drawings and 'generational' note-taking are examples of definitive spatial constraints in which printing documents such as these play major parts. However, as discussed, a number of participants are actively reducing their printing volumes, whilst a few others have become increasingly conscious about the amount of printing undertaken. In this light, perhaps for some professions at least, printing may be slowly diminishing as a reason or necessity to travel into the office at least every day.

The pervasive nature of ICTs throughout the vast majority of participant working practices in relation to the materiality of printing and storing documents was exemplified by Accountants A and B. Discussing these practices, both participants explained how they actively attempt to reduce the amount of paper inherent within their work:

Acc B: '*No, we try as much as possible to get digital copies of everything... We use cloud accounting. So as much as possible we keep digital copies. The software that our clients use, or we use for our clients, we can store, say a sales invoice, we can save a digital copy in the cloud. Or we can save a copy on my laptop which is then backed up, which is then backed up - so long as we keep enough backups!*'

Acc A: '*We've got the printer next door, but in truth we focus mainly on technology businesses, everything is PDF; banged around, signed, scanned, and sent back, we don't have a lot of paperwork. Why generate it if we don't need it?*'

However, through further explanation, Accountant B describes how the 'traditional' approach towards accountancy revolves around the printing, storing and accumulation of paper copies of documents. Meanings of tradition and institutional working practices, coupled with linkages to materiality within working practices of the accountants interviewed, do not help in the reduction of paper-based working within their profession:

Acc B: '*We try not to print too much, whereas traditional accountants will have boxes, and boxes, and boxes of paper copies, because you have to keep paper copies of stuff for a minimum of 6 years, generally, 7 years.*'

Interviewer: And if clients asked for a hard copy of documents?

Acc B: '*Oh yeah we'd just print it off, it's easy. But as much as possible we would try and reduce paper. It would just be too much. There are some things you can't get around. Like HMRC, all their communications come via paper, I mean I scan a copy and save it and get rid of the original, but we do have some paper unfortunately.*'

Reductions in paper-based working evidenced above are therefore slightly inconsequential when viewed as an individual element of these working practices. Though aspects of printing may be slowly diminishing as a reason or a necessity to travel into the office, specialist paper-based practices remain something which can tie participants down somewhat. However, if documents are accessible on the move it may encourage more

mobile working practices. Accountant A offers insight into this potential, explaining how ICTs have allowed his working practices to become '*more mobile, rather than ferrying paper from meeting to meeting'.* Further investigations into the potential for ICTs to encourage more mobile working practices are introduced henceforth within this chapter.

8.2.2   Software and data

Sketching practices, involving writing and most importantly conceptual designs and drawings, are usually associated with the work of architects, designers, and engineers (Yli-Kauhaluoma et al., 2013). Sketching practices were evident within five of the seven architectural participants interviewed, with two distinct types of sketching practices undertaken by these architects. The first type of sketching practice being that of hand-drawn on paper and in sketching pads, the other type being computer aided design and sketching through computer software. Two of the five participants whom sketched by hand on a daily basis described materials required to perform these sketching practices as ever-present, with examples including: papers, tracing pads, other drawings and sketches, pencil cases, writing materials, and scale rules:

> Architect A: [when asked what materials were taken on a daily basis] '*Papers. I also take, at all times, tracing pad. Drawings and sketches that I have been working on and things in there... I could put them down and start drawing on the train, and I have done it before, but I don't tend to. I try to avoid it*.'
>
> Architect B: '*I've got a little pencil case with them, with all drawing equipment and in with my tracing pad. I will often be with a client and draw out thoughts in front of him and try and agree a brief… before heading back to the office to build upon it with the team'*

Evident within the two excerpts above is that sketching by hand can be, and is, conducted outside of the office in the performance of everyday working practices for a couple of the

architects interviewed. In contrast, the sketching practices reliant upon computer software constrained the location in which the other three architects could work, principally to within the office. Though Architect A felt he could conduct his own work anywhere, sketching included, he explained anecdotally that a large proportion of his colleagues were particularly constrained by certain computer software packages that enable computer aided design. Discussing further, he states that even though specialised laptops are available, the cost of these are prohibitive. Access to a limited range of software is available through the organisation's VPN, allowing colleagues to work at a distance more easily, though restrictions around which software is available and which is not is an issue:

> *'No not really. I think you can do it anywhere. What I do can certainly be done anywhere. I think some of the work that some of the lads and lasses do is not so. I mean for instance there is the computer aided design drawing stuff and the 3d design programme that allows you to draw in 3D in all level of the very beginning of conceptual work to detail. These software packages, especially the 3D one, demand quite big computers to support you on your screens. You can actually get specialised Revit laptops, but they are damned expensive. So that to a degree limits how much work you can do from a distance. We do have access to some through the VPN, allowing you to connect in and use the office computer to run the big software, whilst you're at a distance plugging in, so even then it is not particularly restrictive – providing the software you want can be used that way.'*

Architect C and D further this discussion, stating how they are both particularly constrained spatially due to the need to access a computer and a specific software package, hindering possibilities of working elsewhere other than the office. Furthermore, requiring access to accompanying architectural drawings, the printer, and 'other things' compounding spatial constraints for Architect C:

> *'Interviewer: Are there any reasons for you having to be in the office?*

Arc C: Just the type of work I am doing. It is all on the computer so I need to have access to a computer.

Interviewer: And do you not think you would be able to do that at home with the correct software?

Arc C: Not necessarily, no. I need to have access to drawings that we have in the office. Also, things like the printer and things like that. So I am actually quite constrained in where I can do my work.'

Architect D on the other hand does posit that if required, some of her work could be conducted away from the office through laptops and remote working applications. The participant does state however that these 'flexible' working practices would be undertaken either after work in the evenings or during the weekends whilst away from the office, though no instances of this flexibility had been conducted as of the interview. The location and time of Architect D's work are not simply a result of constraints imposed by the materiality of their work, specifically the use of computer software for sketching and design purposes. As introduced in the previous chapter focussing upon the meanings of work, Architect D is constrained further by expectations and obligations to be present within the office, focussing principally upon adherence to core-hours and co-presence. Therefore, whilst flexibility within the materiality of their working practices is discussed (though not exercised as of yet), little flexibility was apparent within the meanings of Architect D's working practices, which evidently take precedence in demarcating temporal and spatial constraints. The discussions with Architect D above speak directly to the conceptualisation of flexible working practices developed throughout this thesis (as defined in Chapter Three, section 3.5). By this, it is apparent that elements within the participant's working practices exhibit little or no flexibility (meanings of co-presence for example), whilst others exhibit the potential for some or lots of flexibility (ICT use). However, when combined in the performance of Architect D's daily working practice it is evident that those elements

exhibiting limited or no flexibility take precedence in the definition of temporal and spatial constraints.

Seniority and job role are also important influences upon daily job tasks and the sketching practices discussed above. Both Architect A and B are managing directors within their respective architectural studios and are responsible, in part, for the bidding of work, management of the firm, and also a large proportion of the client and site visits. As a result, their working practices somewhat reflect these responsibilities, with material flexibility complimenting the demand for travel in pursuit of work contracts. Conversely, Architects C and D are employed lower down the hierarchical ladder within their respective firms, thus have fewer duties that seemingly predicate the need for flexibility within their working practices. Coupled with the adherence to expectations and obligations outlined previously, the participants' job tasks and expertise further influence the type of work conducted and the location and times in which this work can be conducted. Architect D does discuss however that once fully trained, client and site visits will become a more regular feature of her day-to-day working practices:

> '*When I become a full architect I will be obliged to go on site visits, and I will have to drive myself there, but they are not too frequent. Once or twice every two weeks or so at the moment...*'

As a result of these changing work tasks and duties, a change in travel demand was envisaged, with driving considered a necessity once responsibility for client and site visits are incorporated into her working practices. Doing so would mean a deviation from the lower carbon commuting practice of walking conducted by Architect D, to the use of the car. Whilst changes to commute practices for Architect D may only be affected on the days when client and site visits are required, the expectation to drive herself to these meetings will undoubtedly influence the commute practices of the participant.

Each Graphic Designer also reported being constrained in some way by their computer, specifically that of certain software only accessible whilst in the studio. The provisioning of technology to facilitate the 'doing' of work on a daily basis clearly imparts large impacts upon the spatial freedom experienced by those participants whom consider materiality to be critical within their working practices. The spatial element of their employment typically fixed these participants to within an office or a studio. It would appear therefore that dependence upon particular materials, especially those regarding computer software and infrastructures such as servers, constrain architectural and graphic design participants spatially in the performance of their working practices. The majority of those participants that reported spatially constraining materiality associated with their working practices also reported temporal constraints associated with this materiality. Temporal constraints in this respect arose more as a result of the co-present working practices and expectations to be present within the office/studio between particular times, as have been introduced within the previous chapter. Building upon the discussions throughout these three formative analytical chapters, it is clear that complex combinations and interactions between individual elements define spatial and temporal constraints within the performance of daily working practices.

Requiring access to certain, sometimes confidential, materials was discussed by Solicitor C whom described the ease of conducting their work whilst in the office due to this access, along with the difficulty of transporting large files and documents away from the office:

> '*We have to be very careful with files due to confidentiality. And if they are huge files, I am going to have to struggle. It is very hard for me to do really [work from home], because I have big files, we are more or less paper based… in fairness to my employer I have been offered the option of doing some home working, I have been offered a Blackberry, but I don't think it is possible It is much easier here… any files that were too big they stayed in the office and I just did them there*.'

Accountant D echoes these constraints regards sensitive information, explaining how he is required by many organisations to use the desktop computers provided, rather than his own personal laptop. The participant contends that for confidential reasons and fear of losing data, he uses their systems because '*on a stand-alone machine, because if the work is lost then it is gone. They can keep a record of it and keep it safe through their system*'. Though Accountant D continues by saying that he is able to complete some work outside of the office either at home or in the hotel after work, he uses his own personal laptop sparingly and backs the confidential work up onto the organisation's system once back into the office in the morning. Senior University Staff D also explains that they tend to not take work home, principally due to data protection reasons. Paper work in particular is left in the office, with it being '*better to have it here [in the office], I have a locked office and most of it is very sensitive, so I don't like carrying paper copies*'. Evidently, the materiality of using confidential material in paper-based form or through secure computer systems, have differing effects on where participants are encouraged to work. Whilst it would appear that there is a diminishing of paper-based reasons to be in work, there is also an increase in software and data security reasons quoted in daily work for some. The approaches towards confidential working discussed above by Solicitor C and Accountant D perhaps reflect more the traditions and expectations surrounding the working practices of the organisation as a whole rather than the impediment placed upon participants by working with confidential materials.

In a similar vein to printing, it could be expected that the use of certain technologies such as remote access software and encrypted laptops might negate the constraining materiality of confidential data described above. Accountant B illustrates the nexus of elements that allow for confidential data to be accessed through specific computer software on her organisation's laptop. In doing, enabling her to 'do' work whilst in different locations, as opposed to being constrained in one location as witnessed above:

> *'My laptop, I can't be anywhere without that. There are quite a few software*
>
> *packages that we use. All of our clients are maybe on different ones, so whatever*
>
> *works for them, and we have some in-house stuff that we use. And then accounts*
>
> *prep software as well to actually create the final year accounts which we can then*
>
> *submit to HMRC. All this stuff allows me to work wherever whilst still accessing our*
>
> *client accounts. It's all safe and secure too, which is a bonus.'*

The potential of these technologies to do so might only be realised through linking with elements of competence and meaning in the performance of these working practices. Perhaps most importantly in these possible combinations is a link with meanings that encourage the use of remote access software and a shift away from paper-based working. Inherent in these practices though is of course the ability for participants to 'do' their work; therefore competencies around utilising these technologies may need to be developed. Discussions regards further linkages between materials, competencies and meanings in the performance of reduced temporally and spatially constrained working practices is conducted later in this chapter. Immediate attention is to be paid to the materiality of supervision and what influences this materiality has on the coordination and synchronisation of participants' working practices, in addition to the temporal and spatial limitations imposed by these supervision duties and responsibilities.

8.2.3   Supervision

Supervision does not have solely material properties that influence when, where and with who these responsibilities are undertaken. As we are aware, meanings and competences inherent within these practices also engender temporal and spatial constraints in the performance of working practices. However, discussion regards the materiality of these duties is important, especially in respect to the efficacy of ICTs to substitute these duties, and what effect supervision has on travel for the journey to work. Eight participants

reported supervision to be a key component of their role and as such felt obliged to be present within the office, be it to help resolve any issues that may arise or provide guidance and support to colleagues. Accountant A provides a detailed account of why he feels the need to be in the office, not only as part of a social setting, but for legal requirements and training needs. Perhaps interesting, prior to his colleague being employed by the company, Accountant A felt little expectation to be in the office and would frequently work at home, or use his home as a base from which he attended client meetings. Employing his colleague has therefore meant that the pressure and obligation placed upon him to travel into the office on a daily basis has risen as a result of these supervisory responsibilities:

> *'I think part coming to work is in all honesty having my colleague around, the social aspect of it. So it is coming in, prior to her being around, I would spend quite a lot more time at home… because she has been under training, she needs help, she needs guidance, and it is the social aspect of work isn't it. I still feel the pressure to come in, because I am responsible to supervise their work, and you can't get around that. I'm legally obliged to, and insurance obliged to supervise their work. I also think that supervision would be difficult from a distance, because it is about sitting down at a screen, going through things, talking through technology I think would make that largely possible, but I don't think it is as effective as being there in the same room going through things next to each other, giving and receiving that immediate tutelage and feedback.'*

Architect A, Accountant C and F, Graphic Designer A, and Solicitor A all reported elements of supervision and control expected and required from them as part of their role within the organisation. These duties aligning to seniority therefore imposed spatial constraints upon their working practices in that a presence was required within the office. The extent to which presence imposed such constraints differed between participants. Accountant A for example felt that due to the software and technology being used to complete his and

colleagues' work, it would be easier to sit down at the computer screen and work through any issues that have arisen more effectively than through the use of technologies such as Skype or the telephone. Graphic Designer A (GD A) and Solicitor A (S A) also considered speed and effectiveness key elements in their supervisory roles, and contributed to their desire to be present within the office:

> GD A: *'Obviously staff are in and I need to be in because when I am questions get answered faster and things like that.'*

> S A: '*I have got to be here to some extent, because I have got to supervise people. Especially the junior lawyers who need help when doing things because they can't do everything because they are not as experienced and need assistance and help... I do have to be here. Otherwise there is no point having an office then. The supervision side of it is one of the reasons why we need to have an office... It is more difficult with the junior lawyers, because they need more supervision from the senior people, and you can't really give that effectively at a distance.'*

Architect A and Accountant F were able to manage their supervisory responsibilities effectively whilst away from the office thanks to their competence in using appropriate technologies and other materials. Accountant F elucidates upon these linkages, considering how these relationships may impact upon levels of out-of-office and home-working:

> '*Yeah, I mean for myself when I am working at home, you do wish you had access to things in the office like admin, but now it is not as bad, I have got my iPad, my iPhone, and I can just phone the office you know on a basis when I need to and ring in instructions and things like that. I think home working will definitely happen more and more, as people are definitely on the road a lot more. I am finding it is really easy to keep in contact with the office anyway.'*

Further, Accountant B described how the technologies available and relative competencies of using this ICT have enabled supervisory responsibilities and commitments to be extended over greater distances and temporal boundaries:

> *'Oh, there is FaceTime. So when he was in America last Christmas, he goes away for a month over the festive period, we would FaceTime because he has an iPad and so do I. And that was the best way to do it, and that was checking in, every other day or so.*
>
> Interviewer: And is there much detailed work that goes on in those conversations?
>
> *It's checking, well it would be checking, you know are there any problems, you know I would be updating him on where I was. So if I was doing say 3 accounts, where they were, were they with the client, was I chasing some documentation, did the draft accounts go out, are they final, are they ready to submit. Saying that, he [Accountant A] goes [away] around a quiet period around December, everyone is winding down around Christmas, but yes it is kind of like he is in the office, we just have to chat about anything that needs to be done, any queries that I have that have come up we have a chat about over FaceTime. The only problem I think is if I need help with more detailed things, detailed software and that sort of stuff, but that don't come around too often.*

These competencies negate the need for co-presence in these circumstances, however as the participant explains, the 'type' of work conducted during these face-to-face meetings via 'facetime' differ to those usually held within the office when they are both present. Supervision duties therefore, principally stemming as a result of seniority within an organisation, seem to play a large part in the determination of presence within the office for a number of participants. Whilst ICTs might have the potential to substitute or extend supervisory responsibilities and duties for some participants, this was not reflected throughout the sample. The 'type' of work being supervised was important, together with

linkages to competence and meaning which structured the temporal and spatial nature of these supervisory practices. These duties often required the coordination and synchronisation of other people, principally colleagues, whom either require supervision or whom are conducting the supervisory duties. These practices therefore impose temporal constraints in addition to spatial constraints upon the working practices of individuals.

8.2.4   Home-working

Discussions within this chapter have thus far focussed principally upon the materiality of working practices during periods of work outside of the home, be it in the office or out-of-office. This section of the chapter on the other hand gives attention to the materiality of working from home. Within these discussions are considerations as to what effect this materiality might have on the location of daily work. In total, eight participants reported home-working, with three different types of these practices apparent from the interviews. The first of these practices focus upon extending the day at work, with home-working conducted daily during mornings, evenings and weekends. These practices were most prevalent, with four participants reporting home-working of this nature. The second type evident within the sample is that of working from home for the whole day. These practices were performed by three participants, usually occurring once or twice a week. The third and final example is unique within the sample, where Architect A combines working from home twice a week with working and staying in London for the other three days of his working week. Understanding further the difference of these home-working practices and their associated materiality is important to understand further the merits and hindrances of these practices for travel demand reduction.

The most prevalent home-working practices performed by participants were those of daily extensions to the day at work. Home-working in this manner typically revolves around catching up on emails in the evenings, during weekends or achieving some focus time away

from the office. Principally as a result of supervisory responsibilities and duties as a director within the architectural firm, Architect B seldom replaces working within the office with working from home, instead utilising home-working as a complimentary tool towards his daily working practices within the office, or as an aside in which to conduct other associated tasks such as administration, drawing and sketching:

> *'What I tend to do is, I tend to come in early and go home late to just have those two hours, an hour or so either side to have some focus time either side to do some stuff on my own. Sometimes I do that at home, sometimes in the office. The stuff I do at home is usually invoicing procedures. Quite often I find doodling away on a site layout or a feasibility study on an evening sat in front of the TV works really well. You know, that's just the way I am, the way I work. But obviously if I try to focus on it in the office and the phones going and the emails going and people want a bit of help off me literally 2 or 3 or 4 minutes then nothing happens. That works for me working from home for those few hours outside of the normal working hours.'*

Building upon discussions within Section 7.5, Architect B considers separating himself from the office environment to be a positive attribute of working from home. The uninterrupted '*focus time*' compliments his work whilst in the office, though not ever replacing it. In the case of Architect B it is not necessarily the materiality of his working practices that influence decisions as to his working location (as sketching, administration and drawing can be conducted regardless of location), rather it is that home-working is utilised as an additional, complimentary practice, with access to necessary materials in either the home or office not considered a defining factor in daily work location.

Accountant A has a structured rhythm regards this practice of home working. The participant typically starts work at 6am before travelling into the office at around 9am, works in the office until around 5pm and then continues work once back home in the

evening regularly until 9pm. To do so, Accountant A has a more fixed home-working environment in comparison to the other participants discussed throughout this section:

> *'It is an equally as good environment, so I have no real need to be here [in the office], because if I am here I tend to be disturbed, whereas working at home it is relatively peaceful. I think it is very similar to be honest [work conducted in both locations]. Prior to my colleague being around I would spend quite a lot more time at home. I have a room set aside, you know desk, PC, blah-blah-blah, what more do you need? I have a printer too, but there's nothing special, it is purely a standard PC, standard printer and will do all I need it to do.'*

The working practices described by Architect B and Accountant A above also apply to weekend working, where catching up with work from the previous week together with office admin, expenses and accounts are conducted, and done so either at home in the office. Graphic Designer (GD) A shares a similar approach to catching-up on work, keeping track of emails and '*just trying to keep on top of everything generally*' whilst away from the studio in the evenings or during weekends. In a similar vein to Architect B above, home-working is conducted 'outside' of studio hours, extending the day at work, with GD A's supervisory responsibilities and client focus taking precedence in working location during the day (as discussed within Section 7.2).

SUS C has the option of working from home, however only does so occasionally and typically in the morning before travelling into the office. Access to resources and information whilst working within the office contribute towards her not working from home very often:

> *'You do have better access to information. I find it better actually being in the office if I am honest. It is handy if you occasionally need to work from home, especially like I do in the morning, but I find that I have better resources here to enable me to do my job. And also, if I suddenly decided that I wanted to work at home a lot, then*

it would inconvenience other people, because I wouldn't be around for meetings at

the same extent.'

Returning to Architect C's discussions in section 8.2.2, co-ordination and co-presence both play roles in decisions to work within the office; with the inconvenience for others and availability for meetings perceived to be impacted as a result of working from home. Printing, although minimal in SUS C's daily working practices, once again influences decisions regards working location and tasks conducted whilst in the office. Thus, in these three examples above it is not necessarily the materiality of individual working practices that constrain the participants to particular locations and certain times, rather it is other elements that inhibit flexibility use and take precedence in the structure of daily working rhythms and locations.

In contrast, Accountant B and Academic C describe instances of more prolonged home-working within their daily and weekly working rhythms and schedules. Accountant A's whole-day home-working practices have been effected as a result of hiring a colleague (Accountant B), whilst Accountant B's whole-day home-working practices are influenced through co-ordination and synchronisation with her boss' schedule, particularly client meetings. These complex interactions are described by both parties:

Acc A*: 'I think out of preference I'd rather work at home. I'm quite happy working at*

home, I don't really need other people, shoot out as and when and that's how I did

do it when it was just me. Since I got my colleague I feel like I need to come in, help

her; give a social aspect to it. She has a choice to work at home or come in, and she

probably would prefer to come in, but I'd prefer to be in a pair of shorts and t-shirt,

drinking tea, you know watching the odd bit of rugby or whatever, you know I'd

rather do that.'

Acc B*: 'The majority of the time here in the office... but quite often I can work from*

home. If my boss is not in the office I do not need to be in the office... I think before I

came along, he'd just work at home, he's quite happy, just work at home and then

visit clients that way, but he makes an effort to come into the office because I am

*here. O*r *if I need to be at home, for a number of reasons, my boss is very*

accommodating. Because I have the laptop I can work anywhere. But yeah, if my

boss is in, I am in, generally.'

Due to the somewhat sporadic nature of Accountant B's home-working practices, as a result of these aligning with her boss' schedule, access to the work laptop (containing all the necessary software and files for her to competently work from home) affords her this flexibility to 'work anywhere'. Academic C expresses similar sentiments regards home-working, stating that his home laptop enables a connection to the University's servers to access files and documentation required for the day's work, meaning in principal he can work anywhere providing there is internet access. The only issue for Academic C is a lack of printer at home, with this considered a 'big draw' into University. Therefore linking back to section 8.2.1, whilst ICTs do enable Academic C to work from home often twice a week, reliance upon and use of paper-based materials throughout working practices for many within this chapter are still considered influencing factors regards working location.

Architect A, whilst feeling as though he can conduct his work anywhere, does so from home usually twice a week on a Monday and Friday, with the days between for working down in London and visiting clients. As a consequence, it is clear that the office for Architect A is very remote from home. This type of home-working is distinct from others evidenced throughout this section, with extensions to the working day seldom occurring and the ability to do an hour at home and then travel to the office unavailable:

'We [other directors and he] have agreed that I spend three days a week in London,

because the Leeds office is just quite modest, it's only just me really that's it, and

most of the work I am doing is actually down in London, but I do work through our

Birmingham office as well. So I spend, sometimes, I'll certainly spend three days a

> *week in London, with Monday and Friday either at home or in Birmingham... I quite*
>
> *enjoy working at home, it is peaceful, and I can get my head down and do some*
>
> *thinking work. But then I also enjoy being in the office and having that social*
>
> *attraction.'*

Working 'anywhere' is due somewhat to the limited material elements necessary for him to conduct his work. Of importance are his laptop and blackberry mobile phone, of which both can connect to work servers remotely via the internet. Doing so grants him access to the necessary files, documents and software required conducting his work for that day. Further, the participant is also still responsible for his supervisory duties, which range from co-ordination of staff to task management, whilst working from home. These duties are manageable as a result of communication and co-ordination between the office and him, aided through the connections possible through his personal laptop at home.

8.2.4.1   Summary of home-working

It is evident from the excerpts above that the materiality of home-working differs for each participant, as does the extent to which home-working is conducted. For the majority of those participants exampled throughout this section, home-working is undertaken as an aside or in addition to work conducted whilst in the office during 'normal' working hours. Whole-day home-working is performed in synchronisation and coordination with others, typically supervisors and bosses, with access to paper-based materials also important in these decisions. ICT competencies were evidenced by those whom frequently performed whole-day home-working practices. Home-working provided space for 'focus time' and the completion of other tasks either side of the workday, be it before, after or during both timeslots. The materials necessary for these types of working practices to be performed in the home do not differ greatly from those found in the office, thus home-working can be incorporated easily into working schedules and rhythms. Further, is apparent that the type

of work undertaken whilst at home differs little to that conducted elsewhere within daily working practices. By this, it is considered that no out-of-the-ordinary home-working practices were found; rather those extensions of typical working days or an overflow of work tasks not able to be completed that week were discussed. The performance of sketching practices, email conversations and administration tasks were considered easily conducted whilst in the home. Distinctions between these three home-working practices are important for travel demand discussions, as only whole-day home working and the London example reduce the demand for travel into work, with very remote office locations doing this for sure. Extensions to the work day could potentially allow for temporal flexibility that might be used for modal shift; however no evidence of these practices were evident within the sample. As we can note from Table 12 at the top of Chapter Seven, each of the participants whom performed flexible working practices frequently travelled to work via the private car, with the exception of Architect A, who caught the train to London when not working from home.

8.2.5 Meetings

Working practices of architects within the sample were seemingly synonymous with both client meetings and site visits. Each of the architects interviewed expressed differing periodicities attributable to these meetings, with some describing occurrences daily, weekly, monthly or over even greater periods of time. Importantly, the majority of these meetings and site visits required necessary materials in order to conduct audits, surveys, drawings and so on whilst with the client. The variety of materials required to perform these meetings ranged from mundane everyday items such as stationary and sketching pads, to more specialist equipment such as wheeled measures and software compatible laptops. Of further note for those whom visited sites on a regular basis were a possible change of clothes (particularly steel-toe cap shoes), hard hats and high visibility gear.

Therefore, sometimes access to meetings by car is necessary. This can be, but is not necessarily associated with the car forming part of the commute, but does need other materials and skills to avoid that necessity, such as use of a 'pool car'. An example of materiality within meeting practices was apparent when speaking with Architect E, who on his frequent visits to sites would transport a variety of materials:

> '*pack my suit, high-visibility gear, measuring equipment and drawing tools, to ensure I do not forget anything and am prepared for any situation that may arise, or respond to any questions I may be asked whilst on site'*.

In addition, Architect E would sometimes take regulatory guidelines and books with him, again further reinforcing the carrying ability of the car, and in turn reinforcing his recruitment to driving for these meeting practices. Accountant D argues that being employed on a contract basis, ranging anywhere from one month cover to a longer term placement, makes it difficult for him to travel via any other means than that of the car. Explaining, he suggests that due to his working practices being irregular (i.e. not a perceived 'regular' office location or working rhythm of 9-5, Monday to Friday) and usually staying away from home for the week whilst on contract, access to commuting by methods other than the car are restricted, principally due to organisation location and contract duration. Furthermore, the participant explains that due to distance from home and staying in hotels during the week, the necessity to take an ample amount of clothes for the week encourages him further to use the car.

Location of client meetings, site visits and contracts clearly weigh heavily into the travel choices of participants. Carrying capacity coupled with speed, freedom and accessibility to clients potentially ill-served by public transport reinforce the use of the car. Combining all these elements, the material necessity of these meetings and site visits, together with that of sequencing numerous visits throughout the day, reinforces car driving for the commute

further, at least for eleven participants on a near daily basis. Architect B, F and G succinctly explain how they visit their clients:

> Arc B: *'I go and see clients a lot, present schemes to clients, to planning communities and go out and see sites a lot. I sometimes need to take presentation equipment with me like poster frames and things like that. There are not many days in which I do not need my car for something. For example, last week I visited sites in Birkenhead, York, Manchester, Leeds, and clients all over the place. In my office, theirs, a building site, or a place that suits us both. So a mixed bag definitely.'*

> Arc F: *'we do go out and see clients a lot, visit sites a great deal. Like tomorrow we are up in Carlisle because we are going up to see a project a client is snagging, to see what needs doing. Then later in the week I am on a training course and Friday back in the office. So it is one of those usually. Usually, it depends how close the meetings are to a train station.*

> Arc G: *'You know meeting clients to discuss potential developments, or if a building has got to a stage where we have to be on site then we need to make trips to the site, but it varies from week to week. We might invite clients here [to the office] but it is generally us going to our clients. A lot of them are based in Leeds, so it is just a walk, but that is definitely not the case for many, who are based further afield in random places so we need a car to get there… I would say between 40% in town and 60% out of town. Generally, if the site or person we are going to see is out of the city centre or whatever then we will take the car.'*

These three excerpts almost typify the meeting practices of the Architects interviewed. Architect D and F both explained how they are obliged to go on site visits and are expected to travel to sites themselves, which involves driving on most occasions. Whilst the participant expressed capability towards using public transport to visit clients, this was heavily contingent upon when location, organisation and planning allowed. Clients often

asked for site visits or meetings on short notice (usually due to an issue or problem), and in these cases the flexibility and convenience of the car was deemed essential. Using the car in this manner allowed the participants to travel to site or meetings within the limited timeframe given, again further reinforcing car use, but also highlighting how synchronisation and coordination fixed temporal and spatial constraints often in line with client meeting schedules and locations.

Whilst the materiality of these meeting practices might reinforce the use of the car, both Architect E and Graphic Designer A were able to do so through lower carbon travel practices. The former used the pool car, whilst the latter had the experience, skill and know-how (competence) to hire a vehicle from a car sharing scheme:

> *'I don't actually own a car, but I use the city car scheme. So when it is on the odd occasion that I need to deliver something or get to a particular meeting, I'll hire the city cars, which you just do on an hourly basis and then I can pick them up from the centre of town or where I live. All in all I would say [it is done] three or four times a month… [the city car scheme is used when] getting to places where public transport isn't really an option, or where time is a real factor, or where I will need to take loads of stuff, so yeah brilliant all in all'.*

Whilst the materiality of these meeting practices certainly has a bearing on the mode of transport used for the journeys to and from clients and sites, the previous two examples highlight how lower carbon options can be incorporated into daily practices of commuting and work. The necessity to carry a burgeoning array of materials prompted a number of (mainly architectural) respondents to exclaim that the car was the only available option. Of importance however are the examples above of 'pool car' and 'car club' use; providing insight into how travel for meeting purposes might be reconfigured away from own private car use. The bundling of these practices potentially encourages lower carbon options to be utilised for the journey to work, as the burden of materiality associated with meeting

practices is shifted away from the commute and into the performance of work as a practice.

8.3   *Materiality of household practices and daily life*

The materiality of practices throughout daily life appears to have direct consequences upon the commutes of participants, especially regards how travel is performed. Throughout the interviews ten participants expressed definitive material elements of everyday household practices that were influencing mode of transport used for the commute at least once a week. Whilst only a minority of the sample (35%), the complexity through which materiality manifests within household practices is important due to the effects this has upon both work and commuting. The material elements in question were mostly associated with childcare responsibilities and the performance of exercise throughout the day, be that before work, during lunchtime or in classes after work. Typically these materials were as a result of kit and equipment required during the performance of these practices, such as children attending school or extra-curricular activities and exercise such as swimming and circuit training. The complexity of these routines and dependence upon these materials for the participants sampled herewith contribute towards car driving for the commute, or at least some part of the commute. In addition, as the periodicity and total number of these household practice performances increased, so too did the complexity of journeys; with the sequencing, coordination and synchronisation of practices and people all heightened.

This section of the chapter will investigate the role of materiality within household practices and discuss further how the materiality of these practices and responsibilities influence commuting. It is apparent that sequencing plays a prominent role, thus a brief introduction into this complexity is mandatory to understand fully how household practices affect those of commuting.

8.3.1   Childcare

The complexity of Architect E's daily life is illustrated through the bundling of household practices with those of work and commuting, especially those of pick-up and drop-off duties associated with extra-curricular activities and the school-run. Bundling in this respect causes issues regards the sequencing of practices and the synchronisation and coordination of others in time and space. Examples of this complexity are described by Architect E, whom coupled with his 'want' for separation (as discussed within section 7.5), explains how his daily commute practices are influenced by his childcare responsibilities; particularly those of dropping one child off at 'breakfast club' in the morning each day, attending a gymnastics lesson after school one evening, and needing to be back at a certain time throughout the week to help with childcare. He describes that:

> *'I have two children. One's 6 months old who needs a lot of attention, care, feeding and changing. Usually, in the morning I will drop my 7 year old off at what we call 'breakfast club' for 08:10 and then drive back home and leave my wife the car. I will then set off for work from home. I have a choice of either running in, walking in, or cycling. I generally don't use the home car; I leave it for my wife... Most days, my wife wants me home before 18:30 so I can help with tea, getting the kids ready for bed and the baby changed and into bed because he can be a bit awkward, so I try and get back for then. The only difference to that routine is on a Thursday when I meet my daughter at the leisure centre to watch her in her gymnastics classes, which are at half past 4 each Thursday. I will then finish work at 4 and meet her there. That is out of personal choice because I want to spend some time with my daughter. Also, she has so much stuff for gymnastics that I can carry it back in the car no problem. I will then try to make that lost work time up during the week, either come in earlier or leave later, or usually what happens is I will do a little bit of*

work at the weekend. So say on a Sunday, my wife and kids will go to church, but I

won't, and will come into work instead'.

Whilst it is notable that material dependency regards school and after-school activities plays a role in commute decisions, the sequencing of practices and the coordination and synchronisation with his wife also play important roles. By this, it is perhaps instructive that Thursday is the only day when the routine is disrupted, with car driving featuring as a necessity due to the cargo implications of his daughter's gymnastics class. For the other days, car driving for the commute is substituted with other modes such as running, walking and cycling as a result of '*leaving the car*' for his wife. Commuting practices of this nature are accommodated by Architect E due to the availability of a pool car within the office, meaning that mobility is still assured throughout the day for meeting attendance and other activities.

Architect G, with his three children all attending school, is also involved in a number of pick-ups and drop-offs throughout the week which require sequencing with working practices and the constraining nature of material elements associated with these practices. These pick-ups and drop-offs heavily influence his daily schedules, particularly the time at which he departs home for work, and vice versa, but also the mode used to perform these commute practices. These responsibilities and commitments have changed as the children have grown older, especially the number of after school and extra-curricular activities they are involved in. As these have changed, the necessity for driving has also changed, arguing that he could never do these on the bus due to the location, timing and materials required for these activities. Explaining comprehensively these routines:

'I drive in now, which I have got to do because my kids have got older so I am doing

a lot of pick-ups and drop-offs in the morning and after school, so it is a lot easier.

You could never do the pick-ups on the bus or anything; I do need the car really.

Also, because sometimes we work a bit later it is a lot easier to drive than to have

to go and find a bus in the evening. I take my youngest to school every Thursday. That came about as a result of the recession when I had more time on my hands, and I enjoyed doing it so thought we'd keep it going. My other two are in high school, so they just walk to school, so I only have the one to take, and I take them only the one day a week… That is really the only sort of thing I do which changes the times I go in and have to work. I suppose the other thing is the pick-ups from my other two kids that do activities after school and stuff. I will then normally stay in work until the time I have to pick them up. So say tonight, my eldest is dancing so she'll have a pick-up at half past 6, so I will stay here a bit longer, and then tomorrow the two of them will do dancing and they have a pick-up of 8, so sometimes I will stay in work until half 7 before going. That's it really; there are no other general responsibilities that I sort of cater for. Only the not-so-regular ones like school plays, all that sort of stuff, but there is nothing else really.'

Evident throughout are the processes of sequencing and synchronisation. Whilst the materiality of daily household practices and the sequencing of these practices into the commute play important roles in commute mode choice, it is apparent that synchronisation is more influential regards working rhythms and commute timings.

Reliance upon private mobility (particularly the car) for performing childcare practices is again evident throughout the interview with Senior University Staff (SUS) C. Upon explanation, both participants consider their childcare responsibilities to almost force them to drive, although for differing reasons. SUS C concisely describes how the caring responsibilities associated with her daughter influence and constrain her daily schedules and activities:

'At the moment my arrival and departure times are quite strongly influenced by the fact I have a 15 and a half year old daughter. I would say I am the main person who is taking her to, not to school, but to the station, because she gets the train to

school, so she is going in the opposite direction to me for work... Then twice a week I pick her up, she goes dancing in another town about 20 minutes away after school, she goes down after school and then I get her after that... So she gets the bus to dancing, and then she doesn't finish the lesson until quarter past 8, so I don't get there until then, so I stay in work until I need to set off, until about 7 and then drive... As she is doing her GCSEs I want to support her, because it is quite a difficult year, so particularly on a Wednesday I actually drive her to school, rather than drive her to the train station, because she has so many things to carry she is absolutely over-burdened with them. This means we leave home at 7, or roughly, we might even leave before 7, we will then go to school, drop her off and then I drive from school to Leeds, and I inevitably hit the traffic, and it is quite a long journey, so I am not actually guaranteed being here for 9 o'clock when I do that. So my travel is very much influenced by her and her activities, and if she has anything special, which she occasionally does, and then you have to work around that'.

Visible in the excerpt above are the temporally and spatially constraining elements of childcare that influence SUS C's daily schedule and transport choices, namely those of dropping her daughter off at the train station each morning (except Wednesday where she takes her to school), and the twice-weekly attendance of dance class. SUS C believes she is fortunate to have access to flexible working practices, especially temporal, as they allow her to bundle these practices into her daily routine even when not confident or guaranteed to arrive at work for 09:00. However, what is again striking is the reliance on the car to perform these practices of childcare, centring once more upon the constitutive elements of the practice such as; cargo carrying ability, convenience, ease, and flexibility. It is these constitutive elements that are helping recruit SUS C into driving. By this, it is felt that due mainly to the cargo carrying ability, the ease of sequencing multiple practices in time and space, and the synchronisation and coordination of others afforded by the car, the

participant is able to quickly alter both departure times and route to reflect differing daily schedules (as on Wednesday for example).

Synchronising working rhythms with those of after-school activities encourages travel outside of 'peak' times for those participants sampled above. These childcare-commute practices reduce the burden upon the network during the heavily laden periods of 'peak' times. Constructively, synchronisation of schedules is contributing towards travel outside of 'peak' times at least twice a week for the participant. However, interrupting these journeys to be undertaken via other means than the car is likely to be difficult, given the dependency upon materials required and the sequencing of practices necessary for daily schedules and working rhythms to be upheld.

8.3.2   Exercise

Seven participants performed exercise within daily life at least once a week. Periodicities changed as a result of scheduling difficulties and through attending specific exercise classes. For instance, a couple of participants attended exercise classes twice a week after work, whilst others used lunchtimes as an arena for exercise. Lunchtime exercise was more at the liberty of working schedules than were exercise classes, with these predominantly organised in advance and 'outside' of work times. The materiality of these exercise classes contributed towards car use for the journey to work for four participants, whilst the other three participants were able to incorporate exercise into their daily schedules whilst at work, contributing towards commute journeys being performed predominantly via the train and cycling. Further, it is apparent that location of exercise plays a significant role in choice of transport chosen as shown in Table 13 for those doing exercise.

Table 13: The performance, periodicity and materiality of exercise throughout the week by participants, including commuting mode

Participant	Exercise, Periodicity and Materials necessary	Commute mode
Accountant A	Tennis, '*during the working week, during the evenings, whenever*'. Organised in advance during the winter months so schedule known. In summer, matches usually played from 18:30 Monday, Tuesday, Wednesday or Thursday. Tennis equipment, change of clothes and shoes	Car
Accountant B	Exercise class, Monday and Thursday <u>after and on way home</u> from work. Change of clothes and shoes	Car
Architect B	Exercise class, Monday and Tuesday <u>after and on way home</u> from work. Change of clothes and shoes	Car
Architect D	Gym, two to three times a week <u>after and on way home</u> from work. Change of clothes and shoes	Walk
Solicitor A	Swimming, two to three times a week <u>before</u> work. Swimming equipment and towel	Car
Solicitor C	Swimming, once or twice a week <u>at lunch.</u> Swimming equipment and towel	Train
Senior University Staff A	Different sporting activities, once a week <u>at lunch.</u> Necessary equipment. Change of clothes and shoes	Cycle, Bus, Car-share
Senior University Staff C	Swimming, once or twice a week <u>before</u> work. Swimming equipment and towel	Train

Five of the eight participants introduced above had some form of flexibility within their daily work schedules; however this flexibility was inhibited due to the elements discussed within this and throughout the last chapter. Coordination and synchronisation with others played key roles in the organisation and performance of these exercise practices within daily schedules, especially when aligning them with work and the household. As we are aware from Cass and Faulconbridge (2016), the *'mobility rhythms created by the fixities and/or sequencing pressures of work, education and other practices are crucial in pushing individuals towards the use of the car as the least time-consuming mode for traveling from one site of practice to another'* (p. 9). Sequencing regards practices of exercise within daily life occurred in three distinct forms:

1. Before work, with the performance as part of the commute into work

2. During work, with lunchtimes offering the space in which to perform these practices

3. After work, with the performance as part of the commute from work

Solicitor A and SUS C perform the first form of sequencing, with exercise undertaken before work and combined with the journey to work. The location of swimming pools facilitates these practices, with Solicitor A's being near home on route, and SUS C's being on University campus *'half way between the station and my office'*. Explaining more thoroughly:

> *'Because of where the swimming pool is located, it is sort of half way between the station and my office. From next week onwards if I go swimming then I will most likely get the train, because I can get here earlier and it is sort of quite convenient to walk from the train to the swimming pool, then from the pool to the office.'*

Practices of exercise for Solicitor C and SUS A are performed during lunchtimes, with both discussing the utility of doing so in terms of *'having a break from work'*, with the latter

explaining how doing so encourages her to '*leave the office*' as physical activity, sport and exercise have either been '*booked, paid for, or booked to do it with someone else'*.

In terms of exercise after work, this is typically performed on the return journey from work to home, and is the most prevalent form of sequencing within the sample. Perhaps notable, 75% of the participants whom do exercise after work do so through class attendance or co-ordinated performance (playing tennis). Cass and Faulconbridge (2016) discuss that the common timing of 'after work' curtails the time window in which commuting can be performed, with more travel involved to access the 'right' classes – encouraged perhaps by more omnivorous lifestyles. Those whom perform lunchtime exercise (minus SUS A) do so individually, with Architect D the only 'after work' exerciser who does so alone. This perhaps highlights how heavily synchronised and co-ordinated exercise can be in time and space if other people are necessary or classes are attended. In addition, the location of exercise contributes towards the means of transport used for access to these practices. It is apparent that performances located within close proximity of work within the city, during lunchtimes and alone promote lower-carbon travel; with modes of walking, cycling and train predominant within this section of the sample.

Those participants whom exercise with other people (except SUS A) through classes or tennis did so at greater distances away from work, considering the car to be a necessity in access. These participants were Accountants A and B and Architect B, with each using the car for commuting purposes and throughout the day in the performance of their working practices. Thus, it is perhaps unsurprising that their exercise practices were reliant upon private car mobility if this was already so during the performance of other practices throughout the day - particularly if we consider these exercise classes to be extensions of commute practices.

It is evident, unlike the childcare practices introduced previously, that the materiality of exercise practices is not solely reliant upon private forms of mobility in order for these

practices to be performed. Examples of incorporation into daily schedules with and without the need of private mobility were introduced, with perhaps the sporadic periodicity of these practices contributing to this incorporation. On the other hand, the definite schedule and sequence of exercise within routines impacted upon car use for these practices more so than others. Working practice flexibility did not necessarily influence the timing or the location of exercise. Five participants had access to some form of flexibility within their working practices, be it temporal or spatial, though did not discuss occasions when exercise was undertaken during 'working hours'. Exercise was thus bundled with the commute; ensuring practices of exercise were performed 'outside' of working hours or during lunchtime, so as to not interrupt daily working rhythms and schedules.

It is apparent therefore that no significant relationship between exercise and mode choice exists, suggesting that this is most often not a defining factor in how people choose to get to work. What is clear is that a greater number of influences impact upon scheduling decisions for exercise; with location, proximity to work, convenience and sequencing with other practices all contributing heavily towards the performance of exercise at certain times and in particular locations. Furthermore, coordination and synchronisation also play significant roles, particularly in attendance at classes, with these processes principally influencing the timing of travel. Whilst the performance of exercise clearly has an impact upon the materials required throughout the day, these seem to be incorporated much more easily into daily routines and schedules than other practices.

8.4   *Materiality of lower carbon commuting practices*

Cass and Faulconbridge (2016) state that '*recruitment into bus- and cycle-commuting is dependent on access to, and active incorporation of, generic modal materials, competences and meanings, but also elements associated with specific commuting mode-activity integrations*' (p.10). Recruitment into lower carbon commuting practices is likely to be

limited if the necessary materials, competences and meanings do not exist or are not valued. If material interventions neglect competence and meaning-related elements, they are unlikely to be successful (Cass and Faulconbridge, 2016). It is constructive to consider how linkages between these elements impact upon the way in which people travel to work and when this travel is undertaken, if at all.

Impediments in the performance of lower carbon options for the journey to work in line with these linkages of materials, competencies and meanings were witnessed throughout Accountant A's discussion regards motorcycle use for the journey to work. The participant considers motorcycle riding for the journey to work a '*little perverse'*, with the materiality of these bike-commute practices inhibitive, ultimately making car-commuting more appealing:

> '*Bikes are a little bit of a buggerance because you have to get all dressed up. So you have to get dressed to do the eight mile journey into the office from my house, so it's a bit of a pain in the arse really. It is so much easier to drive*.'

Aligning further with Cass and Faulconbridge's scepticism above as to the success of recruitment into lower carbon commuting options, Accountant B explains that whilst the expectation to look smart for clients plays a role in her travel decisions for the journey to work, competencies around planning, the need for perseverance to cycle, and lack of material infrastructure for cycling (such as storage and changing facilities) is '*off-putting'*. In addition, the expectation to be the '*face of the brand, of the company'* encourages her to car commute, citing working practice deadlines and convenience of car driving to be determinant factors:

> '*I think the idea of being on your bike and having a deadline; I need to get to work by 9am, which means I really have to push myself on this bike! It is a different thing commuting by bike. It is a different thing, you've got to be really well prepared and organised if you are going to do so. You've got to kind of think ahead, rather than*

stick everything in the car, done; it doesn't matter if it rains because I am in the car.

Those are the main reasons why I drive.'

In contrast, Architect D often walks to work, and on these journeys walks in her jeans and a t-shirt for comfort, bringing in a rucksack with more formal business wear for the day. Though it may perhaps seem easier than cycling, the competences and knowledge demonstrated by Architect D and decisions made about daily planning, show the complexity of combining and balancing more sustainable travel with expectations and obligations from work. Recruitment into the practice of walking to work is reinforced by continued performance, and although adverse weather conditions might deter others, Architect D demonstrates further her competencies by checking the weather forecast and packing both an umbrella and raincoat just in case. Throughout her performance of walk-commuting Architect D links elements of materiality, competence and meaning within and between the practices of work, commuting and the household. Uniquely, the task of bundling and sequencing these practices by Architect D is made simpler as a result of very few daily household responsibilities reported by the participant that might influence the when, where and how of daily commuting. In these terms, it is then a case of linkages within and between the practices of commuting and work that contribute towards the performance of walk-commuting. The meanings associated to dress code for client meetings and suitable office attire is negated by those of competence in planning and access to necessary changing facilities and material infrastructures.

Cycling and running to work are different when compared with walking, as it is expected that you might perspire more when travelling by these modes as opposed to walking. Access to changing facilities such as showers was of importance throughout the interviews with participants whom cycled or ran to work. Academic D, SUS A and Architect E all reported access to such facilities and material infrastructures within their buildings and could therefore plan their arrival times in advance in order to start work for the day '*on-*

time' (again highlighting an expectance and professional norm). SUS A describes in detail the elements necessary for her to perform cycle commuting on a daily basis:

> '*Right, cycling and work. I think that goes down to the individual, and their route. If there is somebody that cycles along the flat or for a very short space of time they can probably cycle in the clothes they sit in all day. Personally, my journey is quite undulating, takes half an hour, and I am probably not going to want to sit in my clothes that I have just cycled in, knowing that I am going to have to cycle 6 miles on the way home. I am going to come in, I am going to shower, and I am going to change. My dress doesn't normally change seasonally at all, because my office clothes are my office clothes.*
>
> *Interviewer: So you bring a change of clothes with you?*
>
> *Yes. Yes. So there will be, like if there is something happening after work, like I am doing an event that is going to require me to stay quite late, or I have already decided I am going to get public transport that day, that will be the day I will load my backpack with 10 days' worth of clothes, bring it into the office, store it, and then rotate stuff around and take stuff home for laundry.*
>
> *Interviewer: would taking stuff home be on a daily basis or be on public transport…?*
>
> *It might be whatever I can fit in my little saddle bag. I don't like cycling with a backpack on. I can fold up a shirt and stick it in my saddle bag. Especially if it is going for laundry, it can be screwed up in a ball and shoved in, that's fine. The shorts that I cycle in have quite big pockets, so in theory I could actually take home a few items of clothing rolled up in them. So yeah there is a rotational thing that does rely on me either getting a lift to work or getting the bus, just so I can refresh the wardrobe as it were*.'

SUS A's detailed excerpt above highlights specifically the combination of elements and bundles of practices required to encourage the performance of cycle-commuting. These

cycle-commute practices often change on a daily, weekly and seasonal basis; with public transport utilised for winter months when cycling may be more hazardous, and car-sharing practices utilised when a large number of materials (such as clothes or paperwork) are necessary for the daily reproduction of working practices. Important here are the competences of navigating bus timetables, knowing when it is unsafe to cycle, and having access to networks capable of offering car-sharing facilities.

Cultural norms and meanings continue to be distinctive in their importance regards commute mode, with these cultural differences apparent in discussions regards showering after cycling or running. It would appear the meanings of tolerance and expectation are essential, with the former of particular importance in other countries where cycle-commuting is more routinely observed and hence the expectation to shower upon arrival to work is reduced. Moreover, important throughout this discussion is that active travel such as cycling and running require specific materials and competences aligning principally to storage and changing facilities and skills around planning and coordination. Aligning with Cass and Faulconbridge's (2016) conclusion, it is apparent that for practitioners to be recruited into these distinct active travel practices it is important to ensure the constituent materials, meanings and competencies exist.

Sequences of practice were found to generate temporal and spatial influences on commuting mode within Cass and Faulconbridge's (2016) work, with consideration needed to reshape practices in ways that generate timespaces conducive to these distinct commute practices. However, what role flexibility in working practices might play in this reshaping of practices and subsequent practice sequences is questionable, with active travel seemingly unconnected to flexibility in working practices. Decisions concerning active travel for participants recruited into these practices focus more upon the materiality and competencies inherent within these distinct practices, as opposed to shifting daily temporal and spatial constraints through flexible working practices.

8.5   Summary

This chapter has argued that in order to gain a deeper understanding of how practices bundle and form complexes analysis should focus upon the seemingly bounded objects and linkages between constitutive elements of daily life practices. In focussing upon these material elements throughout this chapter evidence of two distinctive roles for materiality in the temporal and spatial organisation of daily life are visible. These two roles revolve around objects and things necessary in the performance of practices within the household, work and during commuting, affecting when, where and how participants travelled for work.

Paper-based working enabled an ease of bridging between work practices in time and place. Though not a novel narrative, when linked with meanings such as 'generational' and 'tradition' paper-based working becomes a definitive spatial constraint in which printing documents plays a major part. Printing may well be slowly diminishing as a reason to travel into the office, however as has been noted throughout this thesis thus far, the efficacy of ICTs in substituting these practices should not be assumed.

As we have seen, supervision does not have solely material properties that influence when, where and with who these responsibilities are undertaken. These duties required coordination and synchronisation with others and play a large part in the determination of presence within the office, imposing temporal and spatial constraints upon the working practices of networks of individuals. Whilst these practices were extended over greater distances and temporal boundaries, limitations similar to those of paper-based working were found, with some duties taking precedence over ICT substitution.

Home-working was undertaken mostly as an aside or in addition to work conducted whilst in the office, providing space for 'focus-time' and the completion of tasks either side of the workday. By this, it is considered that no out-of-the-ordinary home-working practices were found; rather those extensions of typical working days or an overflow of work tasks not

able to be completed that week were discussed. Thus, home-working was typically easily incorporated into the working schedules and rhythms of the participants undertaking these working practices.

The materiality of meeting practices differed for each participant, so to the periodicity of these meetings. Importantly, the majority of the meetings attended by participants required necessary materials in order to conduct these practices. Organisation and planning of meetings was also an important feature, with impromptu and short notice events likely to contribute towards car use, compounded due to the flexibility and convenience afforded by the car. In order for the car not to be part of the commute other materials, meanings and competences are necessary to use alternatives such as pool cars or car club schemes. It appears that rather than looking at 'creative' versus 'non-creative', it is necessary to understand professional practices in different professions. If having specific materials and equipment such as site boots or high-visibility wear matters, or that accessing remote sites is part of day to day working practices, then it is perhaps unsurprising that the car remains predominant. It is therefore necessary to understand what work as well as the commute entails.

Whilst it is evident that ICTs are changing the nature of some tasks and gradually diminishing the paper based needs of some, it is not yet ubiquitous. For a number of people either through experience or perception it falls short of offering the appeal of the face to face communication channel. ICTs can therefore be considered a substitute for some types of interaction, but not all, especially in terms of quality of experience. Neither is the paper versus non-paper dichotomy helpful. As proposed, there needed to be greater attention paid the materiality of daily life, specifically what is in offices and what is at home. Specific materials and meanings were highlighted throughout which draw people in to the office. Whilst some elements are replaced and can be done remotely, it is appears that this is, for many, somehow 'different' – it is catching up or focussed time.

9   Chapter Nine - Discussion

9.1   Introduction

The twenty-nine semi-structured interviews produced an extensive amount of data and insights into the role of flexible working practices in the performance of daily life. In particular, these insights enabled investigations into relationships and interactions with the phenomena of commuting and household responsibilities to assess the effects of flexibility within working practices on travel and whether flexibility impacts upon travel demand or opportunities for use of lower carbon options. This discussion chapter will draw together the key findings from the analysis, demonstrating how the research questions posed throughout this thesis have been addressed. The first four research questions are answered in turn, with the fifth regards policy implications discussed throughout the Conclusion. The chapter will show how findings relate to existing studies, with implications of these findings to the wider research community and knowledge base discussed.

- What is flexible working as a practice?

- In what ways does flexibility relate to travel to work?

- How do household practices influence travel to work decisions?

- What impact does the structure of work have on daily schedules?

9.2   Research Question One: What is flexible working as a practice?

The numerous definitions regards flexible working introduced throughout Chapter Two are oversimplifications of the complexity and integrative nature of 'work', in addition to what it means to work 'flexibly'. Flexibility is framed as a social construct of individualistic control over start and end times and the ability to work from home (Baldock and Hadlow, 2004, Yeraguntla and Bhat, 2005, Kelly and Moen, 2007, Moen et al., 2008, Schieman and Glavin, 2008, Schieman and Young, 2010, De Menezes and Kelliher, 2011, Kelly et al., 2011). The

individualistic framing of flexible working practices typically centres around deviations from 'traditional' boundaries of a 'standard' working day (Schieman and Glavin, 2008, Rau, 2003). It is clear that different literatures feature constructs such as when, how long, at what start or end time, and where as flexible, whilst others used combinations of one or two of these constructs. It is here however where the greatest distinction between these previous approaches and the social practice theory conceptualisation advanced throughout this research lie, where flexibility is considered throughout the constitutive elements of work and their relationships with other contiguous practices.

Flexible work is thus a notion which requires us to look at work as a practice, and then look at how the constituent elements of work are changing, and whether those help unlock the potential for flexibility in working practices. Focussing on these constitutive elements of work and how they relate to none work activities is necessary in order to understand how people are doing things differently, together with how they could do things differently. Thus, the managerial, individualistic language regards flexibility is a bit of a mirage - saying people are flexible or not does not actually make them flexible or not.

In order to understand these interactions through social practice theory, an intentional comparison between professions which have been previously identified as 'creative' and 'non-creative' in the literature was undertaken. The research finds little disparity between participants from these categories, therefore rejecting the importance of this supposed 'creative' / 'non-creative' divide. The distinction is negligible and is not a defining influence on flexibility within working practices for the sample studied (Chapter Six). There are flexible elements in the working practices of each profession studied and so for the purposes of understanding opportunities to change travel behaviour this classification held little meaning. It is the constitutive elements of work and their connections to non-work that go to make up whether there is scope for adaptation. Whilst there may be aspects of

this that are more or less prevalent in a sector, it is too coarse to look at sectors. In fact, because very few elements were unique, it is more productive to look at the nature of work and the relationships to other contiguous practices throughout daily life.

Flexibility of work is thus a construct which requires a lens capable of seeing how work is reconfigured, but also how the activities connecting to work relate to that. Where temporal and spatial reconfiguration occurs then sequences and temporalities of other activities are necessarily affected. When, where and how long are only relevant in combination with 'what'. Putting what work is at the centre of analysis required a full consideration of all the elements of work; not just the functional, but the meanings and the relational nature of work. If work is a social practice then it will constantly be changing (as a result of changes to meanings, materials and competencies), and so notions of what is deemed 'normal' and flexible will themselves change over time. This cannot be seen as somehow discrete from the other practices to which work connects. It is then interesting to study which combinations of elements combine to allow greater use of non-car based modes or fewer commutes, and to understand how the elements that support that also change. It is not, therefore, so much the advance in practice theory which is delivered, but in understanding how work is changing and why that matters to travel outcomes.

Regards how activities connecting to work relate to flexibility, we are aware from discussions within Section 3.4 that understanding constraints in time and space of certain activities is constructive (Schwanen et al., 2008, Southerton, 2006, Doherty, 2006, Hagerstrand, 1970). However, these literatures do little to question why these activities are fixed in this manner. This is important, as opportunities to introduce flexibility may exist through particular elements (such as ICT) within the practice of work, however when bundled with other contiguous practices may constrain the performance of flexible working. This work therefore supports Southerton (2006) in that to understand flexibility in one

activity is to require understanding the potential for temporal re-organisation across the day.

9.3   Research Question Two: In what ways does flexibility relate to travel to work?

Further research into the impacts of more flexibility in work schedules on an individual's travel behaviour was considered necessary (Alexander et al., 2010, Hislop and Axtell, 2015), especially considering the lack of consensus regards the effects of flexibility on travel - particularly that of substitution (Haddad et al., 2009, Smith, 2008, Larsen et al., 2006). In contrast to Alexander et al.'s individualistic proposal however, this research has investigated these relationships through a theory of social practice perspective. Rather than focussing solely upon travel behaviour, this research investigated the relationships and interactions between work, the household and commuting to understand further the effects of flexibility throughout daily life (Chapters Six and Seven)..

Changing the overall levels of travel demand for work requires more than supposed flexibility of working practices, because such flexibility can be constrained; with multiple practices affecting and shaping commutes. Flexible working thus does not relate to flexible commuting in any straightforward manner because of the constraints that working practices, and the coordination of these with other household practices, have upon when, where and why people must travel. It is difficult to assign causality to the reasons for particular commute behaviours across the sample, in particular the effects of flexible working practices on travel. Two questions therefore arise: 1) Does flexibility contribute towards less frequent travel? 2) Does flexibility impact on mode choice?

Cass and Faulconbridge (2016) argued that sequences of practice generate temporal and spatial influences on commuting mode, with reshaping of practices necessary to generate timespaces conducive to the distinct lower carbon commute practices investigated. Whilst

constructive to reduce the impact of temporal and spatial constraints throughout daily life, performances of lower carbon commuting practices for the sample within this thesis, particularly those of active travel, were seemingly unconnected to spatial and temporal flexibility within working practices. Decisions concerning lower carbon and active travel commuting practices for participants focussed more upon the materiality and competencies inherent within these distinct practices (Section 8.4), as opposed to shifting daily temporal and spatial constraints through flexible working. This thesis supports Orlikowski's (2007) call for greater recognition of the importance of socio-materiality; with the complexity through which materiality manifests within daily life an important contribution to knowledge. The dependence upon materials throughout the performance of these working routines impacts upon commuting; in particular towards car driving for the commute, or at least some part of these journeys (Shove et al., 2012, Mattioli, 2014, Cass and Faulconbridge, 2016).

The role of flexibility in working practices in reshaping practices, subsequent sequences and influencing commuting mode is questionable. As explained, one of the predominant approaches towards promoting more sustainable commuting practices has been through leniency within start and finish times at work, the provision of storage and changing facilities, and the promotion of home-working. However, as this research has shown, these approaches are limited. A pertinent example of the limitations of flexibility arises from the role of ICTs in flexibility. ICT substitution is not considered to be making face-to-face meetings redundant in modern work organisations (Denstadli et al., 2012, Vilhelmson and Thulin, 2001). ICTs were useful however in decentralising practices in time and space on certain occasions (Røpke and Christensen, 2012, Kim et al., 2015), however these materials only provided suitable substitutes for some types of interaction, not all. These technologies, whilst allowing some types of reconfiguration, could therefore have nothing to do with mode choice.

Whilst there are characteristics of particular industries which differ from one another, it is more about looking at the nature of a job that people are doing in a business, especially as there are all sorts of jobs in any industry. If this research had wanted to look at how different people who work at home a lot are compared to people who do not, a different methodology would have been chosen. There is thus a limit to how far this research is able to say that flexibility does not make any difference, as it may have been shown to if focussed upon intensive home workers, as they would likely be configuring their ways of working and doing things much differently. Here however, people's roles in work were important. Predominant travel behaviour interventions focus upon what travel planners have most influence upon (such as bus timetables and changing facilities) which is important. But these are only a small part of the considerations people are taking into account if they can change things. Whilst attempts are made to reframe institutional norms regards hot-desking, reduce the number of car-parking spaces, or increase car pool access, issues still arise regards printing, storage and co-location norms. Designing an office or working space to suit each role is difficult. A broader understanding of the range of different roles and how these all function may contribute towards greater consideration of how to design transport interventions which target a larger number of people. What can be done therefore to help those types of jobs not typically targeted by these predominant interventions? It is not only about travel planning, but should also include a consideration of how work is done. Insights from this discussion are taken forward into the conclusion, with appropriate policy recommendations discussed.

9.4   Research Question Three: How do household practices influence travel to work decisions?

The introduction to social practice theory within Section 3.2 explained that co-ordinating daily life could be viewed as becoming more unpredictable, varied and complicated. It was

argued that these dynamics of daily life and the household warranted further consideration regards their influence upon commuting and work. Practices conducted within and throughout the household were construed as defining components in the co-ordination, sequencing and synchronisation of daily life (Southerton, 2006). Commuting practices seldom occurred in isolation, with relative simplicity, or without interconnected relationships to work and the household. It is thus the application of insight from the practice theory approach taken within this research which challenges existing approaches within transport studies. In particular, insights on meanings (separation, resistance to flexibility), materiality (separate office space) and the context of decisions which might make the dominant choice paradigm to understanding commute decisions flawed.

Previous literature discussed a variety of influences upon commuting practices, namely those associated with gender (Roberts et al., 2011), children (Axisa et al., 2012, Cassel et al., 2013, Hansson et al., 2011, Sandow and Westin, 2010, McQuaid and Chen, 2012, Clark et al., 2003), residential location (Sandow and Westin, 2010) and employment type (Roberts et al., 2011) and location (Lyons and Chatterjee, 2008, Goodman et al., 2012, Schwanen et al., 2006). The analysis conducted throughout this research supports and elaborates upon much of this literature, in particular the influence of children and associated responsibilities within the household (Sections 7.5 and 8.3.). Of note regards childcare was the presence of 'multi-tasking' and 'inter-weaving' of tasks (Southerton, 2006) and the effects this had on travel.

The school-run and extra-curricular activities are prominent examples of efficient sequencing of tasks within designated slots of time. This sequencing plays an important role in the commute decisions of participants, together with the times at which these journeys were performed. Childcare practices were seldom performed in isolation however; with the sequencing of other practices (Southerton, 2006) and the co-ordination and

synchronisation with others (such as partners, colleagues, clients, etc.) playing equally as important roles in decisions regards the journey to work. Reliance upon private mobility was found across this sample, for some journeys to work at least. These interactions reaffirm Schwanen et al. (2008) who note how issues regarding time shortage and mobility resources have often been 'repaired' through the use of private vehicles. The concurrence of this interaction is important for policy development as it shows little impact of current approaches to interrupt commuting practices.

Whilst interpreted as a meaning associated with the practice of work, separation of work practices and household responsibilities by participants was found to heavily influence travel to work decisions (Section 7.5). Separation is a complex phenomenon, with interactions between childcare responsibilities and personal preferences regards working rhythms and locations structuring daily life. Needing 'space' between work and home was found to be a clear and defining factor upon the co-ordination, synchronisation and structure of daily life. Separation was considered an important temporal and spatial solution to dealing with the competing practices of work and the household by a fifth of the sample. With support to the burgeoning fields of study regards work-life balance (Sullivan, 2000, Kelliher and Anderson, 2008, Moore, 2006, Hill et al., 2010, Hyman and Summers, 2004, Russell et al., 2009, Tietze and Musson, 2002, Van Dyne et al., 2007), the process of separation could be considered an attempt to resist the familiarity of blurring boundaries and intensification of work becoming familiar within flexible working practices. Contributing to previous discussions which answered the second research question regards the influence of flexibility on travel to work; an interesting and important concept of 'resistance to flexibility' was exhibited by a number of participants.

Resistance to flexibility is considered an important concept, as actively seeking not to incorporate flexibility into working rhythms and daily lives contributed towards travel

demand and influenced the timing of journeys. The adoption of flexible working practices operates along a spectrum and whilst some elements might be accommodated, others may be rejected or resisted. The literatures which typically consider the potential effects of ICTs tend to focus on the former and therefore overstate the likely benefits. Little attention has been paid throughout these literatures regards 'resistance to flexibility' and the effects of actively seeking not to incorporate flexibility into everyday life. Whilst there are more people every year working from home and/or with more flexibility, and every year there are fewer commuting trips being made (Le Vine et al., 2017), this is represented in a relatively slow transition. In contrast to the fast uptake of on-line shopping (Office for National Statistics, 2018), change is occurring slowly, but reasonably consistently. This is perhaps connected to resistance to flexibility (Section 7.5). Although there is clearly an ongoing process of change and adaptation towards more flexible ways of working, there has been a greater emphasis on trying to understand the change, rather than understanding why there is stability and why things actually have not changed faster. It is not that more of it could not be done, it is not being done. Taking note of Schwanen's (2016) re-thinking of resilience, there are clearly cultural and practical aspects to why people might actually be seeking for work to look and operate in a particular way. Societal synchronisation might therefore make structure relatively more important for some parts of the population at least some of the time. An important contribution to research therefore arises, and one which may be difficult for policy to influence. Greater investigation is therefore required to further our understanding of this peculiar and complex concept and the travel demand implications these practices are likely to have in the future.

9.5   Research Question Four: What impact does the structure of work have on daily schedules?

Workplace and organisational culture influenced and contributed towards the performance of work as a practice and the flexibility of these practices. In particular, workplace and organisational culture influenced the time and space of participant working practices, supporting Sveningsson and Alvesson (2003) and Eversole et al.'s (2012) findings. Workplace norms were found to influence the times at which employees start and finish work, presence within the office during certain times and on certain days, who they worked with, and what meetings were attended (Chapter Seven). Most significantly, workplace and organisational culture could be said to impact upon the co-ordination and synchronisation of working practices throughout daily life, impacting upon daily schedules.

Co-ordination and synchronisation are of importance to work structure, affecting daily schedules, flexibility and travel. Whilst Southerton's (2006) work focussed principally upon non-work practices, consequently meaning that impacts on the temporal organisation of daily life in relation to paid work were not systematically analysed, co-ordination and synchronisation with temporal regimes of other people and institutions (Southerton, 2006) featured heavily throughout discussions regards the impact of work structure on daily schedules. This is an important finding from the research. Gittell (2006) argued that co-ordination was facilitated through relationships of shared goals, shared knowledge and mutual respect, however this research found that co-ordination occurred most frequently and influentially through the more commonly perceived coordinating mechanisms of supervision, routines, scheduling, pre-planning and standardisation that Gittell argued against. Further, this research supports and elaborates upon Trevelyan's (2007) view that co-ordination involves one-on-one relationships with superiors, clients and peers.

Expectations and obligations from employers, clients and participant represented socially and symbolically significant participation within the practice of work. The significance of these meanings is that they heavily influenced when, where and with whom work was conducted. As a result of this structure, daily schedules were impacted. A strong notion of core hours was found to be socially significant in the reproduction of working practices for over a third of the sample. Core hours framed and conditioned the rhythms and locales of participant working practices. Even when core hours were not institutionally prescribed they exist for some through either a broader cultural norm or for ease of synchronisation of activities. The 'traditional' nature of the working practices evidenced throughout Section 7.2 is influential in structuring daily working rhythms and lives. The 'rigidity' of these practices impact upon when and where work was done, though not necessarily to the same extent as core hours, but influential nonetheless as an expectation placed upon some. Physical presence at one's desk retains important socially and symbolically significant meanings and emotions. The sequencing of practices throughout daily life is therefore impacted as a result of competitions with influential meanings such as the culture of core hours.

Co-presence, rather than being treated as the physical proximity of other people or the degree to which an actor perceives mutual entrainment with another actor (Campos-Castillo and Hitlin, 2013), was treated as an element of meaning within the practice of work and found to enhance the socially and symbolic significance of participation within the practice of work. Co-presence was further construed as an expectation of how employers wish participants to work, and how the wider social construction of working was perceived (Urry, 2003). These were typically reproduced through the creation of 'central cultures' (Shove et al., 2015). Collaboration and communication in particular were considered enhanced as a result of these co-present practices. The desired attributes of these co-present working practices were found to outweigh the potential of materials to displace

working locations and times, rather than de-localising practices through an easing of time-space constraints as argued by Røpke and Christensen (2012). Importantly for developing future academic investigations, the discussions regards core hours and co-presence reaffirm the theoretical conceptualisation of flexible working outlined within Section 3.5, in that the competition between constitutive elements impact upon the flexibility of work as a practice.

The difficulty for policy therefore is interrupting the reproduction of these specific, broad and traditional cultural norms.

Svennevig (2012) described meetings as 'pervasive in the workplace', constituting one of the most significant arenas for communication involving more than two people. Meetings were said to take up large amounts of time for many employees, especially those whom are white-collar (Svennevig, 2012). Elaborating upon Rogelberg et al.'s (2007) statement that meetings are central to organisational life, and supporting Svennevig's observations, meetings were considered an essential component of work structure, rhythms and daily lives for the majority of the participants, evidenced within Section 7.4. Meeting practices defined travel into the office/studio and between locations for the whole sample. The use of meetings as an arena for knowledge sharing, culture creation and problem-solving communicative spaces (Svennevig, 2012) was also reaffirmed within this research. Co-present working practices contributed towards the performance of impromptu and spontaneous meetings and conversations, which were deemed invaluable for a wide variety of participants – both 'creative' and 'non-creative'. Although it would appear that the knowledge economy and the creative industries could be seen to comprise tasks that can be done remotely, actually the ability for spontaneous interchange, idea sharing and discussion all become more important.

Time-space constraints imposed as a result of co-present meeting practices were rarely substituted by information and communication technologies. Whilst there was evidence of some substitution within Chapter Eight, these were only suitable for some interactions but not all, especially in terms of quality of experience. These findings elaborate somewhat upon Lyons' (2013) discussions regards co-presence and meeting practices, in that these practices offer a better medium of communication for more complex information. The extent to which these results are more generalizable from the sample is difficult, but we do know from other work that face-to-face and virtual meetings likely co-exist in a co-operative manner within business practices (Lyons, 2013, Faulconbridge et al., 2009, Haynes, 2010). ICTs are complex and we cannot say that they can substitute; therefore these findings support Line et al.'s (2011) stance that the efficacy of these technologies to substitute travel should not be assumed. Calling things substitution in terms of transport masks other things that are going on which might be important when considering if one substitutes the other. Skype substitutes the phone, screen sharing software substitutes the need for physical meetings, but the fact people are no longer co-located in offices requires other physical meetings to be organised for other reasons, such as team building and task organisation/delegation (Jones et al., 2018). For the purposes of thinking about whether opportunities exist to change this, it is necessary to look in more detail at how work is done, where it is done, and what it means. This also means looking at the profession, the company and the roles of individuals.

9.6   *Summary*

This discussion chapter has drawn together key findings from the analysis conducted throughout this research, demonstrating how the research questions posed have been addressed. The chapter related these findings to existing studies and discussed implications of these findings regards the wider research community and knowledge base. The

researcher reiterates here that the sampling undertaken as a part of this thesis does not seek to be representative to the wider population. The thesis found that to understand the influence of flexible working it is necessary to understand work and its connections to other adjacent practices, particularly related to the household and the commute.

Although technology has allowed work practices to change in many ways and to allow for greater spatial and temporal flexibility, it has not, in the sample investigated, led to a major shift in commute behaviours to lower carbon modes. The thesis has shown that it is not the apparent flexibility of different types of work ('creative' vs 'non-creative') that is important. It is necessary to consider the material and cultural experiences of particular professions and companies combined with the familial and other settings which influence what flexibilities exist and how they might be deployed or integrated. The workplace, for many professions and for many people, seems to hold very strong social, material and professional attractions which ICTs have yet to diminish except at the margins.

10   Chapter Ten - Conclusion

10.1   Introduction

The research presented in this thesis has provided an examination of the role of flexible working practices upon commuting and the interactions with the household throughout daily life. Flexible working practices were also conceptualised through a theories of social practice lens, providing a theoretical basis upon which this research was based. A number of research questions were presented at the beginning of this thesis and four of these have been answered throughout Chapter Nine. This final concluding chapter will synthesise the importance of the key findings from this research and answer the fifth research question regards what would be required to reduce overall travel demand and/or lead to an increase in lower carbon options for the journey to work? The implications of these findings are discussed to demonstrate the original contributions to the literature this research has made and reflect upon how this research challenges existing policy approaches. The limitations of the research are the acknowledged, with recommendations for future work presented.

10.2   Summary of key findings

10.2.1   Conceptualisation of flexible working as a practice was important

This thesis has re-conceptualised flexible working as a practice through the utilisation of social practice theory. In doing so, this research has challenged previous definitions and conceptualisations of flexible working, finding the numerous definitions reviewed to be oversimplifications of the complexity and integrative nature of 'work'. In addition, this research has challenged previous perspectives regards what it means to work 'flexibly'. Evidence of these oversimplifications was presented, with previous definitions confining

flexible working to individualistic control over start and end times and the ability to work from home.

Flexible working practices were conceptualised throughout this thesis as those that are defined by the flexibility of constitutive elements, in addition to the flexibility of relationships between these interdependent constitutive elements in the performance of work as a practice. How these elements individually or cumulatively influence or affect associated temporal and spatial constraints was considered important, particularly regards working time, location, coordination and synchronisation. Usefully, and not dissimilar to established approaches, the practice of flexible working was conceptualised as operating along a continuum, in which interdependent constitutive elements ranged from exhibiting limited or no flexibility to high flexibility. Combinations of and competitions between these interdependent elements was found to influence the overall flexibility (or lack thereof) of the working practice being performed in a particular location at any given moment in time. It was thus argued that the flexibility of these constitutive elements were key to understanding the complexity of 'flexible' work as a practice.

Conceptualising the constitutive elements as being flexible was deemed a significant departure from current descriptions of flexible working, contributing to knowledge and challenging established literature on the subject. Conceptualising the practice of flexible work in this manner was useful in considering how flexible working might be performed throughout a person's working day, with certain fixities and constraints in both time and space arising from a particular element or combination of elements and practices. It also assisted investigations into how practices sequenced, bundled and formed complexes with other everyday practices such as the school-run and commuting that were considered key to understanding the complexity of daily life and the role flexibility plays in performances. Understanding how these salient temporal and spatial sequences were produced and

performed was essential in understanding and investigating the potential for flexibility to reduce conflicts and contribute towards lower carbon commuting practices.

This research has provided the initial work to continue the re-conceptualisation of flexible work as a practice. Doing so will assist to improve understanding of the role of these practices in daily life, the interactions and relations with other practices, and offer further insights into the effects on travel and commuting.

10.2.2 Limited disparity between supposedly 'creative' and 'non-creative' occupations found

There was found to be little disparity between participants from the 'creative' and 'non-creative' sectors. Therefore, this thesis rejects the importance of this 'creative' / 'non-creative' divide. The distinction between these sectors is negligible and is not a defining influence on flexibility within working practices for the sample studied. These findings are in contrast to Alexander et al.'s (2010) work, whom found distinction between occupations regards flexible working. The research hypothesised that 'creative professionals' would have greater access to and use of flexible working practices than those whom are 'non-creative' professionals or of lower socio-economic status. Some distinction between professions was achieved, just not between the 'creative' and 'non-creative'. Importantly for this research, interesting similarities and differences between professions and occupational classifications regards meeting practices were found. The little disparity found between these typologies may be a criticism of the apparent laxity in definitions of what they are.

The workplace, for many professions and for many people, seems to hold very strong social, material and professional attractions. Co-ordination and synchronisation of working practices within daily schedules was important in minimising the disparity between

professions and occupation classifications regards meeting control. The ability for spontaneous interchange, idea sharing and discussion were all deemed important across professions, questioning the hypothesis that the knowledge economy and the creative industries comprise a majority of tasks that can be done remotely.

An area where disparity between professions, seniority and job role was recognised related to meeting location, with this as a result of job role. The influences of job role and nature of work on meeting location were compounded further by expectations from clients and obligations aligning to seniority regard travel for work commissioning and contracts, particularly for the solicitors, architects and accountants within the sample. Important throughout once again are competitions between and combinations of interdependent elements within meeting practices that influence the flexibility of working practices, work structure and daily lives.

10.2.3 *The influence of flexible working practices on travel was limited and minimal*

Limited influence was found throughout this research regards working practice flexibility and the effects on travel and commuting. Performances of flexible working practices were found to be a complex phenomenon by nature, seldom occurring in isolation, with relationships and interactions with work and the household influencing one another. It is difficult to assign causality to the reasons for particular commute behaviours across the sample, in particular the effects of flexible working practices on travel.

The use of flexible working practices to temporally or spatially alter travel for commuting purposes was found to be minimal. Temporal flexibility revolved around fixed times, with temporally shifting travel demand typically conducted by travelling outside of the 'peak'. Spatial flexibility typically occurred through home-working for short periods. The majority of participants were found to work out of home during 'traditional' business hours, with

home-working in contrast conducted during specific time slots, on particular days and over limited timeframes. Home-working was often conducted when more 'efficient' to do so, over short periods and for the process of 'making-up' time.

Practices associated with both work and the household were found to influence the start and end times of work. Childcare in particular was found to be influential, with start times of work usually coinciding with the school-run in the morning and departure times often aligning with extra-curricular, after-school activities, or exercise which all occasionally prompted travel outside of the 'peak'.

10.2.4 *Working structures were influential for daily schedules*

Working structure and workplace and organisational culture were found to influence the times at which employees start and finish work, presence within the office during certain times and on certain days, who they worked with, and what meetings were attended. Most significantly, working structure and workplace and organisational culture impacted upon the co-ordination and synchronisation of working practices throughout daily life, impacting upon daily schedules.

Co-ordination and synchronisation were found to be of paramount importance to work structure, affecting daily schedules, flexibility and travel. Co-ordination and synchronisation with temporal regimes of other people and institutions (Southerton, 2006) featured heavily throughout discussions and is an important finding from the research. Expectations and obligations, co-presence, meetings and seniority were all found to be influential elements that constrained and structured participants' work and daily schedules.

Important competitions between and combinations of elements were found. These interactions were instructive towards the performance of working practices and their influences upon daily schedules. The materiality of work was of significance for influencing

daily schedules and travel, with material dependency (Svennevig, 2012) of some working practices impacting, in some part, upon the commutes of participants. Meanings associated with work were found to impact upon when and where work was done, with the sequencing of practices throughout daily life impacted as a result of competitions between these elements. Often, meanings associated with work took precedence over technological capabilities to re-time and re-locate practices, impacting heavily upon daily schedules. Co-present, face-to-face meetings were considered a particularly challenging arena to interrupt throughout this research, with these meeting practices influencing daily schedules, the demand for travel and the times at which this travel was performed.

Importantly, this research has provided new insights into the role of working structures on daily schedules, with co-ordination and synchronisation found to be of paramount importance. These insights illustrate the significance of working structures upon daily schedules, in addition to the competitions and combinations of elements and practices that predicate these structures.

10.2.5 Technology had limited impact upon daily schedules and travel

An important contribution of this research was supporting literature that questioned the efficacy of ICTs to influence levels of travel demand (Line et al., 2011). Whilst an important component of flexible working practices, ICTs were found in this research to decentralise practices in both time and space only on certain occasions, rather than eliminating travel (Røpke and Christensen, 2012, Kim et al., 2015). ICTs were found to only be suitable substitutes for some types of interaction, not all.

Suitable opportunities for substitution of physical travel for ICTs were found to be wrapped in complex relationships and interactions between constitutive elements in the performance of daily life which limit the potential for these travel-reducing/altering

substitution practices to be performed. Occasions where ICTs suitably substituted co-present working practices were enabled primarily as a result of seniority, supporting the findings of Couclelis (2009). Senior participants were found to have increased control over their daily schedules, but only when working with colleagues and not clients.

Supervisory duties in line with seniority were found to be seldom conducted via ICTs, as those participants reporting supervision duties explained that face-to-face communication was preferable. In addition, the contactable nature of being present within the office was also deemed necessary for these supervisory duties, influencing work structure, daily schedules and travel demand.

The overall lack of impact of ICTs upon daily schedules and travel provides insight into the limitation of technology to influence daily schedules and travel. Important competitions between and combinations of elements were found that restricted these impacts, limiting the number of occasions where ICTs could suitably substitute co-present working practices.

10.2.6 Household practices and responsibilities affected daily schedules, flexibility and travel

The dynamics of daily life and the household were given further consideration throughout this research regards their influence upon commuting and work. Commuting practices, for the most part, were found to seldom occur in isolation, connecting with practices associated with the household frequently throughout the daily life of participants. Of particular importance was the influence of children and associated responsibilities and the processes of 'multi-tasking' and 'inter-weaving' of tasks (Southerton, 2009) and the effects these had on travel. Similar to the findings surrounding work structures, co-ordination and synchronisation are of importance and influence daily schedules, flexibility and travel. The complexity and dependence upon materials throughout daily life impacted upon

commuting, in particular towards car driving for the commute, or at least some part of these journeys. Conclusions from previous literature regards the cargo carrying ability, convenience, ease and flexibility (Shove et al., 2012, Mattioli, 2014, Cass and Faulconbridge, 2016) afforded by private mobility and subsequent effects on mobility were supported by this thesis.

Separation was found to be a complex phenomenon and considered by those participants whom actively pursued it to be a temporal and spatial solution to dealing with competing practices of work and responsibilities within the household. Needing 'space' between work and home was found to be a clear and defining factor upon the co-ordination, synchronisation and structure of daily life, heavily influencing travel to work decisions of those participants whom pursued it. In addition, an interesting and important concept of 'resistance to flexibility' was found. Actively seeking not to incorporate flexibility into working rhythms and daily lives contributed towards travel demand and influenced the timing of journeys. Further investigation of this novel concept is necessary, with little attention having been paid to this concept and associated effects throughout previous literatures.

10.2.7 Complexity of daily lives impact upon opportunities for travel demand reduction and lower carbon transport use

Findings throughout this thesis have found commuting to be a complex phenomenon with interactions and relationships with other practices throughout daily life. These interactions and bundles constrained participants both spatially and temporally. The practices of work and those within the household played definitive roles in the sequencing, co-ordination and synchronisation of daily life, which in turn impacted upon commute practices throughout the day. These interactions, bundles and resultant complexity made opportunities for reducing or shifting travel demand or altering travel choices difficult.

The flexibility of working practices, heralded as an appropriate strategy for interrupting commuting practices, was found to have limited effects upon commuting practices. Whilst examples of demand reduction and shift were presented throughout this research, the efficacy of flexibility within working practices to produce desired reductions and shifts was questioned. It is therefore apparent that flexibility within working practices cannot be solely responsible to impact upon travel demand for the journey to work or influence journey times to outside of the well-observed peaks.

What is required is an appreciation and further understanding of the complexity of daily life, as outlined throughout this thesis, and to what affect this complexity has upon travel for the journey to work. From this change in perspective it will be possible to investigate in greater detail the underlying reasoning for current commute practices and provide greater insight into potential opportunities for interruptions that will have lasting impacts, reducing travel demand and promote the shifting of travel from outside of the peak times observed.

10.3   Implications of the findings

The findings presented in this thesis have raised a number of implications for both practice and theory. This section of the conclusion will show how the research is relevant to policy, reflecting upon how the research challenges existing approaches. In doing so, indicating interventions which may improve the effectiveness of policy designed to influence commuting.

Transport planners typically consider commuting to be 'non-discretionary', meaning that commuting must be done. Whilst this is an over-simplification of a more complex relationship, for many people, travelling to and from work is the spine around which their daily movements are organised (Le Vine et al., 2016). With established policy approaches looking to shift travel times away from peak periods, alternative policy approaches could focus upon reducing these attendance burdens and make the spine of this travel more

flexible. Interrupting and shifting travel demand was found in this research to be more complex than allowing people access to 'flexibility' and whilst it has been shown to displace travel in time and space on certain occasions, it has not done so to an extent which will have consequential effects on travel demand and timings of travel (Kim et al., 2015). To understand the influence of flexible working on commuting it was necessary to understand work and its connections to other contiguous practices. Whilst work practices have changed in many ways to allow for greater spatial and temporal flexibility, there has not been a major shift in commute behaviours to lower carbon modes or reductions in travel demand in the sample investigated. Given the limited scope surrounding the performance of flexible working practices throughout the sample, it is sensible to consider approaches to lessen constraints inherent throughout performances of particular working practices.

Analysis regards trip-chaining from the National Travel Survey (ONS, 2017) reveals that most people travel directly to work during the morning peak with a chain of just one link. These journeys account for 88% of trips to work, with the remainder including trips for one or more purposes, with these proportions having changed little from 2002 to 2014. Whilst the increased attention towards trip chaining from policy is welcomed and important (Le Vine et al., 2016), these investigations continue to only scratch the surface of complexities identified throughout this research regards commuting, the household and flexible working policies. Whilst further investigation of these trip-chains is necessary, policy should begin to focus more intently upon the underlying practices generating these time- and place-pressured sequences, not just on the number or location of such trips.

There is a need therefore to decentre existing transport policy targeting choice and infrastructure, to acknowledge that meeting targets for carbon reduction from transport demands more radical forms of policy which targets structural-societal barriers to low carbon commuting. Suggesting this approach is notably different to existing policy conceptions which value individual choice and emphasise greater flexibility to allow choice

of departure time (Workplace Travel Planning and Flexible Working Practices), focus upon infrastructure provision and investment for modal shift (Cycling and Walking Investment Strategy), and focussing upon technologies to allow for remote working (Flexible Working Practices). Cass and Faulconbridge (2016) reiterate the importance of diverging from predominant policy approaches, because these existing policies do not address the underlying problems, instead tackling the symptoms of travel behaviour. It is thus crucial for policies to be configured to address all elements of a practice and consider alleviating sequencing pressures of these commuting practices. Practice theory offers this new way of thinking about making such interventions.

Reflecting on the recommendations outlined below is useful in understanding how current transport policy perceives flexible working and what practice theory does to challenge these existing conceptions. Transport policy needs to be about non-transport practices which have implications for travel demand and the possibility of low carbon commuting (Cass and Faulconbridge, 2016). The policies introduced henceforth are not stand-alone tactics and cover several types of measures. Some of which are tangible measures that closely relate to measures already implemented, albeit on a small scale and not necessarily motivated by attempts to reduce commuting (e.g. car clubs and childcare provision). The measures introduced follow this rationale and are interdependent means of ensuring the elements of work, household and commuting practices are available. Others measures are aimed at altering expectations and norms, which are more complex. These are concerned with sufficiently alleviating practice sequencing pressures to encourage travel demand reduction. These policy proposals focus upon reconfiguring the organisation, timing and space of practices which contribute towards timespaces conducive for travel demand reduction and more sustainable transport use for the commute.

1) *Re-framing institutional norms regards working hours and locations, particularly meanings of expectation and obligation.*

Expectations of co-presence during particular times in certain locations were evident throughout the sample, typically during face-to-face interaction and the reproduction of central working cultures. As such, travel was often necessary for the performance of these practices. A challenge for this policy will be re-framing these central workplace cultures and the co-present work practices inherent to move away from perpetual face-to-face interaction. These meanings will need to be re-framed alongside one another, not individually, in order to influence travel demand more conclusively than has been previously. However, with this policy proposal contradicting prevailing institutional norms regards working rhythms, steer from government, institutions and organisations is necessary. Without such an agenda, a lessening of constraints associated with these societal norms will likely not be successful in making more forthright contributions towards shifts in travel outside of the frequently observed peaks.

2) *Policies that encourage staff to travel from home to meetings direct rather than passing through the office each day.*

If meetings are a necessity of the working practice performed, focus should perhaps turn to reducing the number of office trips undertaken. Policies of this nature would displace routine travel into the workplace, potentially easing the burden of peak travel by spreading this across the network, in turn affecting local levels of congestion and emissions. Whilst beneficial for spreading travel across the network, these policies would likely have limited benefits for reducing demand, as travel for meetings is often done so in line with the expectations and norms regards working hours and co-presence introduced above. Further, this would likely only be applicable to out-of-office meetings, which will limit number of potential intervention opportunities. Implementing this recommendation would require organisational culture changes to accommodate, and given the significance placed on these meanings will likely receive significant resistance.

3) Focus upon technologies which allow paper-based working practices to be conducted elsewhere other than in the office/studio.

Limitations of ICTs in displacing and shifting travel for work have been shown to fall below expectations, however this needs further examination. Whilst considered to be diminishing as a reason for travelling into work, printing remains an important material element of many working practices. Technology which allows this printing to be sent to work printers from home ready for collection on the next day might further diminish this as a reason for travel. In addition, technology which enables access to and use of printed documents, drawings and plans from outside the confines of the office/studio would be beneficial in this endeavour, particularly for the architects and lawyers within the study. Removing spatial constraints individually will help to cumulatively influence the number of available combinations of elements which allow for opportunities of flexibility within working practices – consequently impacting upon the performance of these practices in time and space.

4) Heavy workload periods are an interesting area for reflection, with busy times of the year perhaps raising questions as to whether flexibility is performed in the same way year round.

A pertinent example of this is perhaps the January self-assessment tax deadline in the UK, which structures working practices of a large proportion of the workforce. Would it therefore be possible to align travel demand more with these institutional and client-based deadlines, recognising the need for travel during these periods but then encouraging more mobile working practices throughout periods of lighter workloads? These policies could be developed in tandem with educational breaks and holidays, with Easter and summer in particular considered worthwhile options to facilitate more mobile working practices.

5) Reluctance for active travel use for the commute due to cultural norms regards work attire, cleanliness and planning.

Rather than significantly re-framing these predominant cultural norms, which is likely to be difficult, greater attention should be paid to other material elements and infrastructures inherent with performances of active travel. Whilst considerable attention has already been paid to particular infrastructures such as storage space for bicycles, cycle lanes and changing facilities such as showers (Le Vine et al., 2016; Pooley et al., 2011 and 2013; Tight et al., 2011), appropriate spaces for the storage and laundering of clothes has not. Provision of these laundering infrastructures, in combination with changing and storage facilities, could allow for the reproduction of cultural norms regards cleanliness, whilst also encouraging a lessening of planning necessary for these journeys to be performed. A notable example considered the planning and perseverance necessary for active journeys to be hindrances. Thus offering suitable infrastructures and storage spaces to reduce as much as possible the negative connotations of planning in particular would hopefully lead to greater consideration for this commute mode shift.

Promotional case studies with a proactive organisation would be an initial step to implementation on individual sites, with business parks and similar sites with space for laundry provision most appropriate. Regards city-centre (or densely populated areas) initiatives, a community-of-businesses approach could be applicable – one where interested businesses sign-up, pay a small fee for service and maintenance costs, and have access to laundering and storage facilities within a short walk from the office. Rather than relying upon large organisations to promote sustainability and corporate social responsibility, targeting a community of businesses with similar motivations could be conducive for lower carbon travel and travel demand reductions.

6) *Childcare policies which encourage a shift away from the 'school-run' or from peak time drop-off and pick-up could be beneficial towards spreading travel demand.*

The increase of journeys to or from the usual workplace that do not begin or end at home during the morning is largely due to more workers escorting children to school, which is

reflected in higher number of trips during term-time (Le Vine et al., 2016). This has important policy implications. Whilst it is acknowledged now that trip-chaining is becoming a more important dynamic to study and understand, the greater numbers of workers escorting children, and as such adhering to institutionalised rhythms of attendance, impacts upon work start and end times (in the most part). Influencing the synchronisation of these institutionalised times to coincide more favourably with shifting travel away from peaks, or reducing onward travel to work, is an important policy consideration. Altering schooling hours to both start and end earlier (or later) than currently would contribute towards this broadening of the morning and evening peaks, in turn reducing the burden on the network during these times. If we then take into consideration the prominent use of core hours throughout the study, the re-framed institutional norms regards school times could fit practicably into those around working hour norms. However, these re-framed norms and institutional rhythms would likely only be relevant to those with childcare responsibilities and whose workplace culture allows.

7) Children of different school ages and/or attending different schools could represent opportunities for staggering work journeys

It would be helpful to consider how many adults have children of different school ages and/or attend different schools (primary and secondary for example) and what effect these dynamics have on work journeys. Constraints will likely differ between children (after-school activities, etc.), parents (caring responsibilities, work, etc.), work (institutional norms, meetings, supervisory duties, etc.) and schools (breakfast clubs, after-school clubs, location, etc.). The coordination of these multiple trips to different schools for people might perhaps contribute towards some natural staggering of work journeys. Understanding these interactions in greater detail, perhaps through longitudinal studies, is necessary and may highlight other opportunities for this staggering.

8) Promote car-sharing / car clubs more forthrightly as a policy to influence meeting travel

Car-sharing and car clubs are used infrequently for meeting travel, particularly in the sample researched. Current policy regards car-sharing and car clubs is often focussed upon individual organisations. Independent promotion and funding of initiatives such as priority parking at offices, office cars, and incentive schemes are typically encouraged. However, uptake is low (principally due to monetary expense, lack of space, and lack of motivation) and is generally targeted towards larger organisations outside of urban areas. One approach to improve car-sharing and car club scheme use, particularly for meeting practices, would be for building regulations to stipulate that all newly built or refurbished office blocks to provide access to a shared car scheme, either on site or in close proximity. This would likely require the co-operation of constructors and compatible car-share schemes – not inconceivable considering workplace travel plans have become mandatory and congestion continues to be an affliction upon urban areas. For established city centre office blocks and shared working spaces a community based approach could be introduced. In a similar vein to that of the laundering policy described above, a community of local businesses support a car-sharing scheme with preferential rates and incentives to further lower carbon travel for work in return for greater discounts – with staff also receiving incentives for car-share scheme use.

9) Understanding flexible working as encompassing both work and non-work elements is key, with an acknowledge required that there are flexible elements in working practices of each profession

Work arrangements are marginal in determining flexible working uptake and impact. This finding is significant to the agenda of the research, rejecting the importance of the supposed 'creative' / 'non-creative' divide. The little difference found between these typologies is more a criticism of the apparent laxity in definitions of what they are.

Challenging current framings of flexibility as individualistic control over start/end times and the ability to work from home with an acknowledgement that there are flexible elements in the working practices of each profession is important. This is where societal-level policy becomes important, encouraging flexible working policy in particular to broaden its scope and turn attention to reducing the strong social, material and professional attractions of work. Success of current remote working approaches to reduce travel demand will continue to be limited if expectations and norms regards the ability for spontaneous interchange and structured meetings are not challenged or changed.

Understanding flexible working as encompassing both work and non-work elements is important to interrupt commute journeys sufficiently to reach emissions targets. With commuting seldom occurring in isolation without interactions with other contiguous practices, it is important to focus upon these relations. Rather than continually attempt to influence individual practices, bringing together disparate policies into a societal-level approach towards re-framing this complex phenomenon is considered productive. It is thus crucial for policies to be configured to address all elements of a practice and consider alleviating sequencing and spatial pressures of all practices within the commute. Reconfiguring the organisation, timing and space of practices will contribute towards timespaces conducive for travel demand reduction and more sustainable transport use for the commute. Re-framing current disparate approaches towards a societal-level approach will hopefully lead toward sufficiently interrupting travel demand and contribute towards desired carbon emission reductions.

10) Re-framing perceptions of flexible working and stereotypes regards flexible professions

A sensible policy steer arising from this research is to not focus upon the dichotomous category level of 'creative' and 'no-creative' professions, given the negligible difference

between the two. As such, policy should take heed from the recommendations above and focus upon flexible elements of working practices; considering how best to bundle these appropriately with other contiguous practices to promote opportunities for flexibility within daily life.

Regards the way policy perceives flexible working, this thesis has advanced these literatures through conceptualising flexible working as a social practice, where flexibility is considered throughout the constitutive elements of work and their relationships with other contiguous practices. Conceptualising the constitutive elements as being flexible is a significant departure from current descriptions of flexible working, challenging previous definitions and conceptualisations because it includes not just the work done, but where and with what it is done. It is important to have a full understanding of what work is in order to understand which elements are potentially influenced by opportunities that are said to introduce flexibility. The practice of flexible working is conceptualised as operating along a continuum (not dissimilar to Kelly and Moen, 2007), in which interdependent constitutive elements range from exhibiting limited or no flexibility to high flexibility. It is the flexibility of these constitutive elements which are important to understanding the complexity of 'flexible' work as a practice. This research provides the important initial work to continue the re-conceptualisation of flexible working as a practice. Developing this conceptualisation further will improve understanding of the role of these practices in daily life. However, this requires a move away from the preponderance of quantitative analysis and towards looking beyond travel itself. Understanding social processes underlying commuting are continually left open by these predominant approaches. Turning attention towards longer, more complex commutes to focus on combinations of elements and interactions with other contiguous practices is recommended.

10.4   Limitations of the research

A key positive in this research has been the in-depth data collected as a result of the semi-structured interviews conducted with 'creative' and 'non-creative' professionals. The researcher acknowledges however that the methodological approach of this research contains compromises and limitations. One limitation of the research concerns sample size. Recruiting further participants to the research would have contributed to greater comparisons between professions, in addition to improving the validity, generalisability and reliability of the methodology. Time constraints and resources however did not allow for any substantial increase in sample size.

Applying quantitative methods alongside the qualitative semi-structured interviews conducted would have added value in exploring the statistical significance of some of the findings. However, given the desire to focus more in-depth upon daily life and move beyond just looking at travel itself, the addition of quantitative methods for the purposes of this research was considered unnecessary. The timing of the participant recruitment is also a further limitation of the study, relating specifically to the business rhythms and timetables of prospective participants. Approaches were made between September and February which coincided with heavy workload periods for a number of prospective participants. Whilst the total number of participants was not greatly impacted by the recruitment strategy of this research, in hindsight recruitment should have tried to avoid this period to increase chances of recruitment through lighter workloads and time availability.

Finally, the context within which this study was conducted was a further potential limitation of this research, in terms of transferability to other geographies, cultures and comparative lenses. Given the differences in economic and cultural make-up of regions and cities globally, generalisability and transferability to other locations may be difficult.

However, whilst cities and regions might differ, the practice based approach undertaken throughout this research could be deployed in different places given. This is especially the case if we consider that large quantitative studies using databases such as the UK National Travel Survey also squash contextual differences.

10.5   Recommendations for future work

This research has provided insight into the role of flexible working practices upon commuting, whilst investigating the interactions and complexity through which commuting and work are performed throughout daily life. This contributes to established literatures regards the potential of flexible working as a travel demand management policy, together with emerging literatures around everyday life through a social practice theory perspective. Through this research, a number of further questions have been raised that warrant further investigation to help contribute to these bodies of literature and on-going discussions.

A first point of note relates to the conceptualisation of flexible working practices developed throughout this research. This thesis has presented a conceptualisation of flexible working as a practice which formed the theoretical base upon which this research was conducted. Future work could focus upon developing this conceptualisation further. Specific areas for development could centre upon investigating further the role of particular elements inherent within work as a practice. Such investigations may focus upon the performance of meetings throughout working life, the varying degree to which ICTs are utilised, or the materiality of work. Conceptualising further flexible working as a practice and investigating in more depth specific elements and interactions of these practices throughout daily life will be beneficial for improving understanding of how flexible working is integrated, or not, within daily life. Continued investigation into competitions between and combinations of elements that influence the performance of daily life is therefore recommended.

Data presented in this thesis raised an interesting and potentially important concept concerning 'resistance to flexibility'. Little attention has been paid throughout the literatures regards this interesting concept and the effects of actively seeking not to incorporate flexibility into work schedules and everyday life. An important contribution arises from this research as a result, however given the lack of attention, greater investigation is required to further our understanding of this peculiar and complex concept and the travel demand implications these practices are likely to be having and will have in the future.

Given the limited disparity found throughout between professions and occupations regards flexible working access and use, further investigations are required to understand this limited disparity. It was hypothesised that creative professionals would like have greater access to and use of flexibility within working practices, however this was proved incorrect during this research. Thus, increasing the scope of investigations to include greater numbers of professions, occupations, and workers regardless of industrial classification or segregation is suggested. Doing so would provide further insight into access to and use of flexible working practices throughout the working population, in addition to providing insight into important similarities and differences.

This research has supported previous literatures surrounding the limited impact of flexible working practices as a travel demand management policy. Thus, this thesis proposes further research to continue to investigate these relationships and provide greater insight into the potential for flexible working practices to be promoted as travel demand management policies, as currently the consensus surrounding the effectiveness of such policies is questionable.

A final question calls for further investigations into the foundations of this research, namely the complexity of relationships between commuting, working practices and the household.

A more thorough understanding of how flexibility interacts with other more basic constructs which impact upon the commute is important, together with what effect changes to these might mean for relationships between flexibility and commuting throughout daily life. Housing and work locations for example have important relationships with commuting in terms of distance, duration, route and mode (amongst many other variables) and changes to these constructs will likely impact upon how practices are sequenced, co-ordinated and bundled throughout daily life. Is it now that the goalposts have moved regards defining trips and their origins/destinations? The decline in commuting trips in the morning peak is shown to be replaced by a rapid growth in escort-to-education journeys (Le Vine et al. 2016). Thus these shifts could be a result of the greater awareness and focus of these journeys and the re-definition of commuting journeys and trip-chaining. Changing the focus of these investigations of course will have important implications for transport policy. Further research is required to understand further these changes in definition and dynamic.

10.6   Final conclusions

Revisiting the broader aims of this research (outlined in Chapter One, Section 1.2) this thesis has addressed a number of research questions that have contributed to meeting these aims. The study of working practices of 'creative' and 'non-creative' professionals provided a useful opportunity to examine the potential of flexibility to influence levels of travel demand, together with the role of commuting and the household in these interactions. The literatures around flexible working and commuting have continually assessed the impact of these working practices upon travel demand and timings. However these assessments have predominantly focussed upon quantitative methodologies, lacking insight into the role of daily life in commuting decisions. This thesis seeks to contribute to these literatures through improving the understanding of commuting within daily life and

the roles work, flexibility and the household play in these interactions. The conceptualisation of flexible working as a practice theoretically contributed to an otherwise underdeveloped body of literature regards defining flexible working. The insights from this thesis contribute to the understanding of the effects of flexible working on commuting, and ultimately the discussion as to how flexibility bundles with other practices throughout daily life and what impacts these relationships and interactions have on travel demand.

Publications and Conference Presentations

Below is a list of publications, conference presentations, and conference posters that were published or presented during the completion of this PhD.

Publications

Burkinshaw, J. R., (2018), The tenuous and complex relationship between flexible working practices and travel demand reduction. In: HUI, A., DAY, R., & WALKER, G. (eds.) Demanding Energy: Space, Time and Change. London: Palgrave Macmillan.

Burkinshaw, J. R., (2016). Employment Structures and Working Practices: What's Next for Travel Demand and Energy in Transport? In: WADUD, Z. & MARSDEN, G. (eds.) Mobility and Energy Futures Series. Leeds: Energy Leeds, University of Leeds. [1]

http://www.its.leeds.ac.uk/fileadmin/documents/research/working_practice.pdf

European Parliament Committee on Transport and Tourism, (2016). Research for Tran Committee - The World is changing. Transport, Too. In: DIRECTORATE-GENERAL FOR INTERNAL POLICIES, P. D. B. S. A. C. P., TRANSPORT AND TOURISM (Ed.). Brussels: European Parliament. [1]

http://www.europarl.europa.eu/RegData/etudes/STUD/2016/563424/IPOL_STU(2016)563 424_EN.pdf

Conference Papers and Presentations

World Conference on Transport Research, 10-14th July 2016, Session D4-2C4, ICT, Activities, Time Use and Travel Behaviour I, 13:30-15:10: Creative Industries, flexibility of work and travel. Slides available from URL: https://www.slideshare.net/ITSLeeds/creative-industries-flexibility-of-work-and-travel

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[1] This research was conducted independently of the PhD research

DEMAND Conference, Wednesday 13th April 2016, Session 2D: Time, Temporality and Energy Demand 2 – Time Temporalities, 16:30-18:00. Flexible working, household responsibilities and travel to work: Assessing the potential for travel demand reduction

Institute for Transport Studies, Summer Seminar Series. 25th June 2015. Creative Industries, Flexibility and Travel to Work. Slides available from URL: http://www.its.leeds.ac.uk/about/events/seminar-series/

Conferences

White Rose Doctoral Training Centre Conference: Planning for Impact. 19th May 2015. Co-organiser and chair, Workshop 3: Policy and Governance. Report of the conference can be found from URL: http://wrdtc.ac.uk/news/white-rose-planning-pathway-conference-planning-for-impact/

Workshops

Co-organiser of the DEMAND Pre-International Conference PhD Workshop, 12-13th April 2016. Workshop report from URL: http://www.demand.ac.uk/25/04/2016/pre-conference-workshop-2016/

DEMAND Summer School: Peaks, Sites and Cycles, 14-16th July 2016. Workshop report from URL: http://www.demand.ac.uk/20/07/2015/summer-school-peaks-sites-and-cycles-14-16-july-2015/

DEMAND Summer School: Energy Histories and Energy Futures, 8-10th July 2014. Workshop report from: URL: http://www.demand.ac.uk/23/07/2014/energy-histories-and-energy-futures-summer-school-8-10-july-2014/

Appendices

Appendix One – Pre-interview question sheet

Commuting and the Role of working Practices - PhD Research Project

Pre-Interview Questions

*Answers to these questions will be used in the research

Questions regards work:	
During last week, how often did you:	
a) Work in an office?	
b) Work from home?	
c) Visit clients?	
d) Work with colleagues?	

Do you consider yourself to have access to flexible working practices?	Yes No
If yes, please briefly describe such flexibility (time, location, etc.).	
Is a different type of work conducted when working at home or in the office?	
Last week, what proportion of the meetings you took part in did you determine the timing of?	

Questions regards travel:	Circle as appropriate:					
Which modes have you used to get to and from work in the last year?	Car	Train	Bus	Cycle	Walk	Other
The last week?	Car	Train	Bus	Cycle	Walk	Other
Most often?	Car	Train	Bus	Cycle	Walk	Other

Do you have any regular commitments which you do that affect your journey to or from work?	

During last month:		
	Home for work	*Work for home*
On average in the last month, what time do you usually leave?		
What is the earliest you have left?		

What is the latest you have left?		
Does the time you leave home/work vary a lot by day of the week?		
What do you take with you when going to work?		
Does this differ on a day-to-day basis?	Yes No	

Questions regards household:
Questions concerning the household will be asked in the interview, though prompts to initiate thinking around the subject are below.

Questions to consider before the interview:

About work:

1. What your daily/weekly/monthly work schedule looks like (what it has been like recently).

2. What sort of work you do.

(Overview of tasks and the sort of things you do on a day-to-day basis)

3. The technology that facilitates your work.

4. How often you work with others.

5. How flexible you perceive to be in the way you work, when you work, where you work and who you work with.

About the household:

1. What you consider to be your main responsibilities? (To you, others, etc.).

2. Whether certain responsibilities influence work commitments or travel arrangements.

3. How decisions are made within the household in terms of responsibilities, travel and work.

4. Is any planning of your days/weeks/months conducted?

How often is planning conducted, if done?

Who, or what, gets preference in these planning activities?

About your travel:

1. Is there any variance in your daily travel?

Background Information

Age (please circle)	16-25 26-35 36-45 46-55 56-65 65+
Gender	

Nationality	
Current Home Town/City	
Relationship Status	
Household Composition	
Number of dependents and age	
Highest Educational Qualification Attained	
Occupation and Role	
Employment (please circle)	Full-time Part-time
Number of hours worked	
No. of Cars in Household	
Approximate Distance to Work	
Approximate Duration to Work	
Number of stops to/from work (and why)	

Appendix Two - Participant Information Sheet

Title of the research project
Commuting and the Role of Working Practices

Invitation Paragraph
You are being invited to take part in a research project. Before you decide, it is important for you to understand why the research is being done and what it will involve. Please take time to read the following information carefully and discuss it with others if you wish. Ask us if there is anything that is not clear or if you would like more information. Take time to decide whether or not you wish to take part.

What is the purpose of the research project?
Overall, this research project is investigating the relationships between flexible working practices and the journey to work, aiming to assess the role of flexibility in reducing travel demand and/or promoting lower carbon travel for the journey to work. In order to understand this relationship in greater detail, the project will investigate other contributing factors to a persons' schedule, namely household responsibilities/decisions, and assess how these influence the use of flexibility, principally; where one works, when they work, how they work, and how long they work. It uses a social practice theory approach.

It is hypothesised that 'creativity' and creative workers offer the greatest potential for flexibility, with financial workers having limited or no access to flexibility. In order to investigate this hypothesis further, a comparison between architects, accountants, graphic designers and solicitors is to be undertaken, to hopefully provide an interesting juxtaposition between the two differing occupations and assess the potential for flexibility to reduce travel demand or increase lower carbon travel for the journey to work.

Why have I been chosen?
Principally, you are employed within the sub-sector of the economy that this research is hoping to investigate. Moreover, you are based within the city of Leeds, and as that is the case study location, you are well placed to take part.

Do I have to take part?

It is up to you to decide whether or not to take part. If you decide to take part you will be given this information sheet to keep (and be asked to sign a consent form). You can still withdraw at any time without it affecting any benefits that you are entitled to in any way. You do not have to give a reason for withdrawal. Any data collected prior to withdrawal will still be used, with anonymity and confidentiality maintained throughout. No further data will be collected.

What do I have to do?

In short, you will be agreeing to take part in one interview and complete a quick question sheet. The questions sheet should take no longer than 10 minutes and the interview will take around 30 minutes. This will be arranged at a time of most convenience for you. Questions in the interview will focus on household responsibilities, working practices (how, when, where and with whom), and your travel to work. All questions will be semi-structured in design; meaning that the researcher has considered the topics and will ask questions around such topics, hopefully allowing space for you to share your views, thoughts, opinions and information.

What are the possible disadvantages and risks of taking part?

There are no reasonably foreseeable discomforts, disadvantages or risks associated with the involvement in this project.

What are the possible benefits of taking part?

Whilst there are no immediate benefits for those people participating in the project, it is hoped that this work might help make positive changes to working practices. Further, participants will be aiding in the completion of a student's doctorate degree, and as such help add to previous research in the field and contribute towards the further understanding of the relationships between working practices, household responsibilities, and travel demand for the journey to work.

Will I be recorded, and how will the recorded media be used?

Yes. The interviews you participate in will be voice recorded. The audio recordings of the interviews made during this research will be used only for analysis and for illustration in conference presentations, seminars and peer-reviewed journal articles.

Will my taking part in this project be kept confidential?

All the information collected during the course of the research will be kept strictly confidential. You will not be able to be identified in any reports or publications. Data collected will be stored on the University of Leeds servers (as per University protocol) and secured via password.

What will happen to the results of this project?

It is anticipated that initial results from this research will be presented at an international conference in July 2016, with three peer-reviewed journal articles to be produced from the full analysis of the results by August 2017.

What type of information will be sought from me, and why is the collection of this information relevant for achieving the research project's objectives?

As mentioned, interviews will be undertaken, with resultant transcripts analysed. This information is important because it enables a greater in-depth analysis of the research questions above than other methods, and also offers z deeper insight into the relationships present. This approach will help achieve the project's objectives.

Who is organising/funding the research?

The Institute for Transport Studies at the University is funding this research project.

Contact for further information

If you would like further information or have any further questions, please contact:

Mr. Julian Burkinshaw (lead researcher), Room LG12.b, Institute for Transport Studies, 34-40 University Road, Leeds University, Leeds, West Yorkshire, United Kingdom, LS2 9JT. *Email address:* tsjrb@leeds.ac.uk, Mobile: 07850494189

Finally:

Thank you for taking the time to read through this information. Just to reiterate, participation in this project is voluntary and withdrawal can be done at any time without the need for reason. If you wish to take part, please complete and sign the Consent Form. Be prepared to organise times in which the interviews can take place.

Sincerely,

Julian

Appendix Three – Participant Consent Form

Consent to take part in Commuting and the Role of Working Practices PhD Research Project	Add initials next to the statement if you agree
I confirm that I have read and understand the information sheet dated …………….. Explaining the above research project and I have had the opportunity to ask questions about the project.	
I understand that my participation is voluntary and that I am free to withdraw at any time without giving any reason and without there being any negative consequences. In addition, should I not wish to answer any particular question or questions, I am free to decline. To contact the lead investigator please call: +44 7850494189	
I understand that any data that has been collected prior to withdrawal will still be used. However no other data will be collected. Any data that is collected prior to withdrawal will remain confidential and anonymous.	
I give permission for members of the research team to have access to my anonymised responses.	
I understand that my name will not be linked with the research materials and my responses will be kept strictly confidential.	
I understand that every effort will be made to ensure I am unidentifiable in the report or reports that result from the research.	
I agree for the data collected from me, in anonymised form, to be stored and used in relevant future research and available for use by the University of Leeds.	
I understand that other researchers will have access to this data only if they agree to preserve the confidentiality of the information as requested in this form.	
I understand that other researchers may use my words in publications, reports, web pages, and other research outputs, only if they agree to preserve the confidentiality of the information as requested in this form.	
I understand and agree that any data collected, in anonymised form, will be stored for a maximum of six years after collection and then am destroyed.	

I understand that relevant sections of the data collected during the study, may be looked at by individuals from the University of Leeds or from regulatory authorities where it is relevant to my taking part in this research. I give permission for these individuals to have access to my records.	
I agree to take part in the above research project and will inform the lead researcher should my contact details change.	

Name of participant, signature and date	
Name of lead researcher, signature and date*	Julian Burkinshaw

*To be signed and dated in the presence of the participant.

Once this has been signed by all parties the participant should receive a copy of the signed and dated participant consent form, the letter/ pre-written script/ information sheet and any other written information provided to the participants. A copy of the signed and dated consent form should be kept with the project's main documents which must be kept in a secure location.

Glossary of Terms

This glossary of terms pertains to discussions conducted throughout this thesis. Principally these terms relate to work as a practice, the fixity of daily life, and the flexibility of working practices. Terms important to the theoretical approach utilised throughout this thesis are presented, together with those in the a priori coding framework introduced within Chapter Four. The definitions outlined below provide further clarification of the approach taken within this thesis and the basis upon which the data collection and analysis were conducted.

Caring Responsibilities: If the participant has any caring responsibilities other than those of parenting, possibly elderly relatives or other people, things, commitments etc.

Communication and ICTs: ICTs have become an increasingly pervasive feature of many people's working lives, particularly email and mobile telephone becoming increasingly prominent features of working practices (Line et al., 2011, Halford, 2005, Couclelis, 2009, Lyons, 2013, Røpke and Christensen, 2012, Southerton, 2006, Orlikowski, 2007)

Co-ordination and synchronisation: *'Practices conducted with others, particularly those that involved non-household members, required a comparatively high degree of coordination and arrangement… with the extent to which the practice represented a regular or routine engagement combined to determine the extent to which a practice required synchronisation with the personal schedules of others'* (Southerton, 2006, p .444)

Co-presence: The degree to which an actor perceives mutual entrainment with another actor. Physical presence of these other actors neither necessary nor sufficient for co-presence, with interactions of co-presence occurring through a variety of modalities, such as face-to-face and computer mediated (Campos-Castillo and Hitlin, 2013, Lyons, 2013, Faulconbridge et al., 2009, Urry, 2003)

Culture: Referring to traditions of doings and thinking on particular ways, or systems of meanings and basic assumptions helping govern people in certain directions (Sveningsson and Alvesson, 2003, Lewis, 1997, Eversole et al., 2012, Starrels, 1992, Rodgers, 1992)

Expectations: *The action or fact of expecting something as rightfully due, appropriate, or as fulfilling an obligation* (Oxford English Dictionary, 2015a)

Fixity: The term 'fixity' relates to activities that are bound by specific times and specific places (Schwanen et al., 2008, Hjorthol and Vågane, 2014, Southerton, 2009, Doherty, 2006, Cullen and Godson, 1975, Carlstein, 1980)

Freedom: *The state of being able to act without hindrance or restraint; liberty of action* (Oxford English Dictionary, 2015b) – framed regards flexibility in that there is freedom for a participant to do things themselves

Meetings: The artefacts or materials inherent within meetings as a practice. Examples include being held in meeting rooms, where the furniture, architecture and technological equipment are specifically constructed for or adapted to the activities associated with meetings, to whiteboards, documentation and presentations (van Vree, 2011, Svennevig, 2012, Rogelberg et al., 2007)

Norms: *That which is a model or a pattern; a type, a standard* (Oxford English Dictionary, 2016a)

Obligation: *An act or course of action to which a person is morally or legally bound; what one is bound to do; a duty or commitment* (Oxford English Dictionary, 2016b)

Paper-based working: Access to and use of documentation might play a decidedly important role in the location and time in which work can be conducted. Hindrance may be exacerbated further by access to and use of confidential and sensitive documentation.

Further, specialist drawings for professions such as architecture may also impact upon where work is conducted. In addition, printing may well be evident within a number of working practices, especially those that deal with documentation daily (Yli-Kauhaluoma et al., 2013, Orlikowski, 2007)

Parenting: If the participant is a parent and what is involved with this, perhaps the school-run and after-school activities might feature heavily

Pet and Animal Care: Similar to that of parenting and caring responsibilities. This code focusses upon the impacts of pets and animals within the household, specifically that of scheduling, co-ordination, travel and what influences these caring practices might have on working practices and rhythms, in addition to travelling

Professionalism: *Professional quality, character, or conduct; a professional system or method. The characteristics of a particular professions; the competence or skill expected of a professional (Oxford English Dictionary, 2016c)*

Relationships: Centred upon the role of relationships within the household and what influences these may have upon work, commuting and also within the household

Seniority: *The state or quality of being senior; priority by reason of birth, superior age. Priority of precedence in office or service* (Oxford English Dictionary, 2016d)

Sequencing: Refers to the order in which activities are conducted. More spheres of daily life are regulated by principles of the efficient sequencing of tasks within designated slots of time (Southerton, 2006)

Social events and exercise classes: What impacts the co-ordination, synchronisation and sequencing of social events and classes throughout everyday life may have upon work and commuting

Tradition: *A belief, statement, custom, etc., handed down by non-written means (esp. word of mouth, or practice) from generation to generation; such beliefs, etc., considered collectively. Teaching, instruction, or judgement; the action of communicating information or knowledge* (Oxford English Dictionary, 2016f)

Trust: *Firm belief in the reliability, truth, or ability of someone or something confidence or faith in a person or things, or in an attribute of a person or thing* (Oxford English Dictionary, 2015c)

Working practice flexibility (literature)**:** Definitions relate principally to the spatial and temporal nature of when and where work is conducted. Flexible working is continuously confined to individualistic control over start and end times, with this control typically centred around deviations from 'traditional' boundaries of a 'standard' working day. The ability to work from home, or in other locations rather than a typical office, is considered a prime example of the spatial flexibility (discussion regards these definitions are found within Chapter Three, section 2.3)

Working practice flexibility (conceptualisation): It is conceptualised that a 'flexible working practice' is one that is defined by the flexibility of constitutive elements, in addition to the flexibility of relationships between these interdependent constitutive elements in the performance of work as a practice. The practice of flexible working could therefore be said to operate along a continuum (or sliding-scale), in which interdependent constitutive elements range from exhibiting limited or no flexibility to high flexibility. Combinations of and competitions between these interdependent elements will influence the overall flexibility (or lack thereof) of the working practice being performed in a particular location at any given moment in time (full conceptualisation within Chapter Three, section 3.5)

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