Finding Our Way: A Socio-Cultural Exploration of Wayfinding as an Embodied Experience

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Declarations

This work has not previously been accepted in substance for any degree and is not being concurrently submitted in candidature for any degree.

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STATEMENT 1

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Abstract

The focus of this study is 'Wayfinding', a practice that is concerned with how we find our way between places. To date, the majority of research on wayfinding has used a psychological lens, placing a significant focus on wayfinding as a cognitive practice and using quantitative data and a realist approach. At the time of writing, no study has focused on researching wayfinding from a sociological perspective[1] that places the body at the centre of wayfinding practice. This study moves beyond the psychological approaches to provide a more holistic understanding of wayfinding.

Twenty-three in-depth qualitative interviews took place in order to investigate and to try and better understand wayfinding from a socio-cultural perspective with consideration for wayfinding as an embodied experience. Volunteers were purposefully chosen in order to represent a diverse range of wayfinding situations including commuting, holiday purposes, as part of a job or for everyday needs such as to go shopping. The data are represented thematically, using Weber's (1964) concept of ideal types and the discussion of the data is shaped using a range of concepts from the work of Tim Ingold, Erving Goffman and Pierre Bourdieu.

A number of unique themes emerge from the data, showing wayfinding to be an embodied socio-cultural experience that is heterogeneous and heuristic in nature and that is rarely a linear activity, as suggested by authors such as Haque, Kulik and Klippel (2007), Hölscher, Tenbrink and Wiener *(*2011) and Tam (2011), who all describe wayfinding as being about getting from A to B via the quickest or shortest possible route.

From the data, it becomes clear that wayfinding is rarely, if ever, an individual practice or one that is simply based on cognitive processes. The larger implications of this study are that, by better understanding wayfinding as a fully embodied and socio-cultural practice, new ways of planning and conceptualising the design of wayfinding systems and practices should be considered.

[1] Except for the article by Symonds, *et al* (2017) that evolved directly from this study.

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Publications and Consultancy from this PhD

The following papers, conferences and work were a result of this PhD:

- Symonds, P. (2017). Wayfinding Signage Considerations in International Airports. *Interdisciplinary Journal of Signage and Wayfinding*, *1*(2), 60–80.
- Symonds, P., Brown, D. H. K. & Lo Iacono, V (2017) – Exploring an Absent Presence: Wayfinding as an Embodied Socio-cultural Experience. *Sociological Research Online*, *22*(1), 5.
- Lo Iacono, V., Symonds, P., & Brown, D. H. K. (2016). Skype as a Tool for Qualitative Research Interviews. *Sociological Research Online*, *21*(2), 12.
- Conference presentation at the "Royal Geographical Society" (RGS) Cruise Travel Conference - 1st September 2017, London, UK on "Cruise-ship wayfinding".
- Three UK International airports audited for wayfinding during this PhD in order to gain experience (although not directly a part of this PhD study) – Cardiff International, Birmingham International and Gatwick Airport all studied and with detailed reports provided for Cardiff and Birmingham. Example findings visible at travelwayfinding.com (2017)
- Paid consultancy for Cardiff Harbour Authority completed in 2017 to evaluate the Cardiff Bay Trail – a 155 page report submitted.
- The development of https://www.travelwayfinding.com/

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Chapter 1
Introduction

Chapter Description

This chapter is used to provide background information on the reasons for undertaking this study and this is then followed with an explanation of the design of this thesis.



1.1 Wayfinding and Me

Wayfinding is a subject which for now (until further elaborated on through the investigation of existing definitions, in the literature review), I will simply describe as being about the process of how we find our way between A and B, i.e. between two locations. Currently, wayfinding is almost always studied with a strong bias towards seeing it as a cognitive process and rarely through a socio-cultural lens. In this study, I thus research wayfinding as an embodied experience and viewed through a socio-cultural lens.

With an undergraduate degree in “Tourism Management” and having travelled extensively, including having lived in South Korea, USA, Canada, Spain, UK and Italy, I have a deep interest in travel, different societies and culture in general. On discovering the topic of “wayfinding” I was inspired and fascinated by this aspect of travel and started reading every book and article I could on this subject area.

This interest in wayfinding was generated from one specific situation. In 2012, I watched a television programme on British television about the new wayfinding system being installed in Gatwick Airport, London, with a lady by the name of Julie Ayres in charge of managing the implementation and being interviewed on the programme. On further researching wayfinding, a term I until then had never heard of, I came across an edition of *Airport Focus* (one of the leading airport industry magazines for the airline and airports industry) in which I read an interview with Julie Ayres. In the interview, one particular section which relates to the "human elements" of wayfinding is discussed and which I found particularly interesting:

> The human element …It's important that your staff are aware of how they can help passengers negotiate your facility. At Gatwick they have a dedicated team of concierges, who between them speak 28 languages, and they also have a team of information passenger assistants, equipped with iPads, who roam around and can interact with passengers and help them if they need to find a certain area, or perhaps need some reassurance. These members of staff are a huge benefit to the overall customer experience, but it doesn't stop there. Another initiative that has recently been rolled out, Ayres tells me, is called Saints and Angels. "We've actually got the office staff to come out and do an hour in the terminal building every month, helping passengers to find their way around. These are staff that may work in finance, HR or business planning, who would usually be sitting behind their desks". (Airport Focus, 2012)

As the quote identifies, there is an appreciation in many institutions of the value and need for wayfinding solutions that are socio-culturally linked, such as through the use of other people as wayfinding tools and yet, these other bodies are almost always ignored in academic wayfinding literature. Indeed, in addition to studying and learning about wayfinding through this research, I have simultaneously provided consultancy for two international airports and a bay trail and in doing so, I included emphasis on these socio-cultural elements.

With an interest in undertaking a PhD, and with such experiences as mentioned above, I decided to explore the human elements of wayfinding and found that there was a disconnect between real-world[2] wayfinding and academic literature on human elements of wayfinding, even though wayfinding is a practice that inevitably occurs almost always in social settings. The majority of articles I came across on this aspect of wayfinding were,

[2] "Real world" is used to refer to the lived physical world in which we live, as opposed to the virtual world. It can be argued that the virtual world is a reality in that it exists and is used in our daily lives. In this study though, virtual is used to refer to things that take place online. Buttimer and Seamon (1980) use the term "real-world" in the same manner as used in this thesis.

and still to date are, cognitively based. With an interest also in sociology and having read Shilling's (2012: 209) comment about an "absent presence of the living body in social thought", I continued to explore the literature on wayfinding and to observe wayfinding in real-world situations. Many of the wayfinding issues my wife and I experience as we travel, I feel can be related back to this gap regards the lack of research on human factors in wayfinding and to the insights that might be provided by sociological thought. Therefore, I hope to partly bring the otherwise absent body back into academic study and writing on wayfinding and help begin to partly fill the gap that presently exists. In addition to my own personal interest in wayfinding, there is, I would argue, value to such a study in that this study can provide a wider purpose. For those in charge of wayfinding systems and who manage and plan how facilities support users in their experience, understanding wayfinding through an embodied socio-cultural lens might provide insight into different ways of understanding the needs of users.

Whilst some studies related to wayfinding have begun to include elements of embodiment including mention, for example, of emotions and feelings (such as Fewings, 2001; Ramsden, 2011; Chang, H 2013; Caspi, 2014), no study exists at the time of writing (except for my own publications resulting from this PhD), on wayfinding as an embodied experience in a socio-cultural setting, the area which forms the focus for this study. Montello and Sas (2006) have written on the subject of human factors in wayfinding, but from a psychological perspective, as a purely theoretical paper, and with very few factors mentioned. Weiner, Büchner and Hölscher (2009: 161) also mention a number of human factors, but once again from a psychological perspective. Weiner *et al* (2009) conclude their article by also stating: "While we have provided a more detailed differentiation of wayfinding tasks, a vital step is left to future research - the assignment of necessary and sufficient cognitive processes, components, and mechanisms to solve the wayfinding tasks identified". Weiner *et al* (2009) act as a source of inspiration in that it is their work in part on which I build, albeit from a socio-cultural perspective.

This study provides two elements that, at the time of writing, are original. Firstly, wayfinding is studied from an embodied perspective through a socio-cultural lens. One of the few publications to directly connect wayfinding and embodiment are Lueg and Bidwell (2005: 1-2) who state that:

> Wayfinding has shown to be a truly embodied activity involving physically moving the body, re-orientating the body, adjusting eyes to different light conditions, and so on. The capacity to adapt to changing conditions (e.g., colors appearing differently in the shade and in harsh tropical sunlight) and

> the body's proper movement and orientation are crucial to the success of any wayfinding activity.

Their study though was computational and based on “Information Behavior Research”. This PhD fills the void of research on embodiment and wayfinding, as per the classifications set by Phillips and Pugh (2010), by providing an original contribution by adding to the existing body of knowledge by exploring the reconceptualization of wayfinding as an embodied experience.

Secondly, this research is unique in that Skype was used for many of the interviews and resulted in new previously unpublished findings on Skype and VoIP as a research tool (see Lo Iacono, Symonds and Brown, 2016).

In focusing on the fully embodied aspects of wayfinding, it should be noted that I do not seek to dismiss in any way cognitive based wayfinding research, as it makes a valuable contribution to the field of wayfinding. The key intention here is to add to the understanding of wayfinding, i.e. to develop another dimension to the discourse.

It is also perhaps worth noting that the intention in this study is not to detail specific ways to improve wayfinding on a practical level, in the way that the thesis by Rooke (2012) does, such as to analyse the size signage, colour or positioning. This thesis instead focuses on exploring how people choose and are able to experience wayfinding as a socio-cultural practice and how their bodies are central to such experience. In presenting this thesis and its findings, I will also propose a new paradigm and definition of wayfinding.

This thesis does aspire toward developing knowledge that ameliorates practice, by bringing the missing body more centrally into the way we approach wayfinding. Wayfinding is an important feature of many industries and of everyday life, given that it takes place in every country worldwide and is connected to such a wide range of fields of expertise. One example is security and safety and the need to guide people to safety in evacuations (Arthur and Passini, 2002), or for crowd control in environments such as a sports stadium or concert venue. Wayfinding can also be important for stakeholders as they seek to use what Fajen and Warren (2003) refer to as “steering behavior”, which can involve an owner of a certain space, intentionally guiding users along routes for commercial reasons. Wayfinding can be important for city planners, architects, transport providers, signage makers and any business involved with the spaces through which we move.

1.2. Study Framework

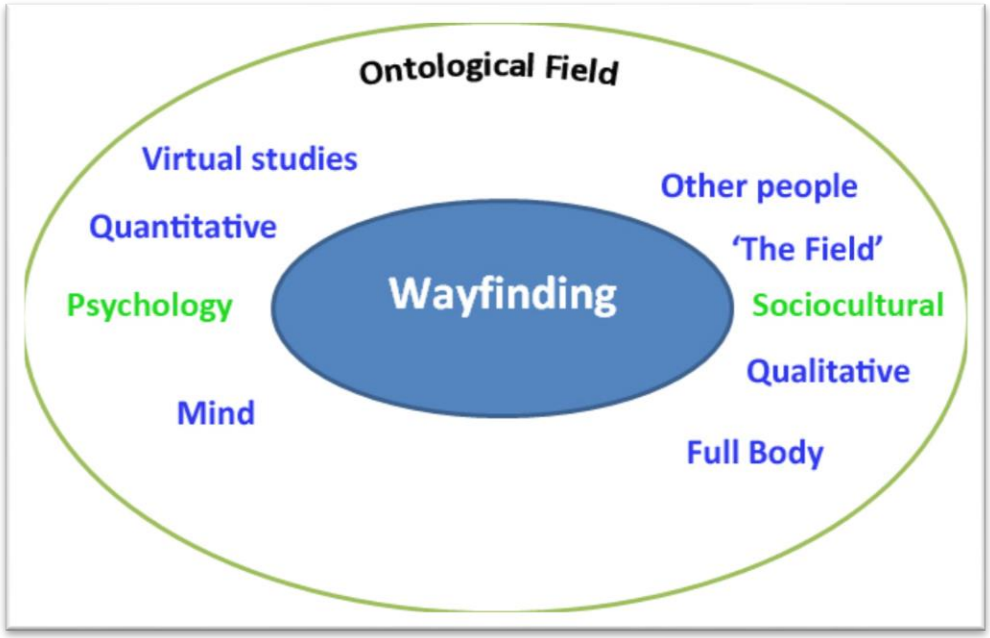


Figure 1 - Diagram to reflect the socio-cultural viewpoint used in this research

The framework used for this study revolves around wayfinding and embodiment, that is, wayfinding as experienced with and through the bodies of people who wayfind in a selected range of circumstances. A qualitative methodology was considered the best approach for this study, which adopted an interpretive paradigm and a relativist ontological stance in order to elicit the embodied experiences of wayfinders.

Given that a socio-cultural lens, as opposed to the much more common psychological viewpoint within wayfinding (some examples of the dominant psychological approaches are provided by Weiner *et al*, 2008; Montello and Sas, 2006; Lawton, 1996) is used, semi-structured interviews were chosen after other data collection techniques had been considered.

Before commencing the interviews, more than one year was spent evaluating existing literature on wayfinding, this resulting in the emergence of six key themes that were prevalent in the wayfinding literature and all of which relate implicitly in some form, to the body in wayfinding. The first of these themes is "modalities", which is taken to mean the range of ways in which wayfinding can be categorised including, for example, according to our bodily ability as an able bodied or disabled traveller (Small, Darcy and Packer, 2012), or by the "embodied habitus and a particular social field" (Doan and Higgins, 2009). The type of location we may need to find our way through, such as through an airport for leisure (Fewings, 2001), around a care home as a dementia patient (Caspi, 2014) or

outdoors in the wilderness (Hill, 2011), also provides quite a different context for exploring wayfinding experiences. This range of modalities helped to re-enforce my belief that a qualitative method would be suited to this study, in order to draw out the bodied experiences from a very diverse sample of modalities and experiences that would be less easy to learn about using quantitative methods.

"Technologies" and "stakeholders" provide the next two themes. The body in wayfinding is affected by various technologies, including some which can be considered artefacts such as a high-end touring bicycle (Spinney, 2006). Likewise, the impact of stakeholders and how we are or are not able to choose our own route, evolves from the literature. Rather than having full agency in terms of our ability to find our own way between A and B, a number of external forces becomes clear in the wayfinding literature and this led to the decision to include Bourdieu as one of the three theorists used in this study. The inclusion of Bourdieu's *Theory of Practice* helps to uncover the otherwise invisible body-centric forces that are present in wayfinding i.e. the habitus of a wayfinder, or the effects of powerful stakeholders' decisions that impact upon our journey between A and B and how our bodies are able to navigate such routes. One example is that of the need for a passport as we seek to get between two locations that are separated by a national boundary, as our wayfinding bodies and experiences are controlled to a significant extent by these governmental controls.

The next theme revolved around the issue of "time", a consideration that is often mentioned in wayfinding literature and this raises the question of how this impacts upon our embodied experience, i.e. whether or not bodily emotions such as stress and anxiety are affected by time and how this relates to the embodied wayfinding experience. "Risk" also provides an important theme. The issue, for example, of how we may possibly choose to navigate routes in order to feel safe or to experience danger for fun, ties in the physical body and emotions. The final theme is that of "the missing body" in the wayfinding literature. All six themes were influential in the creation of the interview questions that were developed as prompts, for the interviews.

Three primary theorists are used in order to frame this research, these being: Tim Ingold, Erving Goffman and, as mentioned, Pierre Bourdieu. Ingold's (2000, 2006, 2007, 2011) work on wayfinding and wayfaring and related concepts, provides a way of understanding how we move between places in terms of the routes we take. Goffman (1966, 1990 [1959]) is used to complement Ingold's work, with Goffman's focus on interactions, a useful way for understanding the social interactions that take place as we try to find our way along

these routes. Finally, Bourdieu (1977, 1984, 1991) is used to encapsulate the overall wayfinding process, in order to also view the bigger picture, that is, to include external impacts on the process and the practice, such as via stakeholders and government controls. A more detailed explanation of the way in which these three theories are used and integrate into the overall framework is explained in greater detail in Chapter 3. The concepts used from these three theorists acted as sensitising concepts, that is a "general sense of reference and guidance" (Blumer, 1954: 7) for interpreting the interview findings.

1.3 Research Questions

In order to better understand the role of the body in wayfinding and in a sociological context, the following four questions were used:

1. How is the wayfinding experience different for different kinds of people and what can we learn from these differences?
2. What embodied challenges are faced in wayfinding?
3. What practical techniques do people use to facilitate their embodied wayfinding experiences?
4. How might wayfinding be viewed differently and what can we learn by seeing it from a socio-culturally embodied perspective?

1.4 Methodological Strategy

Based on the findings from the literature review and on the resulting research questions, I decided that an ethnographic study and a set of in-depth qualitative interviews would be most suited to this research. The ethnographic approach though, in the end, was used only as a way of helping understand my own past wayfinding experiences and this acted as a way of preparing for the interviews; that is to get an idea of the types of questions that might be suitable to ask. The ethnographic approach in the end did *not* form a part of the main methodological approach. The ethnographic approach was rejected because I decided that the interviews alone should suffice given the aims of the study.

In order to best understand people's experiences, rather than seeking to undertake a precise scientific study, an interpretive paradigm was considered a suitable approach. Figure 2 provides a visual representation of the overall methodological strategy used in this study.

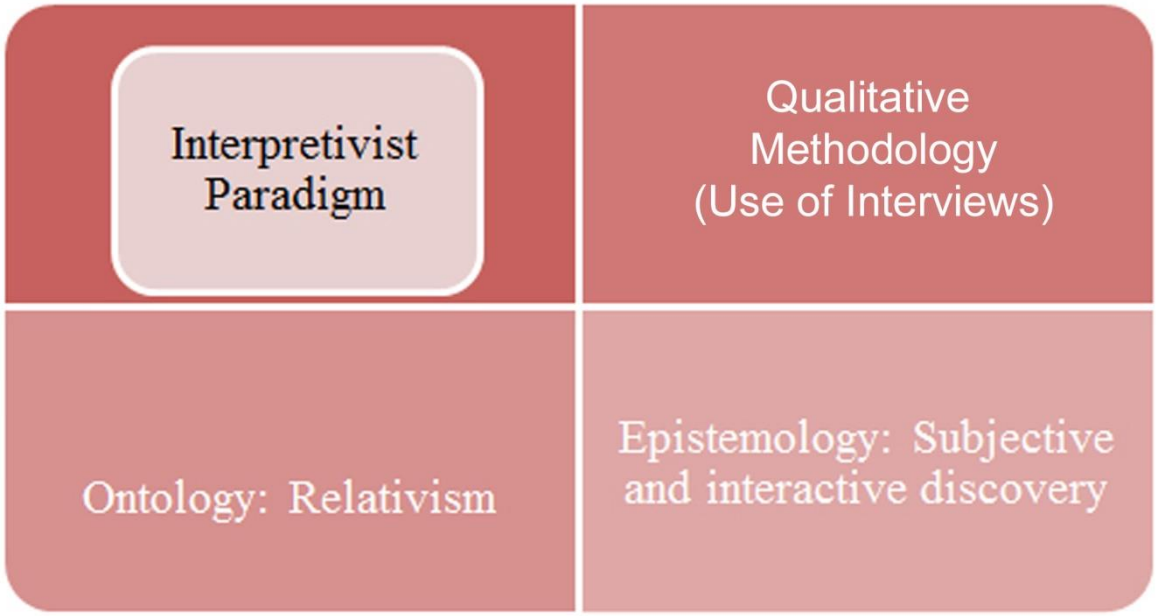


Figure 2 - An Introduction to the Methodology used
(and which is explained in detail later in this thesis)

1.5 Structure of the Thesis

Whilst this thesis is composed of six chapters, these chapters make up two key sections. The first four chapters (the introduction, literature review, theory section and the methodology) are what I would classify as the pre-data collection stage. The post-data collection, chapters five and six, provide the findings and the conclusions.

1.5.1 Literature Review

The literature review begins with a section detailing the key terms and concepts that relate to the discourse in wayfinding literature and which, unless explained, might otherwise create confusion and ambiguity in this thesis. This section is then followed by an explanation of existing wayfinding definitions and a historical account of wayfinding.

The next six sections after the definitions are the key themes that emerged from existing wayfinding literature. These six themes, as mentioned above, are; modalities, technology, stakeholders, time, risk, and the missing body in wayfinding.

1.5.2 Conceptual Framework

The conceptual framework begins with an explanation of each theorist and the concepts used from each. Next, a section on the problem of agency and structure in wayfinding is provided, with an explanation of the position each theorist takes in relation to agency and structure.

1.5.3 Methodological Strategy

I begin the methodological section by first explaining the ontological and epistemological underpinnings of this study. This is then followed by two key sections. The first of these sections is concerned with the research methods, stages and considerations and includes explanations of all aspects of the study including the method selection and justification, the pilot interview experiences, sampling, research ethics and an explanation of the transcription process. The second section focuses on the data analysis approach, including the methods used, the analysis strategy and how I chose to represent the data and the stages involved. This is then followed by a summary.

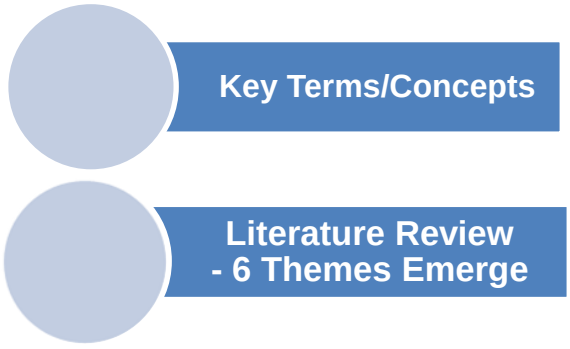
1.5.4 Findings and Conclusions Section

Chapter five, the findings chapter, is broken down into sections whereby the data is represented as different body types, using the concept of "ideal types" as a method for categorising and representing the data. A full explanation of the choice of method for representing the data is given in detail in the methodology chapter. The findings chapter is then followed by Chapter six, where a conclusion is drawn about the contribution of this thesis and recommendations made for future studies.

Chapter 2
Literature Review

Chapter Description

This chapter is used to explain some of the key terms that are important in this thesis and to introduce the key emerging themes that evolve from the literature review.



2.1 Introduction

The literature review was undertaken to try and fully understand the role the body has in wayfinding literature and to better understand the key themes pertinent to wayfinding. These key themes helped guide the interview questions and to frame the research findings. The themes, combined with the sensitising concepts that evolve from the conceptual framework (Chapter 3), together shape the way in which the interview data are then presented in the findings in Chapter 5.

Before proceeding to the first key theme that emerged from the literature though, I first present a list of key terms/concepts and explain each. Certain terms that relate to wayfinding can be interpreted in different ways and need clarifying in relation to this study.

2.2 Key Terms/Concepts

Agent – The word "agent" is used often in socio-cultural research and refers to the individual social agent. Bourdieu and Wacquant (1992: 127), for example, state that "social reality exists, so to speak, twice, in things and in minds, in fields and in habitus, outside and inside social agents". In this study, the agent is normally the wayfinder. The concept of "agency" that individuals have, as opposed to society as a "structuring structure" (Bourdieu, 1992: 53), is discussed in greater detail in Section 3.3 (The problem of agency and structure in Wayfinding).

Disabled – I became aware during this research that some people have a preference for the word 'accessible' over 'disabled', the idea being that the former provides more positive connotations. Those with disabilities who were interviewed in this study openly used the term disabled. Furthermore, the main legislation in the UK is named the 'Disability Rights Act' and for this reason I have used the word 'disabled'. The use of this term in this study, has made it possible to highlight some of the often difficult and unfair challenges faced by these users in relation to wayfinding.

Dualism and Duality – In referring to dualism in this study, I have followed the explanation used by Lo Iacono and Brown (2016: 89-90) who, in referencing Giddens (1984), define this term as "Dualism (two divided and distinct entities)…idea of duality (a unity of two divergent aspects of the same reality)". In researching wayfinding as an embodied experience, rather than seeing it as a purely cognitive one, I take a non-dualism approach, in that I see the mind and body as one entity. This duality is important in that, for example, emotions such as stress are discussed in this study as a part of the embodied experience, rather than being seen as separate psychological traits. Dualism and duality are discussed further in the literature review in Section 2.3.7 (The Missing Body in Wayfinding).

Experience – The term "experience" is used often in this study and hence it is worth clarifying precisely what is meant, in this research, by this term. I have taken the model created by Tuan (1977), as shown below in Figure 3, in order to represent "experience" as a fully embodied process (discussion surrounding duality and dualism of the full body is

presented in greater detail in Section 2.3.7). Experience, as expressed by Tuan, can be seen to involve the cognitive (using conception), which leads to perception, and then feelings and sensations. Tuan then suggests higher levels of emotion exist through the sensing body but with higher levels of thought closer to the cognitive (conception) element of the experience. In this study, the bodied experience incorporates all aspects of the body, including these cognitive, corporeal and sensual elements.

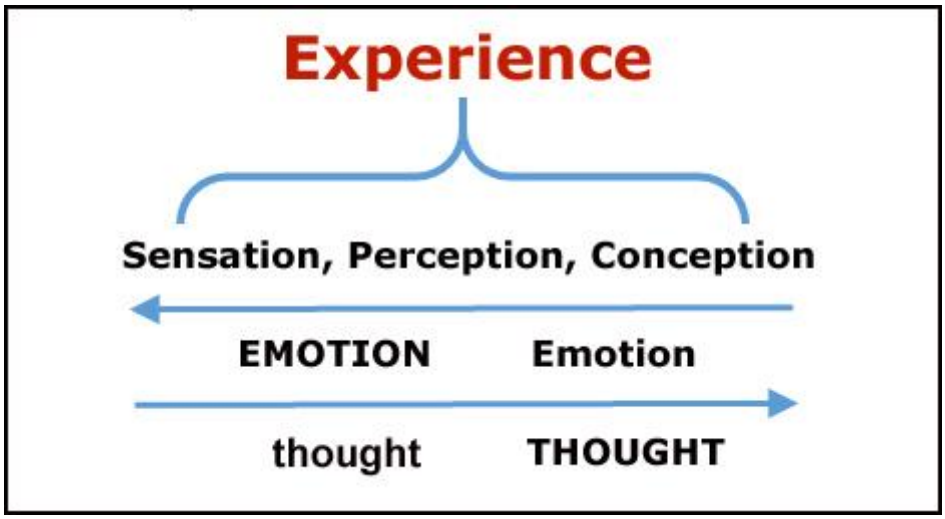


Figure 3 – Experience Diagram: Adapted from Tuan (1977: 8)

Tuan (ibid) defines experience as "a cover-all term for the various modes through which a person knows and constructs a reality".

Heuristic – The term heuristic is sometimes used in wayfinding (see Murakoshi and Kawai, 2000; Wiener *et al*, 2009; Frankenstein, Brüssow, Ruzzoli and Hölscher, 2012; Paisios, 2012) and is useful for drawing attention to the constantly changing process of how we get between A and B, and to show it as being a process which is much more than just direct, quick or perfect routes. A change in thought process, such as changing a route to feel safer or because of socio-cultural influences (i.e. a traffic jam blocking one's planned route) can, for example, mean the need for a "person to discover or learn something for themselves: "a 'hands-on' or interactive heuristic approach to learning'" (University Press, nd). Likewise, the perspective on walking researched by Ramsden (2011: 16) was "not from a straight-forward, linear journey, but from twists and turns, dictated by chance, opportunity" and we can also experience what Ramsden (2011) refers to as "interruptions", that is, occurrences that cause us to need to change our route as we move. In other words, as Bertel (2004: 27) states, "the environment encountered by

wayfinders…is dynamic". In this study, the term heuristics, which originates from Greek and translates in English to the word "find", is used to express the way in which we find our way as we go somewhere, often choosing new paths, as new opportunities and choices present themselves.

Interviewees, Participants and Volunteers – In quotes from other researchers that are used in this thesis, terms such as 'interviewees', 'participants', and 'volunteers' are sometimes used to refer to a person who gives up their time to be interviewed. The quotes have been written exactly as they originally appear. When not a direct quote, I have used the term 'volunteers'.

Locomotion and Mobility – The terms locomotion and mobility are sometimes mentioned in relation to wayfinding and both refer to the way in which we actually move during wayfinding. Locomotion can be defined as "the act, fact, ability, or power of moving" (Collins, nd). Mobility, on the other hand, can be defined as being "capable of moving or being moved" (Webster, nd) freely and easily. In wayfinding, mobility is not always about being able to move freely or easily, such as when a person is disabled or blind. We can also wayfind without corporeal mobility or locomotion, such as when we find our way virtually on Google Maps, moving along actual streets using the satellite view. Wayfinding, in other words, often involves mobility and locomotion, but does not require them.

Navigation - The term wayfinding and navigation are sometimes used inter-changeably (see Bradley and Dunlop, 2005; Churchill, Dada, de Barros and Wirasinghe, 2008; Head and Isom, 2010). Others, such as Wiener *et al* (2009) though, consider wayfinding a sub-set of navigation. The position used in this study follows that of Dening (2008) and Ingold (2000) who interpret wayfinding as being an interpretive craft that is about how we find our way, with navigation a sub-set of wayfinding. Wayfinding in this study, in other words, involves navigation but also much more, such as the social interactions, decisions and planning by stakeholders, embodied elements (such as the decision to take a certain route or not in order to keep ourselves safe) and is more dynamic and all-encompassing than navigation. By contrast, the term navigation tends to refer to the task of trying to "operate or control the course" (Webster, nd) when attempting to get somewhere. In this study, navigation is thus important, but is subsumed as one part of the overall practice of getting somewhere, that is, of wayfinding. For example, pre-planning of a route is not navigating but is considered a part of wayfinding in this study.

Skype and Face-to-Face interviews - Skype software is used as a research tool in this study. Skype is a company that has now been bought by Microsoft and that provide its own branded Voice over Internet Protocol (VoIP) technology. Skype software can be used to make video calls and audio only calls over the internet.

One might call these video conversations face-to-face interviews, in the sense that the focus, in these online video calls, was mostly on the face, rather than the full body. When using the term face-to-face interviews in this study, however, I have used with the traditional meaning used in academia, i.e. to refer to interviews in which researcher and volunteer share the same physical space, rather than to refer to Skype interviews.

Travel - The term "travel" is often used in conjunction with wayfinding, given that both terms involve movement between places. Travel though is a much more generic term which can be defined as "to move or go from one place to another" (Cambridge University Press, nd) and which lacks any reference to the actual interpretive craft of how we find our way between two points.

Wayfaring and Wayfinding – The term "wayfaring" is used by Ingold (2011) to refer specifically to perambulatory movement. In his earlier work, Ingold (2000) often mentioned wayfinding but later on changed to using the term wayfaring with a focus on the perambulatory. Definitions of wayfinding are discussed in detail in the next section.

Having discussed some key terms that are used in this study, a more detailed explanation of exactly what wayfinding is, with a look at other existing definitions from wayfinding literature, is provided below.

2.3 Wayfinding

2.3.1 Defining Wayfinding

Wayfinding is *not* a practice specific to humans. Many animal species, for example, are famous for their unique navigational and wayfinding abilities such as homing pigeons, which are known to be able to fly hundreds of miles to their home (Hagstrum, 2000) and thought to use the earth's magnetic fields to navigate. Desert ants are said to use their olfactory ability to navigate (Kohler & Wehner, 2005). These ants have a "stereo" sense of smell (whereby they can detect smells two dimensionally) and they then use this ability as a key navigational tool. The focus of this study though is on human wayfinding, a subject area that has featured in academic literature for over fifty years.

Wayfinding Timeframes in Literature

- Lynch (**1960**) used the term as one word "wayfinding".
- Golledge (**1999**: 6) provides one of the most commonly used definitions of wayfinding, stating: "wayfinding is the process of determining and following a path or route between an origin and a destination. It is purposeful, directed, and motivated activity".
- Fewings (**2001**) introduces the idea of "recreational wayfinding" i.e. the idea of exploration.

Figure 4 - 'Wayfinding' timeframes in literature

The expression "way finding" is said to date back to the days when islanders in the Polynesian Islands found ways to navigate across the oceans (Passini, 1981; Dening, 2008), using the stars and landmarks (such as other islands) without the need to know exactly where they were located geographically at any one time, in order to get to their destination. The Polynesian experience in "finding their way" is similar to the way in which Parker (1905) explains how an Australian aboriginal would traditionally be sent out in a liminal rite of passage of moving between childhood and manhood, living in the wilderness for several months in a period of self-discovery, having to find his way across the landscape, both corporeally and cognitively. The ability of some Pacific islanders to use natural elements to navigate does not mean that these techniques were easy to learn.

Whilst living with the islanders of Puluwat in the South Pacific, studying their navigational and wayfinding skills, Gladwin (1974) found that only a few, in fact, were ever able to fully master these complex and skilful ways of navigating and these skills took many years to master. These navigators were always held in the highest esteem within these tribes, such was the importance of the navigator on these islands.

Whilst the Polynesian navigators battled against natural features such as the winds, and ocean currents, other historical examples related to wayfinding emphasize how routes can be affected by societal impacts. One such example is that of black slaves in the 1800s in USA in relation to what some have termed the American Railroad System (McDonough, 2013; River, 2013; Still, 2017). Whilst Ginsburg (2007: 36) makes the point that "scholars now recognize that there was no single, extensive network that carried blacks to freedom and that, in any case, most people escaped without the organized help of whites", Ginsburg chooses to use the term *Slave Landscapes* to refer to the routes that slaves would take when trying to escape their white slave masters. Ginsburg goes on to explain that the routes and paths across slave controlled areas were viewed very differently by black slaves from their white slave owners. For the white slave owners, the areas were as one might view an aerial map, that is, segregated areas of land that were owned by different individuals.

For the black slaves, as Ginsburg (2007) points out, the different routes and paths were viewed not as bounded owned areas of land, but as routes according to the chance of escape from their slave masters, hiding locations, and paths that the slave masters were less familiar with. These routes were also largely about shared knowledge between the black slaves and were routes that would often be much less direct directionally for the slaves because of the need to avoid capture, as they tried to get from A to B. For a slave, destination B would most often have been to a U.S State or city that was free from slavery, thus "slaves who lived in North Carolina or Virginia tried to get to New York City, Pennsylvania or Boston" (McDonough, 2013: 37). For the slaves, risk in other words, was attached to route choice and "as runaways, they avoided open roads in order to avoid capture. Instead, they tended to move along animal traces, old Indian trails, and by cutting their own paths through the bush. The challenge was to move quickly and quietly until reaching a place of safety**" (**Ginsburg (2007: 40). As Ginsburg (ibid) continues to explain, "runaways could not easily stop along the way and ask for directions, as whites could" and one slave (Edward Hicks) "solved the problem of orienting himself during his flight through unfamiliar woods by carrying a stick with him. When he went to sleep each

morning, he laid it on the ground by him with the bigger of its ends pointed in the direction he wanted to travel upon awakening".

For slaves who were not escaping, they were still expected to carry "passes...to regulate and restrict when and where human chattel (sic) travelled" (Ginsburg, 2007: 36). Indeed, the same passes and regulations of movement exist in contemporary history[3], in North Korea today and over the last 10 years, on what is known as the *The New Underground Railroad* (Kirkpatrick, 2012; Meyjes, 2017). This term is taken from the American Underground Railroad and is used to refer to the same problems of escape faced today and in the last decade by North Korean citizens as thousands attempt to escape oppression, starvation and such issues, whilst also avoiding the very real threat of death if returned to North Korea. Such routes, where females are involved, often include being sold into modern day slavery and raped, as detailed in many accounts by defectors (see Jang and Mcclelland, 2015; Park, 2016). On escaping into China, North Koreans are given no status by the Chinese government and are returned to North Korea if caught and thus the new underground railroad is used to express the network of people and routes across China and into Mongolia and South East Asia that North Koreans must take to safely reach the South Korean embassy (Kirkpatrick, 2012). Numerous and consistent accounts by defectors (including Demick, 2010; Lee and McClelland, 2016; Park, 2016) provide evidence of such routes. There is one interesting exception though. As one of the most senior defectors ever to escape North Korea, Jin-Sung (2015) is one of the few defectors who was able to find safety within China because his cultural capital (meaning his value to South Korean intelligence services) resulted in his eventually being escorted and guided into the South Korean embassy in Beijing, where he was able to then get permission to travel and live in South Korea, where he is today.

The term *railroad* was originally used as a form of nomenclature to allow a secret language to be used when discussing aiding the movement of slaves. As Kirkpatrick (2012: 12) explains, guides were known as conductors, slaves as passengers, freight or baggage, and safe houses referred to as depots, Furthermore, it was rare for one person to know the full escape continually changing escape routes, creating a "safety in limiting operational knowledge" (Kirkpatrick, 2012: 10) that meant that if someone was interrogated, then the entire network would not be compromised.

[3] Contemporary History here is used to refer to a period that is from 1945 to the present day, and to include history in the making and that has occurred, in this specific example, over the last ten years.

Both the old and new Underground Railroad systems, when seen as a phenomenon in wayfinding, are routes from A to B that often have to be highly secretive, involve possible death for the wayfinder if caught, and involve routes that tend to be indirect and involve a number of people. As (Kirkpatrick, 2012: viii-ix) also explains:

> The secret network of safe houses and transit routes … criss-crosses China and transports North Koreans to refuge in bordering countries. The new underground railroad is operated by humanitarian workers, largely Christian, from the Unites States and South Korea, and it is supported by thousands of ordinary men and women in China…who are willing to break their country's laws and risk imprisonment to assist the North Koreans, Helping a North Korean, even so much as giving him [sic] a meal, is a crime in a crime in China, punishable by fines, jail sentences, and in the case of foreigners deportation after they have served their time in prison.

In China, the Underground Railroad is documented in almost every book by North Korean defectors and in the same way in which "enslaved people read the slave landscapes they inhabited through a set of markers that were indecipherable to most whites and that spoke of black occupation of the land" (Ginsburg, 2007: 37), the new underground railroad similarly is a set of routes that are largely secret and otherwise go unknown to those not directly involved and who need to use the routes.

What these historical and contemporary historical examples with the old and new Underground Railroad systems provide wayfinding understanding, is that not all routes can be seen as equal to all wayfinders. The route from A to B as the slave and North Korea defector examples provide, is acknowledgment that for some, routes from A to B can be highly complex and involve very high risk to one's own body, including from dehydration and hunger when attempting these routes, and through being caught and the resulting punishment. Furthermore, the ability to ask others for guidance might be strictly limited except for a very trusted few, who are a part of the underground system.

One final historical example related to wayfinding worth mentioning is that of "The Songlines" (Chatwin, 1987). Chatwin explains that there are routes across Australia that are known by white natives as *dreaming tracks* or *songlines* and by aborigines as *footprints*. These routes were taken by aborigines and intangible elements of aboriginal culture (such as song, dance, the act of love and the practice of hunting), were transmitted culturally across that land that we know as Australia. In a wayfinding sense in other words, the fluidity of the paths and routes across Australia for many aborigines is not seen as one

might view a standard road style map, but as a map that is embedded with and through the transmission of heritage and culture. Indeed, such a historical context of wayfinding practice, leads to the concept that consideration needs to be given in wayfinding research for routes to be seen from different perspectives in order to accommodate the various cultural, social and political tensions and settings that ultimately help to shape how we are able to find our way between places. Chatwin's Songlines, in a sense, are similar to Route 66 in the United States. Route 66 is the old main route from Chicago to California in the 1920s and through to the 1980s. Whilst no longer the main highway across that part of America, Route 66 continues to be a path that many choose to experience with many points of cultural heritage positioned along its route. Indeed, in this thesis, the use of Songlines and Route 66 represent the move towards seeing wayfinding as a practice that can be experiential and culturally symbolic as much as it is simply a means of getting from A to B.

In the modern era, a good example in terms of the complexities of wayfinding, can be seen in London (England) where taxi drivers (known as "cabbies"), drive large black traditional hackney carriage vehicles and study and must pass what is termed "The Knowledge" (Skok, 2000) in order to get their taxi license. It can take anything from 1 to 4 years to learn the routes needed to pass this exam. Much like the expert navigators from the Pacific Islands, these London taxi drivers can be considered expert wayfinders.

The term "wayfinding" as one word, the form which is now most commonly used and referred to, is taken from the American theorist Kevin Lynch (Raubal, Egenhofer, Pfoser and Tryfona, 1997; Hidayetoglu, Yildirim and Akalin, 2012). Lynch (1960) and his book *The image of the City* are often quoted and referenced in wayfinding literature. In more recent definitions, many authors such as Prestopnik and Roskos–Ewoldsen (2000), Head and Isom (2010) and Hölscher *et al* (2011) analyse the process as one involving getting from A to B using the shortest or fastest possible route. This de facto view of wayfinding as being about the shortest and fastest possible routes, arguably links to some views of post-modernism and the acceleration of subjective time due to time space compression. In this sense, Burkitt (1999) posits that our embodied experience of time and space is being restructured in a post-modern world, due to the way in which we utilise greater geographical spaces and, as a result, we are always rushing around. However, these wayfinding studies run contrary to Fewings (2001) concept of "recreational wayfinding" which places a certain focus on routes that are often heuristic (decided upon as they occur) such as when one might be exploring a new urban area for pleasure, whilst on holiday somewhere. Fewings (2001: 179) defines recreational wayfinding as follows:

> Recreational wayfinding offers an individual the opportunity to solve problems (where to go next, for example) that itself can be a source of satisfaction and enjoyment.

Fewings recreational wayfinding provides an interpretation of wayfinding that offers a broader understanding of the term, and moves away from representing wayfinding as only involving these shortest or fastest possible routes.

In addition to the idea of recreational wayfinding, we also now see wayfinding related holidays that put the body central to the experience. For example, some travel companies (such as Headwater, n.d; Skedaddle, n.d.) now offer self-guided holidays which have discovery and embodied challenges as the central focus of the trip, as opposed to a resort or attraction being the key focus. These tours involve one having to find one's way such as by bicycle, to the next location each day. This form of wayfinding in the modern era is what Titus and Everett (1995: 112) describe as involving "hedonic" search strategies i.e. that are intentionally designed for us to have a "multisensory" experience. Another example of hedonic wayfinding can also be seen in mazes, which act as visitor attractions, including Longleat Hedge Maze and York Maze, both in the UK.

In the section above I have provided a brief view of the term "wayfinding" and then given some examples of how wayfinding is used in modern institutional environments. In the following section, I provide a more detailed explanation of some of the most commonly referenced wayfinding definitions and consider their commonalities, strengths and weaknesses.

Existing Wayfinding Definitions and Issues

In the table below (Figure 5), a list of definitions from some of the most commonly referenced authors on wayfinding, are detailed and listed chronologically.

Lynch (1960: 3)	'A consistent use and organization of definite sensory cues from the external environment'.
Gluck (1991 : 117)	'The process used to orient and navigate. The overall goal of wayfinding is to accurately relocate from one place to another in a large-scale space'.
Peponis et al (1990: 561)	'Wayfinding is a term that can refer to a rather narrow concern. That is, how well people are able to find their way to their particular destination without delay or undue anxiety'.
Blades (1991: 1)	'The ability to learn and remember a route through the environment'.
Golledge (1999:6)	'Wayfinding is the process of determining and following a path or route between an origin and destination. It is a purposive, directed, and motivated activity'.
Fewings (2001: 177)	'Wayfinding now includes the process of finding one's way in the geographical or built environment; that is, being able to identify one's present location and knowing how to get to the required destination'.
Raubal (2008: 1)	'Wayfinding behavior is the purposeful, directed, and motivated movement from an origin to a specific distant destination that cannot be directly perceived by the traveller. It involves interaction between the wayfinder and the environment'.
Leib et al (2012: 80)	Defines (airport) wayfinding as 'the process by which one navigates an airport terminal using visual cues'.
Farr et al (2014: 90)	'Effective wayfinding is the successful outcome of the interplay between human and environmental factors resulting in a person successfully moving from their current position to a desired location in a timely manner'.

Figure 5 - Common definitions of wayfinding

One of the earliest definitions of wayfinding is by Lynch (1960). As an architect and urban planner, Lynch's focus understandably was on buildings, space and the environment. The commonality in later definitions is the use of words such as "relocate", "moving", "following" and "movement" to describe the need to go from one place to another i.e. there is a need at some point in the wayfinding process to move through space and time from

one place to another (even if the trip destination is the origin for a circular route). The second commonality in most of the definitions is the concept of "determining", "navigating" or "finding" one's way, i.e. the process of having to work out how to get between places or through space, and it is this interpretive craft of having to *determine* or *find* the way that separates wayfinding from merely travelling. I have drawn on all of these commonalities that are found in the definitions of wayfinding to inform my own position on wayfinding, although the extent to which this is a practice that is managed by the agent, is discussed later in this study.

Some of the definitions are problematic, one example being the definition by Leib, Dillman, Petrin and Young (2012: 80) who define (airport) wayfinding as ocular centric and, as subsequent discussions on the senses in embodied research will reveal, this is an issue. Blind people also need to wayfind and this emphasis on "visual cues" thus alienates the needs of people with sight problems and, as highlighted by Small *et al* (2012), this group have as much right and need to travel as anyone else.

Blades (1991: 1) asserts that "the ability to learn and remember a route" is essential to wayfinding. Whether or not we actually need to learn and remember the route we take in order to wayfind is questionable, given that in many locations we might never need to visit that place again.

What is most noticeable is that the most commonly used definitions all seem to lack one key ingredient, "*the experiential*" aspect of the activity. Gottdiener (2000: 77) is one of the very few commentators to mention the idea of "reorientation", for example, in wayfinding, commenting how we "may pause at concessions and purchase something" and upon resuming, "the passenger must be able to reorient himself or herself quickly". How, for example, what Ramsden (2011: 2) calls "experiencing moments" impact the way wayfinding process as it occurs, provides the potential for routes that themselves evolve and are organic, even when a destination was planned at the origin. This study, in other words, will explore and seek to evaluate to what extent wayfinding is mitigated and adapted through an embodied experience.

Most definitions also ignore the concept that pre-trip planning and other non-mobility related processes are part of the overall wayfinding process. Gladwin (1974) informs us that, for the Pacific islanders, it was vital to pre-learn *every* possible route between all local islands, i.e. over two hundred routes were learned by heart. This pre-learning, it is worth noting, whilst it involved years spent learning everything from star and wind patterns and

hence would have involved a significant cognitive focus, also involved an embodied level of learning such as the feeling of wave movements. Gladwin (1974: 145) explains that:

> Waves, winds, clouds; stars sun, moon; birds, fish, and the water itself comprise about all there is to be seen, felt, heard, or smelled. All of these have probably been used by every native navigator in the tropical Pacific.

Raubal (2008: 1), in his definition, gives mention of "a destination that cannot be directly perceived by the traveller". There is logic in the idea that there is no need to wayfind and navigate if you can already see the destination, but this commonly stated assumption is also questionable. The use of "landmarks" (Kato and Takeuchi, 2003; Head and Isom, 2010; Hund and Padgitt, 2010), for example, provides a destination point and yet the landmark may be distant and we may lose sight of the destination at certain times, as we move, such as when our view is blocked by tall buildings as we walk. The destination might also be the starting point where we stand, such as in the case of wayfinding which involves city exploring. In this case, the destination can be said to come in the form of a "time destination" rather than a space/location destination. There is, one would assume, also just as much chance to get lost in small spaces such as trying to find a lavatory in a pub or bar.

The contribution by Peponis, Zimring and Choi (1990) is interesting in that the embodied experience of wayfinding is touched on, with their definition mentioning "anxiety" i.e. a negative emotion, but with no mention of positive emotions. This might be perceived to suggest that wayfinding is about avoiding a bad experience, rather than experiencing a positive one. How, if at all, positive emotions are also important in wayfinding will be considered through interviewing wayfinder types that include, for example, those who wayfind for pleasure. Exactly how people classify wayfinding as successful will be better understood after the interviews with the volunteers.

Whilst several wayfinding definitions also mention interaction with the environment (see Lynch, 1960: 3; Raubal, 2008: 1243; Farr, Kleinschmidt, Johnson, Yarlagadda and Mengersen, 2014: 90), Dening's (2008: 147) view that "way-finding [*sic*] is a more interpretive craft closer to the signs the systems of the cosmos imprint on the environment" is a paradigm shift which moves towards valorising subjectivity and particularism over the quest for discovering objective and universal laws of how *all* people wayfind. This shift is necessary and important, as any account of subjectivity and the particular has to account for the specificities of context and the *embodied subjects* within that context. Put differently, each wayfinding experience is unique to the individual (which is not to say these experiences do not share significant commonalties). Moreover, wayfinding is an

embodied *process* of finding our way between two points and, in addition, this process is thoroughly interpenetrated and thus inseparable from the specific time and space (i.e. context) in which it occurs.

Dening's (2008) view also offers a paradigm shift. It follows that if the body, experience, subjectivity and context are important to understanding wayfinding, then wayfinding research needs to engage a socio-cultural context, something which hitherto has been lacking in this literature. The influence of embodiment within sociology is of particular importance. For example, Shilling (2001) makes a strong case for placing embodiment at the heart of the field of sociology, whilst Crouch and Desforges (2003), take steps to develop embodiment in cultural geography, when analysing tourist encounters.

In the sections above, I have discussed a number of wayfinding definitions from some of the most often referenced academic writers on wayfinding. I then explained some of the problems with these definitions and then some of the commonalities. The commonalities in these definitions are what make wayfinding an interpretive craft that is the *finding* or having to *determin*e one's way between or to a place. Some examples of how the body is central to understanding how we define wayfinding, such as with consideration for blind travellers and the need to factor in all bodily needs were also given mention. After this, I introduced Dening's (2008) definition and highlighted a paradigm shift and the need for a more embodied and socio-cultural view to be considered in wayfinding literature.

In the following section, the discussion turns to the various modalities that materialise from existing wayfinding literature. Whilst the term *wayfinding* might be one that many people are not very familiar with, wayfinding in fact exists as an activity in just about every type of location, for all body types, involves various transport forms and journey types. In the following section, I try to make sense of this complex range of situations and instances in which wayfinding occurs, with attention given to wayfinding from an embodied perspective.

2.3.2 Modalities

One thing that became clear very quickly whilst conducting the literature review, was the wide range of modalities (classifications) that wayfinding can be divided into. Wayfinding pervades every aspect of our lives, with this activity omnipresent wherever we are going and for whatever reason we are going there. Wayfinding, for example, occurs indoors/outdoors, for commuting/holiday/business/job interviews, in different countries, cultures, by people with different abilities, and so on. In order to try and fully understand

the wide range of embodied experiences that can occur in wayfinding, the section below presents four key classifications of modalities that exist in wayfinding, that emerged from existing literature.

2.3.2.1 Types of Journey

Wayfinding, firstly, can potentially be sub-divided according to the type of journey being attempted. We have to find our way, for example, when commuting (Allen 1999; Laurier and Lorimer, 2012), if living in a care home as a dementia patient (Caspi, 2014), when visiting a hospital as a visitor or patient (in what can be complex buildings to navigate and during times of stress) (Rooke, 2012); for holiday purposes such as when we must find our way through an airport (Lam, Tam, Wong and Wirasinghe, 2003; Churchill *et al*, 2008) or around a new holiday resort or between islands (Dening, 2008) such as in the earlier Pacific islanders examples; for one's work (such as when working as a delivery person); and for exploration such as wilderness experiences (Hill, 2011).

Each of these very different journey types, it seems fair to say, offer the potential for quite distinct embodied experiences. Being late and lost on the way to a job interview, for example, is likely to be quite different from being lost whilst exploring a holiday resort on arrival. Indeed, simple acknowledgement of the vast number of journey types that use wayfinding, provides a sense of the scope of wayfinding as a practice and why understanding wayfinding better is so useful.

2.3.2.2 Types of Space

In addition to the diversity of journey types, the complexity of wayfinding is further increased by the types of spaces to and through which we wayfind. We may need to find our way through *indoor spaces* such as in a hotel (Kobes, Helsloot, de Vries, Post, Oberijé and Groenewegen, 2010), hospital (Zimring, Ulrich, Zhu, DuBose, Seo, Choi, Quan and Joseph, 2008; Hund and Padgitt, 2010; Rooke, 2012), airport (Fewings, 2001), museum, shopping mall (Chebat, Gélinas and Therrien, 2005), or a university (Abu-Ghazzeh, 1996). Alternatively, we might be wayfinding in *outdoor spaces*, including across seas and oceans, through the countryside or in the wilderness (Hill, 2011). Indeed, wayfinding takes place in such varied locations and types of space and this has important implications for the body that will be explored in this study. How, for example, a person wayfinds in a crowded and dry airport versus in a rural setting and on a cold wet day, will lead to quite different embodied experiences as a wayfinder. In this study, I have intentionally explored

a purposeful range of wayfinding situations for the interviews, in order to try and understand this wide range of embodied wayfinding experiences.

2.3.2.3 Types of Body

Wayfinding can also be demarcated according the type of body, such as by gender, age, or according to certain disabilities and abilities of the body. Some wayfinding studies have begun to investigate certain types of body issues, including "vision impairment" (Robertson and Dunne, 1998; Small *et al*, 2012) and on "dementia" (Caspi, 2014; Graham, 2015). These studies, which consider different abilities and disabilities in relation to wayfinding, are, however, currently limited.

A number of studies have considered wayfinding based on gender differences (see Lawton, 1996; Lawton and Kallai, 2002; Doan and Higgins, 2009; Lin, Huang, Lin, Chang, Lin, Ko, Hung and Chang, 2012; Schmitz, 1997), albeit with varying results. Lawton (1996), for example, found in one of her studies that women appeared to experience higher levels of anxiety than men during the wayfinding process. In a similar vein, Westwood, Pritchard and Morgan (2000: 359), quoting one of their research subjects, refer to the vulnerability a woman might feel when travelling alone:

> When I arrived in Japan I'd been flying for 12 hours and I felt very disorientated and vulnerable...one minute you're in a cocoon, the next minute you are totally alone in a strange place - it would have been very reassuring to have someone ask if I needed help.

Westwood *et al* (2000: 359) continue to state their view that it is a "fact that women travellers have to think about personal safety issues much more than men". Whether or not one agrees with Westwood *et al*, this example nevertheless raises the question of how and to what extent these various body types experience wayfinding differently from one another. A further question is also raised around the issue of gendered bodies when we consider socio-cultural differences, such as the point raised by Hamdan (2005) who explains that women are still not permitted to drive in Saudi Arabia. Such a point begs the question of how wayfinding bodies are affected by socio-cultural factors and how this impacts upon one's ability to choose certain routes or find the way along these routes.

2.3.2.4 Modalities of Transport

The fourth and final modality is that of transportation type. Numerous forms of transport exist that can aid the way in which we propel ourselves between A and B. Whilst the provision and use of these transportation forms is not wayfinding in itself (i.e. not the interpretive craft of finding our way), the choices we make regards the transportation type,

inevitably impact upon the embodied wayfinding experience. In this regard, Symonds *et al* (2017: para. 4.9) make the following observation:

> Taking a bus on a route will incur a different embodied experience from if one cycles or drives (and which involve use of a SatNav). Quite different bodily sensations are also experienced by bike messengers, taxi drivers, delivery drivers and bus drivers, all of whom might be considered expert wayfinders, yet have very different interpretive maps of a city and very different experiences of this process.

This range of transportation types that Symonds *et al* (2017) specify above, along with the other transport forms including via one's own body as "perambulatory movement" (Ingold: 2011: 148), leads to the question of how the wayfinding process and experience is different according to these transport forms. Indeed, all modality types discussed i.e. journey, space, body and transport types, all lead towards this same question of how these modalities affect the wayfinding process and the resulting embodied experience. These modalities underpin the research and provide it with a framework for focusing this study, in that they informed the data collection, sampling, analysis as well as the choice of theory.

Having discussed the various modalities within wayfinding literature, the following section is concerned with "technology". Technology is omnipresent in our quotidian lives and is often used in relation to wayfinding.

2.3.3 Technology

Technologies are used in a variety of ways within wayfinding. Mobile applications exist, for example, to provide us with personalised and live routes, such as via "smart card technologies" (Urry, 2007). The chance to pre-plan routes online and to print copies of maps in advance of a journey, also means that technologies such as mobile phones and the internet are impossible to ignore in a study on wayfinding. The wayfinding body to technology connection has been identified in part by Yau, McKercher and Packer (2004) who, in their research on disabled travellers, found that these travel groups *do* specifically undertake much more detailed preplanning than non-disabled travellers to pre-assess accessibility, special assistance points and connections between travel points.

Technologies in wayfinding though can also include artefacts, such as hiking shoes or an expensive bicycle designed for touring long distances. In the case of high-end bicycles, as mentioned in the previous section on transportation, whilst the technology itself is not a part of the interpretive craft of finding our way, such a technology does nevertheless lead to a quite different bodied wayfinding experience for the person choosing to cycle a given route, as opposed to say driving or walking. In this vein, Haldrup (2004: 435) posits:

> Rather than simply transporting the body in space, such technologies (mobile technologies, such as cars, bikes) frame how particular places and landscapes are sensed and perceived at the same time as they facilitate corporeal geographical movement.

Indeed, Spinney (2006: 715) in his article on *A kinaesthetic ethnography of cyclists on Mont Ventoux* also describes this connection between body and technology as we travel between places:

> In modern society it is rare on a day-to-day level for the human body to remain unprostheticised by various technologies. In a technological practice such as cycling, can the habitus or the limits of the body be seen to be independent of the machine by which they are shaped and extended? … There is a continuing cultural conjoining whereby technology and the body are joined and machines come to assume a level of organicism …I suggest that there is a need for a phenomenology of the practices of mobility which foregrounds not only the body-subject at the centre of the lifeworld but also the objects which inform and shape its movements. Such an approach seeks to understand the production of space in everyday mobility at the level of the body, but in conjunction with technologies.

The interaction between body and mobility artefacts is further illustrated by Spinney (2006: 729), with regards to how the bike and the rider become "inseparable from each other within their contexts of use", this affecting the way in which the environment is perceived. Indeed, "the experiences of movement and mobility can be seen as constitutive of the meaning and character of a place because of an ongoing dialectic between body and place" (Spinney 2006, 713). This study thus revolves around this concept that has been applied to the body and mobility, being also applied to wayfinding.

This link between technology and the body in wayfinding also exists in many areas of the world through *digital surveillance*, which Molz (2006: 391) summarises as:

> The traveller's geographical location, embodied movement and personal development become a source of mediated presence that the on-line audience can follow and monitor from a distance. Indeed, mobility and surveillance are contingent on locatedness, primarily in terms of the materiality that underpins embodied and virtual travel.

Booking, profiling, scheduling and CCTV systems all impact on our embodied wayfinding experience. To provide an example, during a wayfinding audit of one of the UK's airport main international airports (whilst undertaking this study), I was given a tour of the control room and shown how CCTV feeds are used throughout the airport to manage and control passengers' movements. It was explained, for example, that the doors which connect the baggage area to the arrivals hall automatically close if a person is electronically detected moving back into the baggage hall, stopping the movement of everyone between the two

locations until the situation has been investigated. In such cases, decisions are often made without our knowing (as a passenger) and during this time traces of our movements are recorded and what "was private already exists outside of the physical body and outside the self" (Urry, 2007: 202).

With newer technologies, we also seem to have a significant amount of information available to us, but, as Seidler (2010) makes clear, in a post-modern world, more information does not necessarily mean more knowledge. This leads to the question of how we are affected or not as wayfinders, where such a vast amount of information is available to us. Bauman (2000: 63) summarises the dilemma poetically in stating that "consumers misery derives from the surfeit, not the dearth of choices". Exactly how important or not technology is to the volunteers in this study, in the way in which they wayfind and how this affects them from a bodied perspective, will be evaluated in the findings section of this thesis.

Many of these technologies that are cited in wayfinding literature are often introduced by wayfinding stakeholders, be it commercial outlets (i.e. airports), regulators (such as the government or local councils) or individual businesses (i.e. the CCTV companies), and it is these stakeholders that are covered in the following section.

2.3.4 Wayfinding Stakeholders

Even though it is the agent (the individual wayfinder) who gains a lot of attention in many existing wayfinding studies, the importance and relevance of other wayfinding stakeholders is also clear. Using an airport as an example, aside from the passengers themselves, the stakeholders in the process may include airlines, airport vendors, security providers, the airport authorities, airport workers, ground transportation companies and drivers, delivery drivers and the airport parking company (if different from the airport authority) and businesses paying for the journeys of their own executives (Gibson, 2009). Freeman (1994) defines "stakeholders" as any group or individual who can affect or is affected by the achievement of the organization's objectives hence these stakeholders can also be private landowners, transport providers, signage companies and architects. Ryan (1997) explains that travel is a heterogeneous product and, in this vein, the multiplicity of stakeholders in wayfinding is perhaps to be expected.

In an increasingly post-modern world, orientated by security, profit and other influences, stakeholders often control aspects of the routes we take, even when we believe we are choosing our own paths. Löfgren (1999) and Weaver (2005), for example, illustrate how

cruise lines sometimes own the islands which they take passengers to and which we may think we are exploring and yet the path is actually laid out for us. As Weaver (2005: 176) explains, "after each cruise-ship visit, the sand is often raked over in order to obscure the footprints of tourists who were there previously". Not only are we corporeally directed, but our paths can be made to look untouched and anew. Löfgren (1999) provides a further example, highlighting how Royal Caribbean Cruise Lines in the 1990s, introduced their own tropical islands for stopovers and that these islands supposedly create an environment in which "nothing can go wrong". Such examples illustrate how our bodies are often protected for us without our knowing and this leads to the question of agency and to what extent we have agency in how we manage our own bodies in wayfinding (agency is covered in detail in Section 3.3). Laws (2004: 23) refers to this approach whereby stakeholders try to control and manage all aspects of an experience as a "systems approach" as expressed below:

> The various components or elements of the system are interlinked, and the efficiency of the system operating within its boundary will be affected by changes to any of the elements of which it is composed…For effective management…two aspects need to be clearly understood: the effects on outputs of any change to its inputs, and secondly the ways in which its processes are organized and controlled.

Such controls are especially noticeable on cruise ships, given that passengers are a captive audience on what Weaver (2005: 166) describes as "spaces of containment". These large boats offer stakeholders (such as the cruise line owners), the opportunity to use "steering" behaviour (Fajen and Warren, 2003; Nasir, Lim, Nahavandi and Creighton, 2014) to guide our bodies along routes which are for the benefit of the cruise line. By steering behaviour in this context, I am referring to how we are sometimes guided along certain routes, often for commercial reasons or for safety purposes. Weaver (2005: 353) provides the following example and which illustrates the way in which we are steered for commercial gain:

> Interior spaces on board are constructed and positioned in ways meant to induce certain types of behavior. Typically, casinos, bars, and boutiques are situated in areas close to frequently used pedestrian walkways.

Consumerism and the efforts to commercialise such spaces through which we wayfind, is further underlined by Topham (2016) who explains that the budget airline Ryanair expects to offer free flights in the future, because of the drive in recent years to commercialise airports. Stakeholders have realised the opportunities that exist (Farr, Kleinschmidt, Yarlagadda and Mengersen, 2012) from the mass movement of people and having a captive albeit mobile and transient audience. The commercial opportunities have, for example, meant that airports have moved from a focus purely on moving people, to now

being about consumerism. Indeed, Gottdiener (2000) gives the example of McCarran Airport in Las Vegas, which houses a casino within the airport and which generated USD$22 million in a year for the airport. The focus has become one that is now more than just about guiding and routing us from A to B directly and quickly. Parks (2013) also highlights this phenomenon, in mentioning how a redesign of Milan's Central Train Station resulted in much longer walks between platforms, the forced routing taking users onto a main escalator which goes past numerous shops. Several UK airports (including Bristol, Birmingham and Cardiff airports) have also now created routes which force passengers to walk through the Duty-Free area of the airport, which is the only path from the security screening area to the departures lounge.

Interestingly, even though Yau *et al.* (2004) found that disabled travellers are disproportionately loyal to those travel providers that satisfy their needs, Small *et al* (2012: 942) found in their own research on vision impaired travellers, that airlines do not train their staff in the use of wheelchairs, i.e. assembling wheelchairs is not part of the training. Whilst this training might not be a direct commercial opportunity (through on the spot immediate sales), when the whole experience is seen as a product in line with a systems approach (see Laws, 2004), it leads towards the question of what challenges different wayfinders face, when trying to find their way between A and B, particularly in terms of the embodied experience. The role of stakeholders was considered in the findings and throughout the research process. In other words, in addition to the issue of knowing which direction to take, there also appears to be a deeper set of processes that are important in wayfinding practice and on which stakeholders have a significant influence. These deeper processes are the corporeal challenges that ultimately have a great impact on route decisions and options and the way in which these routes can be attempted by individuals and those they travel with.

Stakeholders are particularly important in this study because of the use of a socio-cultural perspective as a part of the conceptual framework. These stakeholders take us away from a discourse on wayfinding that is exclusively agent orientated and towards one that involves power relations. What Goffman (1966: 4) termed "collective behaviour" in this case includes many people who influence the embodied wayfinding process, even when these people are distant, geographically speaking, from where the wayfinding takes place. The person monitoring the CCTV in a control room, for instance, will not be in the same physical space as a group of friends who are navigating through a terminal in an airport.

These stakeholders who help to shape our route are also emphasized by Edensor (2001: 76) who provides an example of the experiences of a tour group:

> Exertions were swiftly curtailed by the guide who ordered them to return to the bus so that they might squeeze in a visit to a marble craft emporium – where he might reap commission from any purchases the tourists might make.

In this instance, whilst agency has been handed by the agent to a tour guide, in return for economic capital, it is possible to see how other bodies (that of the tour guide) help to shape the final route one might take. Some tourists may (or may not) welcome the opportunity for shopping and thus a tension can sometimes exist between individual agents in wayfinding, when these routes are navigated as a group. The socio-cultural body (that connects to stakeholder effects in the example above) permeates this study and is discussed more specifically in Section 2.3.7.3 (The Missing Body in Wayfinding).

It is often the case that an agent is willing to offer control of the wayfinding process, or at least a part of it, to stakeholders and to pay for this service, such as for guided cruise excursions (Dwyer and Forsyth, 1998). Holloway (1981) provides another example, having studied coach tours and found that the navigation tends to be taken on by the tour guide, driver and tour company. More cynically but perhaps fairly, Gottdiener (2000: 145) explains that "many tourists opt out of encountering the shock of a new everyday life by traveling on a tour", preferring "being guided around the town in relative safety". What seems clear from the examples given, is that the way in which we choose to use the agency we possess, affects the way in which we make route choices.

Having discussed the role of stakeholders, the following section relates to the issue of time, another omnipresent theme within the wayfinding literature. *Time* presents a quite different dynamic to the wayfinding process from stakeholders and is discussed below.

2.3.5 Time

Time takes on many forms in the wayfinding literature and these include constructed/scheduled times, perceived time, wasted time (Archibald, Arnesen and Lichtenstein, 2006) and "discretionary time" (Farr *et al*, 2014: 94). There is also what Zauberman, Kim, Malkoc and Bettman (2009) term "subjective time", an example of which is provided by Ryan (1997: 195) in relation to travel:

> A holiday begins with the last holiday – the most recent vacation experience and the re-immersion into the daily world often creates a longing for the next holiday.

Indeed, Ryan's mention of holidays above and the starting point, leads to the question of if wayfinding can also be extended to include the experience of planning a journey, a point expressed by Symonds *et al* (2017: para. 4.11):

> History in the form of previous experiences is important in embodying wayfinding, as it encourages a focus not only on the journey through a given space, but also through time before, during and after the actual corporeal movement through that space.

The question of scope, such as exactly when and where a journey begins can be difficult to define in wayfinding, particularly given Ingold's (2011: 162) comment that "wherever you may be at any particular moment, you are already on your way somewhere else". In a sense, this is relevant in this study because it raises the question of how important or not, the planning of a journey is, particularly in light of Yau *et al's* (2004) suggestion that disabled travellers plan and prepare for trips in a detailed manner. By making the *embodied experience* of wayfinding more central to this study than most other wayfinding studies, this pre-planning aspect of the wayfinding process might prove to be important in the findings in this study, in respect to how the wayfinding experience is different for each wayfinder.

Another form of time in wayfinding is that of the seasons of the year and the time of day (Lynch, 1960). Whilst Lynch relates this form of time to how cities can be viewed, Gladwin (1974), in a similar vein, gives the example of shifts between night and day, the seasons, movements of the sun and moon as wayfinding cues in the Pacific Islands. This is natural *time*, in other words, rather than being mechanised time, is about time dictated by nature. In academic literature, very little has been written about natural time *in wayfinding* and in a study on embodied wayfinding, the emerging question is how these natural forms of time might impact or not, on the bodied wayfinding experience, a question which will be considered in the data collection and analysis.

The perception of what Callender, Edney and Appignanesi (2010) call "psychological time", whereby our individual inner clocks appear to speed up or slow down, also exists. Ryan (1997) illustrates the example of racing drivers who are known to report a perceived slowing down of time, during or when facing accidents. This issue of psychological time leads to the question, in wayfinding, of how one's own concept of time might be affected by the ability to navigate or not, particularly when combined with natural time and between daylight and darkness, and according to differing seasons or weather patterns. For

the embodied wayfinder, the connection between psychological time and emotions, including anxiety, excitement and stress (such as when in a rush or alternatively when there is ample time to find the way), will also be considered in the data collection and analysis.

Time also relates in wayfinding to the concept of "excess travel" (Mokhtarian and Salomon, 2001), a concept that runs contrary to many definitions of wayfinding. The idea of willingly moving one's body across a greater distance and taking longer in terms of time than otherwise needed, goes against the majority of wayfinding studies, studies which tend to highlight wayfinding as being about efficiency, the shortest speed and routes. The first real move towards excess travel appears to be as a result of the introduction of the car. Urry (2007: 125-126) explains how cars meant "an increasing emphasis upon slow means of finding pleasure. To tour, to stop, to drive slowly, to take the longer route". Urry (2007) goes on to also explain how cycle clubs also became important as a result of this change in thinking, surrounding leisure time and transportation. How and if people use excess travel in relation to how they find their way between A and B will be explored in the interviews for this study, in order to help answer the question of what embodied techniques they use in their wayfinding experience.

Bauman (2000: 118-119) takes a more cynical view of time, remarking that "having killed space as value, time has committed suicide", in referring to the way in which he feels that we have lost our freedom because we never have free time. Bauman's view is perhaps made purposely to provoke us, but it does raise the issue of the importance or not of time, in relation to how we experience things (and in this case, wayfinding in an embodied experience). A similar concept is presented by Gergen (1992), who cites examples of the way in which many people simply never have any free time any more within a globalised post-modern world, a world in which people even fly internationally now to attend a friend's wedding or increasingly fly abroad for business meetings. Urry (2007: 175) illustrates the time/space compression by commenting on a co-presence which exists with the modern "mobile phone culture" that keeps us attached to our friends, family and work colleagues as we move between A and B.

It is also worth noting that the optimal route in terms of time is often not the one taken, because of the habitual nature of wayfinding practice. Lima and González (2016, para. 2-7) in their research on driving, for example, found that:

> Transportation research has traditionally assumed that drivers are very rational and choose the optimal route that minimizes travel time. Traffic

> prediction models are based on this seemingly reasonable assumption…. But there's little empirical support for the assumption at their core – that drivers will pick the optimal route…We discovered that people use only a few routes when moving between their relevant places, even when those trips are repeated again and again over extended periods. Most people have a single favorite route for trips they perform routinely and a few alternatives [*sic*] routes they take less frequently to the same destinations…It turned out roughly half of the favorite routes are not the optimal routes suggested by navigation devices, such as those offered by some popular mapping apps for smartphones. If we also consider drivers' alternative choices, even fewer routes are optimal – only a third overall minimize travel time.

Indeed, as Lima and González highlight above, time is a complex subject in terms of route efficiency, given that perception appears often to be more important in wayfinding than actual time efficiency of a certain route.

Time also connects with the issue *risk*, such as when we face the risk of missing a flight if we get lost on the way to an airport, which in turn influences our connection and use of the body within wayfinding. Risk, both real and perceived, is covered in the next section.

2.3.6 Risk in Wayfinding

The centrality of *embodiment* in this study means that the issue of *risk* is one that is important to consider, particularly when evaluating Giddens (2006: 44) point that "the body is in some sense perennially at risk". Similarly, Goffman (2008 [1967]: 167) states that the "body is a piece of consequential piece of equipment, and its owner is always putting it on the line". Giddens and Goffman posit that many daily decisions are based upon the need to be and/or feel safe. Wayfinding ultimately requires physical movement from a starting point to a destination in that the body/bodies must move through different geographical locations (and possibly through and into different cultural environments), in situations that require corporeal effort and where bodies can sometimes experience difficulties. Risk in wayfinding is thus discussed and illustrated with examples below.

Schiffman, Kanuk and Hansen (2012) emphasise seven levels of perceived risk (financial, functional, physical, social, psychological, satisfaction and time), all of which have the potential to impact directly on the body, in the wayfinding process. In wayfinding, the different body types referred to in the section on modalities (and which can potentially also include differences according to age, language ability, cultural understanding and so on), suggest that this heterogeneous range of user/body types will inevitably mean a wide differentiation in the perceived and real risk that is experienced.

At one extreme, the risk of getting lost can result in death, as illustrated in 1993, when two German tourists were brutally killed after accidently driving into a bad neighbourhood (Clary, 1993), en-route to their hotel. Later, Ryan (1997) reported the deaths of snowboarders on European ski slopes after they ignored regulated routes. In emergency situations also, "wayfinding becomes a matter of life and death" (Arthur and Passini, 2002), whilst, in less extreme examples, "disorientation … may lead to physical fatigue, stress, and frustration and can also jeopardize people's safety" (Vilar, Rebelo and Noriega, 2012: 1).

Wayfinding can take place in extreme environments and locations, and in what many of us might see as involving high levels of risk, one such example being an expedition to the North Pole. Risk though, is often a controlled and managed risk, according to Hardie-Bick and Bonner (2015), who found that, for the majority of thrill-seekers they interviewed, the volunteers:

> Did not deliberately set out to increase the risks by placing themselves in increasingly dangerous situations…the challenge of managing rather than maximizing the risks...Instead of fixating upon risk, then, we have shifted towards an emphasis upon flow which…provides individuals with a sense of transcendence, a feeling of moving beyond the normal constraints of everyday life, a renewed sense of self and deep feelings of satisfaction.

Certainly though, there are some who actively seek risk as Lyng (1990: 851-852) stresses:

> There are many who actively seek experiences that involve a high potential for personal injury or death...have enjoyed unprecedented growth in the past several decades even as political institutions in Western societies have sought to reduce the risks of injury...In looking for social scientific literature that bears on this issue, one is naturally drawn to the field of risk analysis. An examination of this body of research reveals much work dealing with the assessment and management of technological and natural hazards but a complete absence of research on voluntary risk-taking behavior.

Central to this issue of risk in wayfinding is the body, with the threat of death the ultimate penalty, as highlighted earlier. Ray (2009: 263-264) links risk and the wayfinding body with quite a disparate example, as follows:

> An ACR advertisement campaign promotes Global Positioning Systems (GPS) by presenting images of disabled men alongside their narratives of survival. An analysis of the campaign suggests that disabled bodies signify the absolute opposite of the wilderness body ideal. The ACR Electronics' Personal Locator Beacon (PLB) advertising campaign turns on the imminence of disability in the outdoors and on the shared assumption that the only place for the disabled body in the wilderness ideal is as an invisible, looming threat—symbolic rather than actual. Although adventure culture valorizes independence and bodily integrity, it simultaneously

> jeopardizes these very traits. The ads therefore reflect the double bind of disability in risk culture.

Ray (2009: 263) also remarks:

> Disabled bodies are simultaneously marginalized and the invisible, a category of bodily corruption that gives the "normate" body, as Rosemarie Garland Thomson calls it, its meaning. The disabled body is made invisible by risk culture's emphasis on fitness, yet risk culture relies on the threat of disability to make the wilderness ideal body meaningful...the corporeal unconscious of risk culture today, depictions of which reveal that the disabled body is necessary to give risk and adventure any meaning, and yet the disabled body must remain invisible. The double bind of risk culture becomes evident because risk in fact threatens disablement.

Risk in relation to wayfinding is complex. For example, a person labelled as disabled or in need of special assistance[4], might still take many of the same risks that others take. A person in a wheelchair understandably and rightly might very well choose to visit the same locations as a non-wheelchair user, despite the risk.

Certainly though, as Small *et al* (2012: 945) found, in relation to the physical danger that can exist for vision impairment sufferers:

> This body moves across and through spaces, often unfamiliar, resulting in the physical sensation of increased anxiety and at times injury as the person comes into contact with unanticipated physical objects.

The dangers in wayfinding are many, particularly for the partially sighted or blind, with uneven surfaces offering the potential for trips or falls on pathways and the possibility of a head injury (Small *et al*, 2012). Small *et al* also explain that Tactile Ground Surface Indicators (TGSIs) offer one solution to aid the visually impaired.

[4] One volunteer made it clear that she prefers the use of the term "accessible traveller" rather than "disabled traveller" because of what she feels are negative connotations to the term disabled. Indeed, the Latin prefix "dis" is often used in words that have negative based meanings.



Figure 6 - Example of TGSI's in London, UK

TGSIs are the rough markings on a floor surface which act as a warning to the visually impaired that there is potential danger, such as a crossing or step ahead. Importantly, the physical safety and improved perceived experience of the sight impaired wayfinder, has the potential also to impart a feeling of dignity and independence for the person concerned according to Small *et al* (2012). Urry (2007: 75) also highlights the problems faced by this user group:

> For up to 1m [million] blind and partially sighted people in the UK, the urban environment, its streets, pavements, ramps, kerbs, signs and shelter…even when assisted by canes guide dogs, ramps and street indicators can have problems to navigate freely.

As Urry points out above, rather than being purely a psychological process, wayfinding involves real *physical* risks to the body for those with disabilities. Accordingly, it might be argued that socio-cultural structures need to engage with disability in the realm of wayfinding, similarly to what Hughes and Paterson (1997: 326) argue for, where they suggest the need for an "expansion of the social model and … an embodied, rather than a disembodied, notion of disability". While risk for disabled wayfinders is evident and offers clear examples, it is present for everyone in some capacity and based on our ability to accurately perceive and then 'read' a situation.

Risk can also be attributed to different gender roles. For instance, Gustafsod (1998) and Ramsden (2011: 39-40) both state that men and women perceive risk differently and that one of the reasons for this difference in perception may be due to social roles. Indeed, Bordo (2003: 6) in writing about *Feminism, Western Culture, and the Body*, argues that women tend to be particularly conscious of how their bodies can put them at risk of sexual harassment, because of socio-cultural constructions leading to the idea that "even when

women are silent … their bodies are seen as "speaking" a language of provocation". Doan and Higgins (2009: 1745), also found a connection between gender and risk in wayfinding, stating that "way-finding strategies…are influenced by the habitus and gendered experiences of fear and anxiety in urban areas". In Section 2.3.2.3 the connection between wayfinding and gender was made, whilst in the section above, risk is also introduced in relation to gender and wayfinding. In this study, the affects (if any) of risk in relation to gender will be considered in the findings.

Risk can also relate to unfamiliarity versus familiarity, as Jaakson (2004: 57) postulates:

> The ship as a tourist bubble is secure, comfortable, and tightly controlled. By contrast, the port experience may be influenced by an apprehension due to not knowing the local language, fear of becoming lost, and fear of crime, which may cause the majority of passengers to confine themselves to the bubble core.

The level of risk in wayfinding, as Jaakson suggests above, is dependent upon the types of spaces in which we place our body. Getting lost on a large cruise ship, for example, a wayfinder can at least do so with the knowledge that s/he does so within the confines of a bounded and normally safe environment. Risk though, as Chang H (2013: 533) notes, is subjective and the same route may be perceived differently by individuals. Chang remarks that "an unfamiliar destination may generate fear and anxiety; in others, it may enhance relaxation and happiness...some may perceive the wayfinding as risky, while others may perceive it as risk free". Indeed, different perceptions of risk will be important to answer the research question how wayfinding is experienced differently.

In mentioning the subjective individual above, risk in wayfinding directly relates also to the issue of agency, as highlighted by Ryan's (1997) earlier example of how the temptation to choose routes off-piste (on ski slopes) and to ignore the routes which have been laid out for us, can create danger. Even if "the idea of risk (is) bound up with the aspiration to control" (Giddens, 1999: 3) it is difficult if not impossible to completely control an agent (the wayfinder). Indeed, this also leads to the question of whether risk might also be something that is used in wayfinding intentionally, such as the choice by the wayfinder to attempt what might be considered dangerous and hence risky routes, for fun or for pleasure seeking. The decision in this study to interview a wide range of volunteers, in order to present a wide range wayfinding experiences, will include those who wayfind for reasons of pleasure such that an often-ignored aspect of wayfinding behaviour that engages with risk in quite different ways, is included.

Risk pervades wayfinding and, to return to Giddens' (2006: 44) point that "the body is in some sense perennially at risk", the wayfinding examples that have been highlighted above, emphasise the heterogeneous nature of risk and its relation to the body in wayfinding. Risk can be a part of the attraction of certain routes we choose to navigate and risk in wayfinding has also been shown to be used in advertising for wayfinding products, with the disabled body used, rightly or wrongly, to highlight this risk.

In this section on risk, the presence of the body in wayfinding is omnipresent and seeps through the examples given. In the following section, the cognitive emphasis on wayfinding in existing literature is discussed and the body is brought further into the argument.

2.3.7 The Missing Body in Wayfinding

This section is divided into three sub-sections. Firstly, given that wayfinding is a discipline that is traditionally cognitively focused in existing literature, this section begins with examples that highlight this cognitive focus (Section 2.3.7.1). I then provide an explanation of the debate around dualism versus duality of the body (Section 2.3.7.2), in order to present the body as a whole rather than as a dualism of body and mind. The third section (Section 2.3.7.3) then connects the missing body in wayfinding with the socio-cultural perspective used in this study.

2.3.7.1 A Cognitive Domination

The missing body and socio-cultural perspective are inadvertently highlighted by one of the most cited writers on wayfinding, Romedi Passini. The absence of sociology and body studies is notable from the following quote and this is reflected in existing wayfinding research. As Passini (1981: 17) explains, "the term wayfinding, although it has appeared in the literature on environmental psychology, psychology, geography and even anthropology, does not encompass a field of study in its own right". Whilst Passini does provide mention of geography and anthropology, the field of sociology is missed. Authors such as Michael Haldrup have sometimes researched mobility and movement through space, but very little mention of the interpretive art of wayfinding is ever included. Indeed, wayfinding is most often studied from a psychological perspective.

The lack of embodiment and socio-cultural consideration in wayfinding is difficult to understand, I would argue, particularly given that two decades ago, Shilling (1999: 558) emphasised the issue of a lack of the full body in socio-cultural thought:

> Sociological conceptions of the structure/agency relationship tend to suffer from two key problems: a relatively disembodied view of the agent which overemphasizes cognition and marginalizes the significance of the emotional dimensions of interaction for human action and social structure, and a tendency to concentrate the causal significance of the 'people' and the 'parts' of the social system.

A search on 1st January 2017 for the term *wayfinding* in sociology and socio-cultural based journals such as *Sociological Research Online*, *Body and Society* and the *Journal of Sociology* reveal no exploration of this topic. A similar search of journals such as *Environment and Behavior* (71 results) and *Spatial Cognition & Computation* (49 results) also provide further examples of a psychology/cognitive perspective hitherto dominating research into wayfinding.

Cognitive approaches to wayfinding have clearly tended to prevail which, while useful, are not without shortcomings. One shortcoming is indirectly illustrated by Urry and Larsen (2011: 21) who make the point, albeit in reference to tourists, that "something so obvious that it has often been forgotten…is that tourists moving from place to place comprise…bodies". Similarly, Ingold (2004: 331) expresses how the "bias of head over heels influences the psychology of environmental perception". Ingold is using the term "head" to refer to the cognitive and the "heels" to refer to the kinaesthetic bodied feeling of walking, Ingold (ibid) also notes that "persons who are deaf report being able to hear through the feet, provided that they are standing on surfaces, such as floorboards conduct vibration". Whilst walking is not the interpretive craft of wayfinding, reading the bodied kinaesthetic signs whilst walking provides an opportunity for route information, information that aids the ability to find one's way directionally.

Similarly, current conceptions of wayfinding tend to focus on a relatively narrow cognitive focus at the expense of the body. Many wayfinding papers, for example, too often use virtual studies which, whilst potentially a useful way to study some aspects of wayfinding, often provide a lack of consideration for the body. Our body and the body of others (that exist in socio-cultural settings) are missing in virtual computer tests (including studies by Raubal and Egenhofer, 1998; Murray, Bowers, West, Pettifer and Gibson, 2000; Waller, 2005; Spiers and Maguire, 2008; Head and Isom, 2010; Lin *et al*, 2012). The bodies of others, in other words, who we might find our way with, accidently block the path of, or are blocked by, guide or be guided by, tend not to exist in any form in most of these studies.

The natural question thus to emerge from these virtual and other cognitive based studies is to ask how a person might navigate differently in such tests, when wayfinding is examined

in socialised physical environments. The term virtual is used to describe the use of computers as a tool for attempting to replicate user movements through spaces. Social psychological topics such as crowd control and obedience (Hogg and Vaughan, 2011) are also factors which we can experience in the process of wayfinding, in socialised non-virtual spaces, but which tend to be missing from such studies.

Jansen-Osmann (2002) defends the case for virtual environmental tests, stating that she feels that this is the only realistic way to test the different variables and routes, because of economics. Hidayetoglu *et al* (2012) also make the point that virtual tests have been shown to closely match tests done in non-virtual labs. These tests tend to focus on specific criteria or elements of the wayfinding process, such as preferred colours, effect of lighting or memorisation of a route. They also try and replicate semi-closed environments (such as part of a university campus) with a limited number of options in the first place, meaning they would work less well for open environments such as a city or for countryside.

Virtual, in another sense, is the virtual use of technologies and web space to aid and supplement wayfinding. GPS, virtual maps, using Google Maps online, and searching for wayfinding related information from websites. Stone (1991) suggests that, even when we are using virtual technologies such as the Internet, we are still using the human body. In this respect, we can still feel stress, fatigue and many other emotions and embodied experiences whilst planning our route online before the actual corporeal journey.

Of these virtual studies though, Murray *et al* (2000: 444-445), do provide mention of the need for something more than a purely cognitive study. Whilst using the Cityscape virtual software in their psychology/technology based study, a number of comments relating to the missing socio-cultural aspects of the virtual study are made:

> I'd probably describe [Cityscape] as like a deserted city...there's not actually any people around. There's no activity going on. It's like walking around Manchester and nothing going on" In accepting the environment as a representation of a city, participants assumed that people and activity would be part of this: "In a city you'd expect movement in it, traffic and people.'' The desire to see activity within the environment was pronounced. Participants referred to having other social actors, vehicles (such as buses), other actors such as cats.

The statements by many volunteers in Murray *et al*'s (2000) research begs the question of how these social factors, presence and influence of other actors, would affect the whole wayfinding process, particularly as an embodied experience. Indeed, this question provides part of the focus for this research and this move away from a cognitive only focus.

2.3.7.2 Moving towards an Embodied Perspective

Before considering wayfinding from an embodied perspective using a socio-cultural lens, it is necessary to look briefly at the debate over the body and mind as a duality or dualism, in order to bring the body more fully into wayfinding research. By seeing the body and mind as a duality, emotions, physical effects of one's own body, the cognitive, the interactions with others, are all brought together as one embodied experience. The dualism versus duality debate is therefore discussed briefly below.

It is not realistic to fully debate and discuss all aspects of embodiment and the debate surrounding the body, particularly the debate over "Cartesian Dualism" and embodiment in full, given that the topic could fill several text books (as evidenced by the efforts of Shilling 2001, 2005, 2012). Suffice to say here, that Giddens (1986) expresses dualism as two divided and distinct entities and duality as a unity of two divergent aspects of the same reality.

Taking the same meaning of dualism as stated by Giddens above, the concept of "Cartesian dualism" (Descartes and Cottingham, 2013 [1641]) posits that the mind is considered to be non-physical in its existence. This belief places the body and mind as separate entities, a concept which runs contrary to the materialistic approach which Damasio (2012) proposes. Damasio explains that thought cannot exist without neurons (i.e. without the functioning brain, we have no thought process). As a neuroscientist and biologist, Damasio (2012) explains that brain signals work constantly, whether consciously or sub-consciously, and that these signals never stop except in rare cases (such as when one has a rare brain disease). These signals, Damasio points out, permanently connect the biological, the cognitive and elements such as intelligence. Taking a similar line of thought to Damasio, Schmitz (1997: 218) takes the view that "every input into the central nervous system every associative process and every output through the motoric system is linked with the emotional system", a view that links the physical and material occurrences, creating a commonality between body and mind. The view that the mind and body distinctly need each other in order to correctly function is further argued by (Burkitt, 1999: 129):

> The thinking body cannot be separated from the emotional body, which in turn cannot be separated from the communicative or productive body.

Moreover, Novack (1988: 102) states that "many cultural observers and researchers ignore the body and its actions, seeing them as irrelevant trappings for the mind". Likewise, for Shilling (2012: 215) the "biological (body) never disappears" and yet, as Shilling goes on to explain, our biological and social bodies are almost always pushed aside and made

secondary in many discourses. With this "pushed aside" biological and social body, the question of to what extent wayfinding is an embodied and a social activity, as opposed to merely a cognitive one, is raised. Shilling's comment also begs the question of how these biological and social factors vary for different wayfinders.

The "head" over the kinaesthetic "heels" (Ingold, 2004: 331) concept, in relation to the cognitive bias, is also supported by Sparkes (2009: 29) who, in referencing Hockey (2006) who was writing on running, notes that:

> The feel of the shifting terrain provides them with information with which to categorise routes and their sections in terms of how conducive they are to safety, performance and pleasure.

Indeed, such an understanding of these feelings and the kinaesthetic in wayfinding, affirms the need for a greater understanding of wayfinding as an embodied experience.

The following section is used to highlight some examples of where this role of the body sits in wayfinding literature.

2.3.7.3 The Body in Wayfinding

The body in wayfinding is something that has *not* been missed by Lueg and Bidwell (2005: 2) who point out that "wayfinding has shown to be a truly embodied activity" but that "there may be a lack of research on the relevance of embodiment to information behaviour research". Moreover, it is not just the body as a subject that is missing, but rather the more fundamental *embodied* point that "bodies encounter other bodies, objects and the physical world multi-sensuously" (Urry and Larsen, 2011: 21). Therefore, it is not just the presence of bodies that are important in wayfinding, but rather the way in which wayfinding bodies mediate experience in a multi-sensorial manner.

Recent work in the sociology and anthropology of physical culture, has begun to embrace the multi-sensorial significance of the body in movement. For example, Sparkes (2009: 26 - 31) critiques the (ocular) sensory centrism in much sports literature, arguing instead, that while the ocular is clearly important, "*all* the senses deserve serious attention in ethnographic work" and moreover that "the role of any sense in a culture can only be understood in a multi-sensory context" as clearly the sense of sight intermingles in important ways with all the other senses. With an "absent presence of the living body in social thought" (Shilling, 2012: 209) and considering that this living body is the vessel through which our corporeal movements occur (Urry, 2007), there is a need to emphasise this otherwise missing body. The problem for the missing body in existing literature

though, is that most reference to the body is, like Shillings stated above, often an after-thought. Whilst a few studies have taken place on some *aspect* of embodied wayfinding (such as Small *et al* [2012] on vision impairment and Caspi [2014] on dementia), no study until now has *focused on* wayfinding as an embodied experience for different wayfinder types.

In the existing literature, issues related to the body as it is represented in wayfinding can include high levels of stress and "spatial anxiety" (Lawton and Kallai, 2002; Montello and Sas, 2006; Reisinger and Manondo, 2005) and side-effects, which can include headaches and higher blood pressure during the transient travel process. With the added levels of anxiety, we also tend to make more errors in wayfinding (Chang H, 2013), which in turn can add even more stress. Fewings (2001) similarly discusses how finding directions (in this case an airport) can be a traumatic experience, whilst Leib *et al* (2012) talk of "fatigue". Such physical experiences of the body like headaches, higher blood pressure and stress, provide some initial indication that wayfinding is a fully embodied experience beyond the thinking mind.

The body in wayfinding also links to the issue of modalities discussed in Section 2.3.2, such as what forms of transport wayfinders choose and, as a result of the choice made, the routes we take and the experiences we have. If we choose to walk, the movement becomes a part of the wayfinding experience, as Haldrup and Larsen (2006: 284) argue (albeit in relation in their work to tourism):

> In tourist studies it has largely been reduced to a precondition for performing tourism, a practical issue of 'getting there' and 'getting around' rather than a way of sensing movement and landscapes…The embodied and sensuous experience of movement is kinaesthetically sensed through our joints, muscles, tendons and so on as we move in and across the physical world.

Indeed, tourism authors have come the closest in relating the embodied experience with wayfinding. Likewise, Crouch and Desforges (2003: 6) posit:

> Practices such as sightseeing involve taking the body on particular routes around sites so that the senses, in their full kinaesthetic complexity, engage with and construct the touristic experience.

Urry (2007: 48) also speaks of the connection between how we travel and embodiment:

> Physical travel involves lumpy, fragile, aged, gendered, racialized bodies. Such bodies encounter other bodies, objects and the physical world multi-sensuously. Travel always involves corporeal movement and forms of pleasure and pain. Such bodies perform themselves in-between direct sensation of 'the other' and various sensescapes…..bodies navigate

> backwards and forwards between directly sensing the external world as they move bodily in and through it……The body especially senses as it moves…Especially important in that sense of movement...is that touch, of the feet on the pavement or the mountain path, the hands on a rock-face or the steering wheel.

Despite obvious signs of the connection between the body and wayfinding in tourism literature as mentioned by Crouch and Desforges and by Urry, the body is even less represented in wayfinding research itself. Emotions do populate the literature including around the topic of heightened emotions. We, can for example, feel a higher than normal level of excitement when escaping the everyday (Hendry, 2008; Laws, 2004) if we are going on holiday. Parks (2013) also encapsulates embodiment in a wayfinding context, speaking of his emotions of "panic" and confusion in what one might imagine to be the simplest of all navigational situations, i.e. trying to find his way around onto a train on a ferry boat:

> I had a bit of a panic getting down to the train again. You would have thought it was easy to find a train in the bottom of a boat, but actually, no. There were an extraordinary number of stairways and corridors and no signs telling passengers where to go, as if perhaps we hadn't been supposed to leave our compartments at all. All the signs there led you to the car deck. Eventually I did manage to retrace my steps and found a group of people down in the hold uncertain as to which of the two segments of the train now side by side, one bound for Siracusa, one for Palermo. (Parks, 2013: 171).

Even though, over twenty years ago, the architects Arthur and Passini ([1992] 2002: 80) articulated potential issues such as stress, frustration, feeling helpless, anger and resentment as a few of the emotions we can feel when getting lost in a place, very little emphasis has been included in wayfinding literature since. Montello and Sas (2006: 2004) continue this thinking saying "even minor episodes of disorientation can generate anxiety, frustration, and tardiness", creating a level of cognitive dissonance in the wayfinding process. The example by Parks (2013) and the example of Montello and Sas (2006), highlight how the body is central to wayfinding in even the simplest scenarios.

The embodied experience, particularly in outdoor environments, can also occur via natural environmental cues. In his ethnographic research on the Pacific Island wayfinders, for example, Gladwin (1974) explains how, for the tribe's seafaring wayfinders, feeling of waves under a boat can provide navigation information as valuable as a city street sign is for urban wayfinders.

Another quite clear example of embodiment directly impacting wayfinding is presented by Hockey (2006: 194) in relation to running as a pastime. Commenting:

> Runners concerns…are focused upon issues of safety and issues of performance. To carry out these activities runners are attentive to routes that allow them to maximize their training. They then accumulate knowledge of, and follow, particular routes while pursuing the latter objective.

Indeed, there are some examples of embodiment populating wayfinding literature but very sporadically. This is illustrated by Leder (1990: 1-2) who notes that:

> One's own body is rarely the thematic object of experience...an exploration of such absences, far from being a peripheral matter, will serve to reveal the essential structures of embodiment.

Having discussed the missing body in wayfinding, the following section focuses more specifically on the sociological focus in this study, in relation to this missing body. Low (2003: 11) quoting Turner (1984), states that "human beings are embodied and everyday life dominated by the details of corporeal existence. But he cautioned that biological reductionism keeps us from focusing on the ways in which the body is also inherently social and cultural". It is this socio-cultural focus which is discussed further below.

2.3.7.3 The Sociological Wayfinding Body

The following comment from Gottdiener (2000: 151) provides an interesting introduction to the socio-cultural context of wayfinding. Gottdiener states that:

> We disembark from the plane, but then are not sure where to go. We follow the crowd. We look for signs. We somehow manage to get ourselves and our baggage to ground transportation and the hotel. Only on the next visit are we better able to negotiate the exact same space with less stress. We now have the mental map from the previous journey. We disembark with less hesitation.

The mention of how "we follow the crowd", "baggage" (the artefacts which can affect the route we might have to take), stress (the emotional responses); mental map (the cognitive), all suggest that social, cognitive and heuristic aspects of wayfinding are part of the composition of any wayfinding experience.

Early (1992: 38-39) provides another example that emphasises how we wayfind as social agents, in an environment that is socio-culturally shaped. Early uses the example of the *baladi* people in Cairo, Egypt, and how they wayfind differently from *afrangi* [5] people:

[5] The words baladi and afrangi have various meanings in Egyptian Arabic but, in this context, baladi refers to working class people who originally emigrated from the countryside to Cairo, while afrangi can be considered upper/middle and upper-class people. According to Early (1992: 26), "the baladi:afrangi relation is one of the insider and the outsider, of the have-nots and the haves, of the pragmatic and the ideal".

> In baladi geography, landmarks are more important than street names: so too, the baladi ethos is unstructured and personalized … while the baladi … enjoy asking for directions to landmarks and houses in baladi back lanes, the afrangi person who has grown up in more modern, grid-structured neighborhoods may view baladi lanes as convoluted and confusing. In a similar manner, the baladi Cairene sees Cairo's new, distant suburbs … as orderly, depersonalized square blocks. Faceless but functional, one navigates them not by landmarks, but by street names and numbers. Offering little chance for social interaction, their sterility bewilders baladi visitors.

Early's example of the baladi and afrangi peoples, highlights how wayfinding connects with social class, background and education. There can, in other words, be techniques for finding the way that are natural for one group and yet may be somewhat alien to the other. Walkabout, whereby aboriginal boys must go on a journey through the wilderness for several months, as discussed in 2.3.1, is very much a cultural activity, with wayfinding at its core and yet which is alien to most people worldwide. Wayfinding certainly, from these examples, takes on a socio-cultural element. Wayfinding as a social practice also involves "people asking" (Chebat *et al*, 2005; Farr *et al*, 2014), and yet these interactions cannot be and are never included in virtual tests.

The use of technology and its relationship with social factors in wayfinding, is further highlighted by Laws (2004: 21) in his discussion on tourism:

> Automation is becoming more prevalent…the problem is that the system does not fully recognize the variability of human behaviour, or our emotional responses to situations.

The use of technologies to automate aspects of the wayfinding process, leads to the question of what consequences these technologies have on wayfinding practice, in terms of the social and embodied impacts. Although not wayfinding related per se, the importance of social factors in terms of how we move between places is also highlighted in a more extreme technologically related example provided by Dautenhahn (2002: 181):

> Flight simulators can accurately model the technical aspects of flight but many aviation disasters arise from social breakdowns: poor crew management or the effects of stress and emotion on decision-making.

Pilgrimages provide another quite different but relevant example of the connection between wayfinding and the social factors. Pilgrimages are journeys that, in addition to helping people to "cross thresholds from everyday life into a freer, heightened state of being" (Seaton, 2002: 311) for the purpose of spiritual enlightenment, very often involve the navigation of routes with large numbers of other people. These routes are travelled by many and the spiritual process which drives the pilgrimage, is aided by the sharing of the

trip made. Group wayfinding is almost completely ignored in wayfinding literature and is an area that will be considered carefully in this study in order to help answer the main research questions.

2.4 Chapter Summary

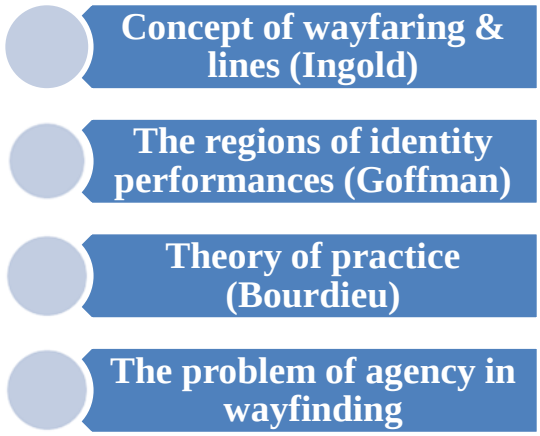
This chapter began with an explanation of some key terms that are pertinent to wayfinding and this was followed by an exploration of existing definitions of wayfinding. The main body of the literature review was then broken down into six key sections: modalities; technology; stakeholders; time; risk and the missing body. These six sections provide an overall review of existing wayfinding literature that are pertinent to this particular study.

Chapter 3 follows, providing detailed information on the conceptual focus used in this study, with attention given to the three theorists used: Tim Ingold, Erving Goffman and Pierre Bourdieu. A full explanation of why these three theorists are used and how their work integrates into this study, will be discussed.

Chapter 3
Conceptual Focus

Section Description

This section explains the concepts and theories which underpin this research. The theoretical works of Tim Ingold, Erving Goffman and Pierre Bourdieu are drawn upon. This section then ends with discussion based around agency in wayfinding.



3.1 Introduction

In this chapter, justification for the three theorists chosen and why and how their theories/concepts are used in this study and how they interrelate to inform understanding of the body within wayfinding, are presented. This is then followed by a section on each theorist and concepts from each that are useful for the analysis of wayfinding as an embodied experience. The next section then examines the issue of embodied *agency* in wayfinding, and the stance that each of these three theorists takes in terms of agency and

structure. The concepts that are used from these three theorists are then included in the findings section for interpreting the findings from the qualitative interviews.

3.2 The inter-connectedness and complementary nature of the three theories used

In this study, I have intentionally selected and used three different theorists. All three theorists are/were sociologists whose work often involved sociocultural elements that also related to power relations. In attempting to understand wayfinding as an embodied practice, understanding these power relations and the sociological connections is central to this study. Collectively, these three theorists, through the combination of concepts based around embodied human interaction (Goffman), human paths and routes in social spaces (Ingold), and the external influences on these social spaces through which we wayfind (Bourdieu), together provide a more rounded view of wayfinding as it occurs in the real world. In other words, rather than simply trying to understand wayfinding as though it were all based on an individual wayfinders cognitive decision making, the combination of the theorists enables a much richer picture of the practice to emerge with a wider range of contextual influences that exist and impact upon how we wayfind, to be considered.

To provide one example of how these concepts are used in a complementary fashion the illustration of the crowded airport is helpful: Ingold's meshwork helps to focus on the particular paths and routes used by travellers to find their way to their departure gates, while the notion of entwined knots allows the pinpointing of moments and spaces where interactions are likely to occur. Goffman's concepts around symbolic interaction are useful to illuminate the diverse embodied cultural ways of engaging with others while passing through the meshwork and encountering others while sharing (sometimes briefly) the same time/space as entwined knots along the way. Finally, Bourdieu's concepts of habitus, capital field and practice help to provide insights into power relations embedded within practices both encouraged and forced within the airport environment, such as being forced to navigate through the Duty Free area of an airport if we wish to reach the departures area.

Therefore, the process of using three theories/concepts helps to frame the research and data in this study, a process supported by Coakley (1997: 2) who suggests that "concepts, theoretical approaches, and research methods to describe and understand behaviour and social interaction as they occur in particular social and cultural contexts", can benefit the researcher. In summary, these theorists were selected because they each help to answer a certain part of the overall question of how wayfinding takes place. Goffman was used to

illuminate social interaction; Bourdieu's concepts, such as habitus and capital, help express the social dynamics and the inequality and embodiment of wayfinding in a practical sense; and Ingold's meshwork is used in order to present the routes and paths. Collectively, all three (interactions, paths and routes, and embodied practice) all take place in unison in wayfinding practice and the meshwork concept that follows, helps to express these three concepts from the three theorists, working in unison.

In the sections that follow, I introduce each of the three theorists, give further justification for choosing each in this study, and then provide an explanation of the specific concepts used from these theorists, for framing this study. Given his previous work on wayfaring and on wayfinding, I begin with Ingold.

3.2.2 Ingold's Concept of Wayfaring and Lines

3.2.2.1 Reason for Including Ingold

Ingold's theory on lines (covered in Ingold, 2000; 2006; 2007; 2011) and specifically his concepts of the "meshwork" and the "entwined knot" are drawn upon and explained in the section that follows. Ingold's work is particularly useful in that it provides a way to express how bodies move, in a navigational sense, through spaces and along routes we take. The meshwork and entwined knot lead to the question of how the way in which we find our way along routes, can be understood differently when we consider the body and use a socio-cultural lens.

Ingold (2000: 220) also considers how the wayfinder "feels his way" [sic] as opposed to simply using cognitive processes. Likewise, Laurier, Brown and Hayden (2012: 4) drawing on Ingold's work, state that "Ingold (2000) provides an invaluable start to rethinking wayfinding beyond the shadow cast by the concepts of mental maps and spatial cognition". Moreover, in studying wayfinding in the Solomon Islands, Genz and Feinberg (2012: 337) also draw on Ingold:

> A contrasting [to the cognitive] approach posits that a person "feels his way" via ongoing perceptions of movement through the environment (Ingold 2000). As anthropology shifted from viewing cognition as the internal mental processing of information to processes of engagement in practical activity.

Similiar to Genz and Feinberg (2012), who draw on both Ingold and Bourdieu, this study also uses both theorists. In the following section, the concepts taken from Ingold are discussed.

3.2.2.2 Concepts used from Tim Ingold

Tim Ingold is an anthropologist who has focused much of his research on the study of lines, including sight lines (Ingold, 2011), language and music lines (Ingold, 2007), drawn lines (Ingold, 2006) and lines relating to paths and routes (2000, 2007, 2011). In relation to wayfinding, Ingold provides the concept of wayfaring, in his work on paths and routes. Distinguishable from all definitions of wayfinding though, Ingold uses the term "wayfaring" specifically to describe "embodied experience of this perambulatory movement" (Ingold: 2011: 148). Consideration for perambulatory wayfinding was included in Gluck's (1991: 117) definition of wayfinding, as he stated that "human wayfinding describes the process humans use to orient and navigate on foot or by vehicle. The overall goal of wayfinding is to accurately relocate from one place to another in large-scale space". I disagree though with Gluck's view that wayfinding necessarily relates to large scale spaces given that it is very easy also to get lost in small-scale spaces, but the important point to be made here by Gluck is the use of perambulatory and transport as both being related to wayfinding. Indeed, all wayfinding definitions assume all forms of movement, whether perambulatory or involving other means of transportation. In his later work, Ingold (2011) chose to focus on perambulatory movement and started to use the term "way-faring" for this, rather than "wayfinding". Graham (2015) though states that Ingold's (2011) writings on wayfaring relate to movement through life. I would question this comment by Graham though given that Ingold's earlier writing on wayfinding appears clearly to have influenced and guided his later work, work which still includes wayfinding examples under the term "wayfaring" (an example being the paths and routes Inuit's take when they hunt (see Ingold, 2011: 149)).

Ingold's theory surrounding wayfaring provides a number of extremely useful concepts for framing research involving movement, which take place in a socio-cultural environment. Ingold (2000) also puts much emphasis in his work on a fully embodied perspective in an attempt to move away from what he sees as an otherwise "static perceiver" in cognitive based studies (2000: 166):

> Cognitive science assumes a static perceiver who has nothing to go on but transient patterns of sensory excitation that are, in themselves, quite insufficient to specify the objects and events that gave rise to them. Thus the problem of perception, for the cognitive scientist, is to show how these

> ephemeral and fragmentary sense data are reconstructed, in terms of pre-existing schemata or representations, into a coherent picture of the world.

Whist applying a fully embodied perspective to movement in the environment, and having written on wayfinding and wayfaring in the past, Ingold has not studied wayfinding directly as an embodied perspective. In this study, I am building on the early work on wayfinding from Ingold and which he appears to have left in return for his focusing more specifically on *Lines* (Ingold, 2007) and his interest in movement through life in a theoretical sense as in "Being Alive" (Ingold, 2011). In the following section, I introduce the first of Ingold's concepts on which I draw, that of the "entwined knot".

3.2.2.2.1 The Entwined Knot

Erving Goffman made reference to "knots" many years before Ingold, Goffman (1966: 100) stating that "everyday terms refer to different aspects of encounters. Cluster, knot, conversational circle - all highlight the physical aspects, namely, a set of persons physically". Goffman here highlights knots as points of human interaction. Ingold uses the knot in a similar manner, choosing to use the term "entwined knot" to describe socio-cultural lines of movement of physical bodies and things that inhabit the same spaces, and where people's paths converge and the ensuing interaction that occurs at this point of convergence. The addition of the word "entwined" helps to express the winding and twisting of indirect routes and paths we take in that few routes, if ever, are purely linear.

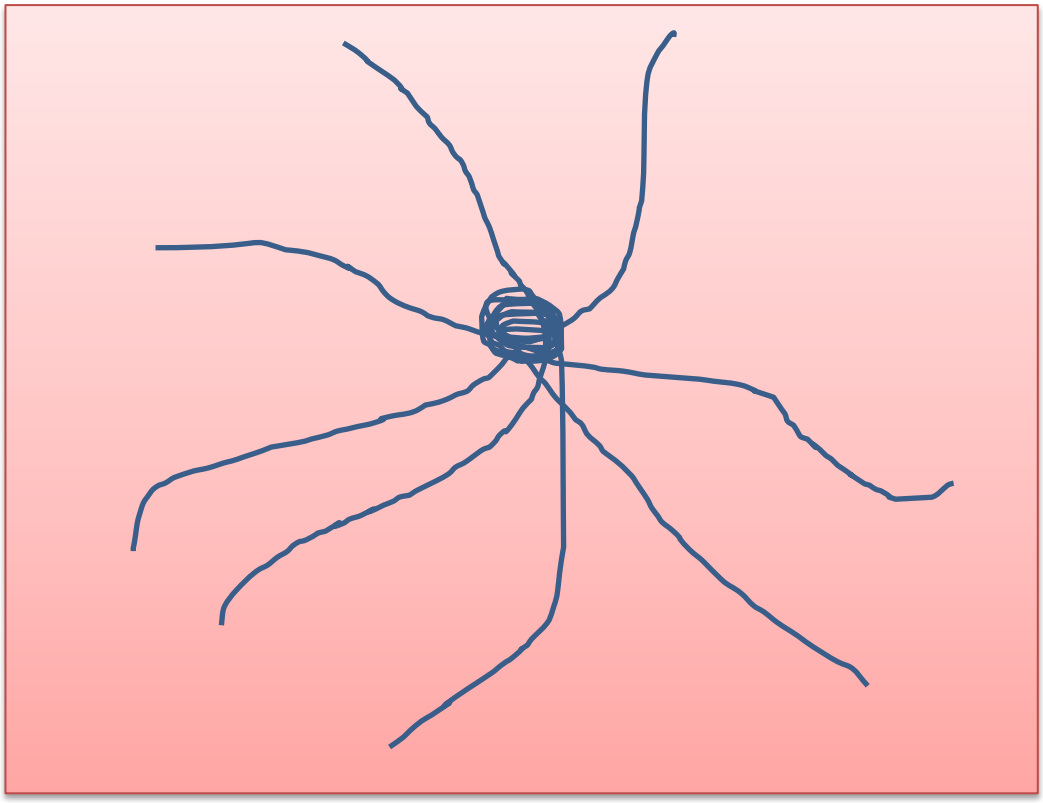


Figure 7 - An example of an Entwined Knot (Taken from Ingold 2011: 148)

Ingold (2011: 148) uses the concept of the "Entwined Knot" to demonstrate our movements and how our individual paths converge with the paths of others:

> Proceeding along a path, every inhabitant lays a trail. Where inhabitants meet, trails are entwined, as the life of each becomes bound up with the other. Every entwining is a knot, and the more that lifelines are entwined, the greater the density of the knot.

In analysing wayfinding from a socio-cultural perspective, the entwined knot concept is a particularly useful way to begin to view and shape this research. To imagine the entwined knot, two examples are any travel hub (such as a coach station or an airport) or a watering hole in a wilderness area that acts as a focal point. We wayfind through and to places and, as Ingold (2007: 80) explains, "places, then, are like knots, and the threads from which they are tied are lines of wayfaring. A house, for example, is a place where the lines of its residents are tightly knotted together". In this house example by Ingold, there is generally no wayfinding or wayfaring taking place, and thus the house acts as what one might term a hub, i.e. a place where multiple bodies share space. One might say that this is the knot where routes entwine, but the house, I would posit, is in fact a destination point and hence a meeting of paths.

What seems a rather harsh criticism of Ingold comes from Laurier *et al* (2012: 18) who, in their conclusion on driving and wayfinding, state that:

> We can begin to see that Ingold (2000) while providing a valuable critique of cognitive psychology perhaps starts to miss the human relationships lived out in wayfinding. Moreover that there may also still be navigational puzzles that remain even in familiar territories.

Laurier *et al*'s comment though does act as a reminder that, while the entwined knot is very useful as a concept, we should not lose sight of the individual subjectivities and lived experience that is key to the study. Indeed, human relationships and interaction are fundamental to Ingold's (2011) "entwined knot" and the "meshwork" and thus the comments by Laurier *et al* (2012: 18) seem somewhat strange, given that Ingold's work, on the contrary, is very definitely based around human relationships played out in wayfinding: Ingold (2007: 26), for example, in making the connection between wayfinding and human relationships, remarks that "the inhabited world is a reticulate meshwork of…trails that is continually being woven as life goes on along them".

This question of human relationships lived out in wayfinding is particularly interesting given the numerous virtual studies on wayfinding (including by Raubal and Egenhofer, 1998; Cubukcu, 2003; Waller, 2005; Spiers and Maguire, 2008; Head and Isom, 2010; Emo, 2012; Lin *et al*, 2012). Such studies use socially empty paths and trails where other bodies are absent, and that are devoid of the knot. It is worth noting though, that some architects and institutional buildings are increasingly using terms such as "Meeting Point", "Hub" and "Forum" to denote a space deliberately constructed with the co-presence of users navigating the same spaces. A search of London Gatwick Airport's website, for example, details specific meeting points in both terminals (Gatwick, 2017). Socio-cultural factors are, in other words, sometimes implicitly built into modern architectural forms and thus there is awareness of these spaces being entwined knots. The issue is the representation of this point in academic studies and research.

The social realities, which are created when these paths converge, are missing from much wayfinding research. The "Entwined Knot" potentially provides a valuable tool for understanding two issues:

i) How our own and other people's wayfinding experiences shape the others when we share time/space.

ii) How our wayfinding experience can be shaped by others who are not wayfinding but who use the same time/space.

The concept of "trodden paths" (Sarmento and Henriques, 2009; Ingold, 2011, Ramsden, 2011) provides another embodied example of how people are guided through socially based wayfinding. These routes will have seen the effects of the other feet, of other bodies

that have created a feature in the environment and these trodden routes are often then used as a sign of the route that can be taken. Ramsden (2011: 18) describes these as “desire lines” meaning that they are paths carved out from other people literally having walked where they have wished to, these paths sometimes disappearing “into the tall grass of abandoned lots, to reappear further on, as if from nowhere”.

Whilst many definitions of wayfinding include mention of environmental cues (Lynch, 1960; Blades, 1991; Fewings, 2001; Raubal, 2008, Farr *et al*, 2014), wayfinding cues can have a distinctly embodied presence, beyond the materiality of intentionally made directional signage. The use of these paths (or strands of the knot, using the entwined knot concept) by multiple other bodies through the creation of these trodden paths, directs us to the same points, towards the main knot which is expressed in the entwined knot.

By seeing wayfinding as an embodied experience, it is important to clarify that this body is a social body, that is, not only our body but also the body of others, or what Burkitt (1999: 147) refers to as “within the multiple relations”. The example of the trodden path elucidates an embodied effect that exists in different time spheres and which acts as a wayfinding tool. One set of feet, which help to create this trodden path, might be long gone when the next body benefits, yet the embodied presence passes across time boundaries.

Another concept from Ingold is that of the “meshwork” (Ingold, 2006; Ingold, 2011), a different thinking tool that is discussed below.

3.2.2.2.2 Meshwork

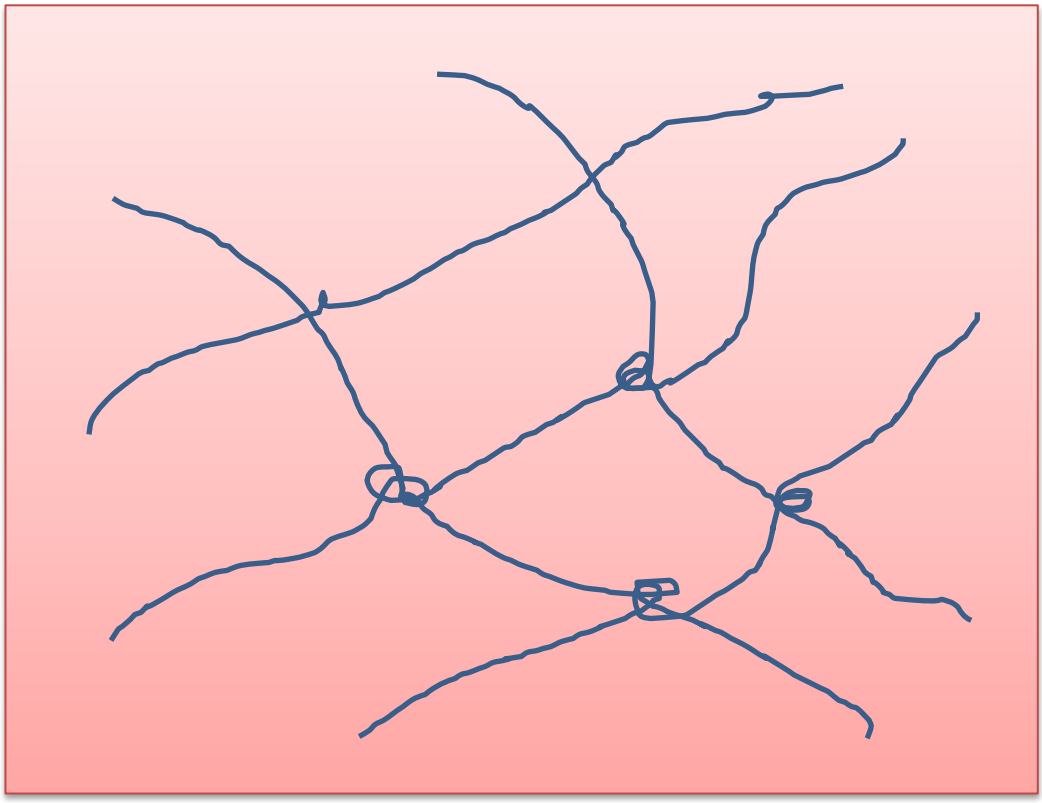


Figure 8 - "Meshwork". Concept taken from Ingold (2011: 152)

The meshwork offers a "methodology (that) suggests a weaving of different strands of theory and practice intersecting in new ways to create new meanings" (Ramsden, 2016: 4). Ingold's (2007) concept of the meshwork is also intended as a way of viewing how we navigate through life, i.e. it is a theory used for wayfaring (in physical situations) and for living (in a theoretical sense). It is a metaphor for the totality of how we move from place to place, daily and through life. Ingold (2007: 26) adds:

> It is in the entanglement of lines, not in the connecting of points, that the mesh is constituted…lines not of flight, but of interaction…I have established a contrast between two modalities of travel, namely wayfaring and transport. Like the line that goes out for a walk, the path of the wayfarer wends hither and thither, and may even pause here and there before moving on. But it has no beginning or end. While on the trail the wayfarer is always somewhere, yet every 'somewhere' is on the way to somewhere else. The inhabited world is a reticulate meshwork of such trails that is continually being woven as life goes on along them. Transport, by contrast, is tied to specific locations. Every move serves the purpose of relocating persons and their effects, and is oriented to a specific destination.

Ingold, in other words, expresses wayfaring as a heuristic activity in that we do not take exact routes but quite erratic divergent paths. Ingold (2011: 163) also tells us that "the paths of wayfaring, as they thread their way through the inhabited world rather than

routing across it from point to point, comprise a meshwork", further expressing the heuristically used and indirect routes which we take. Indeed, the mention in Section 2.3.1 of 'Songlines' and 'Route 66' provided two examples of routes that involve the experiential nature of getting between locations. Other examples given were of the 'American Railroad System' and 'The New Asian Underground Railroad'. These routes are far from direct, given that they are designed to be secretive routes that involve avoidance and moving people in a complex manner, so that they can reach freedom and safety.

A further important point from the meshwork expressed by Ingold in the above quote is: "every 'somewhere' is on the way to somewhere else". Almost without exception, wayfinding is seen in academic research as being about getting from a starting point to a destination, i.e. point A to B (including Peponis *et al*, 1990; Gluck, 1991; Raubal and Egenhofer, 1998; Allen, 1999; Golledge, 1999). Ingold (2011: 152) also remarks "it is in the binding together of lines, not in the connecting of points, that the mesh is constituted". I take the view, in this research, that wayfinding is, as Ingold posits, very much a heuristic activity, in which we never really arrive at a destination because we are always trying to find somewhere and the spaces through which we move are not static places. This concept of always being on the way to somewhere suggests a sense of "liquidity" (Bauman, 2000) or what Ingold (2011: 86) refers to as "fluid" space. Water (in its liquid form) flows naturally and, in this sense, human wayfinding can be seen as being a process which is ongoing and heuristic, i.e. we are always trying to find our way to somewhere and we learn from doing so.

This research will investigate, in part, the extent to which wayfinding is a liquid/fluid activity (as opposed to being a linear and specific demarcated and mechanical activity), in order to help investigate how wayfinding might be viewed differently by investigating it from a socio-cultural embodied perspective.

One final key point, in using and understanding the meshwork concept, is to consider an often ignored issue in wayfinding research. Destinations are not always static. Ingold (2011: 149), in quoting Rudy Wiebe (1989), uses the example of the Inuit's below:

> For the Inuit, as soon as a person moves he [*sic*] becomes a line. To hunt for an animal, or to find another human being who may be lost, you lay one line of tracks across the expanse, looking for signs of another line of motion that would lead to your objective. Thus the entire country is perceived as a mesh of lines rather than a continuous surface.

In Wiebe's Inuit example above, there is an acceptance of other bodies which move and change position as we search for that body. Mlekuž (2013: 42) also explains that, in a meshwork, places are "not fixed entities but parts of complex networks". Here again, we see that wayfinding is a heuristic process (i.e. we are having "to find" the way and make up the route as we go, accordingly to a changing environment and needs). Other bodies can sometimes be the destination towards which we are wayfinding, such as when trying to locate someone, similar to Wiebe's example whereby a moving animal is the destination, rather than a fixed location. Ingold's meshwork represents these moving and non-static points as locations that meet, rather than necessarily being fixed points or locations.

The meshwork concept is used in the analysis section as one of the framing concepts, with this embodied movement approach, a useful tool for analysing the data from my research. In particular, Ingold's concepts will help to convey the way in which socio-cultural elements impact, or not, embodied wayfinding practice and any related embodied challenges.

In the next section, Erving Goffman's interactionalist concepts are discussed. The link between Ingold and Goffman's variations on the knot concept has already been made. Ingold, highlights the routes and paths and how they are affected by the joining of paths, whilst Goffman focuses more directly on the interactions and social relations that may occur along those paths. Therefore, the following section on Goffman provides more focus on the social interactions that may occur along Ingold's lines, paths and routes.

3.2.3 Erving Goffman's Interactionist Concepts

3.2.3.1 Reason for Including Goffman

Goffman's "Dramaturgical Theory" (1966), with concepts that include "performances", "teams", "regions", and "discrepant roles", is useful in this study given that his concepts provide a way of viewing social interactions. Goffman's work also relates to *symbolic* interaction, whereby individuals react in different ways in a social situation, based on their own interpretation of the meaning of such interactions. Blumer (1962: 180) provides the following definition of "symbolic interaction":

> The term 'symbolic interaction' refers, of course, to the peculiar and distinctive character of interaction as it takes place between human beings. This peculiarity consists in the fact that human beings interpret or 'define' each other's actions instead of merely reacting to each other's actions. Their 'response' is not made directly to the actions of another but instead is based on the meaning which they attach to such actions. Thus, human interaction is mediated by the use of symbols, by interpretation, or by ascertaining the

> meaning of one another's actions. This mediation is equivalent to inserting a process of interpretation between stimulus and response in the case of human behaviour.

Indeed, for this study, the social interactions and effects of these other bodies in wayfinding situations, is important. Whilst Goffman did not study wayfinding directly and the link between his work and wayfinding is less obvious perhaps than it is to Ingold's work, Goffman has been referenced in some wayfinding studies including Caspi (2014: 444) who quotes Goffman (1967) in respect of being able to "save face" in dementia homes during wayfinding; Puffer (2011: 50) in reference to stigma when talking about disabled travellers in wayfinding; and Denis and Pontille (2014) who look at back stage areas [behind the scenes] and social order in their study of the Paris subway. As stated earlier, wayfinding takes place almost exclusively in socialised environments, even in the most remote of places. Thus, including focus on these interactions will help to answer the research questions for this study.

Goffman explains that social interactions are guided by the physical qualities of the setting (Goffman, 1990 [1959]) and for a study on wayfinding, where a socio-cultural perspective is being utilised, the setting is important. As highlighted in the section on modalities (Section 2.3.2), wayfinding takes place in a disparate range of environments and interactions are expected to be a key element in the findings.

It is worth noting also that, in this study, Goffman's interactionism concepts have not only been used as part of the conceptual framework, but also in the methodology section of this study, to help understand the face to face interaction and presentation of self that exists in Skype video interviews. This is because I am very interested in how people react in certain situations and one of those situations pertains to my methodology and the implications of these interactions for the knowledge creation process occurring within this study.

3.2.3.2 Concepts from Goffman Used and Reason for Selection

Three concepts used by Goffman (1990 [1959]) are judged as being particularly useful to this research, these concepts being "co-presence", "regionalisation" and "discrepant roles". *Co-presence* is used in order to provide meaning for the interactions that take place during wayfinding and in order to help investigate all four research questions outlined in Section 1.3. In trying to understand for example, what techniques people use to facilitate their embodied wayfinding experience, the effect or not of other people/bodies upon our own in this practice, might be better understood.

Regionalisation (this is defined in Section 3.2.3.5) is useful for trying to better understand the spaces through which we wayfind. In Ingold's meshwork, we cannot assume that we have access to all parts of the mesh and this is explained in the section to follow on back and front stage areas. The question of whether or not access to different parts of the meshwork (i.e. back stage areas for a disabled user) impacts upon the wayfinding experience can be considered through a combination of Goffman's and Ingold's concepts. Regionalisation will help, in other words, to interpret the data for all four research questions, including for example, what embodied challenges are faced in wayfinding.

Discrepant Roles from Goffman is drawn upon because the use of inside information and access to knowledge of routes, might also prove valuable in answering all four research questions. How our bodies have access to certain ways of getting between A and B as a result of route knowledge such as through group membership, is covered in the section on discrepant roles. In what follows below, these three concepts from Goffman are explained in more detail.

3.2.3.3 Co-Presence and a Socio-cultural Setting

In his book *The Presentation of Self in Everyday Life* Goffman (1959) first introduced his dramaturgical theory, a theory which provides a way of understanding how we react to the social situations in which we find ourselves. Goffman (1990 [1959]: 27) states that:

> A social role will involve one or more parts and that each part of these different parts may be presented by the performer on a series of occasions to the same kinds of audience or to an audience of the same persons.

Indeed, wayfinding takes place in a variety of social settings that are distinctly social in nature (i.e. airports, on cruise ships, in cities etc) and in which we unintentionally become "performers" (Goffman, 2008 [1967]) because of this "co-presence" (ibid) in these spaces. Goffman (1966: 22) explains that "co-presence renders persons uniquely accessible, available, and subject to one another" i.e. co-presence means that our and other people's actions are affected by each other's presence. Goffman (2008 [1967]) uses the example of a doctor's surgery and how one patient in the waiting room can act in a certain manner, in a reaction to those others present e.g. one patient's ailments may make others feel uncomfortable. The effects of co-presence in these varying and socio-cultural environments leads to the question of how wayfinding is affected by these social situations, given the presence of these other bodies whom we wayfind past, with and in the same spaces.

Goffman (1959, 1966) also explains that, in a group setting, we will often conform to the expected responses in order to maintain what we see as the expected social norm.

> By virtue of being in a social situation that is itself lodged within a social occasion, individuals modify their conduct in many normatively guided ways. The persons present to one another are thus transformed from a mere aggregate into a little society, a little group, a little deposit of social organization. (Goffman, 1966: 243)

Culler (1988: 1) chooses a rather more negative and perhaps cynical view of how group behaviour can work in talking of flocks of sheep and "mindless and docile" people, invoking notions of Foucault and Sheridan's (1991) "docile bodies". Culler's point is perhaps reasonable in certain situations, but this begs the question of why we should not be permitted to be "docile bodies" sometimes when we wayfind, given that the purpose of some journeys is to relax, such as on holiday where a person might be exploring a new city. These observations also raise important questions of agency and structure that will be addressed later in this chapter.

Even when travelling alone in isolated locations, a wayfinder will normally eventually pass by locals. Hence, the wayfinder and the local/s become "proactive partners" (Ryan, 1997: 52), in that the interaction helps to shape the wayfinder's movements and routes. These "others' bodies" (Johnston, 2001), as Parks (2013: 44–45) found in his rail travels in Italy, can involve a "constant attrition between the commuters who know how to use the station and move with brutal directness between platform and escalators, and the tourists heaving their preposterous bags this way and that in sleepy bewilderment" as they try, often haphazardly, to get to their as yet unknown destination.

Furthermore, in wayfinding, co-presence, is not only about coming into contact with other wayfinders but also workers, crew, vendors, cleaning staff, immigration staff and limousine drivers as a few examples. Caspi (2014: 442) provides a salient example in his study on wayfinding for those with dementia who live in care homes, providing a direct connection between embodied wayfinding and the co-presence of staff:

> Several strategies were identified in the study as used or reported to be used by different care staff members when trying to address residents' spatial disorientation and wayfinding difficulties. These strategies included directing, guiding, leading residents to their desired destinations, or walking hand in hand with a resident to her or his destination.

For Goffman (1990 [1959]: 85) these staff are a "performance team…to refer to any set of individuals who cooperate in staging a single routine". In travel locations, such a team can, for example, be the airline staff or cruise staff who guide us through their locations.

Caspi's example raises the question of how the bodies of others impact upon our own bodied wayfinding experience, a question that will be considered in this study.

3.2.3.4 Discrepant Roles

Another concept in Goffman's dramaturgical theory is that of "Discrepant Roles" (Goffman, 1990 [1959]: 141-165), whereby certain secrets or roles are hidden to the audience. According to Goffman (1990 [1959]): 141 "there are usually facts which, if attention is drawn to them during the performance, would discredit, disrupt, or make useless the impression that the performance fosters". Goffman may not have intended the concept of discrepant roles to apply to performances such as wayfinding, but this concept is nevertheless useful in its application to wayfinding. For example, in choosing to see one journey as being a single performance that projects a desired social representation of one's self identity, the influence of "inside secrets" (ibid: 142) might be important in the interpretation of the data in this research project. Goffman (ibid) defines inside secrets as information "whose possession marks an individual as being a member of a group and helps the group feel separate and different from those individuals who are not 'in the know'". For an activity such as wayfinding, the relevance to this study of these secrets is how, if at all, such information can impact our embodied experience of getting between A and B.

In using Goffman's discrepant roles and the sharing of knowledge within a team, I am viewing the team as not necessarily having to be one of members that are known to each other, but of members who collectively create a given performance. One example is that of backpackers who act the role with "embodied, shared assumptions about appropriate behaviour in particular contexts" (Edensor, 2001, 60). Rather than wayfinding being solely or predominantly the result of psychological processes, consideration for Goffman's discrepant concept, offers potential insight into the differences that a socio-cultural perspective might provide.

3.2.3.5 Regions and Regional Behaviour

One of Goffman's primary and most reproduced concepts, and the final concept I wish to present from Goffman's dramaturgical theory is that of regions and regional behavior (Goffman, 1990 [1959]). Goffman (ibid) states that "a region may be defined as any place that is bounded to some degree by barriers to perception", in essence, a performance area is where a performance of sorts takes place, whether in a physical or cognitively bounded area. A performance in respect to wayfinding, rather than being a theatrical performance,

can refer, for example, to the interaction in a location such as an airport where many airport employees have access to a backstage area that is not accessible to passengers (staff only areas). The passenger areas in this case could be seen as the front stage area, whilst the outside region can include the transport hubs in the airport where passengers and staff use the same locations, in order to get to and from the airport.

Behavioural differences can exist in these different areas. An airline representative, for example, normally presenting a professional image in front stage areas, can act more naturally backstage, whilst in the outside region, such as at the transport hub, there might be a combination of front and backstage ways of acting by the employee. These regions are important in wayfinding because, as will be discussed in much more detail throughout this thesis, the help, guidance to find our way and also the ability to take certain routes, can depend on our access to these regions and are often affected by these social interactions.

Non-physical regions in wayfinding can include what Dodge and Kitchin (2004) refer to as "profiling", a technique that can have a significant impact on our embodied wayfinding experience due to the way in which we are screened and allowed access to some spaces and not others (such as because of our financial capital, loyalty, social capital, position and so on). Furthermore, profiling can relate to the behaviour we may be expected to exhibit in these particular regions, given that our access to this area might be based on certain capital. In a VIP lounge, for example, we might be expected to dress and act in a certain manner that reflects being a VIP. The right to include this space on our route is, in other words, sometimes dependent on meeting the requirements that match the profiling that occurs.

One key aspect of Goffman's regionalisation concept is the existence of front regions (Goffman, 1990 [1959]: 110) and back regions (Goffman, 1990 [1959]: 114). Front regions, Goffman posits, are where an actor/s performs and where the performer/s expects to be observed and where it is particularly important to give off a desired impression of self. In travel spaces, examples might include passport and security controls where a formal tone is set. Likewise, tour guides are often actors in a front-region, their role to be informative, and to make the tour easy to navigate and stimulating.

These front-region performances can also add an embodied element to wayfinding practice, given the "emotional labour" (Hochschild, 2003: 329) that exists. It is not only the intensity and level of training that Hochschild (ibid) explains goes into learning this presentation of self, but the challenge of continually presenting it. No different to the act that academics must perform in teaching perhaps, this "emotional labour" exists in many aspects of wayfinding practice such as from tour guides, those who work at border patrols

or security areas and so on. Emotional labour in these aforementioned examples, can include the physical and cognitive effort needed to continuously act out a performance to the public and to be seen to perform it well or at least, satisfactorily.

Goffman's concept of regionalisation is useful in a study in which embodiment is central to the discourse. In having to present a certain self in performances in front regions, the way in which a wayfinder manages to control (or not control) emotions and their body, needs consideration. Caspi (2014: 444) from his study on "*Wayfinding difficulties among elders with dementia in an assisted living residence*" provides a poignant example, explaining how Alzheimer sufferers who had to find their way around the assisted living residence, were helped by staff:

> Informed by the mobility profiles and proactively offering assistance to residents may assist in minimizing the number of instances in which residents need to ask for these potentially embarrassing requests for help. This in turn could save face and preserve the self-esteem of the residents.

Caspi's example above provides a real-world example of wayfinding as an embodied experience, in a front region. I use the term front region in this example, because the spaces in the meshwork that the Alzheimer sufferers navigate through, are shared spaces with other sufferers and with staff. The example also raises the important point that wayfinding is not just about finding one's way, but can also be about maintaining identity while doing so. Indeed, Goffman (1963) emphasises how individuals build, maintain and repair identity in everyday life and in wayfinding, such as in care homes this identity for Alzheimer sufferers can be important, as Caspi (2014) posits.

Having discussed the concepts from Goffman that are used as part of the theoretical framework for this study, the third and final theorist to be introduced below is Pierre Bourdieu.

3.2.4 Bourdieu's Theory of Practice

3.2.4.1 Reason for including Bourdieu

In this study, Bourdieu's *Theory of Practice* (1984, 1993, 2005) helps to fill a gap in the theoretical framework, in that, whilst the concepts used by Ingold afford a useful way of understanding paths and routes that bodies take and use, Ingold's concepts do not fully integrate all parties who influence wayfinding. Whilst Goffman's work provides a way of trying to understand the socio-cultural interactions that occur along these routes, interactionism does not provide the tools to account for the presence of power relations in

everyday practice, or how the process of wayfinding reshapes power relations. Bourdieu helps to address these gaps.

Using Bourdieu in this study's framework provides a tool for helping to express the way in which power is embedded in practice and how individuals are shaped socially through practice and how power is exercised. Bourdieu, in other words, is used as a tool for interpreting the bigger picture, beyond the routes, paths and interactions, in order to include the full social influences upon the body as we move from A to B. This theory is used as a "grand theory", that is, as an "abstract and normative theory of human nature and conduct" (Skinner, cited in Walther, 2014: 7) that is "generic in nature and that can be applied to different circumstances" (Walther, 2014: 7). Bourdieu also helps in understanding the effects of agency/structure in wayfinding and how this impacts upon how we may move our bodies between A and B. Forces such as institutions, rules and regulations and stakeholders (such as transportation owners, airport owners, shop owners on routes, path maintenance companies, signage companies) need to be considered in order to fully understand wayfinding as an embodied and socio-cultural process. It might be argued that these are relations of social practice which are the outcome of a series of broader social struggles extending away in social space and time beyond the individual, but nevertheless these relations cannot be ignored in wayfinding.

The impact of social, economic and cultural forms of capital and habitus which pervade Bourdieu's work, is invaluable for interpreting the findings from this study. The *Theory of Practice* has been cited in some other wayfinding studies, including Doan and Higgins (2009) where they draw upon habitus to discuss the *Cognitive dimensions of way-finding: the implications of habitus, safety, and gender dissonance among gay and lesbian populations*, Hallpike, Blades, Spencer and Gell (1986) and Genz (2012), where all draw upon the concept of "Practice", in ways which highlight power relations. Bourdieu's theory of practice is discussed below and is then followed with more detailed explanations of the concepts within this theory.

3.2.4.2 Introduction to the Theory of Practice

As stated previously, wayfinding is a quotidian activity that takes place in heterogeneous socialised spaces, and Bourdieu's theory of practice is particularly useful in its applicability, as a tool for trying to understand power relations, groups and structural forces embedded within everyday lived experiences (Grenfell, 2008). Ingold (2000: 167) also emphasises the use of this theory and its applicability for studies of the body by stating the following:

> Bourdieu's theory of practice set[s] out to re-embed perception and cognition within the practical contexts of people's ongoing engagement with their environments in the ordinary course of life…and…seeks to escape from the sterile Cartesian dualisms of mind and nature, subject and object, intellection and sensation, and so on.

As a grand theory that can be applied to different fields of research (Walther, 2014: 7), the theory of practice is especially useful in body studies. Indeed, Bourdieu (1990: 52) notes its applicability for embodied practice:

> The theory of practice as practice insists, contrary to popular positivist materialism, that the objects of knowledge are constructed, not passively recorded, and, contrary to intellectualist idealism, that the principle of this construction is the system of structured, structuring dispositions, the habitus, which is constituted in practice and is always oriented towards practical functions.

Bourdieu intended this theory to be used in practice based research which explores the "social world" and this theory is thus useful for framing a research project on wayfinding. Bourdieu (1990: 90) further emphasises the practice in saying that:

> Practical sense 'selects' certain objects or actions, and consequently certain other aspects, in relation to 'the matter in hand' an implicit and practical principle of pertinence; and, by fixing on those with which there is something to be done or those that determine what is to be done in the given situation.

The theory of practice is presented by Bourdieu (1984: 101) as an equational form:

> [(habitus)(capital)] + field = practice

Bourdieu tries to provide, through his practice, an opportunity to step away from a purely positivist approach in research and to instead factor in elements that would otherwise be ignored in a given experience. The past embodied history and the social and economic position of an agent, can thus be included in this study on people's wayfinding experiences. Bourdieu's theory, in this study, provides an opportunity to include consideration, for example, of how our body experiences (embodied history), might affect how we choose certain routes. Furthermore, Bourdieu's theory, when applied to wayfinding, allows for the socio-cultural position and status of an agent to be considered and the impact or not on route choices. Therefore, whilst Ingold's meshwork overlaps with social fields, Bourdieu provides the additional insight into the socio-cultural effects of structured social fields on embodying habitus through practice. For a study on wayfinding, this further understanding of embodied practice that Bourdieu provides, should help to answer the research questions for this study.

It has been argued by Walther (2014: 8) that this equation and the theory "does not constitute a cohesive theory within itself, but rather represents a flexible theoretical approach whose main elements must never be considered detached from each other". A further possible issue with the equation is that it can be said to provide a reductionist view of social reality (Hollenbeck, 2017). In using the theory as a "flexible theoretical approach" though, as expressed by Walther (ibid), the theory of practice is useful as a way of framing this research on wayfinding, particularly given the way in which the theory embraces social fields in which wayfinding occurs and the power relations that are embedded within them.

The practice equation also explicitly highlights a vital aspect of the theory, that is, that habitus, capital and the field, rely on each other and that these entities cannot be seen to work in isolation in the theory of practice. Bourdieu (1977: 97) expressed this practice in the following:

> Practice always implies a cognitive operation, a practical operation of construction which sets to work, by reference to practical functions, systems of classification (taxonomies) which organise perception and structure practice. Produced by practice of successive generations, in conditions of existence of a determinate type, these schemes of perception, appreciation, and action, which are acquired through practice and applied in their practical state without acceding to explicit representation, function as practical operators through which the objective structures of which they are a product tend to reproduce themselves in practice.

Each of these elements, habitus, capital and the field, are discussed in greater detail in the sections below and their usefulness to a study of wayfinding is further explored. In the section that follows, I discuss the habitus and its relationship to capital and the field, and its connection to wayfinding through the development of dispositions that enable certain wayfinding practices to take place, through learned experiences of the body.

3.2.4.3 Habitus

The existence of habitus, i.e. our embodied histories, raises the question of how this helps to shape the way in which we wayfind and whilst Doan and Higgins (2009) have previously made the link between habitus and wayfinding (in their study on habitus for "gay and lesbian populations"), I extend the use of habitus, in informing this research, for a much wider range of modalities of wayfinder. The section below provides a deeper explanation of habitus as a concept.

Bourdieu (1990: 68) explains that habitus is embedded in our being, that is, it is "instilled by the childhood learning that treats the body as a living memory pad, an automaton that

leads the mind unconsciously along with it, and as a repository for the most precious values". Crossley (2001: 83) endorses this idea of these embedded set of dispositions that we develop from childhood by stating: "A child brought up in an art-loving family…is far more likely, statistically, to develop her own love of art and will acquire the dispositions and know-how proper to true appreciation and criticism". In the aims of this study, the concept of habitus may illustrate embodied dispositions that exist in wayfinders.

Habitus is composed of dispositions (Bourdieu, 1992: 55) which Bourdieu sees as "an acquired system of generative schemes [that]…makes possible the free production of all the thoughts, perceptions, and actions inherent in the particular conditions of its production - and only those". Despite commonalities we may experience in wayfinding practice, such as trying to find our way around a massive modern-day cruise ship, Bourdieu (1993: 46) tell us that "just as no two individual histories are identical so no two habituses are identical". In this cruise example, finding one's way involves a very personal and individual experience for each person, shaped by the reproduction of these thoughts, perceptions, and actions that are embodied through previous wayfinding experiences. The fear of getting lost for one person, might equate to a sense of excitement and sense of adventure for another wayfinder. And it is habitus which largely shapes this way of being and experiencing. Maton (2008: 52) re-enforces this point below:

> Habitus focuses on our way of acting, feeling, thinking, and being. It captures how we carry within our history, how we bring this history into our present circumstances, and how we then make choices to act in certain ways and not others. This is an ongoing and active process – we are engaged in a continuous process of making history, but not under conditions entirely of our own making.

Habitus, as Maton states above, continually reproduces and builds on the past history, developing as we continue to experience, i.e. by doing something repeatedly through practice. This sense of embodied familiarity, which is clearly expressed in Bourdieu's quote above, is pertinent to the discourse in wayfinding literature. Several studies in wayfinding relate to the impact of *familiarity* (including Prestopnik and Roskos–Ewoldsen, 2000; Li and Klippel, 2014). Familiarity is important in wayfinding because it is widely accepted that we find it easier not only to navigate in an environment we are familiar with, but also with locations that are similar to other locations we have visited or experienced before. One such example is the ability to already have some kind of idea of the layout of a given space that we must find our way through because we have what Farr *et al* (2014: 97) call "process experience" and Wiener *et al* (2009) refer to as "background knowledge". Wayfinding in a large supermarket, for example, might be easier if a person has previously

used a supermarket owned by the same company and has a level of familiarity with their standard store layout. Likewise, aspects of the practical logics of this system of organisation will also transfer to other supermarket layouts too. This familiarity, which is so relevant in wayfinding and which enables people to find their way relatively more easily, is expressed by Bourdieu (1990: 56) as the "embodied history, internalized as a second nature and so forgotten as history - is the active presence of the whole past of which it is the product". The practice, such as getting from one place to another, both in a physical and cognitive sense, becomes situated within us.

Our habitus can also be complimented by "strategic calculation…..estimation of chances which assumes the transformation of the past effect into the expected objective" (Bourdieu, 1977:76). In wayfinding, given the heterogeneous nature of the route options, such strategic calculation, it seems fair to assume, is particularly salient. Once practice is instilled, calculation is not entirely conscious but rather operates more like an instinctive reflex for action that has been reinforced through a sustained practical engagement in that environment. Indeed, habitus is important for wayfinding because it can become embodied and guide how we think act and feel.

As mentioned at the start of this section, habitus, capital and the field are not to be seen as working in isolation and it is connecting habitus with capital and the field that provides the strength of the theory of practice. Bourdieu (1993: 72) explains that "in order for a field to function, there have to be stakes and people prepared to play the game, endowed with the habitus that implies knowledge and recognition of the immanent laws of the field, the stakes, and so on". The presence of other people is important in wayfinding because we normally share the field, whether intentionally or not, with others, i.e. we move through the same spaces, although we do so with different levels of knowledge, habitus and stakes.

Group dispositions (group ways of being), can also exist as a form of habitus. Group habitus Bourdieu (1977: 80) tell us is the:

> Homogeneity of the conditions of existence is what enables practises to be objectively harmonized without any intentional calculation or conscious reference to a norm and mutually adjusted in the absence of any direct interaction or…explicit co-ordination.

In investigating wayfinding as a shared activity, consideration for group habitus will be a part of the data analysis and potentially connect to all four of the research questions. Group habitus can involve rules within structured social circles (Crossley, 2001: 84), in which individuals "belong(s) to a group or variety of groups and develops his or her own habits therein". In wayfinding, the learned rules such as how we are meant to move, queue and

engage can become second nature to us. Parks' (2013: 44-45) example of the "attrition between the commuters… and tourists" provides a further example of group habitus. Goffman (1966: 20-21) also highlights this group disposition in talking of how:

> Different participants in a social occasion may perform quite different roles, it might be argued that what is an occasion of play for one individual may be an occasion of work for another… multiple social realities can occur in the same place… The social situations that occur in these overlapping behavior settings support gatherings that possess a special type of normative disorganization.

In wayfinding, these groups that Goffman, Parks and Bourdieu draw attention to, can involve different types of traveller groups and the body effects (it seems fair to assume), is different for each traveller type and emerges from the repetitive practical engagement in that activity. In the examples above, cultural habitus offers an understanding of the rules of space and movement in that space, and that can be engrained through groupings of shared experiences such as by commuters or tourists. Bourdieu (1992: 53) explains this as "systems of durable, transposable dispositions, structured structures predisposed to function as structuring structures". Edensor (2001: 60) illustrates this when he says that for a participant on a tour-bus or a member of a Club 18–30 holiday:

> Forms of tourist habitus are also determined by unreflexive, embodied, shared assumptions about appropriate behaviour in particular contexts.

Moreover, Larsen (2008) suggests our "mind-sets, routines and social relations" travel with us. Habitus is therefore a useful concept in a study in wayfinding, given this socially heterogeneous embodied space, through which wayfinding takes place, space with multiple bodies and influences.

Habitus might also be important in this research because of the dynamic nature of wayfinding. Bourdieu (1977: 72) explains that habitus acts a "strategic-generating principle enabling agents to cope with unforeseen and ever-changing situations". Whether or not we actually cope, rather than shape our reactions to the situation is unclear, but in wayfinding we are constantly trying to find our way somewhere both physically and cognitively and the "unforeseen and ever-changing situations" mean that we, as Bourdieu posits, draw on our habitus. This strategic-generating principle, might be particularly relevant in answering the research questions with regard to how the wayfinding experience varies for different types of people and what can we learn from these differences; and how wayfinding might be viewed differently and what techniques people use to facilitate their embodied wayfinding experiences. By studying a diverse range of wayfinding types, some

understanding of commonly held group dispositions might be uncovered in the findings chapter, of this study.

Habitus is also expressed in the form of "tastes" (Bourdieu 2010; Warde, 2014); which we acquire over time. "Taste is what brings together things and people that go together" (Bourdieu: 1984 [1979]: 241). Bourdieu (1984 [1979]: 174-5)) says:

> Taste is the practical operator of the transmutation of things into distinct and distinctive signs, of continuous distributions into discontinuous oppositions; it raises the differences inscribed in the physical order of bodies to the symbolic order of significant distinctions…Taste is thus the source of the systematic expression of a particular class of conditions of existence.

Similarly, Crossley (2007: 82) describes the body "as a site of experience" and explains that we have a certain disposition towards tastes that lead to a "structure of lived sensations" (ibid). The habitual way of performing a task, even at the expense of better solutions, was proven in the experiments "Einstellung Effect" (Luchins and Luchins, 1961). The Einstellung Effect shows that we will often use a set of predispositions for problem solving, even though there might be a better solution available. These are tastes that are familiar through ingrained practices and that we can prefer even if these tastes are inferior and in wayfinding, it seems fair to assume, tastes help to shape our disposition towards particular routes based upon certain ways of moving.

Tastes can also exist in relation to different modalities. A person with a disposition for healthy living and using their own body, as a vehicle for getting from A to B, might select walking or running. Likewise, someone who loves cars might have a disposition and preference for choosing to travel by car at every opportunity.

In this research, the influence or not of tastes and how these tastes might affect how we act in a wayfinding context will be explored, in order to help answer the research questions connected to how the wayfinding experience differs for various people and what techniques people use to facilitate their embodied wayfinding experiences.

Habitus provides a valuable connection with embodiment in a social context, both areas important in research of wayfinding. Having discussed habitus, I turn my attention to the next part of the equation from the theory of practice, to discuss 'capital', which relates to the relative value placed upon certain forms of practice and habitus.

3.2.4.4 Capital

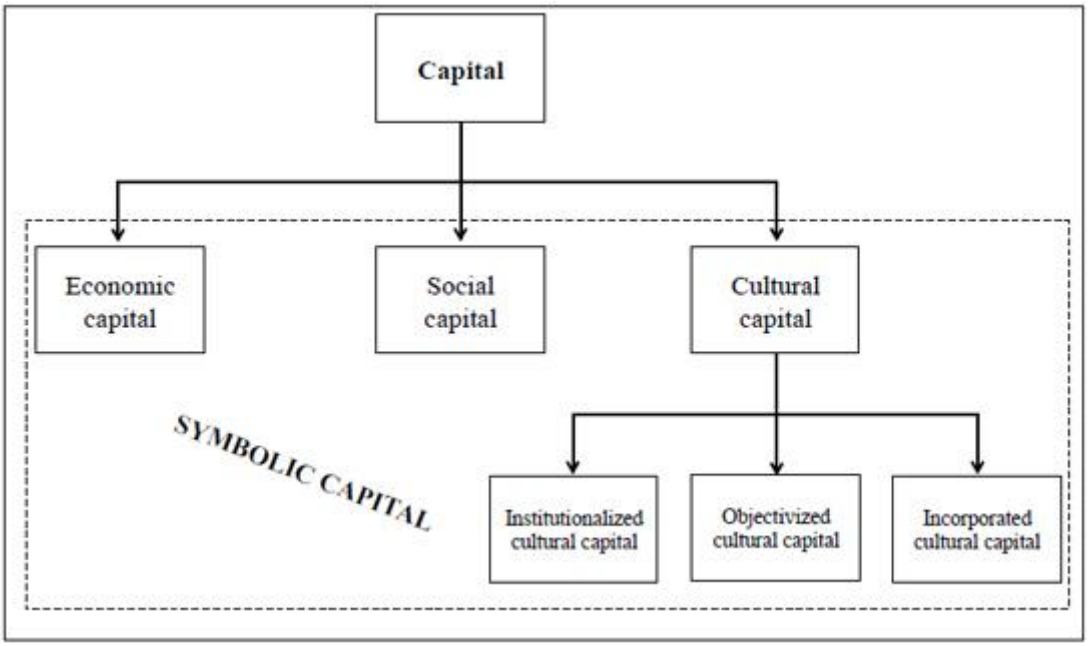


Figure 9 - Forms of Capital by Walther (2014: 11)

Having discussed habitus in the previous section, the following section is concerned with "capital" from Bourdieu's (1984: 101) equation.

[(habitus)(**capital**)] + field = practice

Bourdieu saw Marx's original use of the term capital as being too limited, with the term only used for "mercantile exchange" (Bourdieu, 1986: 242) and linked directly to an agent's accumulation of wealth. Bourdieu extended the definition of capital to also include social, cultural and symbolic capital, to cover what he saw as the broader dimensions of social life in which "value" was expressed and exchanged.

Bourdieu and Johnson (1993) identify four forms of "capital": "economic", "social", "cultural" and "symbolic capital" and, whilst each is different, they are closely linked and can be converted. Agents possess differential amounts of each of these forms of capital (Bourdieu, 1998) but these can be exchanged or are "convertible into another kind of capital on certain conditions" (Bourdieu, 1993: 73). Each of these forms is discussed in more detail in the sections that follow.

Economic Capital

"Economic capital (capital économique) is related to a person's fortune and revenues" (Walther, 2014: 9) and refers to an agent's financial resources. In wayfinding, economic capital can afford us the opportunity to literally buy our way to a more comfortable, faster

or direct route (if we have the means to), an example being the ability to economically afford to purchase a direct route for a flight, when others might need to choose a more inexpensive indirect flight.

In this particular research, what I would posit is a rather contentious point, is raised by Busogi, Kim, Shin, Ryu, Yoo and Kim (2013: 299), who comment that "a rational agent(s) choice of action usually correlates with the cost-effective way of reaching the goal", they say in their study on wayfinding and in referring to following a path/route. Busogi *et al* seem to suggest that not prioritising economic capital, is not normally a rational decision, a concept I would question and seek to explore in this research. According to Bourdieu (1984), the possession of economic capital can be and is used, not to pursue the most direct or cheapest route or goods, but sometimes the converse, to lavishly travel as a means of expressing wealth and privilege and hence gain social distinction. Wayfinding with personal tour guides, chauffeurs etc, all carry distinctions and thereby allow for the conversion of social capital into symbolic capital. Laws (2004), in seeing customer satisfaction as being based on the gap between expected service versus the perceived actual service received, also helps to express the nature of economic power, in that many people utilise agency in their choice between costs, levels of comfort, direct routes or not. In the following section, I discuss cultural capital in greater detail.

Cultural Capital

As discussed earlier, Bourdieu saw Marx's concept of economic capital as being too restricted and thus built upon Marx's work by also including "cultural capital". Bourdieu (2006: 15) sub-divides this form of capital into three areas, namely: incorporated, institutionalised and objectified forms of cultural capital.

Incorporated embodied forms of capital take on forms such as "a muscular physique…it cannot be done at second hand (so that all effects of delegation are ruled out)" (Bourdieu, 1986: 244). The presence of incorporated capital is such that it does not disappear that easily, hence it provides an interesting catalyst for this study on wayfinding. Whether incorporated embodied capital aids one's ability or not, to attempt certain routes and provides additional route options through the meshwork, will be better understood through the use of purposely sampling used in this study (the sampling is explained in Section 4.3.5).

Institutionalised cultural capital (Bourdieu, 2006), such as qualifications e.g. the title of doctor if one successfully passes a PhD, can act as a vehicle for showcasing certain

distinctive cultural capital. In this study, the effects of institutionalised cultural capital may be difficult to evaluate, given that the sampling strategy in this study is not based around attempting to specifically target those with (what might be considered) high levels of institutionalised cultural capital. Objectified forms of cultural capital though, are likely to be of specific interest in this study, given that this form of capital refers to objects and their meaning in practice.

Such objects can include artefacts and the "knowledge of how to use it [them]" (Hollenbeck, 2016: 42). Black (2014: 34) connects these cultural artefacts with embodiment:

> Our embodied relationship with artefacts cannot be explained adequately by drawing a hard boundary between the body proper and the environmental features with which it interacts**,** or sharp contrasts between how we sense and act with objects and without. At the same time, it cannot be explained adequately by representing the body as if it were just one more object interacting with other objects.

The use of artefacts in wayfinding practice and their influence or not will help in this research to answer all four research questions. In interviewing a purposeful sampling that includes a wheelchair user (wheelchair), a touring cyclist (bicycle) and a kayaker (kayak), to give a few examples, the data might provide insight into the effects of these cultural artefacts in relation to wayfinding as an embodied activity.

Cultural capital combines with economic capital to provide access to certain opportunities, with "cultural and economic capital operate(d) as two hierarchized poles in a social field" (Grenfell, 2008: 71). In wayfinding, the Queen of the United Kingdom will rarely get lost and will normally travel in luxury because of her status, position and wealth. When the Queen does travel on public transport, it becomes a newsworthy story (Pidd, 2009) and this example, one could say, is the result of a combination of high social and symbolic capital, underpinned by economic capital. A backpacker travelling on a small budget and getting lost as she tries to find her own way might be the result of low social and economic capital. But equally so, the backpacker in question might be of high economic and social capital standing, but simply chooses to experience backpacking for pleasure (agency is discussed further in Section 3.3). There is no suggestion in Bourdieu's theory though, that higher or lower forms of capital produce any more or less embodied experiences, but simply different experiences.

Social Capital

Bourdieu (1992: 119) describes social capital as the:

> Sum of the resources, actual or virtual, that accrue to an individual or a group by virtue of possessing a durable network of more or less institutionalized relationships of mutual acquaintance and recognition.

This capital refers to the social connections and networks we have and can include titles, qualifications and social groups one is connected with. Bourdieu (1998, 70-71), in using families as an example, expresses the importance of social capital and how it can be the:

> Condition and the effect of successful management of the capital collectively possessed by the members of the domestic unit…among executives, the family plays a considerable role not only in the transmission but also in the management of the economic heritage, especially through business alliances which are often family alliances.

Through social capital, we can sometimes benefit from certain privileges and Bourdieu and Wacquant (1992) use the term "credential" to express this special benefit one gains. With the Queens status recognised by most people as a figure-head and symbolic figure in the UK it would seem fair to say that this social capital, thus affords the queen privileges in how she gets between A and B. In interviewing a bespoke sample range of people in this research, the possession of different "credentials" or not, will be considered in the findings in order to help answer how wayfinding is different for people with differing quantities and qualities of social capital.

Symbolic Capital

Symbolic Capital is the overall perceived collective value of economic, social and cultural capital and the result of how we are perceived by others, as a result of this overall capital, or, as Swartz (2013) explains, the way we are perceived through "recognition, deference, obedience, or the services of others". It is, in other words, what we term prestige. An interesting example, which shows how symbolic power is transmitted, is provided by Bourdieu (1993) in discussing the symbolic value art has, where gallery owners and art teachers are relied on to portray the symbolic meaning. The value of art is defined also by the way in which "social conditions of the production" (Bourdieu, 1993, 37) occur. Symbolic capital (rather than power) is any form of capital shaped also by perception as Bourdieu (1998: 85) argues.

This symbolic capital is continually reshaped and develops as the forms of various non-symbolic forms of capital evolve and change. Furthermore, this form of capital is also about networks as resources (who you know not what you know) and this raises the question of whether using their social capital can significantly help agents navigate a "meshwork". This will be considered in the findings chapter.

The perception of the Queen of the United Kingdom as a status symbol and a representative of the State, affords her a very high perceived level of symbolic capital by the general public and a quite unique way of getting between places, compared to the general public. Likewise, other famous figures, when travelling internationally, it would seem fair to assume, are afforded high levels of social and symbolic capital (symbolic in that many may see them as iconic figures). Moreover, one earlier example of symbolic capital in wayfinding was introduced in Section 2.3.1 on the history of wayfinding with the mention of how the skilled wayfinders of the Puluwat islanders were always held in the highest esteem within these tribes (Gladwin (1974).

Having discussed habitus and the various forms of capital, below I discuss the final part of Bourdieu's (1984: 101) equation: the field.

3.2.4.5 The Field

One particular benefit of the field in its use, is the simplicity of visualising a given environment, through the use of this concept. Bourdieu's (1993) football analogy that was mentioned earlier, exemplifies how this concept can be used to express the boundaries of a field where a game is played, a game which has a number of influences such as football managers, owners, the opposition team, and other players in the same team. In this game, Bourdieu and Johnson (1993: 72) also note that "there have to be stakes and people prepared to play the game". Here we can see a certain structure, competition and co-operation between agents on and surrounding the field, Bourdieu (1993: 73) expressing this as "structure of the field [is] a state of power relations among the agents or institutions engaged in the struggle". Translating this football example above into wayfinding, the game is played by others who simultaneously wayfind (who are using the same paths and routes on the meshwork), businesses (who manage the routes or who have a presence along the route), authorities (who control certain aspects of the routes we travel) and so on. As Bourdieu (1993: 72-73) explains:

> In order for a field to function, there have to be stakes and people prepared to play the game, endowed with the habitus that implies knowledge and recognition of the immanent laws of the field, the stakes, and so on…the structure of the field is a state of power relations among the agents or institutions engaged in the struggle.

Bourdieu (1992: 67) also states that "one is born into the game" and the sponge that is our body begins to absorb the embodied dispositions and to be shaped by various forms of capital. Just like any game though, it is about learning and understanding a game on the field of production i.e. the habitus (Bourdieu and Johnson, 1993: 72).

We are often forced to enter fields which are unfamiliar to us and we must learn a new set of rules and learning these rules can be difficult and time consuming (Friedmann, 2002: 301). In wayfinding, learning these sets of rules is notably relevant given that wayfinding involves getting to places that we are often unfamiliar with and the difficulty, for example, in knowing the rights of access, such as on a countryside path, or the way to the city centre in a different country when disembarking from a cruise.

In the field, "every agent acts according to his [sic] position (that is, according to the capital he or she possesses) and his habitus, related to his personal history" (Bourdieu, 2005: 31) and no two people share an identical presence in this field, in this game. Bourdieu's theory of practice places a relatively low level of agency in the hands of agents, affording higher levels to societal structures. Fields, in other words, have social logics that are expressed in the practices in the field that we then embed into our minds and bodies, through engaging in those practices thus creating habitus, which in turn gives rise to capital, or our value in relation to a field.

There are clear overlaps between Ingold's "meshwork" and Bourdieu's "field" in terms of both being a conceptual expression of context. Both concepts are popular because of the way in which they can be visually imagined. It is easy for example to imagine and see, from an aerial view, Ingold's meshwork of routes, (see Figure 8 in Section 3.2.2.2). Likewise, Bourdieu's field can be imagined using the football analogy discussed earlier. The visualisation of this field can be extended to much larger areas such as a city or even a route across many countries. Whilst both theorists' concepts are very useful, the forms of capital and habitus from Bourdieu's theory of practice, when overlaid onto Ingold's meshwork of routes and paths, makes the connection between these two theorists valuable in this study.

3.2.4.6 Criticisms of Bourdieu's Theory

Bourdieu's theory of practice is not without its critics. Many critics, for example, (such as Shilling, 2012; Grenfell, 2008: 79; Smith and Riley, 2011) state that the theory is too "deterministic", in the sense that too much emphasis is put on the structure, with too little agency given to the individual.

In this study though, I use the field concept not as a positivist and precise tool, but as a sensitising concept, i.e. as a tool for visualising the wayfinding process. I take the line that rather than being deterministic, a concept such as habitus *highlights influences* of practice rather than provides *determined and exact* conditions. Whilst I believe that habitus greatly

influences outcomes in practice, I suggest that habitus does not determine exact outcomes, certainly given the socio-cultural elements and influences in wayfinding practice, hence I do *not* take a fully deterministic view in this study. As Crossley (2001: 91) makes clear:

> Bourdieu is simply claiming that agents come to expect and predict what they find themselves repeatedly subject to; that such expectations are often collectively produced and shared; and that they are transmitted and conveyed to offspring who see little evidence to contradict them. The agent is wholly active here in constructing an inductive picture of the world, even if the construction is relatively fatalistic. There is no determinism in any meaningful sense of the world, just pragmatic adaptation and realism.

Therefore, habitus strongly orientates behaviour but because habitus alters subsequent experiences, it merely guides and informs our actions and is always potentially revisable subject to new experiences that contradict old ones and require changes. Furthermore, we never only occupy one field but a range of fields at the same time and therefore habitus formed through one field is also informed by habitus imported from other fields - this helps explain innovation in a range of ways. Additionally, fields change, sometimes rapidly, and so what might once be valued can quickly be devalued.

In agreeing with Crossley (2001) that Bourdieu is simply offering a method for understanding influences that help to shape how we practice certain activities, I see the use of Bourdieu as compatible, alongside Ingold's concepts (such as the network styled meshwork concept) and alongside interactionist concepts from Goffman. Having discussed the three theorists' contribution for framing this research, the following section discusses agency and is included here in order to explain the levels of agency each author affords an agent and how this relates to wayfinding and the research questions in this study.

3.3 The problem of agency and structure in Wayfinding

Agency/structure relationships have traditionally been seen as dichotomous, "contingent and random; that structure is constraint, while agency is freedom; that structure is static, while agency is active; that structure is collective, while agency is individual" (Hays, 1994: 57). Callon and Law (2004: 10) also connect agency with embodied emotions in stating that "agency and subjectivity are not just about calculation and interpretation. They may also have to do with emotion". These emotions are important given that embodiment is used in this study.

The structure versus agency debate is a ubiquitous issue in sociology and the social sciences and is an important one. The epistemological and ontological ramifications of the

stance taken regarding structure and agency are fundamental to how the questions, research and wayfinding behaviour are represented and can be viewed in this study.

Both Ingold and Goffman, through their writings (I would suggest), provide a certain level of agency to the individual (i.e. to the wayfinder), whilst Bourdieu has been criticised by many for what some writers say is an over-use of structure in relation to agency. Smith and Riley (2011: 141), for example, find that "a consensus has emerged among critics that Bourdieu gives too much emphasis to structure and system reproduction and not enough agency and contingency to change". Bourdieu attempted to reconcile the dualisms of structure vs. agency, structuralism vs. constructivism, determinism vs. freedom or macro vs. micro (Walther 2014; Bourdieu & Wacquant; 1992) and does give consideration for individual agency, but appears to consider structure as being more important. Structure, in this case, refers to both the structuring structures (habitus) that mould us and the structures such as government and authorities (of which habitus is also an influence).

In wayfinding, from a theoretical perspective, we have a high level of agency in Ingold's meshwork in respect of our ability to make decisions on a course level, i.e. to take a left turn right turn, a right turn, this route by foot through a park or that route by car, and via the road networks (which themselves though are controlled via traffic lights, road markings and subjects to speed limits and so on). Alternatively, in Goffman's work, he allows for a certain level of agency in that we can choose how to present ourselves but we cannot choose how we are perceived and controlled by society as a whole. We can only try to impression manage this perception through our behaviour. In using Bourdieu, Ingold and Goffman collectively, I take the stance that wayfinding is controlled by structures but that we retain some level of agency.

It is not the intention, within this research, to explicitly try and understand exactly where the agency/structure relationship is, but it is nevertheless important to try and make sense of how the sensitising concepts of the body and a socio-cultural perspective help to shape agency. Hays (1994: 70) takes a similar stance, commenting that "social life is fundamentally structured. But social structures do make possible a whole range of choices in everyday life" and that these choices are affected to an extent by the culture in question. Structure, in other words, is both constraining and enabling (Giddens, 1986). Walther (2014: 7) also states the limits of agency:

> Structures act as rules and determine and condition individuals' thoughts and behaviors. A pure structuralist perspective would imply that people 'behave' as robots that are programmed to act in accordance with the structured patterns, a perspective that appears obviously too rigid. On the

> other hand, the voluntarism or agency perspective rather suggests that individuals are completely free in their choices.

In wayfinding, the issue of agency is complex because of the mix of cultures, social classes, and range of situations in which we wayfind. Structures inevitably exist, such as when we leave our house and are directed by roads and pavements, both of which are state planned, built and managed for us, without our say. There are almost always some limitations to where and how we are permitted to get between A and B, and we cannot normally expect to take a direct route over neighbours' gardens and, if driving, we must use the roads and rules, such as to drive in the correct direction down a one-way street. There is normally an element of agency, such as the choice in the first place to choose a destination and to choose from different routes options and, in this sense, we can choose where we wish to go, but we are at the same time being guided. Robinson, Heitmann and Dieke (2011: 61) provide the example of another ubiquitous and yet easily overlooked control, that of traffic lights and how they are "ideological and are a means by which those in power get us to behave how they want us to behave". Even here though, it may be argued, individuals have a choice over whether to adhere to the rules or not.

In speaking of tourist encounters, Crouch and Desforges (2003: 6) mention a "body that we own but do not wholly control", a body which one might apply to most wayfinding situations. Laws (2004: 56-57) provides an example which combines agency and embodiment in wayfinding (where our body is controlled), using a case study based on a trip to China in the past, expressing how the:

> Itineraries were carefully controlled and included features which few enjoyed…early morning starts…gruelling itineraries…little opportunity…to wander at will or even to influence the itinerary.

Less extreme examples are expressed by Goh (2014) and Reisinger and Manondo (2005) who mention the provision of "tours". In talking about Everest, even the "corporeal ambition" (Urry, 2007: 84) to climb the mountain, can mean a reliance on hiring the local Sherpas as guides. Without hiring a Sherpa, the license to climb Everest is not normally permitted by the Nepalese government.

This agency though is subject to where we live and the society and structures in which we live and the kind of wayfinding we wish to engage in. An inmate in a prison will normally, for example, be limited in where s/he can journey to, during captivity. Likewise, freedom of movement exists in certain state territories worldwide. As Giddens (1986: 25) comments:

> Structure is not to be equated with constraint but is always both constraining and enabling. This, of course, does not prevent the structured properties of social systems from stretching away, in time and space, beyond the control of any individual actors.

Agency is sometimes also used to ignore routes that are laid out for us, such as pavements that we could take. The creation of "desire lines" (Ramsden, 2011: 18) that were mentioned earlier (Section 3.2.2.2), tend to signify the decision to take a different route than that which planners and authorities have tried to guide us along.

By interviewing people who take different types of journeys, I hope to gain a better understanding of how agency to structure relationships shape individuals' wayfinding experiences. The findings should help to guide the analysis for the findings section in answering the research questions such as how we, as agents, experience wayfinding differently from an embodied perspective. In this study, I see agency and structure as co-existing and with different values/levels according to the overriding situation, i.e. where the agency/structure acts as a fluctuating relationship.

3.4 Chapter Summary

In this chapter, concepts from three theorists, Tim Ingold, Erving Goffman and Pierre Bourdieu have been introduced. Ingold was introduced first as the one theorist whose work has centred partly on wayfinding and his concepts are useful for understanding the complexity of routes we take, routes that are rarely linear and that do not usually happen in social vacuums. Ingold's meshwork raises a range of questions about how other people have understood wayfinding and also how we might move to a different and better understanding of wayfinding, particularly when combined with the embodied element. This also raises some interesting questions about the kinds of networks and meshes people are connected to in wayfinding.

Goffman was then discussed and his concepts help to provide a means of understanding the interactions and influences of this social world in which wayfinding takes place. The concepts used from Goffman, when applied to wayfinding as an embodied experience, lead to the question of how the interactions with others, that take place as we wayfind, shape the overall wayfinding experience.

Bourdieu's theory of practice was then used and this provides an overview of the wayfinding process beyond the real-time wayfinding experience. Both the external influences (such as stakeholders) and the body (through habitus and different forms of capital) are brought into the discourse. The concepts taken from Bourdieu guide us towards

the question of how, more precisely, the embodied wayfinding is guided according to these influences.

From the literature review and conceptual framework, the following four research sub-questions emerge:

Research Questions

1. **How is the wayfinding experience different for different kinds of people and what can we learn from these differences?**

The range of modalities that exist in wayfinding included the range of wayfinder types, including those with disabilities. The variations in capital and habitus of wayfinders also raises the question of how wayfinding is experienced differently. By interviewing a purposeful sample of wayfinder types (sampling is explained in Section 4.3.5) commonalities between these different wayfinder types can be investigated.

2. **What embodied challenges are faced in wayfinding?**

This is a question that partly evolves from question one and also from seeing a range of modalities in wayfinding highlighted in the literature. Additionally, Bourdieu's focus on the body (through habitus and physical capital) and Goffman's attention to the body via interactions (such as the use of the body in shared spaces and how this can frame embodied interactions as expressed by Ingold's entwined knot) leads to the question of how wayfinding is experienced, given that it cannot often be seen as a completely individual practice.

3. **What practical techniques do people use to facilitate their embodied wayfinding experiences?**

The influence of tools, such as new technologies, and also the use of other people/bodies evolved from the literature review. Ingold's meshwork also suggests that there are different routes that can be used to find our way through heuristic search techniques and ways that also involve a certain theoretical journey between places. Question 3 will help to investigate the techniques wayfinders use.

4. **What can we learn by seeing wayfinding from a socio-culturally embodied perspective?**

The absence of socio-cultural thought in wayfinding literature begs the question of how seeing wayfinding differently, from the cognitive psychological perspective hitherto dominating this area, will enable an important complimentary view of wayfinding. The embodied socio-cultural focus brought out in the literature review leads to questions 2, 3 and 4 above, which are aimed at trying to better understand the embodied and socio-cultural influences on the wayfinding experience.

Having discussed the theoretical underpinnings of this research in this chapter, and then summarised the questions that emerge from the literature review and the conceptual framework, in the chapter that follows, I provide a detailed explanation of the

methodology, methods and analysis techniques used in this study. These methods and techniques are explained in order to provide visibility and clarity regards the exact process used for collecting, transcribing and analysing the data. These methods are based on the questions above that have emerged from the literature review and the conceptual framework.

Chapter 4
Methodology and Methods

Chapter Description

This chapter focuses on the underpinnings of the research and all aspects of the methods, methodology and the analysis utilised.



4.1 Introduction

This chapter proceeds with an explanation of the methodological framework used to structure this research and the paradigm used, i.e. the "world view within which researchers work" (Maykut and Morehouse, 1994: 4). Section 4.2 then lays out the ontological and epistemological positions which guide methodological decisions made in this study and includes an explanation of how these choices fit into the overall interpretive paradigm used. The ontological, epistemological and methodological approaches, as highlighted by Strauss and Corbin (1994: 278), need to be consistent and have "plausible relationships proposed among concepts and sets of concepts". The reason

for using an interpretive paradigm is explained in some detail. Next, Section 4.3 provides an explanation of the research methods used as a result of the paradigm adopted, with particular attention paid to the chosen sampling method, an explanation of the pilot interview, results, experiences and a detailed explanation of how the transcription process was carried out. Section 4.4 relates to the data analysis strategy: data representation and ethical considerations. This chapter is then completed in Section 4.5 with a chapter conclusion.

4.2 Research Approach: Ontological and Epistemological Underpinnings

Hitchcock and Hughes (1995) propose that, as researchers, our ontological assumptions lead us to our epistemological assumptions, which then guide us to the methodology and data collection techniques and tools. This thought process is also used and supported by Sparkes (1992: 14) who states that "all researchers make assumptions of some kind or other in relation to issues of ontology, epistemology, human nature and methodology". Sparkes (1992: 2002) and Mason (2002) further point out that researchers inevitably have their own biases and that they influence each piece of research. In my own work, having a British passport and having been able to travel extensively provides an example of such bias. Being able to access countries that others may not be able to, and doing so with relative ease (in terms of permissions), perhaps makes it harder to comprehend the experiences of those with limited, or no access, to the same route options. This issue of bias is also argued by Alvesson and Sköldberg (2010: 199) who state that both quantitative and qualitative research involve bias. Mason (2002: 68-69) agrees, contending that "whether or not they acknowledge it, all researchers do have ontological and epistemological positions which get activated or expressed in their research decisions and judgements". Popkewitz (2011) takes a similar stance in positing that, even within a positivist paradigm, proof and agreed truth is still based on the acceptance of constraints by researchers, whilst Bourdieu (1996: 19) reminds us that "it is the investigator who starts the game and who sets up its rules". Despite the methodologically controlled nature of many positivist quantitative research projects, Alvesson and Sköldberg (2010: 199) also highlight that the "language, perspective, metaphors, focus, representation" used, still all have influence.

It has become something of a standard in qualitative interpretive research to provide an explanation of assumptions (Alvesson and Sköldberg, 2010; Hammersley, 2012) and the researcher's other views and direction which will affect the research. Many researchers,

not only highlight the importance of reflective methods, but also infer that reflection is an essential ingredient (Alvesson and Sköldberg; 2010: 200; Hammersley, 2012: 55–56). The section below provides a reflection on the chosen paradigm.

In this study, an *interpretive paradigm* is used. Hammersley (2012: 51) defines the importance of the interpretive approach by saying that it is considered that:

> People's experience and perspectives are more diverse, complex, and interesting than is generally recognized; and that documenting them is therefore intrinsically worthwhile.

An interpretive paradigm, in other words, involves focusing on the experiences of people and in this study, trying to understand the experiences of wayfinders through an interpretive method, suits the relativist approach being taken. In this study in fact, I take a "soft relativist" (Johnson and Onwuegbuzie, 2004: 16) approach that involves unstructured and diverse data that is relative to the socio-cultural field (King and Horrocks, 2010). In contrast, a strong relativist approach, as posited by Johnson and Onwuegbuzie (ibid), involves multiple perspectives, an approach that can be problematic, such as if the example of driving on the left in the UK is considered an opinion rather than taken as a reality. In contrast to a relativist approach, a realist ontology tends to refer to a view that the social world exists independently of ourselves (King & Horrocks, 2010; Howitt & Cramer, 2011) and that the "key to such a realism, as we have just seen, is the conclusion that it is possible that all our beliefs can be false" (Bilgrami, 2002: 2).

Bilgrami's definition of realism highlights why such an ontological perspective is *not* pursued in this research project. Cohen, Manion and Morrison (2007: 7) perhaps best clarify the meaning of realism with their definition, with the "knower" vital in this research: "The realist position…contends that objects have an independent existence and are not dependent for it on the knower".

The intention in this research is to highlight the subjective and personal wayfinding experiences people have, in order to better understand their embodied wayfinding experiences. Here, no view can be considered *false*, at least if we are to accept the view of Hammersley (2012: 29) who states that no part of the subject's attitude or behaviour should be ignored, dismissed or considered wrong or false, because the very reasoning behind these actions, in itself can offer insight and valuable data. Finding value in these "uncertainties, anomalies, irregularities, and inconsistencies" (Sparkes and Smith, 2014: 27-28) is a key part of qualitative research and the focus of the interpretive paradigm. These uncertainties, anomalies, irregularities, and inconsistencies are useful in this

research, in order to achieve what Sparkes and Smith (2014: 70) call a "maximum variation sampling", meaning a wide and purposeful varied data sample.

Given that wayfinding would have no meaning without people themselves, with embodiment central to this study, a soft-relativist approach seems most appropriate in order to better understand people's experiences. Whilst placing the research subjects in a laboratory based environment has its use (for positivist based questions needing to control variables), such an approach would defeat the purpose of this specific research, given that the potential socially constructed realities in which wayfinding takes place, would then cease to exist as they are particularly emergent from the confluence and context of embodiment giving rise to too many variables to control. Reality in this research, therefore, refers to socially constructed realities, as opposed to "realism" or a "realist" approach (in that what is real exists independent of ourselves). The connection between choosing qualitative interviews and a relativist view of social reality is expressed by Mason (2002: 63) in the following way:

> If you choose qualitative interviewing it may be because your ontological position suggests that people's knowledge, views, understandings, interpretations, experiences, and interactions are meaningful properties of the social reality which your research questions are designed to explore. Perhaps most importantly, you will be interested in their perceptions.

Whilst acknowledging the benefits that can also be gained from studying wayfinding from a precise, scientific, objective universal set of variables viewpoint, this study is concerned with analysing wayfinding from a socially constructed relativist subjective experiential view.

Trying to place human behaviour into positivist studies can, to an extent, alienate us as subjects (Holbrook, 2000), i.e. such as if we try to objectify the people central to the embodied experiences in wayfinding. In agreeing with Holbrook, I believe a qualitative based approach to be the most suitable for the subject areas in question. For these reasons, in this study on wayfinding, a qualitative approach, consistent with eliciting real world lived experiences, experiences as they are perceived and interpreted, is used. Furthermore, in using a relativist ontology (that is a subjective study that values and uses stories and dialogue as remembered by volunteers who were interviewed) importance is placed on the social field, rather than seeing the "real-world independent of us" (King and Horrocks, 2010: 8-10).

Many studies have analysed wayfinding from a *quantitative* perspective, measuring very specific data, and often using virtual environments in the research. These studies include

ones by Rooke (2012) in her PhD on hospital wayfinding; Thompson (1999) and his PhD on *Wayfinding in complex spaces*; and numerous journal articles such as those by Lawton (1996); Raubal and Egenhofer (1998); Haque *et al* (2007); Hajibabai, Delavar, Malek and Frank (2007); Correia, Wirasinghe and de Barros (2008); Wiener, Lafon and Berthoz (2008); and Emo (2012). A large number of studies on wayfinding, in other words, tend to take on a realist, nomothetic and positivist ontological view, with quantitative methodology for data collection, with a scientific approach used. Rather than assuming that we always aim for direct and short routes and using quantitative research, I attempt to better understand the real-world lived experiences of wayfinding.

In taking a soft "relativist" ontological perspective, I am also accepting that there can be "multiple interpretations" (Sparkes, 1992: 33), truths and ways of constructing reality, according to the volunteers own realities and experiences and within this, constructing different interpretations of the structures that shape the wayfinding experience. What is or was real, despite the different interpretations, can, as Alvesson and Sköldberg (2010) remark, be considered true in that it is intended to be true by the subject. Even where potential untruths are told, there exists knowledge and value in the reasoning behind the constructed dialogue. Gergen (2001: 186) explains that in a modern world these multiple realities can exist by:

> Expanding the range of information to which we are exposed, the range of persons with whom we have significant interchange and the range of opinion available….so do we become privy to multiple realities.

In Gergen's (2001) notion of the modern polyvocal society, there are more opportunities and reasons for us to have more individual lines of thought and of reality, given the greater access to global information. The polyvocal concept makes multiple realities (from a phenomenological perspective) more likely, with a greater range of truths and possible realities, particularly in a wayfinding context, when multiple countries, cultures and peoples can be involved in the experience. Understanding these multiple realities, rather than seeking to constrain or forcibly unify the potential for these multiple truths to be told, further reinforces the use of the interpretive approach used in this research. Foucault (1978: 100) made a similar point to Gergen's polyvocal concept, stating that we should not "imagine a world of discourse divided between accepted discourse and excluded discourse…. [but] as a multiplicity of discursive elements that can come into play in various strategies". Sparkes (1992: 25-26) encapsulates the benefits of ontologically relativist research in the following:

> Since human beings are thinking, conscious, feeling, language and symbol-using animals, interpretive researchers do not feel drawn towards the natural science approaches for understanding the social world.

It is perhaps worth also stating that, by using interviews as the research method, it is accepted that this study does not perhaps use a 'true' phenomenology approach (if indeed such an approach is possible). The findings are, in other words, from the stories of volunteers' wayfinding experiences and not a study of the real experiences as they occur. Buttimer and Seamon (1980: 151) though explain that "interviews, open-ended conversations or accounts" can be used as part of a phenomenological approach. In a study on wayfinding in which a socio-cultural perspective is being used, the very presence of a researcher would, I suggest, make the idea of a pure phenomenological approach actually impossible given that an authentic wayfinding experience could not take place if the wayfinder were conscious of the researcher's presence. We also cannot get inside another's body and mind to experience what they experience and so we are left with language and observation to reconstruct that experience. In reconstructing the data, I use the definition of phenomenology taken from Seamon (2000: 158) which is as follows:

> The exploration and description of phenomena, where phenomena refer to things or experiences as human beings experience them. Any object, event, situation or experience that a person can see, hear, touch, smell, taste, feel, intuit, know, understand, or live through is a legitimate topic for phenomenological investigation…the aim is to use these descriptions as a groundstone from which to discover underlying commonalities that mark the essential core of the phenomenon. In other words, the phenomenologist pays attention to specific instances of the phenomenon with the hope that these instances, in time, will point toward more general qualities and characteristics that accurately describe the essential nature of the phenomenon as it has presence and meaning in the concrete lives and experiences of human beings.

Therefore, this research seeks to interpret other people's experiences, rather than trying to prove a pre-defined argument. In this respect, Mason (2002: 24) notes that it is not possible to create a planned "blueprint" for qualitative based research, given that it is normally exploratory and data driven in its approach. Hogg and Vaughan, (2011: 15) also note that there is difficulty in "replicating" results from qualitative research because of the extensive variation of context and subjectivity that is factored in (rather than factored out), a point which is impossible to ignore. The key within this research, which is worth emphasising, is in finding themes which can inform and be investigated further in future studies, rather than attempting to lay claim to having found a universal scientific truth or set of truths.

Finally, Gergen (1992) adds that we mostly construct our perceptions in relation to the social world, i.e. to others. Similarly, Robinson *et al* (2011: 59) state that "we all come

from different cultures and societies, are different sexes and have different interests; we all interpret the semiotics of tourism in different ways". Embodied wayfinding, as highlighted in the literature review, is an interactive process and experience which takes place in a social environment and almost always involves the presence of others.

The Researcher as the Research Instrument

All researchers need to reflect on their work; however, in qualitative research, this takes on a particular relevance and form, with authors including Patton (2002), Rossman (2003), Oliver, Serovich and Mason (2005), Rojek (2005), Henwood (2008), King and Horrocks (2010), Rose (2012) and Silverman (2013), all highlighting the importance and need for transparent and reflective methodological processes. The line of questioning, the mood, body language, the personal interests, social experience and socio-cultural background of the researcher can all impact upon the research questions, research participant and the resulting dialogue. As Hammersley (2012: 13) explains:

> There is acceptance, perhaps even celebration, of the fact the data, and inferences from them, are always shaped by the social and personal characteristics of the researcher. It is recognised that it is impossible to eliminate the effect of these, and indeed that they may facilitate insight as well as leading to error

Put another way, "there can be no separation of the researcher and the researched" (Sparkes and Smith, 2014: 13). Whilst it is clear that a researcher's presence and influence during qualitative interviews can create potential bias, these interviews are nevertheless one of the only practical ways for understanding the "historical context" (Hammersley (2012: 32), which is important for this specific research. Distancing oneself as a researcher from the constructed dialogue, is impossible in any meaningful sense. Haldrup (2004: 443) underlines an important point in that:

> The accounts are interpreted not as representing stable facts (what 'really' happened) or naked experiences (what they 'really' felt) but as expressions of families' sense-making efforts.

An epistemological issue occurs here in relation to social constructionism and how it emerges from a relativist stance. Having to work with reported experiences rather than actual ones, whereby humans reconstruct the experience in the telling of story about those experiences, can be said to *not* be a true representation of the facts. This leads to a social constructionist epistemology. Nevertheless, this constructed knowledge still represents the best opportunity to gather data on people's wayfinding experiences, for this study.

The researcher and the volunteer co-create the story as Denzin (1995: 11-12) explains, "together the two speakers create a small, dialogical world of unique meaning and experience". In this way, research knowledge is constructed in much the same way that the world being studied is seen to be constructed. The creation of the research data in effect is partly generated by the researcher him/herself. Denzin (ibid.) goes on to say that:

> The other, always embodied, moving, and shifting, inhabits this space. They fill it with the sounds of their voice, their eyes meet mine, glance off my shoulders and my head. I talk to and at them, and they talk to and at me…Inner and out dialogues merge, interact, shape, and inform one another.

It is accepted that the researcher's own role inevitably had some influence upon the dialogue during the interviews in that the researcher's influence is impossible to disembody from this form of data collection. Sparkes and Smith (2014) use the term "embodied talk" to describe the way in which the participant, will "take cues from our actions and speech and vice versa and how it becomes a kind of play and interaction between both parties". The key to ensuring that this research is transparent is to ensure that all interviews are recorded, all dialogue transcribed and for themes to be analysed from the dialogue. The data, in essence, involved a *co-construction* of knowledge between the volunteer and myself as the interviewer. My own influence as the researcher was never forgotten in the analysis. Nevertheless, themes began to clearly emerge that were certainly indicative of the volunteers' personal and direct wayfinding experiences. Mauthner and Doucet (2003: 414-415) address the misrepresentation in many data analyses:

> The method and the data are separate entities rather than reflexively interdependent and interconnected. Methods continue to be presented as a series of neutral, mechanical and decontextualized procedures that are applied to the data and that take place in a social vacuum....The 'embodied', situated and subjective researcher carrying out the analysis is rendered invisible'.

I sought in this study to provide cohesive ontological and epistemological underpinnings, as expressed by Mauthner and Doucet (2003) above. In the section that follows, the research methods and stages are explained, with justification provided for the method choices.

4.3 Research Methods, Stages and Considerations

Mason (2002) explains that research methods should be fully justified to explain not only the reasoning behind the chosen methods, but also why *other* methods have not been chosen. Mason also notes that interviews are the most often used method in qualitative

research, and that there can be an automatic decision by some people to use interviews, without any real attention given to ensuring that interviews are the most appropriate method for answering the research questions, or that they sit coherently together with the research study's adopted philosophical ontological and epistemological position. In order to fully justify the chosen research methods in this research, the section below provides a detailed explanation of the method used and the reason for its selection. This is then followed by an explanation of why certain methods were not used, details on the types of semi-structured interviews used, pilot interview experiences, the sampling procedure, interview techniques used, research ethics and the transcription process.

4.3.1 Method Selection: In-Depth Interviews and Rationale for Use

Silverman (2013: 125) tells us that "there are no right or wrong methods. There are only methods that are appropriate to your research topic and paradigm and the method with which you are working" and it is the choice of method which I focus on explaining below. Firstly though, a reminder of the research questions for this study:

Research Questions
• How is the wayfinding experience different for different kinds of people and what can we learn from these differences?
• What embodied challenges are faced in wayfinding?
• What techniques do people use to facilitate their embodied wayfinding experiences?
• How might wayfinding be viewed differently and what can we learn by seeing it from a socio-cultural embodied perspective?

The four questions above are all concerned with understanding rather than measuring human experience, a focus that can draw on various qualitative data collection techniques. Mason (2002: 52) identifies the most commonly used data sources for qualitative research of this type as: texts; settings and environments; people; organisations; objects (and artefacts and media) and events and happenings. Marshall and Rossman (2010: 145-146) suggest that:

> When the researcher is using in-depth interviews as the sole way of gathering data, he [sic] should demonstrate in the conceptual framework of

> the proposal that the purpose of the study is to uncover and describe the participants' perspectives on events – that is, that the subjective view is what matters.

In solely using a set of in-depth interviews in this research, the focus is on the subjective "participants' perspectives on events" which Marshall and Rossman describe above. The intention in this research was to interview a *purposeful* sample of volunteers in order to gather detailed or "information rich" (Sparkes and Smith, 2014: 24) contextualised data on the embodied nature of wayfinding experiences from individuals who are positioned differently in relation to it. In addition, in using a socio-cultural perspective in this study, I heeded the warning from Sparkes and Smith (2014: 18) in regard to the need to avoid "extracting people from their environments where they feel comfortable and placing them in highly structured or manipulated social settings like the formal experiment". As mentioned earlier in the literature review, a large number of positivist based studies on wayfinding have used virtual environments. These studies, whilst often providing valuable insight into specific aspects of wayfinding, tend to greatly constrain and limit any social element of wayfinding and it tends to be these limitations that Sparkes and Smith (2014) mention above. By using qualitative interviews, the intention was to use a research method suitable for eliciting data that related to fully embodied experiences and through a sociological lens. More specifically, semi structured interviews were selected as being "well suited to the exploration of attitudes, values, beliefs and motives" (Barriball and White, 1994: 329) and face-to-face interviews help to create openness (Henson, Cannell and Roth, 1978). Consideration was also given to whether to use structured and unstructured interviews and these are summarised by Rowley (2012: 262) who states that:

> Structured interviews in which quite a few questions are asked, generally answers expected are relatively short, and the questions are posed in the same order with every interviewee…unstructured interviews, the interview is based on a limited number of topics or issues or prompts, with the emphasis very much being on encouraging the respondent to talk around a theme…Semi-structured interviews take on a variety of different forms, with varying numbers of questions….but with some flexibility in the questions asked, the extent of probing, and question order, is a good starting point.

Indeed, I felt that structured interviews would potentially restrict the findings too much, whilst unstructured interviews would mean a risk that the interviews could too easily move away from a wayfinding discourse. Semi-structured interviews, for this specific research, were also valuable for similar reasons to those expressed by Barriball and White (1994: 330):

> First, they are well suited for the exploration of the perceptions and opinions of respondents regarding complex and sometimes sensitive issues and enable probing for more information and clarification of answers. Second, the varied professional, educational and personal histories of the sample group precluded the use of a standardized interview schedule.

What Barriball and White (1994: 331) term "the principles of specification and division" was used as a way of formulating the questions for this semi structured approach; an approach in which the questions were used as a way to probe and to create some form of structure in order to try and ensure the dialogue was steered and kept to one on wayfinding. One danger, for example, in talking about a subject that so often crosses over into a holiday/vacation discourse, is that wayfinding could otherwise have easily been forgotten, given the ease with which many of us can enjoy speaking of our holiday experiences! Wayfinding is equally appropriate for how we get to job interview locations, navigate when hunting for food in the wilderness (where the animal begin hunted is a moving location), commute, find our way to a hospital and so on. The semi-structured questions were a useful tool in shaping this process.

In order to develop questions that would act as probes and to also keep the discourse to wayfinding, whilst also allowing for themes to emerge, the interview questions were developed and influenced by the six main themes that emerged from the literature review, and by the sensitising concepts that emerged from the theory section. Attention was also given in the questions design for creating dialogue, which would be open-ended, a point raised by Maykut and Morehouse (1994: 83-88) who state that qualitative interview questions are:

> A series of topics or broad interview questions which the researcher is free to explore and probe with the interviewee…the primary consideration for qualitative research is that the questions be open-ended, inviting the interviewee to participate in a conversation.

The use of pre-designed questions for steering the interviews is also expressed by Mason (2002: 69) who comments: "I do not think it is possible to gather data in a wholly unstructured way through a qualitative interview, because the decisions and judgements the researcher makes give some form of structure and purpose to the data generation process". Rather than attempt to use a fully structured interview technique, which Kumar (2011: 145) explains involves using a "predetermined set of questions, using the same wording and order". I chose to use a set of questions as prompts and as a guideline in order to allow each participant to have the flexibility to explore and discuss their wayfinding related experiences, to allow a natural flow in the dialogue.

Semi-structured interviews as the one research method used I believed would provide sufficient data for this study. In the section that follows, I look at other methods which could have been chosen and discuss the reasons for not choosing each.

4.3.2 Justification for Data Collection Techniques Not Chosen

Before selecting semi-structured interviews for this research, I also considered other research methods. In what follows below, I summarise my reasons for *not* using these other methods.

Questionnaires: are particularly useful for collecting data from a large number of people (Langdridge and Hagger-Johnson, 2009: 87; Rowley, 2012: 261) and are useful if you wish to measure something that is not easily observable such as people's beliefs. Whilst the strength of a questionnaire is in its possible sampling size, questionnaires leave far less opportunity for the researcher to prompt the volunteers and to excavate deeper into the experiences of the volunteer (Langdridge & Hagger-Johnson, 2009; Kumar, 2011). Understanding the embodied aspects of wayfinding, I believe, would have been hard to elicit in using a questionnaire method in this research, in that certain emotions and embodied feelings in the wayfinding experience, I believe, could more easily be explored through interviews. This study is also not concerned with statistical analysis, and so the choice of fewer datasets, but which are better suited to mining deep into volunteers' experiences, was considered more appropriate for this specific study.

Documentary Research: Cohen *et al* (2007: 201) list a range of documents that can be used in documentary research, including diaries, journals, biographies, pamphlets and advertisements, annals and chronicles and newspaper articles, that is, any "written source" (ibid). Cohen *et al* (ibid) proceed to explain that the advantage of such a method includes the opportunity to access "inaccessible persons or subjects" and this might include the deceased. For this research on wayfinding, reading and analysing autobiographies was considered but there is a lack of texts and documents which relate specifically to wayfinding (and with embodiment located within it). Many autobiographies exist but the danger in using these (danger in terms of bias) is that such autobiographies would likely have led to a travel and tourism agenda (given that there are no specific wayfinding autobiographies) rather than keeping to a wide range of wayfinding experiences. A deeper issue is the lack of or absence of "reactivity on the part of the writer, particularly if the document was not written with the intention of being research data" (Cohen *et al* (2007: 201). In this specific research, the ability to have the reactivity afforded through semi-qualitative interviews, was a reason for not choosing documentary research in this study.

Documents, in the form of paper tourist maps, are often used (Talbot, Kaplan, Kuo and Kaplan, 1993) in wayfinding and could have potentially been used in some form, but they would have provided little insight without an explanation from the maps user. In one interview though, as will be explained shortly, a map was used as a prop.

Ethnography: The use of ethnographic techniques, particularly given that an "ethnography is always situated in human activity, bearing both the strengths and limitation of human perceptions and feelings" (Richardson, 2000: 254), made this technique a credible option in this study. Ethnography is fundamentally about social relations (Frohlick and Harrison, 2008) and it groups together a number of different techniques including: "participant observation" (Maykut and Morehouse, 1994: 69), observations (Hammersley, 2012; Marshall and Rossnan, 2010) and field work (Hannerz, 2003). Whilst a human-centric ethnographic method, such as observing an airport or a bucolic area outdoors, could have been used, the decision already to target a wide range of wayfinder types lends itself better to an interview method, rather than an ethnographic technique, which would have meant much greater focus on a limited location, limiting the research to more specific wayfinding types in a specific location or set of locations. Furthermore, while it would be possible, for example, to watch commuters in an airport, this is only part of their journey. Additionally, for locations such as on wilderness walks and for routes involving VIP protection, it would have been impractical given the resources available for this specific study.

Auto Ethnography: Another method also considered, was an auto-ethnographic one. At the start of this research it was the intention to use two stages, interviews and auto-ethnographic data (my own historic experiences of wayfinding and diaries from my own wayfinding experiences from before and also during the PhD). The semi-structured interviews though, provided an abundance of data and for this reason, the inclusion of an auto-ethnographic approach was deemed unnecessary and dropped.

Other types of Interviews: In addition to the choice of structured, semi-structured or unstructured interviews, a choice also existed in the range of interview methods available. *Email interviews* can be a useful method (Meho, 2006) but emails provide an asynchronous form of communication (Lo Iacono, Symonds and Brown, 2016) and this form of delayed (non-instant) form of response would have made such a method more difficult to use than a real-time synchronous method, such as face-to-face interviews, in this specific study. Rapport is also more of an issue when using an asynchronous method such as email and there exists a greater chance for miscommunication in email responses,

where there is less opportunity to fully explain the meaning of a question (Lo Iacono *et al*, 2016) or to respond to questions which may be more forthcoming in face-to-face interviews. For research related to embodiment, I also felt that a more embodied approach, which involved real-time human interaction, would also be more appropriate.

Critical Reflections: Method Selection

On a personal note, the use of face-to-face communication (on Skype as opposed to by telephone or email) in the interviews I felt was justified in part, because I found myself nodding often in order to show that I was listening and understanding their dialogue. This form of non-verbal communication would not have been possible over the telephone. Although sounds can be used to indicate that one is listening, I would argue that nodding enabled the dialogue to continue more naturally.

I deliberately nodded often, to ensure that the volunteer was clear that I was focused and listening to their dialogue, even if not physically in the same room for most volunteers. After one of the earlier interviews, it was stated by one interviewee that it was clear all the time that I was listening and that this was a positive thing.

The value of these non-verbal forms of communications, is supported by Myers and Newman (2007: 13) who note that:

> In the role of interviewer, it is especially important for the researcher to show empathy, to listen to the interviewee in an interested yet relaxed manner, and to respond appropriately to answers (e.g. by nodding, smiling or a shrugging of the shoulders).

Telephone interviews were another interview option and this synchronous method was considered, but rapport can be an issue given that there is less opportunity to follow visual prompts and cues (Lo Iacono *et al*, 2016). Cohen *et al* (2007: 153) and Lo Iacono *et al* (2016) state that the absence of such visual cues in telephone interviews can cause these interviews to become mechanical and cold. The divide between telephone communication and a VoIP (Voice Over Internet Protocol) method (such as Skype) is less distinguishable now given that services such as Skype can also be used as a telephone service (Lo Iacono *et al*, 2016) and there seemed no practical reason to use a telephone (in the traditional sense i.e. a handset). Skype is available as an app (application) on mobile phone handsets

and given over half of homes in the U.S. do not have landline telephones anymore (McGrath, 2015), the concept of telephone interviews perhaps needs re-labelling as voice only interviews.

Given the availability of Skype and the ability to engage more directly i.e. in a visual as well an auditory manner, with volunteers, I chose Skype video as the main method, but with face-to-face interviews (same physical space interviews) also an option, rather than a telephone method.

Critical reflections: Video v Telephone calls

In one interview, the internet connection in the country the participant was located in, was slow. From experience, the participant knew that turning off the video would solve the connection problem. In this instance, I reverted to myself being seen/heard as audio and video, whilst I could only hear the participant (much like I would in a telephone call). Having taken part, by that point, in many Skype interviews, I felt comfortable with this set-up and the interview seemed to go as well as any other interview. So, in effect, I was experiencing a voice only interview and the participant a video and voice interview. There was no noticeable difference in rapport and interview experience from any other interview that took place. On asking the volunteer after the interview, they also considered the interview to have gone well.

4.3.3 Type of Semi-Structured Interviews Used

Having considered a number of research methods and chosen to undertake a series of in-depth semi-structured interviews with "purposeful" samples (Sparkes and Smith, 2014: 24), the decision was needed as to whether or not to complete these semi-structured interviews as face-to-face interviews, or as online face-to-face interviews. Each of the versions of face-to-face methods has their own issues and benefits such as in relation to rapport and non-verbal cues. Face to face interviews in the traditional sense (Skype video interviews tend to actually be more facial than interviews offline, even though offline same geographical space interviews are still referred to as face to face interviews), were required because some volunteers preferred to meet in person or did not wish to set up Skype on their own device. Both online Skype and face to face interviews are discussed in detail in

the sections that follow, with consideration given to the differences in these forms of qualitative interview and implications.

Online Skype Video versus Face-to-face Interviews: Considerations

In order to access the broadest possible sample, in respect of the wayfinding types, and with some specific volunteers in mind who live in different countries worldwide, I considered a Skype video method the most suitable. Skype, as a research tool, offers many benefits, including the opportunity for internationalisation and wide diverse samples (Lo Iacono *et al*, 2016: 1). In this specific research, being able to use a VoIP (Voice over International Protocol) method such as Skype, in order to interview people anywhere in the world was extremely valuable and very useful from a practical point of view.

Initial discussions, however, with some of the planned volunteers (the sampling strategy is discussed later in Section 4.3.5) revealed a preference by three volunteers to be interviewed face-to-face. I considered both methods acceptable to collect data in a pragmatic way or for what Marshall and Rossnan (2010: 4-5) describe as "do-ability", in order to collect data that is realistic in terms of "time, gate access and researches own skills" (ibid).

Wayfinding does *not* fall into being what one would normally consider a sensitive topic, that is, a topic that is highly sensitive in terms of legality or cultural taboos such as drug abuse or prostitution (see for example Hawkins, Catalano and Miller, 1992; Borders and Booth, 2007). For this reason, in this research there is no suggestion of the problems experienced by Seitz (2015: 5), who notes that, for some personal topics, it can "be more difficult to obtain in-depth responses to sensitive questions via Skype". Seitz adds that these suspicions may be related to the video element of Skype, rather than lack of trust in the researcher. Sietz (ibid) adds also that:

> Even though the Skype interviews were audio-recorded only, some participants feared that their discussion could still be listened to by others within earshot or shared via video or pictures that would violate their privacy. Some declined to be interviewed.

The sharing of video was actually an unfortunate situation I experienced (see critical reflection below) just before starting my own interviews and how I learnt that possible violations of sharing of the video can happen both online and offline.

Critical Reflections: Privacy Violation

During this PhD study, I experienced the unethical side of research and this emphasised the importance to me for strong research ethics, such as the need to provide consent forms and provision for confidentiality. After agreeing to be interviewed by a French Masters student who was temporarily in the UK on work experience, I soon discovered that the interview, which I had allowed myself to be involved in and filmed doing, was shown to some other people whom I knew and was the source of some comments regards how I looked on camera, much to my dismay. Whilst no harm was done, I felt unhappy at the lack of privacy given, particularly given my candid and honest answers in the interview. No consent forms were used and little effort was given on the part of the researcher to protect the identity and data of those involved as research subjects. This cemented my understanding of the importance of conducting research ethically.

Skype as a method also benefits from the third-party software EVAER® (which Skype recommend), which is able to record the video and audio of both the researcher and the volunteer, on one split screen. This can be done without the need to set up any external cameras (provided a webcam exists on the computer of those involved). EVAER® was used in the interviews for this research.

Whether an interview takes place online or offline, the interviewer has a duty to ensure a safe location for the participant (Cohen *et al*, 2007: 75; Hanna, 2012: 241) and, in the face-to-face interviews, all three volunteers were well known to me and physical safety and rapport was not an issue. Priority was also given to a location that afforded the volunteers a place to speak privately. In these interviews, an iPad was used to do voice only recordings via the app "Voice Record Pro". No attempt was made to video the interviews because it was felt that the topic area was not one for which nonverbal clues were central. Certainly, one benefit of offline face-to-face interviews is that the researcher can control the physical interview environment (Lo Iacono *et al*, 2016: 10) and interviews that involve a co-presence, whether online or in person, provide a performance of cues rather than the collection of these cues for later analysis.

The location for online interviews is equally important (Lo Iacono *et al*, 2016) and given that the volunteers' location is one that is self-chosen and can sometimes be revealing,

there are different considerations from face to face interviews. Firstly, drawing on Goffman's (1990 [1959]: 34) *Presentation of Self*, how the participant selects her/his own environment, provides more data than if the researcher, chooses the environment. Along these lines, Goffman (ibid) states that:

> As part of the personal front we may include: insignia of office or rank; clothing; sex, age, and racial characteristics; size and looks; posture; speech patterns; facial expressions; bodily gestures; and the like.

Even though clothing is a form of presentation of self in interviews, online interviews can sometimes offer a greater opportunity for the researcher to gather data. This is highlighted by Lo Iacono *et al* (2016: 8) who state that the volunteers "can have access to a variety of artefacts and objects that may emerge as relevant during an interview, which they may find useful to show the researcher". Interestingly, in terms of responses and the direction the interviews took, there was no discernible difference at all between Skype video interviews online and face-to-face interviews. There was also no notable difference in terms of rapport between the two methods (rapport is discussed in more detail in Section 4.3.6).

For online interviews, I would posit that it is important to guide volunteers on the ideal research environment for doing the interviews from, a point made also by Deakin and Wakefield (2013: 7), who mention that "ensuring interviewees are in a location free from controllable distractions is an important element of preparation for online interviews". From my online interviews, I would recommend somewhere quiet (where volunteers are not likely to be disturbed), somewhere where there are not reflective mirrors in the background (to avoid something being seen that perhaps should not be seen by accident) and also to use a location where the volunteers' own privacy is assured (i.e. not to use an internet café).

Critical reflections: Use of artefacts during interviews

One of my volunteers, in one of the interviews, decided to show me a map to describe the location of one of her trips in a wilderness area. "Let me show you the maps. Hang on a second [Julia physically goes to grab the paper maps and then holds them up to the screen]. I just plotted these". The participant was able to draw on artefacts from her home, artefacts that she would not likely have had at her disposal in a face to face interview.

4.3.4 Pilot Interview and Experiences

A pilot study can take place in order to evaluate the feasibility of a study (Kumar, 2011) or to "iron out" (Langdridge and Hagger-Johnson, 2009: 91) any flaws in the design stage, such as to "uncover some of the problems in advance of the research proper" (Cohen et al, 2007: 58). Pilot studies can also be a benefit where online interviews are planned, in order to test recording equipment (Marshall and Rossnan, 2010; Lo Iacono *et al*: 2016: 11). Even though I had used Skype video in the past, I had not done so for interviews and not experienced recording Skype video calls. Hence, I decided to do two 10-minute pilot studies, to test the integration of third party software EVAER® for recording the live video and audio of both volunteers. There were a number of issues experienced and these were as follows:

Upside down video - Even before doing the pilot interview, some experimentation was needed in order to get Evaer® working correctly. On first recording a video call between two people (with my wife sitting in another room and using Skype on an iPad), the first problem was that my wife appeared on screen upside down and then, on a second effort, sideways. There was no clear way to know how to get the person to show as being sat the correct way in the recorded video, if the interviewee was using an iPad or other tablet devices. On communicating with the owners of Evaer® at the time, I was informed that this was a known issue and that the iPad user must have the home button on their left-hand side. This issue has since been resolved by Evaer®.

Getting connected - In the pilot interview, the interviewee was connected but had a problem to turn on the video so that I could also see her. This is one of the most common issues I have experienced in using Skype video in the past. There is one button to press to allow the other to see the video of yourself and this is something you need to be familiar with and able to explain to the volunteer to guide them to locate this button on the Skype interface.

During the interview - When first starting a video interview with Skype, the first thing that one can become aware of is the experience of seeing oneself on video (Lo Iacono *et al*, 2016). You become "the other" i.e. the viewed and the viewer. Seeing yourself onscreen can be daunting or fun (depending on your outlook) and offers advantages and disadvantages. First, it means that you can see what the other person sees and this can help you to maintain your professionalism. When you begin to slouch in the chair or look as though you are disinterested, you can re-compose yourself. On a negative side, one's focus should be on the interview, dialogue and questions, although in the holistic embodied

experience of an interview, one might argue that being aware of the presentation of self is an important part of the interview. Noticing oneself in the video is perhaps no different from the moments when we try to avoid appearing to stare at the interviewee and need moments to look elsewhere in a face-to-face interview. It is worth considering the interviewee and how the ability to also view themselves can impact on their experience and on the interview.

Note taking and body language - In the pilot studies I noticed myself slouching and I immediately changed my sitting position. Seeing both parties onscreen also provides the benefit that you can ensure that you are both correctly in picture and visible for when you, as the interviewer, come to analyse and transcribe the interviews. Another issue was note-taking. On the video, I could see that I appeared to be looking down at something that, for the other person, is not viewable. I was in fact looking down at a notebook as I took notes, my hand out of camera shot. I decided, in subsequent interviews, to verbally explain that I was taking notes, to pre-empt any concerns of focus on my part, to the volunteer.

Other difficulties were also experienced during the Skype interviews including sound (some issues because of fans being placed too close to people's computers), time-zone issues and because of internet speed. These other problems are detailed in "Appendix 4: Interview Issues Experienced" at the end of this thesis.

4.3.5 Sampling

Relativist and realist studies differ greatly in how the sample types and sizes are selected (Kumar, 2011:192), representativeness (i.e. who) and the "quality of a piece of research stands or falls not only by the appropriateness of methodology and instrumentation but also by the suitability of the sampling strategy" (Cohen *et al*, 2007: 100). In quantitative studies, there is a focus on an unbiased and exact representation of the population (Kumar, ibid), whilst, as King and Horrocks (2010: 29) explain:

> The criterion most commonly proposed for sampling in qualitative studies is diversity. Researchers seek to recruit participants who represent a variety of positions in relation to the research topic, of a kind that might be expected to throw light on meaningful differences in experience.

In qualitative research, samples can be delineated in a number of ways and a decision thus needs to be made in how to best create this division of samples in order to best generate a diverse range, within the means available. Mason (2002: 124) explains the process, for qualitative sampling, in the following way:

> Encapsulate a relevant range in relation to the wider universe, but not to represent it directly. This might mean a range of experiences, characteristics, processes, types, categories, cases or examples, and so on…You should have a strategic purpose in selecting your specified range which means that the relationship between your sample and the wider universe is not ad hoc, accidental, purely opportunistic or indeed representational.

Howitt and Cramer (2011) outline the range of techniques available to the qualitative researcher that, as shown in Figure 10 below, can range from random samples to strategically planned non-random samples. In this study, non-random examples were used.

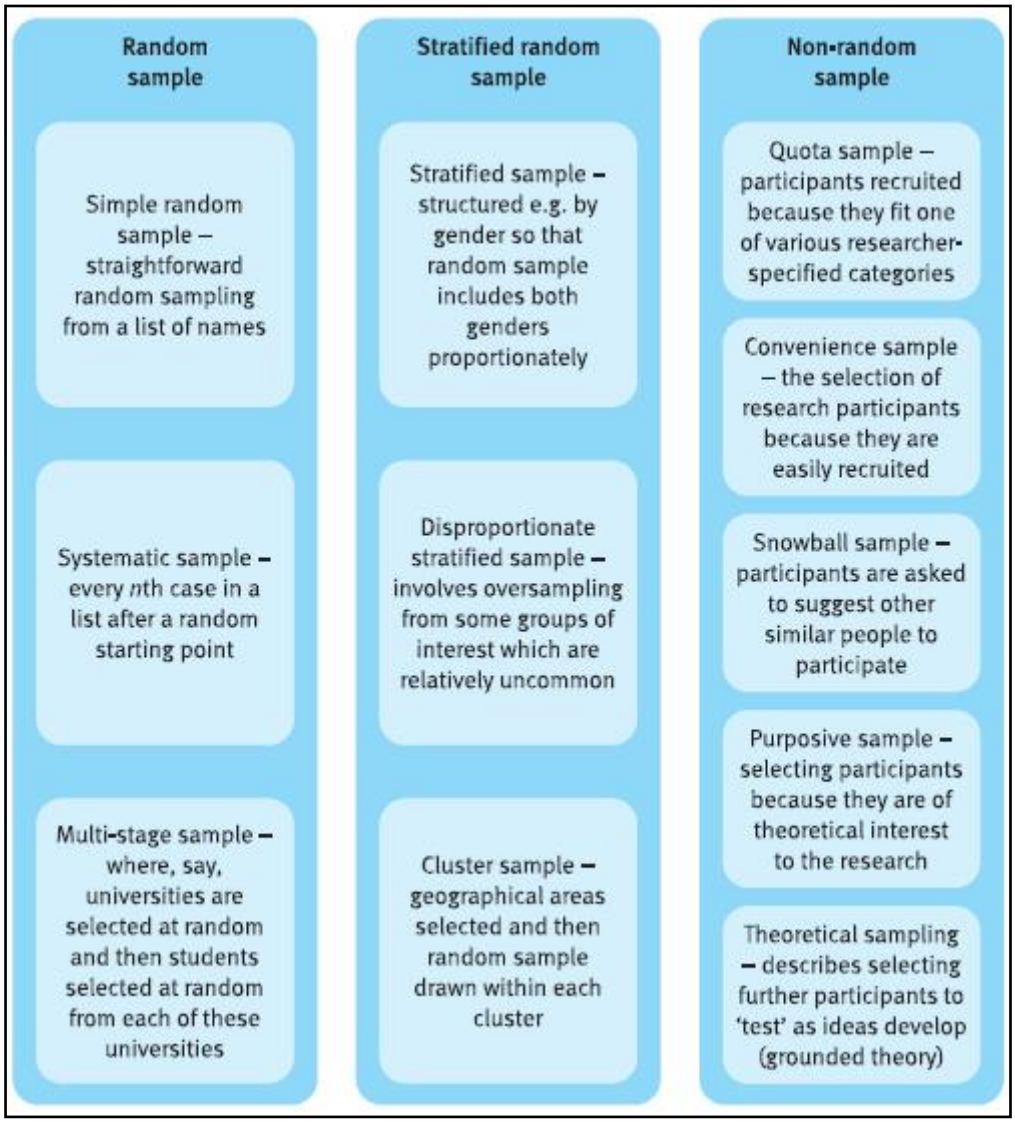


Figure 10 - Taken from Howitt and Cramer (2011: 234)

The sampling for this research was driven by a purposive sampling strategy, a strategy articulated by Sparkes and Smith (2014) as involving a deliberate selection of individuals with particular experiences that will enrich the focus of a study. The techniques used for

finding volunteers, be it someone known to the researcher, or the result of snowballing, was not important per se. The key driver, in this study, was the need to find a diverse purposeful sampling that represented a variety of wayfinder types, as opposed to classifications such as by age, occupation or ethnicity. Trying the "pursuit of representativeness" (Mason, 2002: 127–128) to fully represent every form of wayfinding journey would demand a significant number of samples, making such research impractical for this study. In this study, not every possible type of wayfinding journey is represented, but twenty-three different ones are used as the sampling range. There are clear limitations in the scale of this research, but this study is aimed at being exploratory research as opposed to being explanatory, descriptive or emancipatory research [6] (Marshall and Rossman, 2010: 69). This study is intended as being a starting point in order to provide a better understanding of people's embodied wayfinding experiences, to present a grounding for future studies.

In order to find some of the purposeful samples, the snowball technique was used. According to Maykut and Morehouse (1994: 57), Kumar (2011) and Cohen *et al* (2007), the snowball method is useful in trying to gather a purposeful set of maximum variations. Cohen *et al* (2007: 116) define the snowball method in the following manner:

> In snowball sampling researchers identify a small number of individuals who have the characteristics in which they are interested. These people are then used as informants to identify, or put the researchers in touch with, others who qualify for inclusion and these, in turn, identify yet others – hence the term snowball sampling.

There is inevitably some bias in the snowball method because volunteers can suggest or recommend someone who shares a view of a certain phenomenon i.e. what is being investigated (King and Horrocks, 2010: 34). The snowball method is also unsuitable for quantitative research, given its lack of precision in terms of achieving a fully representative or random sample. The explorative nature of this study, led me to consider the snowball method a suitable one. Of the six volunteers found by the snowball method, some quite unique wayfinding type experiences were encountered, including the experiences of a:

- Professional caver and climber.
- Wilderness traveller.
- Gentleman from Italy who is living in Bangkok, Thailand, and has a 1 hour long commute each day to a small local village.

[6] As the names suggest, explanatory research aims to learn about how a phenomenon takes place; descriptive research describes the characteristics of a phenomenon; and emancipatory research attempts to develop ways to change a social phenomenon.

- Professional couchsurfer (someone who travels and stays for free in other people's homes).

Of the twenty-three people interviewed, sixteen of the volunteers were known to myself before this research started. Six volunteers were found via a snowballing technique and one was found by direct email. In this study, the idea of reaching a true saturation point, in the scope of the size of this study, was unlikely to ever occur given the thousands of possible journey types that exist. Rather than a saturation point occurring after twenty interviews, that is a "stage in data collection, where a researcher is discovering relatively little new information from correspondents" (Kumar, 2011: 396), it was felt that there was sufficient data collected for representing a variety of wayfinding situations befitting of the sociocultural perspective used. After twenty interviews, it was thus decided that I had enough data for what Hennink, Kaiser and Marconi (2017: 1) refer to as a "richly textured understanding of issues". However, interviews twenty-one to twenty-three had already been arranged and were thus completed.

Of the twenty-three volunteers involved in this research, fourteen were interviewed using Skype and countries from which interviews took place online included Russia, Thailand, Belgium and France. Two participants, however, lived in the same city as the interviewer, but preferred, interestingly, to be interviewed via Skype as this method allowed volunteers more flexibility with regards to location and times for the interview. In total, thirty-nine people were approached in order to find the final volunteers, with the sixteen failed attempts composed of ten females and six males. The final interviews were composed of fifteen male and eight female volunteers. The intention was to try and gender balance the number of volunteers to avoid what Pritchard and Morgan (2000: 887) express as a "prevailing male bias… where no allowance is made for gender difference, subsuming female behaviour into that of the dominant male pattern". Even though this is not a tourism study, the point made by Pritchard and Morgan was considered and an attempt was made to try and create a gender balance as much as possible, in respect of the volunteers interviewed. I did *not* successfully achieve a gender balance, even though an equal number of males and females were approached, due to a greater willingness of males approached to agree to be interviewed. In one case, child care issues caused the cancellation and drop out of one female volunteer.

Each interview lasted for between 45 minutes and 75 minutes, with the exception of one interview, which lasted for 30 minutes (the interview with a present day professional football league manager was cut short because the interview took place on transfer deadline day, a point unknown to me before-hand). Volunteers were emailed a week after

their interview and invited to offer any follow up thoughts or feedback they wished to provide. Three volunteers provided further thoughts by email on their experience, which they thought about as a result of the interview. This additional feedback was time dated and added to the end of the respective volunteer's transcript.

Figure 11 below shows the list of volunteers in this study, with a pseudonym used for each person for reasons of privacy. It should also be noted that nationality is listed according to the answer they gave when asked of their nationality, hence the reason for some listings of UK, and others as Welsh or English.

ID	Pseudonym	M/F	Nationality	Journey Type	Age in interview	Interviewee Location of volunteer
1	Patrick	M	British	Business traveller, commuter, male, family, solo	46	Exeter, England
2	Cecilia	F	Italian	Korea	42	Cardiff, Wales
3	Bob	M	Iranian British	Sports tourist (windsurfing)	43	London, England
4	Alan	M	Italian	Trip to move abroad, driving	Late 30s	Milton Keynes, England
5	Rose	F	American	Jet-setter, commuter	30s	Venice, Italy
6	Francis	M	English	Moving abroad (France), naturist, police work,	55	Agde, France
7	Sarah	F	Irish	Living in Russia, family, Korea, commuting	Early 30s	St. Petersburg, Russia
8	Charlie	M	English	Disabled helper	72	Bristol, England
9	Stef	F	English	Disabled, group travel	70	Bristol, England
10	Lauren	F	Belgium	Cruise travel, backpacker	Late 20s	Withheld for anonymity
11	Dave	M	Welsh	Sports, solo, touring	67	Pembrokeshire, Wales
12	Jason	M	Welsh	Group, resort, sports event travel (spectator)	57	Valleys, Wales
13	Amy	F	British	Backpacker	40s	England
14	Julia	F	British	Wilderness, rural, sport, canoeing, hiking	40s	England
15	Keith	M	British	Runner, swimmer, rugby coach	46	Cardiff, Wales
16	Antonio	M	Italian	Thailand, commuter	32	Bangkok, Thailand
17	Kevin	M	English	Tour guide, house-sitter	50	Cannes, France
18	Jack	M	English	Commuter, early 20s, student	22	Cardiff, Wales
19	Andy	M	Australian	Outdoor sports specialists: rogain, caving, climber, kaya	30s	Cardiff, Wales
20	Linda	F	Italian	Professional couchsurfer, backpacker	40	London, England
21	Adrian	M	English	Close body protection, military	46	Newcastle, England
22	Hugo	M	British	Professional football manager, job interview	40	Withheld for anonymity
23	Rex	M	British	Backpacker, lived abroad	45	London, England

Figure 11 - Volunteers Information

4.3.6 Interview Technique, Experiences and Strategy

Having discussed the sampling strategy in the previous section, this section is concerned with the interview techniques used, including the procedure for the questions, the word and sequencing of questions and the strategy for probing, i.e. for guiding the volunteers in an attempt to gather rich data. This is followed by a discussion regarding the main experiences and issues during the interviews. The first section below provides an explanation of the questions and questioning in the interviews.

Interview Questions and Questioning

Semi structured interviews are "generally organised around a set of predetermined open-ended questions with other questions emerging from the dialogue between interviewer and interviewee/s" (DiCicco-Bloom and Crabtree, 2006: 315) and the open-ended questions are useful in that they help volunteers to answer questions in their own words (Cohen *et al*, 2007). The "open-ended manner" (Howitt and Cramer, 2011: 301) of qualitative interviews runs contrary to the "highly structured" (ibid) techniques used in quantitative research. In this research, I created a set of open questions in order to create an open dialogue, in line with the epistemological intentions of this qualitative study. These questions are available in the appendices at the end of this PhD.

The questions that I had listed were broken down into 7 sub-groups and these sub-groups were based on the literature review and the research questions. Whilst the wording of questions is essential to consider in that it "can influence the way in which memories are reported" (Howitt and Cramer, 2011: 106) and it can also create a form of "bias" (Oppenheim, 1992: 96–7), open-ended questions and interviews help to bring out the volunteers' unique view of the world and thus, one set of questions might be suitable for one volunteer but not for another (Silverman, 2013). Silverman also makes the point that using open-ended questions allows more freedom for a greater variety of issues to evolve. Whilst a list of questions existed, the sequencing was flexible in that, themes such as technology, social aspects of wayfinding and embodiment, often naturally emerged, rendering supplementary questions unnecessary.

Asking one or two general questions at the start is normal for semi-structured interviews (Howitt and Cramer, 2011) or as DiCicco-Bloom and Crabtree (2006: 316) explain "the first question should be broad and open-ended, should reflect the nature of the research and be non-threatening". Because each person knew they had been selected for a specific journey type, I chose to start each interview (after the initial greetings) with that person's

specific journey. An extra brief set of questions, for those I interviewed on Skype, were also asked at the end of the interview about their experience of using Skype for interviews. These questions were included to collect data for a paper on Skype as a research method (see Lo Iacono *et al*, 2016).

The questions at hand were used as probes, "to get below the surface data and to search for the deeper, hidden patterns" (Cohen *et al*, 2007: 391). In other words, the interview questions were used to guide and keep the interviews directed towards wayfinding and to the research questions.

Critical reflections: Asking questions

In one interview, I repeated back to the person their own last sentence, because I had not heard the sentence clearly. The participant though took it as a prompt to expand further and went even deeper into the topic they were discussing and some very useful data evolved with this expanded answer. This situation occurred early-on in the interview process so I used this technique in many interviews that followed. The repeating back seemed to almost act as an acknowledgement that I had been listening carefully to them and this seemed to make them even more willing to continue further on the same topic.

Rapport – "Rapport is … about trust … enabling the participant to feel comfortable in opening up to you" (King & Horrocks 2010: 48). Creating a positive sense of rapport, in other words, generates a feeling of trust and confidence between both parties involved (Cohen *et al*, 2007). Rapport is especially important in qualitative interviews because researchers are looking for the participant to open-up and to talk freely and for the dialogue to flow, in that the interviewer will ideally "establish a safe and comfortable environment for sharing the interviewee's personal experiences" (DiCicco-Bloom & Crabtree 2006: 316), be it online or offline.

Rapport was given serious consideration before deciding on Skype as a research method. Contrary to the remarks by Seitz (2015: 4) that technical difficulties may create a loss of intimacy, no such loss was experienced in the interviews for this research, i.e. on the few occasions a connection was lost, the participant was apologetic and we continued the interview without a problem. Even though some calls were affected temporarily by a lost internet connection, I felt that the potential for any loss in rapport would nevertheless have

been outweighed by the chance to interview a sampling devoid of geographical boundaries. When "both the researcher and the researched are able to remain in a safe location without imposing on each other's personal space" (Hanna, 2012: 241) the opportunity to build rapport in such an online environment can be devoid of the awkwardness that might sometimes exist in interviews that take place in the same physical space. With Skype, "the place of the interview becomes much more fluid" (Deakin & Wakefield 2013: 7) and logistical issues with regards to access to certain spaces such as a classroom, meeting room, area of a hospital, a sports centre or dance studio are also eliminated:

> I find it very comfortable. And in some ways it's preferable because in a minute I'll pop off and make a cup of coffee. Get back on with my work and - I haven't put myself out very much. Something of interest though…is I almost feel more loose tongued in Skype than I do face to face. There's something about face to face that almost makes you follow - a more formal - it's the whole body language thing and the setting and the - but when you're talking to a screen you with you on the other end of a screen – there's something that almost makes you want to open up. (Transcript from Patrick from the one of the interviews in this study, when being asked about his Skype interviews experience).

Deakin and Wakefield (2013: 8) found that "Skype interviewees were more responsive and rapport was built quicker than in a number of face-to-face interviews", a point supported by Lo Iacono *et al* (2016: 6) who found that Skype can in fact offer new opportunities to build rapport given the way in which the interviewer can look directly into the face of the volunteer on the screen. Indeed, the fact that many volunteers were known to me or were the result of the snowball method, helped in building rapport, in that we had something in common. Talking about their wayfinding experiences, in fact, was described as "therapeutic" and "relaxing" by two different volunteers. The experiences of Lo Iacono *et al* (2016) also, interestingly, found that older volunteers in their sixties and seventies were just as "willing to embrace new technologies for practical uses", similar to the findings from White, McConnell, Clipp, Branch, Sloane, Pieper and Box (2002), Kiel (2005), Fokkema and Knipscheer (2007), and Shapira, Barak and Gal (2007). Furthermore, the opportunity might exist for a greater rapport to be developed using an online research method such as Skype, such as for older volunteers who struggle with mobility issues. Further research would be needed on this and is beyond the scope of this study.

Nonverbal Cues - Nonverbal clues may also be important in interviews (Cohen *et al*, 2007: 153; Hesse-Biber and Griffin, 2013: 56; Lo Iacono *et al*, 2016: 7-8). In Skype interviews, it is generally only possible to see the top half of a person and some body language may be lost. Except for the tone of voice, telephone interviews mean a loss of nonverbal cues and Skype video calls overcome this issue, in that both parties can see each

other. The person you are viewing tends to be visible as a large image on your screen and you see yourself as a small person on the bottom of the screen. Bayles (2012: 578) is right in that we "lose the full range of postural, gestural, and expressive movement that the body conveys". Lo Iacono *et al* (2016: 7) make the point that isolation of certain parts of the body (in this case the face) can reveal greater meaning when seen close-up. What is lost in not being able to see the lower half of the body in peripheral vision, in other words, is perhaps counteracted by the benefits gained from seeing the face close up as Ghosh (2013: 84) also found, when being taught Indian Odissi dance via Skype, that:

> Close-ups of the face can reveal the expressions during the dance. The close ups of the hand gestures and feet can also give an understanding of the grammatical aspects of the dance.

In Skype interviews, one might argue that what is lost in nonverbal communication from not seeing all of the body, is counter-acted by the extra focus on the face and shoulders.

4.3.7 Research Ethics

Ethics and ethical behaviour are vital in professional research (Mason, 2002: 80-82; Hammersley and Atkinson, 2007: 212; Cohen et al, 2007; Kozinets, 2009; King and Horrocks, 2010; Kumar, 2011; Silverman, 2013). Potential ethical issues were considered and addressed in the ethics approval process and passed by the ethics committee of Cardiff Metropolitan University before this study proceeded.



Figure 12 - Adapted from Plummer (2001)

Plummer (2001) chooses to represent the ethical considerations as a list of seven key research issues (see Figure 12 above) that he suggests researchers should follow. Standard ethical procedures were followed throughout the research process in line with the seven key areas highlighted by Plummer. Volunteers were, for example, sent a consent form (see Appendix 1) at least a week before any interview and were clearly made aware that the interview would be recorded. They were also asked again before the interview if they were still happy for the interview to be recorded and informed that they could ask for the interview to be halted at any time, for any reason. To provide "confidentiality", which Plummer lists as one of his seven points, the recommendation to use "pseudonyms" (Meho, 2006; Holt, 2010; Beaumont, 2011) was followed. The video recordings and all data was also stored on a password protected external hard drive and password protected computer.

Critical reflections: Ethical Issues

The importance of confidentiality was evident in an interview with one particular participant. The participant presently works on cruise ships and gave information which could compromise his/her position if s/he were ever identified. This emphasised to me the importance and reason why confidentiality is so important.

Risks (physical, confidentiality, mental and privacy risks [Cohen *et al*, 2007]) refers to factors that the participants need to be protected against, in research. The potential for risks in this study was considered minimal in that wayfinding is not, in itself, considered a sensitive subject area in any wayfinding literature per se. In this study, the main possible issue was that the recollection of experiences has the potential to make participants feel uncomfortable.

Interview volunteers were given the opportunity to choose the location, day and time of their interview. In line with qualitative ethical guidelines from the British Sociological Association (2002), it was also stressed to the participant, by way of the participant information sheet (see Appendices), consent form and finally once again by speaking directly prior to the interview, that there are no "right" or "wrong" answers and that they could control what was said and how it was said and that they could request the recording of the interview be paused, stopped or indeed terminated altogether and that this request would be granted. In addition, in line with common ethical practice for most qualitative projects, it was further made clear that the researcher is an academic and not a medical doctor, counsellor, or a therapist and therefore was not trained to engage in discussions of this kind. Finally, immediately prior to the interview starting, having made this information explicitly clear, volunteers were finally reminded that participation was their choice and asked if they still wished to partake in the interview. In order to address Plummer's (2001) points 4 and 5 (in Figure 12) regards unintended deception and accuracy of portrayal, each volunteer was asked before-hand if the interview could be recorded and informed when the recordings started and ended.

Ethical considerations have "evolved over the years to accommodate the changing ethos, values, needs and expectations" (Kumar, 2011: 241) of stakeholders in the process and in this research, the use of relatively new online methods such as Skype, provide new ethical considerations. Arguably, the availability of online research has made ethics harder to

define (Lo Iacono *et al*, 2016: 9), particularly given that the "blurring of public and private in the online world raises ethical issues around access to data and techniques for the protection of privacy and confidentiality" (Garcia, Standlee, Bechkoff and Cui, 2009: 53). Specific to this research, the use of Skype® and EVAER® for the online interviews technique required additional ethical safeguards due to the non-face-to-face nature of the interview.

i) Volunteers were informed when recording had begun, paused or stopped.

ii) Online storage facilities were avoided in preference for a password protected and encrypted computer and external hard drives. (Responding to Plummer's point 6: *confidentiality*)

iii) Volunteers were counselled on the selection of appropriate locations from which they are interviewed with reference to issues of privacy. (Responding to Plummer's point 6: *confidentiality*)

Once data had been collected, it was transcribed and stored and only the people involved in the project had access to this information.

Another issue, which one might consider important in qualitative research, is the consideration of balance in terms of trying to avoid Westernisation[7] of the data collected. Johnston (2001: 184) uses the term "Western rationality" to describe this issue, whilst Rojek (2005: 38) notes that "leisure in a Western industrialized society is more individualized, diverse and connected to the market than in Islamic or Buddhist societies". Technologies such as VoIP (Voice over Internet Protocol), mean the potential to interview people from all corners of the world, and hence there is perhaps an ethical issue, if we ignore the opportunity, where it exists, to de-Westernize our research (see Lo Iacono *et al*, 2016). Some communities and peoples worldwide still lack access to the Internet but what is clear is that with over 3.7 billion internet users worldwide (Internetworldstats, 2017) and with over 40% of the world's population having Internet access, excuses for providing a homogeneous view, are becoming harder to substantiate. Research though must be pragmatic (Langdridge and Hagger-Johnson, 2009: 445) and the decision as to how globally balanced the research is, must understandably also meet time, cost and technical resources. I would argue in this study, that regardless of whether the volunteers are Western or otherwise, the key goal was to interview a purposeful sample of varying wayfinding experience types, and this was achieved.

[7] In this study, "Western" refers to "a person who comes from a country in the western part of the world, especially North America or western Europe" (Cambridge Dictionary Press, 2017).

One further issue for researchers to consider is the use of a Skype account and what happens after the interview/s. It is necessary to connect with the volunteers' Skype accounts and this could mean that, as a researcher, one can remain connected on the Skype interface, to the volunteers after the interview (Lo Iacono *et al*, 2016). One solution that I considered was to create a bespoke Skype account specifically for the research. In the end, I chose not to and instead ensured that, after each interview, I unfriended[8] the volunteer from my own Skype interface. I felt that this would be understood by the volunteers given that they would know I had "friended" them specifically for the research.

Data Backup, Security and Transfers

The protection of the recordings was also an issue given serious consideration. Buchanan and Zimmer (2012) and Lo Iacono *et al* (2016) make the point that cloud storage can put data at risk of being hacked. Whilst cloud storage platforms are considered very strong in terms of security, it should be remembered by researchers that access for a given account is only as strong as the password an individual creates for that account. All electronic data in this research, at every stage, was stored on a password protected computer (with a strong password of higher case, lower case and alphanumerical characters) and backed up on one external password protected hard drive. Care was taken in how the data was transferred each time from the iPad when the files were sent via Wi-Fi to Dropbox. For the iPad saved files, "Voice Record Pro" (the app used on an iPad for the recordings) enabled me to send the files by Wi-Fi directly to my Dropbox account. A home and secure connection was always used for such data transfers, as opposed to an unsecure public Wi-Fi connection. It was also necessary to remember to ensure that all files were then deleted from the iPad after the transfer. As an extra level of security, a passcode entry was used on the iPad and the "Find my iPhone" app (which also works for the iPad) was set up in order to be able to immediately delete all data from the iPad if it were lost. All files stored on a password laptop were also stored in a "Folder Lock" software enabled encrypted folder, for one further level of security.

Identity Verification of Volunteers

"Establishing the authentic identity" (King and Horrocks, 2010: 98) of the research volunteers is an issue which was considered in this research, particularly with regards to the interviews that were completed online. Even though this research did not "require that

[8] In social media, this refers to unlinking your connection to that person via your profile on that given media.

specific groups be included or excluded" (ibid) in which case verifying the identity of volunteers can be particularly important, establishing the identity of all volunteers was relatively straight forward. In certain situations, verifying the volunteers' identity can be problematic, given the ability to very easily create fake identities online including using the photograph of someone else (Lo Iacono *et al*, 2016). Despite the placement of volunteers worldwide, all volunteers were either personally known, or known by someone known to the myself as the researcher.

4.3.8 Transcription Process

The manner in which dialogue from interviews is transcribed has potential implications (Lapadat and Lindsay, 1999; Patton, 2002; Oliver *et al*, 2005) on the way in which the data is interpreted and thus, "transcription warrants examination" (Lapadat and Lindsay, 1999: 66) as a part of the qualitative research process. In the section that follows, an explanation of the transcription methods and processes used are detailed.

I chose to personally transcribe all interviews, in order to immerse myself in the data. During this phase, the coding also commenced because I made notes on each document for dialogue that I considered might be important later in the analysis phase. Initially, each interview took roughly three working days to transcribe, mainly because some coding was being added in simultaneously. The bigger issue though, was my slow typing ability and the lack of transcription software and pedal. After frustration at the speed of transcribing each interview, I bought an Infinity USB transcription foot pedal and the 3rd party "Express Scribe Transcription" software. This enabled me to complete each further transcript in two days. Contrary to the idea that "transcription is a chore" (Agar, 1996: 153) the opportunity to indulge in the data was both rewarding and pleasurable, despite the time taken.

The interviews were transcribed using a "semi verbatim" as opposed to a "real verbatim" (Holt, Tamminen, Tink and Black, 2009: 165-166) technique. A semi-denaturalised style approach was used to focus on the overall meaning of the conversations. In these interviews, the intent was on the "substance of the interview, that is, the meanings and perceptions created and shared during a conversation" (Oliver *et al*, 2005: 1277). Kvale (1996: 166) makes the point that we, as researchers, should ask ourselves the question: "What is a useful transcription for my research purposes?". The transcriptions would not be used for discourse analysis but to extract more general themes and thus, for the flow of the transcribed dialogue, I felt it was justifiable to omit every sound such as involuntary vocalisations, stutters and so on. Pauses were annotated using a hyphen, but the length of

time of any pause was not calculated. The definition used in this thesis for defining naturalism is taken from Oliver *et al* (2005: 1273):

> Naturalism, in which every utterance is transcribed in as much detail as possible, and denaturalism, in which idiosyncratic elements of speech (e.g., stutters, pauses, nonverbals, involuntary vocalizations) are removed.

Given that embodiment is central to the study, it felt inappropriate to use a completely de-naturalised form of transcription. I also felt that some sounds were relevant such as the sound of laughter or some "umms" where the person was clearly spending time to think. At the same time, including every possible sound would, I felt, have devalued the interview scripts, i.e. made it difficult for the reader to focus on the useful content. A semi-naturalised approach was thus taken:

Most non-verbal forms of communication were not annotated, unless the communication was considered very relevant to the interview. Given that I, as the researcher, would ultimately be the instrument for filtering the findings from the interviews and what becomes of the data, this annotation was not deemed necessary.

In situations such as where someone used the wrong word or the wrong name, I transcribed the name exactly as spoken. One slightly amusing example was by one of the volunteers who had recently moved to the UK from Italy and who always referred to the pub chain who are correctly named "Wetherspoons", as "WaterSpoons": In the transcripts, the name "Waterspoons" is always used. The name of the pub was not relevant per se to the research findings, but by keeping the name as spoken, the transcribed speech was kept as accurate as possible. Whilst no examples are extreme as the "annual" rather than "anal" sex example given by Oliver *et al* (2005: 10), some mispronunciations and incorrect terms did occur in the dialogue.

Transcription Styles Used in the Transcription	
Hyphen	used to denote a pause such as "and I'm - unsure of"
Underlined words	the person emphasised this word as they spoke
Square brackets used	to make a note such as to explain something that might otherwise might not be clear to the reader.
Hmm mms	I often acknowledged the interviewees responses to show that I was listening and interested in what they had to say. These hmm mm's were sounds rather than speech and thus were not included. When the acknowledgement I gave was definite speech i.e. 'Yes' **then it's** included in the transcripts.
Over-lapping speech	I used dots …… at the end of the speech for the person talking to signify the person about to be over-taken. Dots are then used at the start of the text of the person about to do the over-talking.
Incomprehensible speech	Has been denoted with square brackets and the words "Unintelligible" written inside the square brackets.
Obvious grammatical Errors	I did not correct obvious mistakes in people's speech. An example being "my **uncle** lives in Switzerland. **She** told me". Most of the time the error in speech was irrelevant to the overall theme and conversation. Where such an error was potentially important though, then I have added in square brackets, a comment to explain the believed intention.

Figure 13 - Transcription styles used in this study

4.4 Data Analysis

The section detailing the data analysis approach is broken down into five sub-sections as follows: 1) the method and framework used; 2) an examination of the theoretical data analysis approach; 3) the analysis strategy used; 4) the data representation and 5) judgement criteria. The section concludes with a brief consideration on how I learned to do analysis during the course of this study.

4.4.1 Data Analysis Method and Framework

Stages Explained

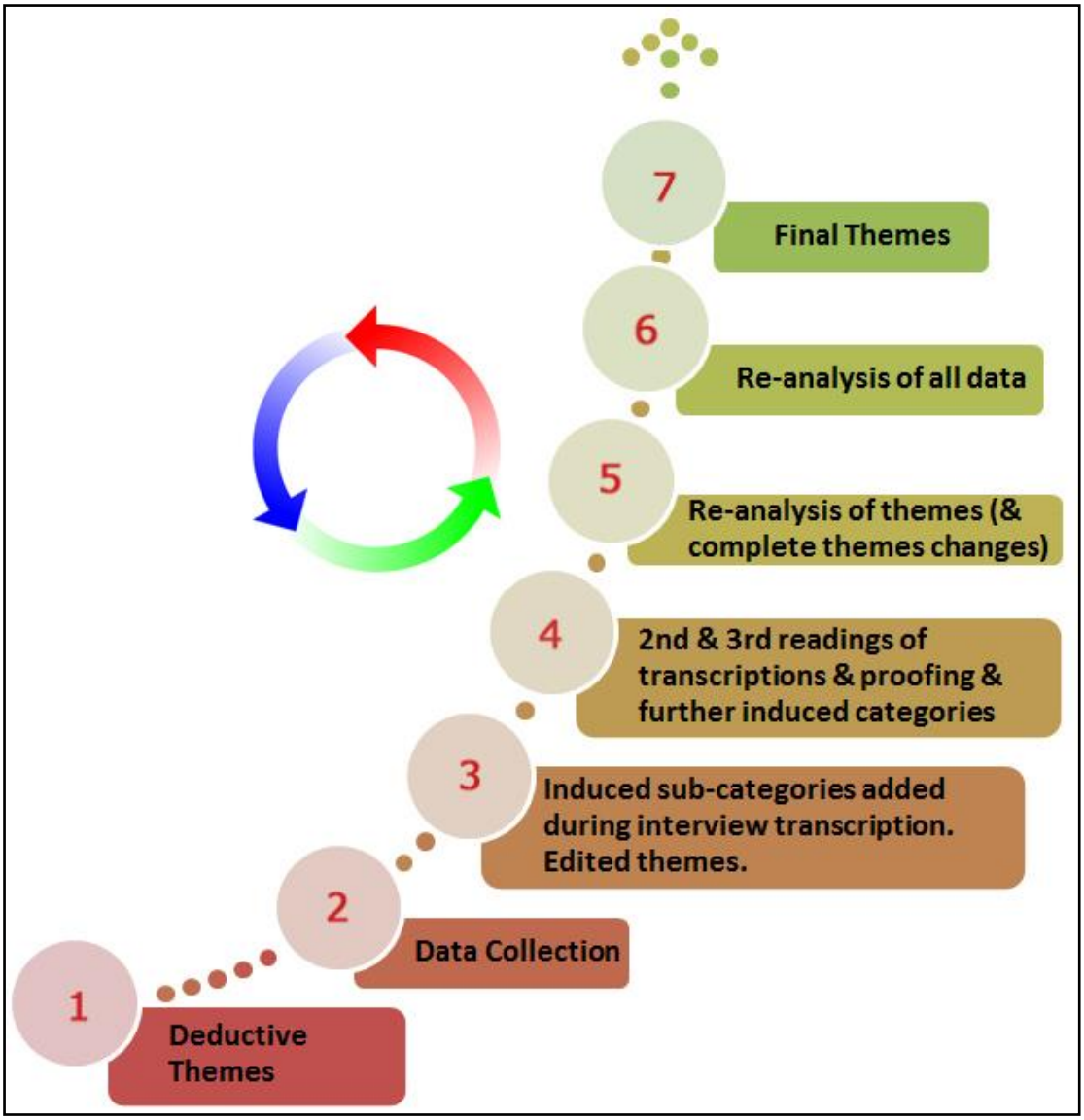


Figure 14 - Stages used in this research

Stage 1: The underlying theory and research questions and my prior understanding of wayfinding (explained in the literature review), was used initially for creating the main themes, in a deductive manner. These deductive themes are what Ryan and Bernard (2003: 88) call "a priori approach", which comes from:

> Already agreed on professional definitions found in literature reviews; from local, common-sense constructs; and from researchers' values, theoretical orientations, and personal experiences.

Stage 2: The data collection phase took place over the course of six months from June 2015 through to November 2015.

Stage 3: Coding started during the transcription process. Dialogue and data, which was considered likely to be important, was noted as comments and highlighted on the transcripts and the data populated into an Excel spreadsheet under the themes. Sub-themes were also developed in this inductive data driven stage.

Stage 4: This stage was an extension of stage 3 with the all transcripts read through a second and third time, with the transcripts checked against the audio recording and the scripts proofread (proofed for spelling mistakes as opposed to correction of speech because a semi-naturalised approach was used in transcription).

Stage 5: Time was spent viewing and analysing the data, to try and find themes which now reflected the data inductively and such that the themes were more naturally connected and also simultaneously fitted around the research of embodied wayfinding. The wayfinding body types were used to completely change the theme structure. This natural process also follows that which Patton (2002: 465) explains as:

> Developing codes and categories, a qualitative analyst must first deal with the one challenge of convergence…figuring out what things fit together. Begin by looking for recurring regularities in the data. These regularities reveal patterns that can be sorted into categories. Categories should then be judged by two criteria: internal homogeneity and external heterogeneity.

Stage 6:

> i) Two interviews were completely re-analysed to test the new thematic structure. This is in line with Kuckartz (2014: 72) idea that "10 – 20% of the data should suffice to initially test the applicability of the topics and categories".
>
> ii) All other interviews were then also re-analysed in full and all data completely re-populated into the new theme structure. Stage 5 was re-considered again to see if there was further need to re-theme based on the continually emerging data.

Stage 7: After moving between stages 5 and 6 for 2 months, the final themes and data analysis was complete and ready for the write-up.

4.4.2 Data Analysis Theory

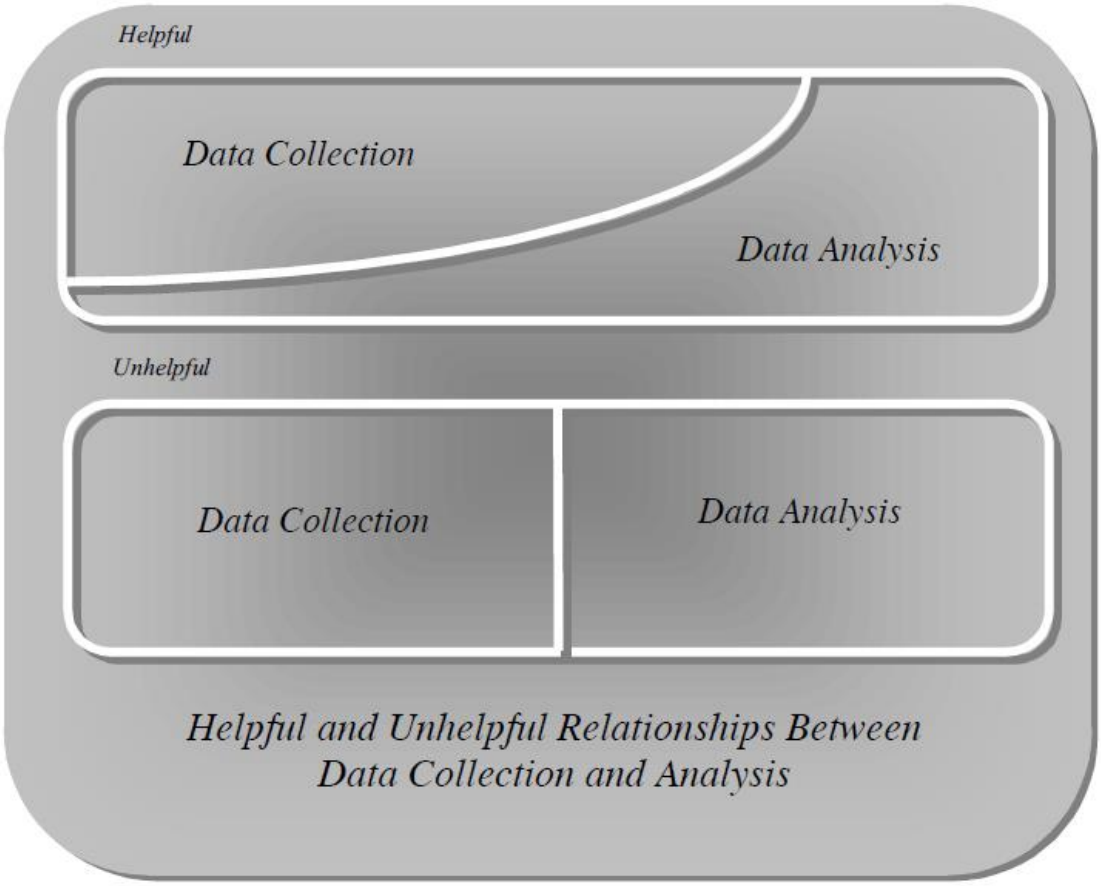


Figure 15 - Data analysis process (Brown 2001: 104)

The process of data analysis is one which Brown (2001: 104) shows in the diagram above as starting in the data collection stage, a view also supported by Kvale (1996) who sees the process of analysis commencing in the transcription stage, whilst Ryan and Bernard (2003: 88–89) feel that "for those who tape their interviews, the process of identifying themes probably begins with the act of transcribing the tapes". In this study, my analysis in effect, started from the very first interview as potential themes began to emerge. The themes, in other words, started as priori themes and gradually evolved into emerging themes. Through engaging with wayfinders and co-constructing their experiences, an emic approach[9] towards the development of the themes exists.

Between each stage of analysis, I took a one month break, in order to try and distance myself from the data and to return each time with a refocused and refreshed mind for

[9] In short, emic refers to an "inside perspective" (Morris *et al*, 1999), which relates to the world as viewed by participants, and etic to an "outside perspective" (ibid) often referring to the perspective taken by the researcher often with the use of a priori theory. In anthropology, both are considered complimentary approaches.

another round of analysis. Mauthner and Doucet (2003: 414) explain that "the interpretation of data is a reflexive exercise" and, along these lines, it is these layers of reflection for which I tried to allow enough time for multiple cycles of data analysis, i.e. to re-interpret the interpreted.

NVivo 10 was considered as an analysis tool for coding and interpreting the interview results and several authors/researchers, including Marshall and Rossnan (2010) and Langdridge (2009), strongly recommend NVivo as a good tool for analysing qualitative data. In this research though, in order to fully engage with the data, the decision was taken to use Excel, MS Word and Zotero. Even though not designed as analysis software, Zotero is more than sufficient for tagging each code (words, sentences and expressions) from the transcripts and to generate reports for specific tags. The use of NVivo in this study, I felt, would have been an over-engineered option and unnecessary.

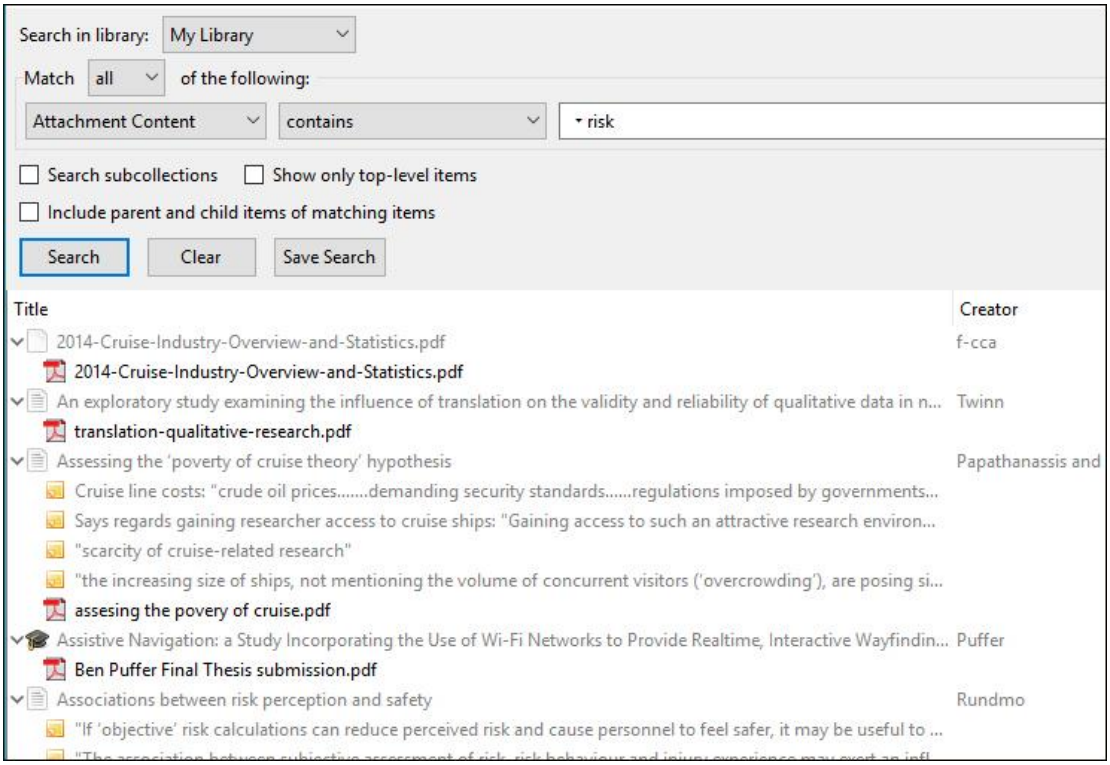


Figure 16 - Print screen of Zotero search facility.

It is worth drawing attention to some of the features of Zotero given the ease otherwise, with which one might use software that is beyond the scope and needs of a given research project. Zotero is very easy to use software that evolves from George Mason University in Virginia, USA, and "is a free open source research tool" (Zotero, 2018). I found that Zotero was perfect for a research project of this size and, having taken a two-day training course in NVivo in year one of this PhD, I realised that NVivo was superfluous to requirements. Furthermore, installing NVivo at my host university involved having to take

my own laptop to the IT department for installation and relying on a license and I.T. support from the university. Zotero, on the other hand, is extremely easy to install; requires no special IT skills; uses much less physical space on a computer than NVivo; allows for complex searches; and provides the ability to add, tag and add notes to various media such as PDFs, video, documents and webpages. Zotero's search facility match results against various criteria, as shown in Figure 17 below:

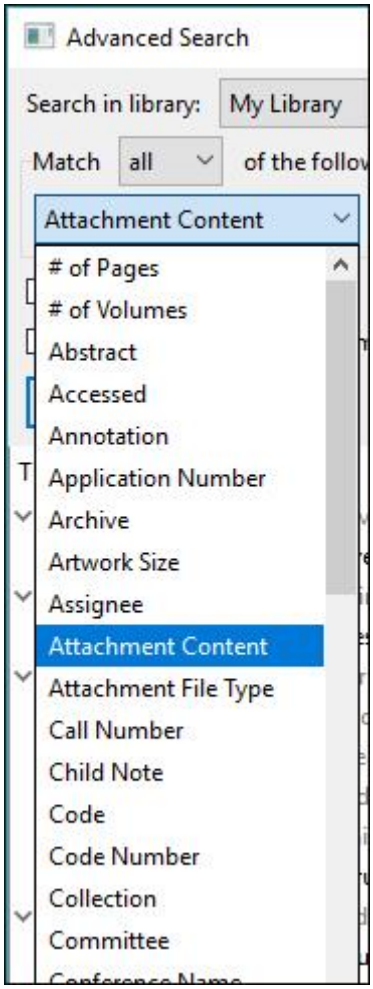


Figure 17 - Example of the search options in Zotero

4.4.3 Analytical Strategy Used

The data from the interviews could potentially have been interpreted in a variety of ways, including via discourse analysis (Burkitt, 1999; Alvesson and Sköldberg, 2010; Hammersley, 2012). Rather than being interested in the way in which the interview subjects respond and construct their dialogue, it is the perceived wayfinding experiences which are of interest and how this fits with the themes defined, in relation to wayfinding. Content analysis was not used because my strategy was to analyse the overall meaning and context of what was said, rather than, for example, the number of instances of certain,

words. “Content analysis - This involves establishing categories and then counting the number of instances when those categories are used in a particular item of text” (Silverman, 2001: 122). In this study, I was aware that some themes or concepts might only be mentioned once and yet might be potentially important. Indeed, Cohen *et al* (2007: 389) explain that “discourse researchers explore the organization of ordinary talk and everyday explanations and the social actions performed in them” and, in this vein, trying to understand the use of certain ways of speaking was not the focus for this particular research.

> In order to generate findings that transform raw data into new knowledge, a qualitative researcher must engage in active and demanding analytic processes throughout all phases of the research. Understanding these processes is therefore an important aspect not only of doing qualitative research, but also of reading, understanding, and interpreting it. (Thorne, 2000: 68)

In this research, a phenomenological approach (King and Horrocks, 2010; Cohen *et al*, 2007) is used to better understand how other people experience wayfinding as an embodied and socio-cultural activity. The “term phenomenology, as it is now recognised, originates in the work of the German philosopher Edmund Husserl” (King and Horrocks, 2010 175). In order to try and overcome the “premature attempt to construct explanations” (ibid) Husserl sought a method which viewed phenomena from the perspective of human consciousness. In using a phenomenological approach, a subjective interpretation is sought, through one to one interviews with the volunteers. As discussed earlier in Section 4.2 on the “Research Approach”, in one sense, I have not undertaken a *classical* phenomenological study in that I have analysed the stories of people’s experiences of wayfinding, rather than having studied the actual experience such as via observation or participation or by following a person as they wayfind. It is debatable whether even observations and interviews can capture people’s experience as all such forms of data are mediated by language, a process which inevitably involves linguistic interpretation. Moreover, I would posit that, even in a study where I would have attempted to study the actual experience, the wayfinding experience itself would have then changed because of my presence. Whilst I am ultimately a co-constructor in the interviews, reconstructing the stories of the experiences, I have at least not influenced the experience itself, hence these interviews, I would argue, are closer to a phenomenological approach than if I had attempted to study the experience itself as it happened/happens. In the analysis and write-up, what Glaser (1965) refers to as the “constant comparative method” was used in that a comparison of experiences was applied to categories and their properties were integrated. These comparisons led to groups of data that then led to body types/themes that emerged

from the data. During the transcription and coding process, I followed the process discussed by Glaser (1965: 439):

> While coding an incident for a category, compare it with the previous incidents coded in the same category…This constant comparison of the incidents very soon starts to generate theoretical properties of the category. One starts thinking in terms of the full range of types or continua of the category, its dimensions, the conditions under which it is pronounced or minimized, its major consequences, the relation of the category to other categories, and other properties of the category.

I used this constant comparative method as I transcribed and wrote up the findings, and through this, themes began to emerge.

A purely thematic analytical approach throughout might have been possible, for example, but it quickly became apparent that far too many themes would have existed and representing the data would have been difficult and somewhat disjointed and abstract. Initially though, a thematic approach was used as a starting point and then, through the use of the constant comparison method, more logical groupings of data formed and ideal types was considered the best way to group and represent the data that was kept. This was deemed the most effective approach, for best representing these data in manageable groups whilst keeping the focus on the embodied experience of wayfinding.

4.4.4 Data Representation and Judgement Criteria

Having discussed the analysis strategy above, in this section the methods used for representing the data and the judgement criteria used, are explained. Even in qualitative writing, there are a number of ways of representing the data and "judgement calls" (Sparkes, 2002: 192) need to be made. Ways of representing the data that is befitting of a relativist approach are discussed below. First though, Figure 18 below, highlights the process through this study, that led to the data representation. A number of themes emerged from the literature review. These themes, combined with the sensitising concepts, helped to shape the interview questions that were created in order to guide the semi-structured interviews. The data that evolved from the interviews, suited the use of 'Ideal Types' (this is discussed in more detail in the sections that follow) as a way of presenting the data in logical groupings. These groupings aided the focus on typically reported embodied wayfinding experiences. Furthermore, the sensitising concepts guided the analysis detailed in each body type in the findings.

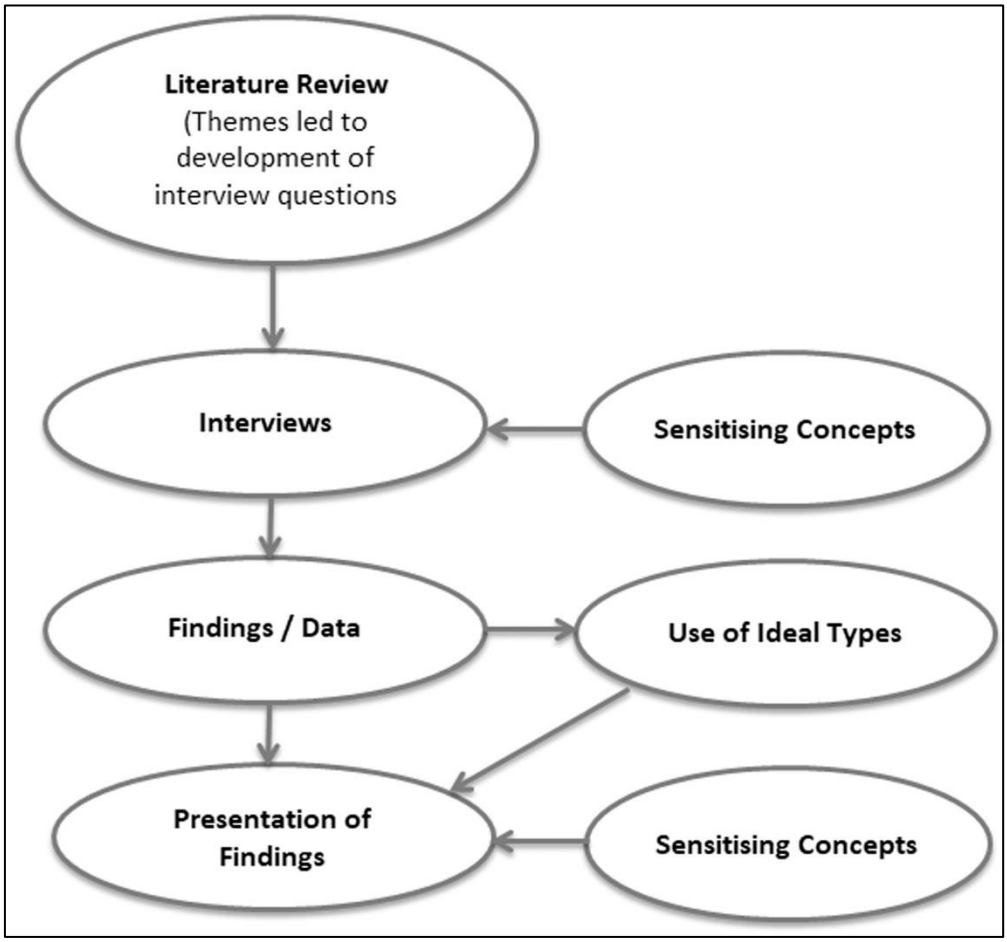


Figure 18 – Process that led to the presentation of the findings.

4.4.4.1 Judgment Criteria

The question of how qualitative research can legitimately be judged, is a discussion that many scholars have raised (including Garratt and Hodkinson, 1998; Smith and Deemer, 2000; Sparkes, 2002). Indeed, Sparkes (2002) underlines the issue that qualitative data lacks an exact scientific standard or reference point, against which to measure facts. The ability, in other words, to prove what is true is difficult in research, particularly in interpretive qualitative research.

This study should not be judged on a quantitative notion of validity, but rather by a notion of internal coherence and width. Coherence is one of four criteria suggested by Lieblich, Tuval-Mashiach and Zilber (1998: 173) for qualitative research, as shown below in Figure 19.

Width: The Comprehensiveness of Evidence. This dimension refers to the quality of the interview or observations as well as to the proposed interpretation or analysis. Numerous quotations in reporting narrative studies, as well as suggestions of alternative explanations, should be provided for the reader's judgment of the evidence and its interpretation.

Coherence: The Way Different Parts of the Interpretation Create a Complete and Meaningful Picture. Coherence can be evaluated both internally, in terms of how the parts fit together, and externally, namely, against existing theories and previous research.

Insightfulness: The Sense of Innovation and Originality in the Presentation of the Story and Its Analysis. Close to this criterion is the question of whether reading the analysis of the case-study of an "other" has resulted in greater comprehension and insight regarding the reader's own life.

Parsimony: The Ability to Provide an Analysis Based on a Small number of Concepts, and Elegance or Aesthetic Appeal. This relates to the literary merits of written or oral presentations of the case and its analysis.

Figure 19 - Four forms of judgment criteria from Lieblich *et al* (1998: 173)

The intention in this study is to meet Lieblich *et al's* (1998) criteria of coherence by attempting to present a coherent way of understanding wayfinding. The main research question has guided the literature reviewed and the conceptual framework used and these led to the research sub-questions. The data from the interviews has been discussed and presented in the findings chapter in relation to the conceptual framework, in an attempt to better interpret the main and four sub-questions.

4.4.4.2 Data Representation

Rather than being a realist tale told from a third person perspective, in this research I have, in effect, represented the data using what Sparkes (2002: 51) refers to as a "*modified* realist tale" in that, as the author and first party, my influence is directly related to the presentation of the data. This refers to the way in which the findings are presented in written form, my own experiences and previous knowledge on wayfinding, and the influence I had as the interviewer which made me, in part, a co re-constructor of the stories even if not a part of the stories themselves. Ultimately this means that the data are told, in one respect, from a first party perspective. In seeking to represent a diverse set of samples, the strategy "for presenting qualitative findings that will be read, make sense, and have impact" (Sandelowski, 1998: 375) has been considered and rather than seeking to impose a set of themes on the data, I sought to use a thematic structure that would best represent the data that evolved from the interviews. Contrary to Beaumont (2011) who, in her research on local surfers in Devon, England, uses "ideal types" as a key a priori intentional part of her framework, the use of "ideal types" in this research is a *concept that emerged from the*

data as the best option for presenting the data, rather than being a priori concept that drove the data. In the section below, I present an explanation of how the use of "ideal types" emerged as the thematic structure used.

"Ideal typing" is a concept first introduced by Weber in his book *Objectivity in the Social Sciences and Social Policy* in 1905 and is referred to by Hendricks and Peters (1973: 32) below:

> The Weberian ideal type is neither a description of reality nor a hypothesis (Weber, 1963, p. 396). It is an attempt to create order out of seemingly heterogeneous events by accentuating homogeneous attributes. The ideal type develops the "idea" of certain conditions found at particular historical instances in a society.

Weber's (1964: 92) concept of "ideal types" is not intended to suggest an "ideal" body, the original meaning having been lost in translation. Weber meant "idea" types and these idea types provide us an opportunity to present data in a logical and thematic way. As Lindbekk (1992: 290) explains:

> The ideal-type is a model, not a hypothesis…(1) the ideal-type is a model, (2) its content is derived from the content of a particular culture, (3) it exaggerates, (4) it is concerned with meanings, (5) it emphasizes the internal relations between the several individual traits of meaning, (6) it demonstrates how these meanings motivate action.

Given that this research uses a qualitative method for collecting the data, the data needs to fit into an ordered and logical grouping (Hendricks and Peters, 1973: 32; Hall, Morley and Chen, 1996: 114). It is worth pointing out also that ideal type categories *do not act as absolute and complete set of categories* (Patton, 2002: 457). Rather, they act as an extremely useful way of grouping data taken from lived experiences and providing a tool to represent the findings.

There are numerous ways in which the body is seen in the data to affect the experience, practice and organisation of wayfinding. These examples can be connected with a range of concepts from socio-cultural literature that take a more explicit view of the body in society. In so doing, the body becomes the *subject* of wayfinding rather than an absent (but clearly important) presence in the wayfinding process. Therefore, in the findings chapter, I present a sample range of ideal typical body types (safe, restricted, compliant, sensing, social, empowered, educated, and pleasure seeking) in order to highlight the significance of an embodied view of wayfinding. *I would stress* though, that these typical wayfinding bodies are neither intended to be exhaustive of all wayfinding experiences nor are they intended to suggest that such experiences are discrete, as in practice many of these bodies' types will

come together and be experienced consecutively or at different points in the same wayfinding process.

	A	B	C	D	E	F	G	H	I	J	K
1		**BODY TYPES**									
2		**Safe Wafinding body (from users persecptive)**									
3		Risk	Bob	Bob	Henry	Julia*	Paddy	Adrian*	Adrian*	Stuart	Re
4		Security Procedures	Patrick	Stef	Adrian	Rose	Jack	Julia*	Adrian	Adrian	
5		Planning re stress/safety	Rose	Rose	Rose	Rose	Lauren	Patrick	Patrick	Bob	Sar
6		Stress and anxiety getting from A to B	Adrian	Adrian*	Antonio	Antonio	Antonio	Rose	Amy	Patrick	Patr
7		Landmark as safety marking (merge with others- left this one)	Keith	Keith	Keith	Lauren					
8		Physical presence man v woman	Keith	Sarah	Rose	Jack	Keith	Cecilia			
9											
10		**Social Wayfind bodies**									
11		Joint or Group wayfinding	Lauren	Rose	Lauren	Amy	Amy	Henry	Henry	Jack	Ste
12		- Pivot system (creating a base)	Amy	Patrick	Stef	Keith	Nick	Rex10			
13		Guiding others	Rose	Lauren	Henry	Henry	Linda	Keith	Keith	Owen	Ow
14		Unknown others affecting our route	Amy	Patrick	Patrick	Jack	Jack	Paddy	Paddy*	Paddy	Re
15		Importance of other people in the process	Lauren	Amy	Patrick	Bob	Henry	Sarah	Charlie	Charlie	Ste
16		- People asking	Antonio	Antonio	Rose	Rose	Lauren	Lauren	Amy	Amy	Patr
17		- Local persons knowledge (other than people asking)	Linda	Amy	Jack	Linda	Linda	Adrian*	Owen	Owen	Ow
18		Opportunistic wayfinding	Rose	Amy	Jack	Charlie	Linda	Paddy	Paddy*	Paddy	Te
19											
20		**Docile wayfinding bodies (we are controlled by others)**									
21		Provision of information	Lauren	Antonio	Patrick	Jack	Charlie	Stef	Stef	Paddy	Pad
22		Intentional withholding of wayfinding information	Lauren	Lauren	Lauren	Bob	Bob	Bob	Nick	Adrian	Stu
23		Steering beaviour (Forced wayfinding)	Patrick	Rex10	Patrick	Patrick	Bob				
		Controls from others (other than from steering									

Figure 20 - Sample of how the body types evolved.

In Figure 20 (names anonymised), a snapshot is shown of the body types as they evolved. Individual quotes from the interviews were added as notes to each sub-theme under each body. The quotes, sub-themes under each body and the body types, continually shifted in the excel sheet. Over one hundred and twenty themes on individual lines existed in one of the earliest excel sheet drafts before body types was used. By using the constant comparative method, the body types eventually emerged into ones that I felt best accommodated many of the most relevant and useful quotes from the interviews. At this stage, "ideal types" was deemed the best way to group themes.

One further point to note, in relation to these "ideal types", is that the data sometimes fell into two or three different sub-categories, across the different body types. Sub-categories themselves sometimes also matched different body types. To give one example, a person might feel anxiety when getting lost on the way to participating in a major sports event. Their comment might fit into both the "Sensing Body" and the "Precious Body" (as a sports star with high perceived social capital, although the "precious body" did not become one of the final body types used). As a qualitative study, a judgement was made as to what was deemed the most relevant body type.

Theme Development in this Research – How the Themes Emerged		
Initial Themes Pre-Data Collection	**Emerging Themes During Transcription and analysis**	**Re-Developed Body Themes through Analysis**
Body Types	→ 100+ themes and sub-themes were generated. → These were then merged into the deductive categories. → All data fitted into these categories but there seemed no inter-relationship as such between categories. →After further analysis, a much more logical thematic structure evolved (see column on right). → Completely stripped ALL data from the Excel sheet and repopulated every code into the new body themes to test their robustness. → Adjusted ideal style body types themes. 2 full readings and re-analysis of the full data. → Idea of illustrative categories of the body emerged. Themes relate, match core research questions and point of research.	Safe
Embodied experiences in wayfinding		Restricted
Other people and social impact		Docile
Stakeholder impact		Sensing
The field and forms of capital		Social
Travel time and wayfinding		Empowered
Liminality and self-discovery		Pleasure seeking
Stakeholders and wayfinding		Educated
Technology and wayfinding		

Figure 21 - Examples of categories which changed during the re-analysis.

Theme Development through the Stages

In Figure 21 shown above, the development of the themes is further shown. Column one represents the general themes that emerged in the literature review. Column two represents notes on the themes as they evolved from the data in the transcription process, and column three represents the resulting body based themes that emerged from the combination of the initial and then emerging themes from the data.

Indeed, Sandelowski (1998: 376-377) reports that there is:

> No one style for reporting the findings from qualitative research. Qualitative researchers must choose not only what story they will tell, but also how they will tell it…A critical first step qualitative researchers must take as they contemplate the write-up is to determine its central point, or story line. Qualitative researchers must choose which story, of the many stories available to them in a data set… Qualitative researchers' choices about what they will emphasize in their write-ups must fit the research purposes and methods.

In research connected to the socio-cultural connected aspects of the body, ideal body types evolved, I felt, as the most natural form to transmit the findings. Having discussed the use of "ideal types", in the section below I explain some lessons learned during the process of data analysis.

4.4.5 Learning how to Do Analysis

Often sitting at a computer ten to twelve hours a day, whilst working on this thesis, creating a balance mentally during the research process, I felt, was necessary. Balanced with an interest in trying to understand embodiment as much as possible, given its focus in this research, with a fellow researcher we decided to try life drawing classes. The result was an important one because it unexpectedly directly led to my understanding of how data analysis works.

On trying to learn and understand how to draw the human face, after several weeks of failed attempts and of drawing what I thought I saw, rather than drawing what I really could see, a common mistake when drawing (Woods, 2003), I began to learn. The desire to draw what we think we see is completely natural because we are taught, as children, to fill in the gaps and we become amodal in our thinking processes. I realised that in data analysis, as with life drawing, it is necessary to try and learn to unthink the amodal i.e. we must un-think the analysis process we are taught throughout childhood. We have to learn to see what we see, rather than what we think or want to see.

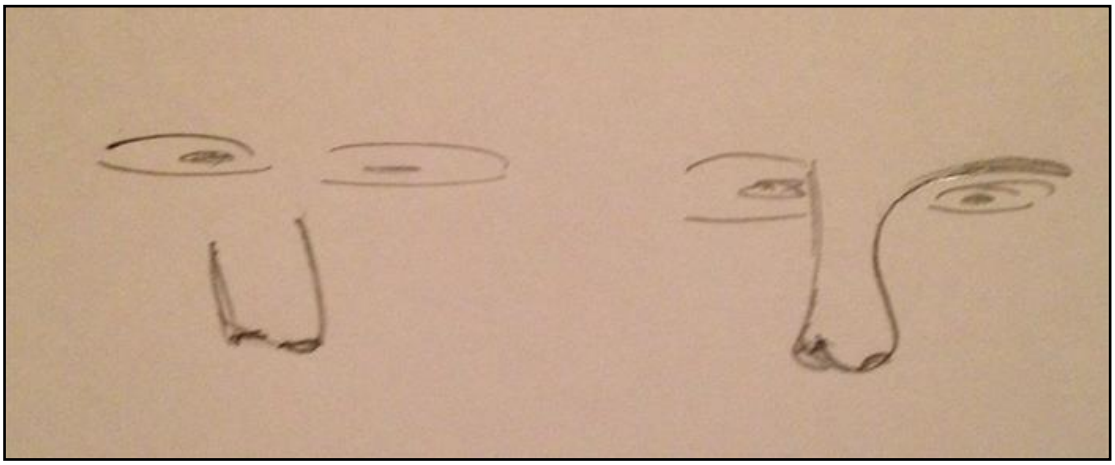


Figure 22 - Learning to draw what we really see and not think we see.

By observing the human face closely, I then noticed that the nose is directly connected to the eyes rather than a being a separate entity. This realisation occurred at exactly the same time during which I was starting my transcriptions and data analysis. This lesson made me deeply aware of, and appreciate, the need to learn how to step outside of our normal way of seeing and viewing things in order to take a critical stance. As Holliday (2001: 93) explains, “the researcher must…suspend and 'bracket' her normal view of the world”.

One particular case in the interviews provides an example of how this critical thinking was developed. In one interview, the volunteer had waited on the U.S. President during a luncheon at a U.N event in Cardiff, Wales. In discussing the wayfinding situation of trying to navigate through the numerous layers of security to reach Cardiff Castle, the idea of this example really being an anomaly emerged strongly. Whilst an anomaly for the wayfinder, when thinking of this critically, one begins to realise that, for the security service teams involved, this is very much a regular and perhaps even quotidian experience: an event for which they have become practiced educated bodies in setting up and managing the routes others may take in this secure process. Drawing on “the field” concept, it is then possible to see how wayfinding is a socio-cultural process, which is affected by how others sometimes control and manage the field, sometimes temporarily. In terms of analysis, making the “familiar strange” (Mills, 2000 [1959]) and then interpreting that strangeness is used in the analysis in this research. The need to use data that expresses a point, rather than using data that we try to shape (whether intentionally or unintentionally), is essential in empirical interpretive research.

4.5 Chapter Summary

This chapter has been used to try and provide transparency regards the methods used and the stages in the process. The main section in this chapter included the method selection and justification, ethical considerations, sampling, and the transcription process. This was then followed by the data analysis approach and that included the analysis method and framework, strategy, data representation and judgement criteria. The next chapter provides the data findings from the research.

Chapter 5
Analysis and Interpretation

5.1 Introduction

In this chapter, the wayfinding body types that emerged and which best represent the data, are presented. Examples of data collected are given to support each body type and these bodies are then analysed against the main research questions for this study.

An important point to first note is that no one body type should be considered superior, in that there is no hierarchy of bodies. These bodies do not come in any natural order because these are bodies that merge, and in one wayfinding experience one or more of these bodies may exist.

One body though, which proved to be omnipresent in all bodies, was that of "Safe Bodies" and this body is thus discussed first. This is then followed with analysis of the other seven key body types that also emerged.

5.2 Safe Bodies (The Omnipresent Body)

One body type permeated throughout every interview and proved to be made up of data that almost entirely lent itself also to other body type categories, almost as an *omnipresent determinant body which bisected other body types*. This dominant body was the "Safe body".

By "safe", in the examples that follow, the term incorporates perceived safety (whether pertaining to the physical body or cognitive safety) and genuine (real) safety considerations that might exist. An example in this study, was the connection between time and protecting one's job, whereby wayfinding anxieties were experienced by a cruise line worker in relation to the danger of getting lost in a port city, given that s/he would lose his/her job for even being late once. In this sense, it is being safe in terms of time and space. "Safe" encompasses a range of examples that highlight the desire to protect one's own body during wayfinding practice, whilst, under a category such as "pleasure seeking"

bodies, the perceived danger or risk can also sometimes form a part of the challenge and thrill of the route.

5.2.1 Personal Safety and Risk

All the definitions on wayfinding listed in the literature review (see Section 2.3**)** fail to provide any real focus on the importance of personal safety and risk, in how we get between A and B. The absence of thought in wayfinding literature for safety factors surrounding the body in wayfinding, was in contrast to the data in this study. The clearest example is from Linda, who sometimes jogs in the parks of London, England, and safety is central to her route decisions, as she explains below:

> Safest route - first of all: Because I wanna make sure when I go jogging in a park, I wanna make sure I'm safe...So the route where there is enough lighting, for example, if you're jogging especially in the evening, you wanna make sure there is enough lighting, that people are around, that you're not by yourself. (Nov. 2015)

Using safe routes can be important for runners, as in Linda's example above. The result can be that the most direct route might be replaced with what is seen as a safer route, such as one that is populated with other users. Even if no verbal interaction takes place with these others we share a co-presence with, their very presence is enough sometimes to satisfy a feeling of safety on some routes (even though they might in fact be the very people we should be concerned about and looking to avoid). Goffman (2008 [1967]: 11) describe this as a "kind of mutual acceptance [that] seems to be a basic structural feature of interaction".

Linda's example also illustrates how wayfinding is not only about safe routes, but also involves social factors. The mention of "that people are around" (discussed in greater detail in the "Social wayfinding body" section) reveals how other people can be important in this process. Mention of "lighting" and "evening" also underlines the importance of diurnal factors (these are discussed in more detail in the "Restricted body"). Rose also talked of safety and gives mention of her size as a petite woman:

> I'm always, I mean I'm a small girl so [laughs aloud] so err – I just don't wanna be dumb in a new city – so that's why I kind of, I'm always looking at a map especially with the hotel on google maps or something, just so I can have my bearings at all times, so I know exactly where I am, so in case I do need to do a detour, it's like I have still have a little bit of a compass. (July 2015)

Sarah (Aug. 2015) made a similar point, commenting that "you're probably more vulnerable really, you know, as a woman on your own", whilst Cecilia (Jul. 2015) also noted that "if you are a girl you have to be careful if you travel on your own".

As highlighted in the literature review, previous studies have provided mixed results regards the gender differences in wayfinding. What was clear was the definite presence of risk to personal safety, whether real or perceived. Indeed, the route for a woman can, as also mentioned earlier, be different from that taken by a man, i.e. because women may be judged as they go between places (McRobbie, 2004). Or, as Ramsden (2011: 166) found, even in the modern era "walking with three women friends, on a Saturday night across the city of Bristol we are still subject to stares, grunts and unwanted invitations". Reinforcing this in their study, Doan and Higgins (2009: 1758) found that:

> Concern for personal safety is embodied in an individual's habitus and thereby shapes their way-finding. Both anxiety from an individual's experiences with harassment, hostility, and discrimination over his or her lifetime and income related to nonnormative gender are likely to be key factors incorporated into the habitus.

Indeed, the experiences mentioned by Ramsden such as the "stares, grunts and unwanted invitations" it would seem reasonable to assume help to shape our habitus in wayfinding, that is our way of choosing how we will get somewhere, including the choice of modalities (such as by transport type and journey type) and whether to find our way alone or with friends, or as part of a group.

There were several mentions of physical size in relation to wayfinding. Two males, Keith and Jack, for example, both stated that they were strong enough physically to look after themselves, Keith commenting that "because I'm a, a middle-aged male, I don't really worry too much about my safety…[when running/jogging]" (Sep. 2015). Two women, Rose and Julia, in contrast, made comments on their lack of size and the need to consider this in route choices. Certainly, from examples in the interviews, the safety of one's own body is central to wayfinding and yet is absent in wayfinding literature and given little if any consideration in the numerous virtual wayfinding studies. Above all, volunteers (including male volunteers) want to get from A to B safely. One final example comes from Jack, who explains how he chooses his bus route when commuting to and from work:

> [I] would go for a route which obviously has a reputation of being okay. So going past sort of Pontcanna, there's obviously Canton, Ely, so those sort of areas where they're slightly less affluent, obviously they're a bit of an issue. (Sep. 2015)

The example above provides a sign of socio-cultural influences as these so-called "less affluent" areas and concern also for the "reputation" of certain areas on the route, are considered in the route decision making. Jack's understanding of the local culture and reputation of certain local areas, can be seen to influence his route choices.

Safety, in most studies on wayfinding, as highlighted in the literature review, can involve actual physical danger (i.e. Small *et al* (2012) regards their example of visually impaired travellers). In keeping with this issue of physical safety, the example of Rex illustrates another connection between safety and wayfinding. Rex was backpacking and visited Winter Park, Colorado, USA, where the sub-zero winter temperatures made finding the way to the youth hostel in the pitch dark (in the absence of any street lights nearby) a potentially dangerous experience. Rex stresses how the embodied experience of wayfinding, in a real-world environment, is one which can involve genuine risk to personal safety, and is clearly far more than a purely cognitive process. Rex comments:

> I was the only person to get off of the Greyhound bus and once the bus pulled away and the light from the vehicles headlights disappeared, I was left in pure darkness all alone. The sub-zero temperatures and the fact that no one visually or audibly appeared to be around made this a potentially dangerous situation for me. Aware that falling asleep outdoors in this climate was not an option given that the alternative is to die from hypothermia, I started walking very slowly one foot at a time in the snow...It was difficult not to panic and whilst feeling the need to panic, I realised that this was not the best way to find my way. (Oct, 2015)

Rex proceeds to explain that the next day, in daylight, he realised that the youth hostel was in fact relatively easy to spot behind another building across the road. Also, being in an unfamiliar location, the route for Rex was one in which he was completely disoriented:

> Stepping forward I seemed to be heading towards a small bank (what I found out the next day was the bank of a small stream) and it did not feel right to be feeling a slight downward incline on what felt like a grass like footing. I turned to face a different angle and walked in a different direction, my heavy backpack over my shoulders. Eventually I could see some light in the distance and I began gradually to get my bearings. (Oct, 2015)

Rex's experience of "feeling a slight downward incline on what felt like a grass like footing" provides a kinaesthetic example, similar to Ingold's (2004: 331) earlier comment (see Section 2.3.7.1) that "persons who are deaf report being able to hear through the feet, provided that they are standing on surfaces, such as floorboards, that conduct vibration". These examples of kinaesthetic ways of navigating suggest that the route through Ingold's (2011) meshwork should not be assumed to be a visual one. The embodied kinaesthetic

wayfinding body and the issue of safety are supported by Small *et al* (2012: 945) who found that:

> Wayfinding is a major concern for tourists with vision impairment as tourist activity often occurs in unfamiliar environments. Access to information to assist navigation is critical for a quality tourist experience. Difficulty in wayfinding is an issue that not only cuts across independence, dignity and equity but is also an issue of safety. Navigating unknown terrain requires effort and attention. Uneven surfaces can cause trips/falls and are compounded by overhangs on pathways that can lead to head injury.

Indeed, Small *et al*'s comment above suggests that there is a need to move away from the "head over heels" (Ingold, 2004: 331) approach in wayfinding, that was discussed earlier.

This experience, involving the difference between wayfinding in darkness versus daylight in Rex's example, is another recurring theme in the data, and one that is discussed in more detail under "Restricted Bodies" (Section 5.3). The example from Rex above though provides an early example of the very real danger to his body in finding his way. Interestingly, from a social perspective, the absence of other bodies, also impacts upon the ability of Rex to find his way. As we shall see in the "Social wayfinding body" (Section 5.6), in most situations we have at least one other we can ask for guidance.

Another interesting example of risk and safety was also brought up by Adrian in his discussion on wayfinding in Baghdad, Iraq. Wayfinding is a ubiquitous activity, which bypasses geographical boundaries and cultures, and no person is able to avoid having to "play the game" that is wayfinding. Adrian talked of routes, which local people take each day, and how these routes are used by the military, in intelligence gathering and monitoring. What is known as the "Pattern of Life" involves observing "something that is done every day and it becomes the norm". Local people, for example, will normally have their set routines and take certain routes at particular times of the day:

> When that pattern of life is disrupted…it was a very good sort of combat indicator…the pattern of life and you know, to, so that you can sort of pre-empt something that's going to happen. (Nov. 2015)

The pattern of life is similar to what Buttimer and Seamon (1980: 158) refer to as "body ballets" to explain the set routines that people have and how these routines sync with other bodies. Buttimer and Seamon (1980: 160) comment that "time-space routines and body-ballets are the foundation of this typical daily pattern. The activities follow a sequence which is largely habitual and unpremeditated". In the same vein, Ramsden (2011: 117) in also referencing Buttimer and Seamon (1980) and the concept of "body ballets" provides findings from her own study:

> The nature of the walk, its accustomed rhythm…encountering other people at the same time of the day, all contribute to the proceeding of a well-oiled routine...we don't have to worry unduly about dangers and obstacles because we know what day the wheelie bins are out on the pavement.

Indeed, the example from Adrian highlights the way in which wayfinding can be used as a way to evaluate risk and safety and the meshwork from Ingold is a particularly useful concept for visualising the quite complex route options available to Adrian in Baghdad (whereby it is necessary to alternate routes and to try and avoid ambushes). The meshwork of routes in this case is very much a game, albeit one in which the stakes are extremely high, i.e. lives are literally put on the line. It is a high stakes game, where different paths through the meshwork are selected to try and avoid the opposition, the opposition's goal being to stop Adrian and colleagues and those they guide, from successfully finding their way through the meshwork (the meshwork in this case representing the various routes across Baghdad). As illustrated by the meshwork, the meeting of lines represents points of interaction. By extension, embedded into this game are interactions that are "guided by the physical qualities of the setting" (Goffman 1990 [1959]: 20). These physical qualities include not only the city itself, but also the physical presence of other people, military, locals, media staff and others. The meshwork, in this example, helps to represent the symbiotic relationship between these various parties in a shared space, some of whom may be wayfinding and others not (yet they populate and affect each other's practice).

Whilst Goffman (1966: 22-23) is right that "in going about their separate businesses, individuals - especially strangers - are not allowed to do any physical injury to one another, to block the way of one another", the rules of wayfinding are clearly not interpreted and acted upon in the same manner by all who participate in this process. Rather than being a cognitive and individual process, wayfinding is in fact a process that is largely influenced by various stakeholders, not all of whom are actually wayfinding, i.e. the locals who populate spaces through which wayfinding takes place.

An example of these locals is provided by Adrian who goes on to explain that "even in the most hostile and volatile environments…people still have got to get to and from work. They've got to go and get fed, they've got to feed their family". These routes can be compromised though through terrorist incidents but, as Adrian continues to explain:

> Generally in my experience, even if there's been an incident in an area, within the next day or two, you know once all the, the war tourists have moved on, and the people that have got sort of a strange interest in what's happening, life returns to normal. (Nov. 2015)

Wayfinding is often a daily activity that needs to be practiced, with basic needs sometimes overriding the issue of safety. The need to purchase or find food, whilst living in a war-zone, can supersede safety and mean that a potentially dangerous route will be taken by a local anyway. The routine that exists in the "pattern of life" and in these body ballets relates to the habitus of each wayfinder, "the habitus, as the word implies, is that which one has acquired, but which has become durably incorporated in the body in the form of permanent dispositions" (Bourdieu, 1993: 86). The acceptance of risk along certain routes, that other people might consider too dangerous, may become an accepted disposition by others.

Whether using the above example from Baghdad, or thinking closer to one's own home location, route decisions are often changed because of risk and safety. As Jack explains, "obviously going through fields at night is a bit of an issue as well. So I do go for the routes that are most safe as well" (Sep. 2015).

Commuting and travelling to and between places for the sake of work, provides another useful example of risk and safety in wayfinding. Rose works as a realtor (estate agent) in Washington D.C., USA, and route finding is an essential task and vital in respect to both time and safety. Rose reports that:

> I've gotten lost in DC…the secretary sometimes put the wrong quadrant and so I was literally at the address which looked like a crack house and I – and it was night-time.

Interactions are quite clearly at the forefront of much wayfinding in relation to safety concerns, as highlighted by examples such as Rose's awareness of her petite frame, and the interaction with her secretary above (both examples of the potential impact of other bodies upon our own). Moreover, a reliance on others who do not necessarily share the same time and/or /space can exist, and may influence the wayfinding process and safety as supported by the example of Rose's reliance on her secretary for the correct Zip codes (post codes). In Ingold's (2011) "meshwork", these social interactions are not necessarily other people (other bodies) that might be physically present on the same path. These bodies can be viewed on the meshwork as existing in a difference physical space but in the same practice.

Safety issues also include examples involving nature and the environment as the element from which they were trying to be safe. Such a scenario was expressed by Keith, who discussed his experience of being on holiday in Spain and swimming across the shore. For

Keith, the deceiving nature of the sea and shore-line provided concerns in relation to safety and wayfinding:

> In the context of wayfinding, I would constantly keep an eye on the shore, but the problem that you have there is, when you see something that's ashore, it may appear in a straight line and you may have crossed say, the mouth of a harbour…You can't walk across it afterwards. You'd have to walk all the way around or get back in the water and swim back...you've got the other safety factor there you know…I swim for an hour. Will I be able to swim back. Unlike walking, when it comes to wayfinding in the sea, you can't just stop as a swimmer, you, you've got to keep going basically. And if that shore is, is umm, you're on the rocks, and the tide is smashing against the rocks, it, it's not you know, you can't land there! (Sep. 2015)

In one of the earliest definitions of wayfinding, Lynch (1960: 3) acknowledged the connection between wayfinding and the use of sensory "cues from the external environment". Similarly, Fewings (2001: 177), Raubal (2008: 1243) and Farr *et al* (2014: 90) include the environment in their wayfinding definitions, albeit not necessarily in a safety context. Rather than taking "cues" from the environment, it can also be a case of surviving the environment, such as Keith's example above regards swimming and route decisions in relation to corporeal ability.

The example provided by Keith above suggests that not all routes across a meshwork are necessarily the same when taken in reverse or at different times, particularly when embodied factors such as exhaustion, fatigue or thirst are experienced. In short, no route should be assumed to provide the same experience. Routes, when illustrated through Ingold's (2011) meshwork, are such that they cannot be assumed to simply be from A to B and devoid of experience. Even when the route on the meshwork appears the same, these effects such as fatigue and darkness make route options, and the ability to take the route, certainly not linear or simplistic. Indeed, Firth, Zheng, Windsor, Sutherland, Imray, Moore, Semple, Roach and Salisbury (2008) in their study on mortality rates for those tackling Mount Everest, found that over 73% of climbers who managed to get to 8000m, died on the reverse journey as opposed to on their way up the mountain.

Safety also takes on another form as it bisects with the pleasure-seeking body (more on this body type in Section 4.10). Andy, a professional caver, for example, provides the following example:

> We just enjoy squeezing through things and walking through frigid cold water…so we will choose a direction depending upon what we want to experience**…**if something goes wrong, or if somebody's getting cold and we need to get out again, that's when you need to assess, not only which is

> the quickest way out, in terms of distance, but the quickest way out in terms of minimal effort. And they can often be quite different.

Anyone looking to avoid risk and seek safety in a corporeal sense, would most likely not choose to be a professional caver. This example highlights the way in which risk and safety can become a challenge in wayfinding, that is, the chance to attempt hard, difficult and challenging routes, for fun.

Routes through the meshwork, such as in Andy's caving example, can certainly be about the excitement of finding the route and with risk a part of the overall experience. Andy also provided another important point that highlights a less obvious variable in wayfinding. Andy explains that one route may be "the quickest way out, in terms of distance, but the quickest way out in terms of minimal effort … can often be quite different" (Nov. 2015).

Andy, in his interview, explained further that the ability of the others, who are present in his caving trips, influence the choice of routes available for emergency evacuations. Here we see that these interactions with others help to shape the available paths, particularly given that Andy notes that caves "are like rabbit warrens. So there's many ways in and many ways out" (Nov. 2015). The best path through the meshwork in this example relates directly to social factors and safety, as opposed to directness.

Personal risk and safety in wayfinding also proved to be something which comes down to perception (Arthur and Passini, 2002: 80). Giddens (2006, 31-32) explains that the "dynamic nature of knowledge, means that awareness of risk seeps into the actions of almost everyone" and this clearly occurs in wayfinding practices. This sense of risk perception arose in the interviews. Julia, for example, takes wilderness trips and spoke of a recent trip in Canada to the Quetico wilderness region. She commented on personal safety saying:

> Well if you ask my mum, yes it's very dangerous [laughs aloud]… you could get really lost but – that's one of the things is, is about not getting lost you know and kind of having, knowing where you are and being able to navigate through that environment. It's part of the enjoyment for us and kind of surviving in that environment. (Sep. 2015)

The discussion around risk and the choice or not to attempt certain routes, even to start with, is further complicated by Giddens (2006: 47) who mentions an often-ignored fact:

> People are willing to travel on the roads without too much worry, even though they are almost certainly aware that the risks of serious injury or death are higher [than travelling by air].

Indeed, statistics show that driving is 100 times more dangerous than flying, based on global data (Ball, 2014); hence, the consideration of risk in wayfinding is often one which is perceived. To elaborate further, Hardie-Bick and Bonner (2015: 384) found, for the majority of thrill-seekers they interviewed, that these thrill seekers (as discussed in the literature review), "did not deliberately set out to increase the risks by placing themselves in increasingly dangerous situations". As Giddens comment shows though, the actions people take do not necessarily match risk statistics and logic and this makes understanding risk in wayfinding a complex issue and one that is beyond the scope of this study. What is clear from the interviews is that safety and risk *are* central to the decision-making process, and with the body central to these considerations.

What was especially interesting in the interviews, was the lack of mention of terrorism concerns regards route choices, despite what Reisinger and Manondo (2012: 214) state:

> Terrorism and socio-cultural risk emerged as the most significant predictors of travel anxiety. Intentions to travel internationally were determined by travel anxiety levels and level of perceived safety.

Reisinger and Manondo (2012: 218) provide a somewhat odd definition of "socio-cultural risk" in saying that it "included variables such as time, satisfaction, psychological, and social". In addition to placing the "psychological" variable within the "socio-cultural", Reisinger and Manondo also asked targeted questions about "risk perception", "anxiety" and "safety". Within this study, the method was very different in that any mention of risk, safety and anxiety, emerged organically. The results in this research are interesting in that the word "terrorism" was mentioned zero times in over twenty hours of interviews. Conversely, "terrorism" was mentioned thirty-three times in Reisinger and Manondo's article.

Even though Reisinger and Manondo were not writing on wayfinding but rather the more general activity of travel, these findings suggest two things. Firstly, how we get from A to B in wayfinding, for volunteers in this research, was less extreme than concerns over terrorism. Issues such as concerns over time, personal safety or the difficulty of controlling children were much more important on route decisions. Only the close-protection officer experiences of Adrian and the experience of Jack in waiting on the U.S. President, involved serious danger related to terrorism, but even then, this term was not used at all even once.

The issue of safety is an important variable in the wayfinding decision making process. Therefore, the idea of wayfinding being about the most direct and/or quickest routes, can

already be seen as being a far too simplistic way of seeing the practice. Having looked at personal safety and risk in wayfinding, the question of how people plan the wayfinding experience in respect of safety, is discussed below.

5.2.2 Planning the Route because of Safety

The importance of pre-planning also proved to be important in relation to safety in wayfinding. As Andy explains, it is about "being prepared, so getting lost doesn't have a risk, or minimal risk" (Nov. 2015). Andy goes on to explain further:

> Whether it be by kayak or walking. You'll always have planned stop points. And you'll always have alternative routes already, either drawn up or, or written up in note form, so that you have a back-up already to go. In addition, when I go to some of the remote places in Australia, I always leave an itinerary on the dash-board of my car. So that's a very important aspect err about, first of all letting somebody know, a responsible person. Err sometimes that can even be the police or, or a wildlife ranger in the area. Secondly, leaving a copy of your itinerary and sticking to it, which is also important. (Nov. 2015)

Andy's example perfectly illustrates planning as a technique that can be a vital part of wayfinding, such as his example of placing his route information on his car dashboard in case he goes missing. Indeed, his example also helps to answer the question of what techniques wayfinders use. Furthermore, Andy's example also suggests that wayfinding is more than just the process during which we are mobile. Wayfinding, in other words, is also the process of planning and the organisation of a route. Rose supports this point:

> I...plan the route out, a little bit better so I'm not late, cause you don't wanna get lost anywhere...For a job interview or anything important, – but when I first arrived [in Venice] it was pretty – stress free – since I knew this was a safe place but anywhere else in the world, obviously you plan the route out so...

Patrick elaborates further, commenting that he's "got older...and more experienced I've realised that preparation is key". This planning appeared in the data to be something that was influenced by age, with backpacking being seen by many volunteers as an experience for not planning, with concerns over taking certain routes less of a consideration. Being a parent and in charge of children when travelling (covered in detail in "Precious Bodies" Section 5.5), meant that planning was seen by many as more of a necessity, given the need to protect the children in question. The safety of others' bodies often needs to be put before our own body, in path and route decisions.

Planning of these routes can, in some instances, be essential to the protection of the body as we move between A and B. Adrian below, gives another military example from his time in Baghdad:

> We would never ever use the same route twice in a row, two days in a row or the same day. We'd vary our routes and we'd make ourselves as unpredictable as possibly, as possible…even with no client with us, we would still vary our routes. Extremely important you know…The, the most dangerous thing in these hostile countries is to become predictable. As soon as you become predictable, you become dead. (Nov. 2015)

For Adrian, there is a method in organising these unpredictable routes across such places as Baghdad. In such a scenario, where there is a real danger to one's own body and the bodies of any other people he protects, the correct route in actual fact is the route that ultimately provides safe paths. Adrian does also explain, in his interview, that time is sometimes essential for moving some clients from A to B across Baghdad and Kabul and so the safest route combined with doing so time effectively can be what is considered a successful route. Adrian also explains that high levels of planning take place in choosing such routes. Death can, in some scenarios, be the ultimate result of taking the wrong route.

The above section on planning a route safety, leads into a discussion below on data which emerged in relation to security procedures and safety.

5.2.3 Security Procedures

Finding the way between A and B involves not just the challenge of calculating directions, but can also involve other corporeal and cognitive processes and these are discussed in detail under the "Compliant Bodies" and "Constrained Bodies". There is a connection with "Safe Bodies" in that routes are often blocked under the aegis of "safety". Several volunteers, for example, mentioned the security process in locations such as airports, in relation to stress and frustration, including Stef who comments:

> You need all that time [in an airport] because of fiddling about...to get through everything...It's the process. It's the process you know, by the time you've stripped off and check-in (Aug. 2015)

Patrick expressed a similar concern:

> I suppose in a sense you're navigating your way through…you've got to take half your clothes off haven't you. Your belt comes off, your trousers fall down, you've got to take your shoes off, all your money out, everything. And that's always a hassle and a stress planning where you're going to put everything and it takes you half an hour to find where you've put everything afterwards as well. And I always seem to get stopped. Maybe I've got a suspicious face or something. (Jul. 2015)

The experience of passengers going through security was shown by De Barros, Somasundaraswaran and Wirasinghe (2007: 297) to "significantly affect the passenger experience and how the passenger judges the quality of the airport". Certainly, a level of agency must be given up and the rules of the practice adhered to, in order that we are permitted the right to get through certain locations in order to move from A to B. Similarly, getting from A to B can involve the need for a passport or visa in order to be even allowed to get between A and B.

In order to cross the meshwork, some routes have been shown to require permissions such as the right to pass through airport security. Here we see Ingold's meshwork, Goffman's interactionism, and Bourdieu's field all working in relation to each other, an example being the ability to navigate a route through an airport and ultimately to another country, requiring the interactions with officials who give us the permissions, officials who uphold the rules of the field, as a route across the meshwork is attempted.

In the interviews, Jack discussed having to navigate through "six layers of security" and having to spend hours getting to the location at which the U.S. President would be dining, meant that a normally very easy route from home to location, was instead a very complex, time consuming and difficult one to navigate: Difficult for security level reasons as opposed to actual directional issues. On further discussion with Jack, what became especially interesting was the social capital allocated to Jack and his colleagues in this process of wayfinding, should they need to find their way out of any security threat. Despite being located physically in the same room at one point, with more than a dozen world leaders, the security briefing (by whom Jack assumes were MI5), did not include any information on where to go, what route to take or what to do in the case of terrorist attack. Jack explains below how, as he understood it, evacuation plans were in place for the world leaders but not for the workers such as Jack himself:

> [The world leaders] were obviously protected quite you know, furiously, but then I think everyone else…even the people like the flower people and staff like that, they would have been left to fend for themselves and that obviously adds to the fear so, – it was a weird emotion to have to be honest, where you're going into such an exciting opportunity but also having the negatives on one side where you're quite fearful. (Sep. 2015)

With the level of security on the day (also experienced by this author when visiting the centre of the city as the leaders arrived over-head by helicopter) including visible surveillance from the air, it seems reasonable to assume that the routes out of the city were planned to minute detail for the visiting world leaders. In a wayfinding context, this example is useful in showing the very different routes we might have available to us,

according to our position in the field, i.e. according to our social, economic, symbolic or cultural capital. Even getting to the location for Jack was very time-consuming, as opposed to a helicopter ride directly into the venue for the leaders.

One further example of the "Safe Body" bisecting another body type (the "Social Body") is expressed in an experience highlighted by Adrian in his interview excerpt below.

> Every morning…my head of security for the Afghans at a certain embassy that I was working at…I would lean heavily on him and his friends and his contacts…I would always say look, we're likely to be going down this route or this route, but I'd never actually say which route, but one of these three routes. Which one would you choose. Or which two would you choose. I'd be very very you know, vague as to what but, so he would give me an indication. Not that I didn't trust him but I didn't trust him enough…and he would say, do not use this…quite a few of the times incidents would happen…on those routes. (Nov. 2015)

From Adrian's example above, wayfinding can be seen as very often involving a certain reliance on other people, particularly when safety and security are involved.

5.2.4 Survival and Safety

Attempting certain routes can lead the wayfinder towards potential risk and safety issues. That is not though to necessarily suggest that risk is intentionally added, as highlighted by Hardie-Bick and Bonner (2015: 384) and mentioned earlier whereby it is "challenge of managing rather than maximizing the risks associated". The choice to still take certain routes does not, in other words, mean that the wayfinder is necessarily looking for extra risk.

Water, for example, in terms of thirst was mentioned in a quarter of interviews in relation to wayfinding. Dave's story of having to urgently go in search of drinking water (the full story is discussed in detail in Section 5.8.4) was similar to the experience of Keith, who also faced thirst and the dangers faced:

> I have run in Majorca a couple of months ago. Middle of the day, thirty degrees of heat, you know, you're, a good fun run can turn, can turn quite miserable if you're thirsty and you're completely lost. (Sep. 2015)

Andy, with his caving and climbing, also relates to the importance of water when getting lost:

> It's about being prepared, so getting lost doesn't have a risk. Or minimal risk. So whenever I go walking, wherever I'm always carrying a substantial first aid kit, plenty of water depending on the environment. (Nov. 2015)

In the wilderness where they travelled in isolation, Julia states that at "one point we ran out of water completely and had to try and find a route to walk alongside it" (Sep. 2015). It is Andy though who summarises the connection between wayfinding, embodiment and water with his following comment as he talks about "rogaining" (a sport based on navigation) in the quote used earlier in relation to tiredness and thirst: "If you're tired, stressed, hungry or thirsty, you are suffering heat dehydration, you start to make bad decisions very rapidly, and that can get you in a lot of trouble" (Nov. 2015).

The need for food and to feed one's family also necessitates taking on certain routes even when they are fraught with significant danger. In Kabul, even when there is a high risk along certain routes across the city or when a serious incident has occurred, locals change the route little, as Adrian explains:

> People have still got to get on with their life. It's a huge population for the size of the city. Even in the most hostile and volatile environments you know, people still have got to get to and from work. They've got to go and get fed, they've got to feed their family. They crack on as normal…and as far as I could see…they would even you know, take the danger on the chin and go from A to B rather than go you know, from A to B to C you know, rather than sort of like making their route longer. That's in my experience anyway. (Nov. 2015)

The examples above highlight how body needs including thirst and hunger are implicitly linked to wayfinding and the body, in that "the body becomes most conscious of itself when it encounters resistance" (Frank, 1991: 51).

Physiological needs such as breathing, food, shelter and sleep (Maslow, 1943) can be seen to affect and shape the route one takes through the meshwork. One of Maslow's basic needs, that of "shelter" was discussed by Lauren in her example of backpacking in the Scottish Highlands:

> I looked at every place I would need to go, because I needed to book hotels, because otherwise, the youth hostel and such it's full. Full is a problem somewhere in the middle of nowhere, because the only places to stay, especially in the middle of Scotland, so you think in advance. (Aug. 2015)

Whilst the routes on a meshwork can be planned, the completion of routes is partly based on needs. The body is central to these basic needs and helps to ultimately shape the route we take where these needs are compromised.

5.2.5 Section Summary

Safety, whether in terms of personal safety or the safety such as in protecting one's own job, has been shown to be directly connected with wayfinding. The examples of safety

throughout the interviews also connect with all the other body types, which will be mentioned in the following sections. The safe body, in effect, is the overall omnipresent body in this research.

Wayfinding has been shown to involve different levels and forms of safety, according to the type of wayfinding practice undertaken. Those in charge of security in countries such as Iraq and Afghanistan, and the security forces protecting world's leaders as they travel; the experiences of a realtor having to navigate through dangerous neighbourhoods; and the example of a cruise worker, have been some examples given. The different examples highlight very different variations of safe wayfinding bodies and experiences, which often mean that direct or efficient routes are often *not* the priority in wayfinding.

From a socio-cultural perspective, wayfinding has been shown to be an interaction based activity and one in which the wayfinder often depends on other people, rather than solely upon their own cognitive ability. We *must* also buy into certain practices, if we wish to be allowed to complete some routes, through the meshwork. Additionally, forms of capital and stakeholder influences have been shown to impact the field in which wayfinding takes place.

The key points raised in the safe body, and which help to answer sub-questions 1 and 4, relating to how the wayfinding experience varies for different people, and what we can learn from viewing wayfinding from a socio-cultural perspective are:

i) The body is central to the wayfinding process and the cognitive is rarely, if ever, the sole instrument involved in how we get between A and B. To re-iterate an earlier point mentioned in section on risk (Section 2.3.6), "the body is in some sense perennially at risk" (Giddens, 2006: 44) and this perhaps provides reason for this over-riding theme of the safe body in this study.

ii) Wayfinding is very much a socio-cultural activity, whether because we rely on the presence of others to make routes safe, to feel safety in numbers, or because these others block or threaten our route. Other people, in other words, can cause us to alter our intended routes.

Having discussed the overriding body type, that of the "safe wayfinding body", the first of the other main body types, that of the "socialising wayfinding body", is discussed next.

5.3 Social Wayfinding Bodies

In a sense, all ideal body types discussed in this study, it can be argued, are social bodies. This social body though emerged strongly in its own right and reflects the ontological viewpoint and conceptual framework used in this research. A useful and poignant quote from Novack (1988: 103) helps to reveal the direction taken in this section:

> Some researchers tend to look only 'at the movement itself' as if the body, movement, and mind were independent entities, scarcely connected to social and cultural ideas and institutions.

A point worth making also, before presenting the analysis in this section, by Weber (1964: 113), is that the presence of other people in social situations does not, in itself, define that it is a social situation. For example, Weber argues that group action can sometimes be the result of many people sharing a certain confined space and re-acting to the same event (such as a rain shower and putting up their umbrellas) rather than being a social interaction between any of the group. Weber also gives the example whereby "a mere collision of two cyclists may be compared to a natural event. On the other hand, their attempt to avoid hitting each other, or whatever insults, blows, or friendly discussion might follow the collision, would constitute 'social action'". The presence of other people in wayfinding thus is not used as an assumption of proof that wayfinding is a social cultural activity. Plenty of examples though, did evolve from the data to suggest that wayfinding *is* indeed very often a social activity and these examples are discussed below.

5.3.1 The 'Pivot System'

A by-product of taking a journey with other people is that different people may have different heuristic based needs, as they use a given space. As a result of this, the concept of what I would call the "Pivot System" was mentioned many times in the interviews. The pivot system is the idea of creating a base in a location, whereby that point is then used for individuals of the group to then navigate to and from. Heuristic needs such as needing to find a lavatory, somewhere to eat, or to shop, mean the need for micro wayfinding experiences within the overall (macro) route. This pivot system idea was important for some volunteers, Patrick being one example:

> You're looking to get a base. When you've got a family, you're constantly looking for a base...You go to an airport, a train station, and you put all your bags down and you kind of locate stuff. (Jul. 2015)

In asking what embodied techniques people use to facilitate their wayfinding experiences as one of the key research questions in this study, this idea of a pivot system, is an important technique used by many people.

The pivot system provides a different way of understanding Ingold's meshwork. In the interviews, this pivot system tended to be a useful wayfinding technique for those travelling in groups, with the use of a temporary base enabling smaller micro wayfinding processes to take place, normally with someone looking after the base/hub.

5.3.2 The Collective Wayfinding Body

A typical example of collective wayfinding occurred for Rex who was on a P&O cruise off the Spanish coastline. Rex explains how when he and his wife could not find a specific bar they were looking for one evening, that they then found themselves sharing the experience with people they met in the ship's lift (elevator):

> We all got lost together. In hindsight, I get the feeling that we all assumed that because there were many of us, that it almost seemed as though we had to easily find the bar, because one of us must know where it was located. This proved not to be true and it was only after going backwards and forwards a few times, that we eventually found the bar, after we found someone else to ask. (Oct. 2015)

His experience reveals what Goffman (1966: 24) calls "focused interaction, the kind of interaction that occurs when persons gather close together and openly cooperate to sustain a single focus of attention". This type of interaction often affords one the chance to successfully navigate physically between A and B but as a Compliant body (see Section 5.5), if one so chooses. This example also suggests that wayfinding includes bodies of "others". Hill (1998: 12) calls this "strength in numbers - one of the least studied aspects of lost person behaviour is the possibility that people act differently when they're lost in the company of one or more companions than when they're alone". All four research questions in this research, link to this issue of how we wayfind in different situations and in relation to this co-presence. In these interviews, a full understanding of exactly how we *change* as wayfinders in this group scenario (something that might be worthy of future studies) was not fully established, but the findings did suggest that this co-presence does often change how we *attempt* to wayfind, supporting Hill's (1998: 15) finding that:

> Becoming lost is normally accompanied by high emotional arousal, which, if high enough, tends to interfere with mental functioning, specifically the application of rational thought processes toward solving the problem of getting reoriented...there are indications that when people are lost in groups

> of two or more, their arousal levels may be somewhat lower and they may behave in a much more rational manner than when lost alone.

Group wayfinding is also used by Julia who uses wayfinding and discovery in her work. Julia organises what she calls "environmental play-work" workshops for her now successful business helping children to develop their outdoor skills and connection with nature. One such activity involves a group of children helping each other create a route. The process is explained by Julia:

> Setting a group off and following - in line - and the person at the front, when they find something interesting, they pass to the back of the line and then they follow the line, and they take over at the back. And the new person at the front then leads the direction. And, and it's that kind of, it doesn't matter where we go, as long as we're going and we're going together. And so, there's this really interesting thing because you know, you do that with a group of kids or with a group of adults, you end up in some really weird places. (Julia, Sep. 2015)

This form of wayfinding is similar to what Fewings (2001) refers to as "recreational wayfinding". The idea of giving up agency and allowing others to take charge in these group scenarios was mentioned several times in interviews. Lauren, for example, explained how, when she travels in a group, if others know the city well, then:

> I will completely lose myself and I don't care if I don't know where I am. I just follow and look around and, and discharge that responsibility you know, so I just give it [control] away and just enjoy my time". (Aug. 2015)

This idea of relinquishing the direction finding to others in order to relax was mentioned also in other interviews. By "relinquishing the direction finding to others" Lauren is choosing to become a "Compliant body" through *collective wayfinding* in order to focus on enjoying the experience of the journey rather than the wayfinding. This example highlights the options available in a group environment, which include the opportunity sometimes to eliminate the wayfinding as an individual agent, and to leave the interpretive craft of finding the way to others. These findings support those of Edensor (2001) who found that backpackers, despite believing themselves to be independent travellers, often follow the very same routes and paths and use the same guide books, as other backpackers.

One further point, in relation to group wayfinding, and that is worth also noting, is provided by Kevin (Oct. 2015):

> In a busy city where you've got…other corporate groups, a lot of corporate groups…they go to Barcelona for big conferences so… you could have a hundred different companies and groups touring round the centre of a city and it's very easy because quite often believe it or not, most of the people, they may work for the same company, but in fact they don't always know

> the people from different offices. They may have spoken to them on the phone, or even emailed them, but in fact… you get a big company and get an office from New York, or London, they gather together in Barcelona…they've never actually met each other before, so it's very easy to get in with the wrong group and one of the parts, one of the roles of the guide is to make sure that, everyone stays together, and nobody strays off to join another group. Otherwise it could be, it could be very confusing.

As the guide allocated the agency to manage the wayfinding, socio-cultural issues can, as Kevin highlights above, complicate the practice of guiding large numbers of people. Ultimately though, as Kevin went on to explain, everyone tends to reach the location, even if on the wrong coach. Kevin's example, where large groups mix from the same company but from different offices around the world, also links closely to Ingold's (2006: 26-27) suggestion that "transport, by contrast, is tied to specific locations. Every move serves the purpose of relocating persons and their effects, and is oriented to a specific destination" but that wayfinding still takes place in the examples of locating a coach, correct seat and so on. Ingold's "entwined knot" is useful to draw on here, given that Kevin's example also highlights one of scale in that the problem of convergence at where the points of the knot meet, are not restricted to individual agents but, as Kevin's example shows, also the result of large group's converging. Therefore, the entwined knot needs to be understood as scalable.

Routes through a meshwork are also affected in collective wayfinding by restrictions through the presence of other bodies. In Andy's caving example mentioned earlier, Andy can only take evacuation routes out of the caves that are the within the ability of the weakest ability level in the group. Routes through the meshwork, in this case, are determined by embodied ability rather than best and fastest route. Wayfinding, in this sense, can be viewed on the meshwork as a social activity that is guided and shaped according to group members, rather than a route between two static points, which must be navigated by one individual.

5.3.3 Guiding Others

Most people have at some point provided directions for others. In some cases, the people interviewed had experience both as a guide and as a wayfinder. Kevin, in a tour guide role in Barcelona working for an events company, guiding corporate groups of up to sixty people at a time, reports that:

> On a bigger group we would have two people and generally speaking, one person would look after the front of the group and lead the way, and the other person would be at the back of the group making sure nobody strays off. Because when people are in a foreign city, they get very interested.

> Quite often they go off on a tangent, taking photographs and it's very easy to get lost…it's important that everyone stays together...It's like herding sheep! (Oct. 2015)

We often give control of the wayfinding to others, often paying financially to be "herded as sheep". In one respect, we become a "collective body" with an appointed captain/leader who guides us. We can though also have the power thrust upon us by others to take charge of leading people between A and B. This power is not exercised by us, in that it is not fixed or localised (Foucault and Sheridan, 1991) but often projected upon us. Rex was on a cruise and explains his experience:

> After only an hour onboard, I found that I was expected to be the source of directions for others. I was asked for directions, not as a fellow passenger but, for example, with an elderly lady thinking that I was a member of staff because of my age and I guess because I was wearing a new polo shirt. (Oct. 2015)

This example connects with the "proactive partners" (Ryan, 1997: 52) that were discussed in the literature review in relation to co-presence and Goffman, in that we help to shape other people's movements and routes and not only our own. "Symbolic power" (Bourdieu, 1991, 1998) in other words, is sometimes projected onto others whom we expect to lead us.

Indeed, Rex's example of other passengers asking him for directions on a cruise ship, is explained by Bourdieu's concept of symbolic power and the idea of "situational context" (Løvs, 1998: 381), that is, where leaders can emerge in certain situations, such as in an emergency situation.

The guiding of others can also be a socially shared experience. Linda, for example, uses the website 'Couchsurfing' as a tool to find contacts worldwide for local guides in countries she plans to visit. Even though the site is designed for accommodation sharing, Linda has used the message boards for finding local travel guides and returns the favour to those she meets, who wish to visit her home city in the UK. In guiding others though, there is also a certain pressure that can exist for the person allocated the wayfinding duties. Guiding others is not always easy, as Kevin reveals whilst speaking of the emotions involved in his role as a tour guide:

> You've got to try and stay calm and confident and most of all, give the people reassurance that you're in control and that you're you know…where you're going and you're going to get there in a safe and swift manner. (Oct. 2015)

Such an example suggests that the allocated wayfinder can often take on the embodied emotions, stresses and strains, on behalf of the people they are guiding. This way of viewing wayfinding control was also explained by another volunteer. Stef sometimes needs to use of a wheelchair and, in the quotation below, talks about her experience in airports:

> We hand the power over to these and I don't care these days. Before we used to do it, you know ourselves [manage the directions through the airport], it wasn't stressful, it was just a nuisance you know, you've got to queue here and do this and do that err – but it was, the getting from A to B was just a necessary evil you know. (Aug. 2015)

Guiding others and also it must be said, handing over the immediate agency that we do have, to allow ourselves to be guided by others (that is transferring agency), was a clearly emergent theme. The study data matched the findings of Caspi (2014: 442) who studied wayfinding in care homes for dementia patients and, as a result, identified a number of strategies including "directing, guiding, leading residents to their desired destinations, or walking hand in hand with a resident to her or his destination". These very social and embodied techniques (such as where one might take another physically by the hand and guide them) emerged in this study.

In terms of guiding others between two locations, "recces" or familiarisation was also named as one technique (and which relates to question 3 of this research). In Adrian's example, other people's bodies would literally be laid on the line in order to get the VIP from A to B. As Adrian explains:

> There'd be a full briefing. There would be a reconnaissance sent ahead. When a VIP was moving, we'd have an advance party anyway that would go to the venue to make sure the route was cleared you know, and if anything was going to happen, they would actually you know, unfortunately for them, take the hit. And then you know and then, the message would get back to turn back around and go. So, it was always basically a buffer really for the client that we had. (Nov. 2015)

Kevin's "recce" example concerned corporate clients as the VIPs. Kevin would do a walk of the route in Barcelona to check that there were:

> No roadworks or any hazards that we may encounter. It's very important to pre-plan, and to make sure, especially for a big corporate group, where you've got, perhaps you're looking after forty or fifty senior executives. Very important to actually ensure that there are no obstacles or, or no problems so we would actually…do some research perhaps the day or earlier in the day and just make sure that there's no, that there's not going to be any problems. (Oct. 2015)

The cognitive wayfinding element in these wayfinding examples, exists not only from the agents' perspective (the person essentially who needs to be taken between A to B), but through the person helping these bodies get from A to B.

"Symbolic capital" (Bourdieu, 1998) and the value of capital as a network resource (discussed in Section 3.2.4.4) can certainly be important because certain individuals draw on it to successfully find their way across the meshwork. Many VIPs, as highlighted in the previous examples, are symbolic figures that are deemed important enough to place other people's lives in jeopardy in order to ensure completion of the route. This is far from a common experience in everyday wayfinding, but this example nevertheless provides a useful example of how symbolic capital (Bourdieu, 1998) functions in relation to Ingold's (2011) meshwork.

Guiding others was also important in the interviews for those with children. In this study, the need to safely guide others in their care, was mentioned in several examples. One of the volunteers explained, after one of the interview recordings has finished, that as a very senior manager, he is used to managing many people. Yet, when it comes to controlling his own two children when he travels, the children have a mind of their own and seem oblivious to being told what to do and to follow any rules. This is interesting, especially when considering social, economic and cultural capital (Bourdieu, 1993). Many young children will be unaware of any value surrounding their own social, economic or cultural forms of capital. A given route for some children is literally a field on which to run around. As Patrick explains as a father of three, "you're constantly managing other people - there's a lot more preparation - a lot more stress involved in that" (Jul. 2015) when trying to get between A and B. As a mother of two, Sarah knows all too well the difficulties of getting lost:

> My kids…I definitely don't want to be like getting lost with them because that's just so annoying. So that would be a really big kind of motivation to plan ahead because…otherwise you're just heading for a disaster basically [she laughs]…There's an element of responsibility and then there's also like, I guess it's practicality as well because I don't want to have to deal with like, tantrums. (Aug. 2015)

Sarah's thoughts matched those of Amy. Amy talked early in the interview about her backpacking experience as a university student and the freedom with which she would choose routes without too much planning. Things have now changed as Amy then goes on to add:

> I've been much more cautious since having children about travelling. I never thought that would happen to me but it has. I'm really a care-free person but in terms of, I, I won't just umm, plan a trip abroad.

Having to put others first in a wayfinding situation, directly impacts upon how wayfinding as a practice is carried out. Indeed, when viewed in Ingold's meshwork, the routes are only as effective as the ability the wayfinder has to guide those in their charge. This 'responsibility' is a key thread that ties together many of the examples given in guiding others and in this sense, wayfinding should not ever be assumed to be a linear practice that is about direct routes. There are, in other words, complexities in wayfinding practice that exist through responsibility, or what Goffman (1966) refers to as "behavioral settings", and that are pertinent here. Whilst responsibility for guiding a child along a route exists, the earlier mentioned example of social responsibility and to take the paths laid out for us (rather than across neighbours' gardens) can simultaneously occur.

Questions 1, 2 and 4 all relate to this issue of guiding others, how different people wayfind, the embodied challenges faced, and how a socio-cultural view might enable wayfinding to be seen differently are all partly answered.

5.3.4 Unknown 'Others' Affecting our Route

The social context of wayfinding, through the interaction and effects of other people was found to be important in the interviews. The routes we choose, or must take, are often dictated by the interaction with these "others". To give two quite different examples, the first example is Andy in his experiences of caving and dealing with emergency situations:

> I do a lot of rock climbing as well, so I'm quite happy to find an emergency point where I can climb rocks, to get back to civilization. If I was with a less experienced person, I couldn't use those options. I would need to find alternative points to get out. (Nov. 2015)

Patrick's example, on the other hand, relates to avoiding chuggers, a term commonly used by some to refer to an overly aggressive street charity collector (*ch*arity m*ugger*):

> I would avoid certain things…Particularly if you see people that are trying to - you know - these silly people that try and encourage you to try a product or something...And they're perched in their high volume area and you've got to use - you've got to try and get past them because you can see them looking at you. (Jul. 2015)

In Patrick's example, the route as a whole was not changed but the immediate directness and comfort of the route taken, can be compromised. This issue of chugging was also raised by Rex, who avoided certain beach walks on his trip around Mexico, because of the problem of being constantly approached by people trying to sell or beg.

There can exist a certain anxiety in such situations in wayfinding, and this can be the cause of route changes. The example provided earlier by Ramsden (2011: 166) of experiencing "stares, grunts and unwanted invitations" when walking across a city centre, alludes to a potential example of the practice of route avoidance or changes in relation to the presence of other bodies in the same spaces. Paths represented by the meshwork, cannot be assumed to be direct routes because routes almost always tend to be socio-culturally populated spaces.

Many wayfinding articles give mention of physical objects (including Fajen and Warren, 2003; Hajibabai *et al*, 2007; Sarjakoski, Kettunen, Flink, Laakso, Rönneberg and Sarjakoski, 2012) as possible obstructions, but ignore people as the physical obstructions. In this study though, humans tended always to be the obstructing force. Ingold's (2011) "entwined knot" concept discussed in the theory section (Section 3.2.2) provides a visual tool of human bodied obstacles, an example being when crowds form in the same location as their individual paths meet. In the meshwork, the meeting of points illustrates the social interaction between the wayfinder and the person/people being avoided, and, as a result, the path taken is a divergent non-linear one (the new path designed for avoidance within the overall route).

"Others" blocking our path or route was also mentioned as an issue for several volunteers. For example, as Francis explains:

> I don't like crowds! It's not that I throw a wobbly if I go into a crowd…I don't get panicky but I just feel immense frustration if I can't go where I want…you've got people who decide that dawdling [walking really slowly] and preferably if they could walk as a family group, eight across - blocking any lane of passage there is on the way through. (Aug. 2015)

The presence of others navigating the same spaces has another effect, in this case relating to our cognitive choices. One example comes from Amy, who stated that "because you've got the pressure of traffic behind you, there's no, there's no time to make stupid mistakes or to be going argh which road do I go on" (Sep. 2015). This example suggests that social pressures, brought on by other users, are an important consideration in understanding wayfinding practice, these other users are illustrated in the meshwork by lines that merge with our own line, our own path. Crouch, Aronsson and Wahlstrom *(*2001: 260) make a similar point, stating that:

> By our own presence we have an influence on others, on their space and on their practice of that space, and vice versa, often considered as negative, as source of conflicts…It is through the practice of shared body-space that

> space becomes transformed as social, not only by mental reflection on another's presence, but by a shared feeling of bodily activity.

We also, perhaps unsurprisingly, become that "unknown other" and impact how others wayfind. In other words, "symbolic capital" (Bourdieu, 1998) evolves in the social wayfinding body, with the role of wayfinder sometimes placed onto others, such as in an emergency situation as previously mentioned. In addition to Rex's earlier example on a cruise ship, Stef gave the example of how she follows groups such as in airports, as tool for finding the way, this group who inadvertently lead her, taking on the role of wayfinder unbeknown to the group. As Goffman (1966: 210) explains:

> The normative stability found in the situation may be due to the presence of guardians who informally or formally have the special job of keeping "order". Thus, we read of the silentiarius, the Roman slave whose job it was to regulate the noise level maintained by other slaves. In our day, chaperones, referees, nursery-school teachers, judges, police, ward attendants, and ushers are among those who perform this function.

Certain roles in wayfinding may be allocated to people, such as a policeman who re-directs traffic, as posited by Goffman above. "Co-presence renders persons uniquely accessible, available, and subject to one another" (Goffman, 1966: 22) and in group wayfinding, we inevitably become accessible as a source of guidance for others. In this study, the findings also support the "reports" that Løvs (1998: 381) talks of below, whereby these roles are also sometimes unexpected roles that only become apparent during the practice and when placed on us:

> It has been reported that persons have a tendency to follow persons with authority, especially in emergency evacuations. Passengers on a ship follow the crew, workers follow their foreman… authoritative leaders or by leaders who have emerged from the situational context.

Burkitt (1999: 26) explains that the body is a signifying body and, applied to wayfinding, we ourselves are wayfinding tools for others, just as other bodies are signifying bodies that act as tools for us the agent. People as wayfinding tools are ignored in the majority of studies on wayfinding. Many organisations are becoming aware of the benefits of making people a wayfinding source, with humans being used more as a resource for wayfinding, particularly in certain UK airports in recent years.

5.3.5 People Asking

Other people are often very important to us in wayfinding in a number of ways but one of the techniques used by just about every wayfinder was that of "People Asking".

People Asking was a major strategy that emerged from the interviews. Rather than just being an after-thought and secondary technique, the art of "people asking" *was the most popular technique used by volunteers*, in addition to being one that was often used as a primary technique and with intentional usage. Alan was a particularly interesting volunteer because people asking is his key strategy, above all other techniques. Alan comments:

> I must say the best thing to do in…is ask, to the people. I always resolve this quest, this issue of orientation issues, when you don't know where to go – asking to the people. And many times, after I asked and I went to the right direction, I ask more times – every time I need…I have no fear to ask. (Jul. 2015)

Alan continues:

> I don't enjoy getting lost. But if I get lost I – I will ask to everyone I meet. Not – not exactly everyone…but I don't wait to get lost even more to ask. I have no fear to ask. I saw the people, I ask information and 90, 95% of the time, I go in the right direction just for that. (Jul. 2015)

Alan's interview was one of the first interviews that took place and I suspected that this technique might be quite specific to Alan because of his love of talking with others. The idea that "verbal route directions, either written or spoken, are often the best way to provide wayfinding information" (Montello and Sas, 2006: 2006), is taken to an extreme by Alan. Alan's was a technique also used by several volunteers in the interviews, many of them also using people with intention. Amy, for example, stated that "I generally just asked people where things are and then try and retain the instructions. Then I go ask someone else because I've forgotten the instructions" (Sep. 2015).

Rose also makes use of this intentional technique:

> I actually try to ask…whoever is young and if I can find people who are young like in their twenties…I feel like they're like-minded maybe and…I'm just asking like hey, where do you go to eat? That's what I did in China.

Rose goes on to explain that she not only uses people asking for finding her way, but that her route destination is often focused around this technique. For Rose and for others interviewed, the actual destination will often change based on the responses from people asking. The intended location, such as to find a good restaurant or bar for example, is often intentionally left undecided upon by several volunteers in the interviews, in order that they can then use people asking as a way to discover their own destination, point B. Alan perhaps summarises opportunistic wayfinding perfectly in saying that:

> [Other people] give you the right directions, the right tips for a good restaurant for example…it's the only way to try to understand better the situation and to go in the best direction. (July. 2015)

Stef provided a slightly different example of people asking, Stef talking of her frustration of not being able to find the exit in larger stores, remarking that "I found a shop assistant and said can you tell me where the exit is. So, you do need, you do need to be able to communicate" (Aug. 2015). Social interaction, I would posit, should be factored into any wayfinding planning and research.

I do not agree with Hill (1998: 3) who states that "in most environments, there are usually sufficient wayfinding cues — or people to provide directions — to get us back on our way". Such a point creates a duality between wayfinding and people asking and suggests that people asking is not a part of wayfinding. Hill though provides an example of the importance of the group dynamic in wayfinding, this example concerned with desert regions. As Hill (1998: 34) explains:

> Another observation is that Arabs traveling in the Sahara desert, where wayfinding cues are scarce, will travel single file so that the person in the back can notice when the leader deviates from a straight line.

This ability to communicate with others in these aforementioned social settings, Burkitt (1999: 1) frames as an embodied experience in asking how we could possibly attract the attention of others, unless we used our body, and that "'it would be impossible to think without our bodies" highlights the centrality of the body in wayfinding through people asking.

Opportunistic wayfinding was another common theme that emphasised the social context that emerged in wayfinding. The routes we navigate to are sometimes revealed only during the social interaction. Amy's example illustrates this well:

> Some local person has given us further information about a place, and then you delve deeper and you visit that…So I always think people are just really important anyway. I always get people's opinions. (Sep. 2015)

Amy went on to explain that, even if she was not looking for somewhere different to visit during a city visit, the discussion with a local could result in a completely different agenda and subsequent route.

Likewise, Linda provides an interesting example of this opportunistic wayfinding, using a creative way of finding point B (the destination):

> They [couchsurfing hosts] give you tips, they take you around, especially because I'm a solo traveller. I like martial arts…so when I went to Korea, I

> managed to contact this master. He's a martial arts master. And he gave me some martial arts lesson and then he took me to, to a museum of martial arts weapons. Which I wouldn't even be able to know it existed in Korea...Because I mean you discover places, okay, you have a guide with all the sightseeing the touristic side. But then you go off track with someone local and go and see places that are not even in travel books. (Nov. 2015)

The "meshwork" is useful for trying to understand "opportunistic wayfinding" as a concept. Rather than being recreational wayfinding (Fewings, 2001), this concept is about definite locations but as yet unknown ones. In this sense, rather than being a "process of determining and following a path or route between an origin and destination. It is a purposive, directed, and motivated activity" (Golledge, 1999), it could be argued that wayfinding is in fact a far more *fluid* practice, as emphasised by "opportunistic wayfinding" and also by "recreational wayfinding". Routes change and adapt and can be manipulated (such as stakeholders who can guide us to places we did not intend to go as we will see in the compliant wayfinding body Section 5.5). The lines of the meshwork, in this case, are lines of sociality rather than lines of a route. The lines of sociality that meet, in this case, direct the route taken within the meshwork.

Some routes would be all but impossible for some wayfinders without access to local knowledge, as Linda points out, in talking about her trip into the Mongolian desert:

> When you are in a place like Mongolia, which is all desert and immense desert and nothing else, there are no people, no street signs, absolutely nothing and you need to get somewhere. That's become a real challenge. So in that case the only way for you move around, you need to have a guide, to take you from A to B, because you won't be able to go by yourself. There are no transportation, no street sign, no people, nothing. Even if you have a map you're still not going to find your way because it's immense desert or you know, immense plain and there's nothing else. So you have to have a good guide to take you where you wanna go and that's what I did in Mongolia...I had to take a guide to take me to the desert dunes, otherwise I would never have been able to get there by myself. It would be absolutely impossible. (Nov 2015)

Once again, the essence of seeing wayfinding as a social experience is transparent through the wayfinding process. The support of other people and following others also emerged as being important in the interviews, with other ways in which we depend or need others in order to get from A to B, also discussed. Stef, for example, considers herself to never have "had a very good sense of direction" (Aug. 2015) so engages in what I would term "people following" or what Goffman (1966: 24) calls "unfocused interaction, that is, the kind of communication that occurs when one gleans information about another person present". Stef as someone who makes use of a wheelchair, is sometimes reliant on 'Special Assistance' services in certain locations (such as in airports) and being isolated away from

the crowd would mean that she "would have panicked because I like to follow the crowd". Stef, in her interview, mentioned her technique of crowd following as an intentional wayfinding technique and the example of where she was forcibly separated from her husband by the Special Assistance official in one UK airport, was especially traumatic for her:

> They wouldn't let Charlie come on there [the special assistance mobility scooter]. And they made, this lady said oh no, you can't come on there. And they made him walk all the way from where we'd landed to the baggage. Which was fine except that we were the last to get off the plane, everybody had gone. (Aug 2015)

The benefits to be gained from people following were also expressed by Keith who would use the presence of another recruit running in military exercises as a way of focusing on the physical challenge rather than the route finding. Keith explains:

> [You] hang in there with the guy in front of you who knows where he's going. That, that's the only way...So being tactical about it and saying. Right, I can, I can use all my brain power here, to think, right we're going to go here, we're going to go left, going right and then the, then the bus is down that way and the finishing line is that way. Or I can just switch off my mind, let somebody else do the thinking and just, just hang on to the shorts of the guy in front of me. (Sep. 2015)

Above we see another example of a wayfinder using a strategy to become a compliant body, that is *choosing* to transfer what agency they have for the navigation, to another person, in Keith's case, unknown to the person he was following. Relying and trusting others, from Stef and Keith's two examples, emerged as a technique that is used in wayfinding, utilising the social elements and other bodies and with a fluidity prevailing in respect to how people shift to and from being passive wayfinders.

People asking, people following and local knowledge were all strong themes in the findings and further re-iterate this very human, bodied and socio-cultural aspect of wayfinding. The concept of embodiment cannot be ignored as a semiotic cue. Goffman (1966: 13-14) states the:

> The individual may also give information expressively…a message that a sender conveys by means of his own *current* bodily activity, the transmission occurring only during the time that his body is present to sustain this activity. Disembodied messages, such as the ones…hunters receive from the spoor of a now distant animal, require that the organism do something that traps and holds information long after the organism has stopped informing.

The influence of "discrepant roles" (Goffman (1990 [1959]) was also noticeable. Dave, in his interview, often spoke of the camaraderie and the way in which fellow touring cyclists

will help each other. In a few situations, a fellow cyclist would go out of his way to guide Dave by cycling ahead of him to lead him, when Dave was lost.

Overlapping structures also emerged in the findings of this study. Numerous examples of people asking highlight the way in which wayfinding for the agent, overlaps with the social experience of the locals being asked for directions. In Ingold's meshwork, the entwined knot in this case does not necessarily represent only wayfinders but the interaction between wayfinders, locals, commuters and others. Goffman (1966: 21) also explores these overlapping social situations:

> The social situations that occur in these overlapping behavior settings support gatherings that possess a special type of normative disorganization. The possibility that the same physical space can come to be used as a setting for more than one social occasion, and hence as a locus for more than one set of expectations, is regularly recognized in society and typically restricted. Thus, in the important case of public streets, there is a tendency in Western society to define these places as the scene of an overriding social occasion to which other occasions ought to be subordinated. Potentially competing definitions in the situation then give way to a kind of public decorum. This decorum itself, of course, is typically subverted momentarily by parades, convention antics, marriage and funeral processions, ambulances, and fire trucks, all of which impress their special tone upon the public ear for a brief time. It is situations and their gatherings, not social occasions, that we will mainly consider here, but for this a few terms must be introduced to help us distinguish between what is and what is not relevant in situations.

Ingold (2004: 328) also alludes to the social practice that exists as we move between places, Ingold drawing on Goffman's work:

> What Goffman shows us, through his study, is that walking down a city street is an intrinsically social activity. Its sociality does not hover above the practice itself, in some ethereal realm of ideas and discourse, but is rather immanent in the way a person's movements – his or her step, gait, direction and pace – are continually responsive to the movements of others in the immediate environment.

Ingold above, in quoting Goffman, does suggest a slightly different interpretation of socialising to Weber, who posits that actual interaction with others must take place for a situation to be considered a social one. People asking though certainly meets both Goffman's and Weber's definitions of socialisation.

"People asking" also needs to be considered in relation to time and space in that the practice may occur outside of the normal quotidian experience, as in Rose's case of asking for directions when abroad. As Goffman (1966: 131) suggests, "when fellow nationals meet in exotic lands they may feel obliged or privileged to initiate a state of talk". Indeed,

agency and the level of control and influence of others can impact upon how we wayfind. In order to get to our destination, we have to encounter "others" and this clearly impacts upon our own wayfinding experience and route choices. Even solo travellers tend to interact with others, such as when a hiker goes missing and a search party is sent. We continually come into spatial proximity with the bodies of others, sometimes even through direct touch. In the process of getting from one place to another, whether it be from home to a destination or from an airport main entrance to the departures area, the experience is one we share in parallel with others (Larsen, 2008). We also travel with others intentionally, choosing to share or even hand over the navigation decisions to others.

5.3.6 Section Summary

The theory of wayfinding as an embodied and socio-cultural practice, is strongly supported in the findings from the interviews in this study, particularly in this "Social Body" type. This section has addressed a gap identified by Laurier *et al* (2012: 4), who noted the lack of attention to the socio-cultural research in wayfinding, stating that "it is perhaps the absence of groups like families in navigation research that explains a lack of attention to its emotional aspects". In this section on "social wayfinding bodies", numerous examples have been given, which highlight the socio-cultural nature of wayfinding that is often missing in wayfinding literature. Understandings of the various ways in which other people are central to how wayfinding takes place in lived environments and situations, appears transparent in the practice of wayfinding.

5.4 Restricted Wayfinding Bodies

In this section, the term "restricted wayfinding body" is used as way of referring to a body type that has at least some limitations placed upon it in wayfinding, for a variety of reasons. When wayfinding we might be restricted, for example, by time, or because we are tired, because of language inability, or by physical boundaries. In the safe body, the example of only being allowed access through security at an airport, with the correct documentation, was given. Routes, in other words, are often restricted and structural controls are omnipresent in wayfinding, in some shape or form. Moreover, drawing on Bourdieu, we can be restricted by a lack of social, economic or cultural capital, in wayfinding. In this sense, "there are some rights that may be differentially distributed within an encounter" (Goffman, 1966: 100). In the following section, examples of the restricted body that evolved from the data are detailed.

5.4.1 Restricted by Disability

Small *et al* (2012: 942) make the point that "people with impairments have a condition that affects the function of their bodies but it is the disabling nature of socially constructed barriers that transforms them into a person with disability". Indeed, Stef, a retired teacher who suffered a stroke a few years ago, illustrates the limitations of the disabled body in wayfinding. Stef spoke about using Google Maps on her mobile phone for trying to find her way: "I've got to use only one hand and therefore you can't do the buttons sometimes, because you need another hand to be steady" (Aug. 2015). A wayfinding process, which most of us would take for granted, is far from easy for Stef.

Another volunteer, Amy, mentioned her husband, who is profoundly deaf. Speaking of their experience in airports, Amy explains the difficulties they may have:

> Sometimes announcements of where you've got to go, or how to get somewhere, it's audio and…he has to keep his eye on the board all, you know, like all the time. (Sep. 2015)

Although referring to sports and exercise research, Sparkes (2009: 21) mentions the issue of prioritisation of certain senses over others:

> Questions are…raised regarding the historical elevation of sight over the other senses in ethnography and the impact this has had on how we understand the social world. The case is made for a more balanced consideration with regard to embodiment that includes the senses of sound, smell, touch and taste.

Ray (2009: 263) also connects disability and experiences that cross over into wayfinding, such as journeys through the wilderness or skiing (a sport where taking the correct route can be problematic):

> Disabled bodies are simultaneously marginalized and the invisible, a category of bodily corruption that gives the "normate" body…its meaning. The disabled body is made invisible by risk culture's emphasis on fitness, yet risk culture relies on the threat of disability to make the wilderness ideal body meaningful...the corporeal unconscious of risk culture today, depictions of which reveal that the disabled body is necessary to give risk and adventure any meaning, and yet the disabled body must remain invisible

Clearly, disability is still an aspect of wayfinding that needs further investigating. Ironically, many UK airports are now introducing non-audio *only* announcements. A visit, for example, to Bristol Airport, England (see Appendix 6) in July 2016, reveals a sign saying "Boarding announcements are not made at Bristol Airport, please check the flight information screens". On discussing this with a senior airport manager after the interviews, the reason given for non-audio announcements was because, in quieter environments, people are likely to be more relaxed and to spend more money. It was also stated that most UK airports offer "Special Assistance" and that anyone with a disability should be using this service. The problem here is, if we accept Small *et al's* (2012) belief that the real disability comes from the "disabling nature of socially constructed barriers", forcing users with any impairment to be classified as in need of "Special Assistance", disables and restricts users even more, requiring them to rely on others for wayfinding. Whilst the findings from the interviews did not provide a solution to empowering disabled wayfinders, the question that this begs is if individual solutions can be provided, for example, through smartphones to provide bespoke information and guidance (for those who are able to use such devices). Stef demonstrated her limitations by explaining her wait to disembark a plane:

> The pilot had to call up. This is an Alitalia flight. They were very good I mean [she laughs] – but he said do you mind getting off shortly. He said they will come and get you. He said, but you know, we're turning around quickly [we both laugh aloud] because otherwise you'll be going to Amsterdam.

Stef continues that staff eventually collected her, but the mood of the staff gradually changed as the turnaround time for the airplane was longer than expected. Disability also creates restrictions for helpers, as Charlie, Stef's husband, explained in relation to the special assistance at one UK airport:

> When we got to [airport name removed], it was frankly unpleasant, in that the female who – Stef had to get on one of these buggy carts to get to where you pick up your luggage. The supporter or whoever you want to call me…helper goes with the disabled person. I was not allowed to get on this thing...Well I obviously had to walk.

Rex also experienced seeing the debilitating nature of getting from A to B, this time in relation to agency and being disabled, when on a cruise ship. Rex watched as one wheelchair user insisted on being allowed to wheel himself off the cruise ship gangplank, but being forced to wait for a crew to accompany him, with only one wheelchair allowed on the gangplank at one time as he explains below:

> I observed as some wheelchair users attempted to wheel themselves off of the cruise ship. The cruise staff were implementing a strict health and safety set of rules with each wheelchair user having to be wheeled off with the help of a staff member and one a time, i.e. there could only be one wheelchair on the ramp at one time. The wheelchair users had no choice but to wait one at a time until the wheelchair user before them has been wheeled off. Despite the wishes of one guy to wheel himself straight off he was not allowed to, his freedom of movement stripped away and he seemed quite frustrated. (Oct. 2015)

While this process presumably makes disembarkation safer in ports for special assistance passengers, and whilst one could argue that this is not wayfinding i.e. the interpretive craft of finding one's way, I would argue that this is wayfinding in the sense of how we fully find our way from A to B, in a fully embodied sense.

Factoring in the needs of disabled travellers, certainly provides a different viewpoint of Ingold's meshwork. Certain paths across the mesh may look simple to most people and yet are not viable routes for other users, such as because of unavailable wheelchair access. Indeed, news stories are common regarding problems of wheelchair access including on the London Underground with headlines that include "Disabled people are still being treated as second class on public transport" (Ryan, 2016) and "Mexico City from a wheelchair: 'There's no second chance on these streets'" (Lanard, 2016). Limitations to the embodied experience may not only be the result of a recognized physical or mental disability. Embodied effects such as tiredness, as discussed next, also need consideration.

5.4.2 Tiredness

The embodied experience of *tiredness* can have a powerful impact on the wayfinding experience that restricts the wayfinder according to Andy, who discusses wayfinding in caves:

> If you're tired, stressed, hungry or thirsty, you are suffering heat dehydration, you start to make bad decisions very rapidly, and that can get you in a lot of trouble. So, it's about avoiding those situations. Preventing them for occurring so that you're always in control and always err in a good state of mind to get yourself out of bother. (Nov. 2015)

Tiredness, in other words, can restrict the ability to make the best decisions including route decisions underground and this can have safety implications. Also above ground, as Cecilia comments, "the more tired you are at your arrival, the harder it is to get your bearings once you arrive" (Jul. 2015). Dave gives his own example from his touring cycling experiences:

> I was feeling tired so I thought well I'll take the down route and the descent. So, I followed a, a long downhill, must've been two or three miles which is really nice, coasting on the bike. And went along through a valley, really nice along the side of a rippling stream…and I met a runner coming the other way and I said, this is the road through to Penrhyndeudraeth. He said no no no! (Aug. 2015)

Tiredness and wayfinding is a subject area that could possibly be researched further by others, particularly given that there are no studies to date that appear to research this specific subject. Tiredness in this study helps to answer question two, which asks what embodied challenges are faced in wayfinding. Furthermore, this challenge also provides another dynamic when viewing the meshwork, with tiredness also an example of the restricted body in wayfinding.

5.4.3 Daylight, Night-time and Darkness

Another very often ignored consideration in wayfinding research, particularly in virtual studies, is that of darkness and this aspect also helps to answer research question two. Morris (2011), who discusses wayfinding in connection to night walking, is one of the few academics to mention the effects of darkness and its impact upon our ability to wayfind. Yet, as the data in this research demonstrated, darkness, whether because of night-time or because the wayfinding is taking place in a cave underground, restricts our ability to find our way. This theme was mentioned by almost every participant and many interesting examples of the effects of darkness on the wayfinding experience evolved. Morris (2011: 316) provides an understanding of the effects of darkness and its effects on the body, this example referring to the darkness of night:

> Nothing is solid in the dark: it is harder to judge depth and distance, details are obscured and colours muted. One is obliged to 'see' by drawing on other senses such as touch, smell and hearing. In the dark how one senses what is surrounding is so fully restructured that it may no longer be

> appropriate to even label it a landscape, given that this term has embedded within it a notion of the scene and that which is visible.

Gladwin (1974), as discussed in the literature review, is one other person who at least provides consideration for the "shifts between night and day" in discussing the "vital wayfinding cues in the Pacific Islands". In this study, rather than darkness being a "cue", darkness was a hindrance and barrier to wayfinding efficiency and the perception of wayfinding being a positive experience. Darkness was mentioned several times in relationship to Venice, Italy, as illustrated by Charlie who expressed the difficulties at night-time in this city:

> It's even more confusing when it's dark. Even with a map. I mean we have, over the years, got lost many times in Venice you know.... I think it colours [meaning clouds and confuses] the way you behave. (Aug. 2015)

Linda summarises the reasons for her own difficulties in Venice:

> I was here this morning and I remember there was a road here and now I can't find it…because it's dark and somehow things looks differently from when it's daylight. In the darkness everything looks different. And you might not find a place that you found during the day...When it's dark, it changes completely. It changes completely. (Nov. 2015)

Similarly, Alan speaks of darkness and panic, as he tried to find a youth hostel in Switzerland:

> It was getting dark. I didn't know where it was the hostel. Just a number. I got a telephone number and the street, but I have no telephone...I was. I was getting worried. So, emergency situation. (Jul. 2015)

Even professional wayfinders experience problems in darkness. Adrian spoke of trying to navigate through the desert at night-time and, although he didn't get lost, he experienced being "navigationally embarrassed" because of the difficulty trying to find his way in the "pitch black at night, trying to navigate the desert without any light".

Lauren gives a hiking example and includes mention of the difficulty seeing the environment we are wayfinding in:

> When it's dark, when it's dark sometimes you can't even see where's you're walking at. So, you cannot really take information about your environment to find your way. You lose all that information. You can starve and so on. (Aug.2015)

Lauren's comment becomes especially interesting when one analyses some of the most common wayfinding definitions, such as that by Blades (1991: 1), who defines wayfinding as "the ability to learn and remember a route through the environment". People often do

need to wayfind in dark environments, yet often have little chance to learn and remember the route.

In terms of wayfinding techniques volunteers use (research question 3), Andy has learnt new ways of moving in darkened environments. Even in daytime, caves can often be in pitch darkness and this darkness, as Andy explains, can greatly change how we are able to practice wayfinding:

> Darkness… very much restricts your ability to navigate over wide distances. So, you need to use different techniques. One way for instance is we're trained with map reading and navigation to follow obvious features in the landscape. So, if you're trying to navigate between two points at night, out in the countryside, you will stick to gulley's, or hill tops, or between two hill tops that you might be able to see another hill in the silhouette you will head towards that… In caves, it's a different being entirely. The cave just doesn't often look anything like the map so it takes quite some time to get into your head, how to read a cave map, and how to interpret it. Because it's a very crude approximation of the real cave that you're in, so you start to learn, not to count your foot-steps, but you get quite a good appreciation of how far you've travelled. Now I'll look across the room now and tell you, from here to the couch over in the corner, it's about ten meters. You start to learn distances because it's important that you can do that. (Nov. 2015)

Andy's example above highlights how darkness is not reserved for outdoor environments only. Darkness can of course also relate to the way in which blind people experience the signed world, which most of us see. The disabled examples suggest that the rules of wayfinding practice are *not* equal for all users, despite attempts by the government with new regulations such as the Equality Act 2010 Section 15 (GOV UK, n.d.). The invisibility of one's own body makes route choices that much harder, as Morris (2011: 316) explains:

> Darkness also can call into question how the human body is in relation to that which surrounds. Anyone who has experienced the strange sensation of not being able to see one's hand before one's face on entering a pitch-black night will affirm that darkness challenges the human sense of bodily presence and boundary. Daylight vision allows humans to know bodily 'fullness'…True darkness is a rare occurrence. In reality, one's perception shuttles between extremes of light and dark...Our vision is not completely obliterated, nor do we see different things; we see the same things differently. For example, one might be able to see for many miles across a moonlit valley but not be able to see the laces on one's boots, while the beam of a torch will illuminate a lonely hillside but leave unrevealed all that is outside its reach.

The volunteers' experiences in this study match and highlight the importance of the findings of Morris (2011) and the influence of darkness in relation to the human body and how we find our way. Whilst the environment through which we wayfind is generally the same in terms of physical features, the change from light to darkness affords a very

different wayfinding experience. A previously viable route may become an impractical one, and perhaps a less safe one. To view Ingold's (2011) "meshwork" correctly, it perhaps need to be overlaid with different lenses to reflect darkness/light and other such phenomena, which can appear to change a route. The implications might be important for wayfinding system designers, in that the location in question might need testing from a number of different lenses/viewpoints. Much wayfinding research fails to consider the effects of the differing environmental conditions, and yet, in this research, the issue of navigating in darkness was one of the most commonly discussed issues and the cause of more wayfinding problems than any other. Lighting is a topic that, I would posit, needs further research in future wayfinding studies.

5.4.4 Time Restrictions

Some restrictions in wayfinding can be more psychologically based, time being one common example and one that was discussed in the literature review. For Lauren, getting lost even once, and missing her cruise ship can mean losing her job, an example discussed under the safe body. Constantly arriving in new cities worldwide, getting lost is something Lauren needs to take great care with. Wasted time is also an issue, as Linda explains:

> I tend to stick to what I know and feel safe and easy for me. Meaning that if for example I take a different route I might get lost and waste valuable time…in Tokyo…it took me some time to find my way back to the metro to take the correct exit. (Nov. 2015)

Whilst the example above is a cognitively impacted upon one, there is a clear displacement of the body, from the intended route and space. Time is a vital ingredient in the way in which wayfinding is perceived and corporeally enjoyed. When we have time to get lost, getting lost can also be fun, as Rex explains:

> Once aboard the cruise ship, we gradually began to unwind and there began the five-day experience of learning our way around the boat - well two days for myself and five days for my wife. This wayfinding experience now felt like fun and exciting like an exploration and experience of discovery. We had all the time in the world now. (Oct. 2015)

Time and wayfinding often converge and can be one of the biggest reasons for stress when trying to get to point B, based on the comments of volunteers in the interviews. Julia, in her workshops teaching mindfulness techniques to children and adults, tries to focus on helping them not worry about time and to learn to get distracted:

> One of the really fascinating things that I've been noticing is that adults who come along on the training have this, like this enormous therapeutic kind of benefits…if you are used to being a teacher or you are self-

> employed or whatever…your normal job is rushing around from A to B and trying to get everywhere fast and then suddenly, you don't have to do that. You can slow down and you can meander and potter and get distracted by a pine cone that looks like it's been eaten by something and then you know, that, that really changes people's kind of experience all of that kind of well-being really comes into that doesn't it, you know? Being able to potter is a powerful tool for good mental health I think. (Sep. 2015)

Julia has over ten years' experience in teaching people to learn to slow down and to get lost and to begin to appreciate routes. Wayfinding for Julia is certainly not about getting somewhere as quickly or directly as possible, nor about learning or remembering routes. Ironically, when Julia was in the one million square miles of wilderness in USA, she had to be aware of time to ensure she was at the pick-up location at the end of the journey, albeit on one isolated dirt path in the middle of nowhere. As a daily routine, Julia could take any route but after three weeks she needed to be at that one specific location.

There are certainly instances where moving our physical body from one place to another is time-restricted. As Amy remarks, "time efficiency is the reason for going on a direct route". Even if one expects to be taking a certain route, that route can change according to the effects of others in the field. Traffic accidents, traffic jams, detours for example, can all force us to change our route and how we allocate time in wayfinding planning. Stef is now retired and has plenty of available/free time:

> My attitude was always, try and travel as stress free as possible. So get to the airport, giving yourself a reasonable amount of time. Don't get there and be panicking as to whether you're going to get to check-in, to get to the gate and all the rest of it. Now, a lot of people I travel with didn't have that attitude. (Aug. 2015)

Hugo, as a present day professional football league manager, needs to consider time and routes very carefully, often choosing to travel the day before games with his team for away games. Getting lost and arriving after the allocated time means fines from the Football Association (FA). Having the privilege of extra or available time and choosing to use this time, appears to be a clear strategy by certain wayfinders, to get between A and B, to reduce stress or reduce issues such as fines.

Whilst a connection with scheduled time, wasted time and subjective time were all prevalent, time was also mentioned in other contexts. Getting lost could mean the loss of a job, or less time to explore a new city when getting lost. Rather than being about finding their way from A to B as fast or directly as possible, the volunteers' feedback suggested that it was more a case of just not being late. In a sense, rather than pushing the body to get from one side of the mesh to another in a race of sorts, the need to simply ensure that one's

body is placed in a certain space *by* a given time, was often enough to satisfy wayfinding as being successful.

5.4.5 The Issue of Language

In addition to constraints according to time, language was another very commonly expressed issue, which was seen to offer volunteers a form of restriction, as they wayfind. At least 50% of volunteers talked of wayfinding issues connected to language.

The ability to understand a route and to relax whilst taking the route in question, is a problem for Antonio when he travels to work in Thailand. His lack of the Thai language, means he always has to be more alert than the locals in order to call for the stop on the local minibuses:

> They kind of call the stop…but if they are half asleep they would understand anyway…So definitely, in that sense, not knowing the language for me, it's like a kind of barrier. I would be able to relax definitely more, if I would know the language. (Sep. 2015)

Even Andy, one of the expert wayfinders in this study, finds language a barrier. Being able to navigate underground caves and up different routes on a rock face is possible for Andy, but finding a cave in the first place, in a foreign country can be problematic:

> The maps themselves will be pretty much the same. The difficulty would be finding the cave initially. And that's where the language barrier would then kick in. The routes of how to get there, the signs et cetera would all be in this instance, in Chinese or one of the many dialects. So, local knowledge often becomes very important. Getting local guides to get you to the start point is often an important part of the overall journey. (Nov. 2015)

The examples of language as a barrier in wayfinding were numerous, including with Sarah's example of being completely unable to communicate whilst lost in Macau, and Amy's example in Romania. As Amy notes, "we knew that the train was going to split into two, but we couldn't understand the instructions about which bit to go on" (Sep. 2015).

Language issues in wayfinding could also be placed in the "Educated body' (Section 5.8) and related to the "Social Body (see Section 5.3) but what is clear is that, as we use the "field", we are often restricted bodies due to the inability to understand a given language. Represented in the meshwork, language issues suggest a cultural phenomenon exists within the practice of wayfinding, adding another layer to the understanding of wayfinding practice and what is involved in order to get from A to B. The extent to which culture plays a role in wayfinding, I posit, needs further exploration in future studies; particularly, for example, how the techniques might differ according to cultural background.

5.4.6 Controls Affecting Our Route Choice

In order to navigate certain routes, we have to accept and buy into the practice laid out by those who manage the spaces we pass through or into. If the route we plan to take, for example, involves crossing different countries, we normally need to accept the passport and visa rules. We must adhere to the expected practice, in order to successfully reach the destination point. Sarah presently lives in St. Petersburg, Russia, and mentions the issue of rights of access in trying to get between places:

> How difficult it can be to get into buildings… here. For example in Moscow the hotels and shopping malls have airport like security systems to pass through. Not here though - but all residential buildings have a concierge or security guard which you have to go through to get in. Even leaving can be tricky as you usually have to press or flip a switch somewhere to get the gate. (Aug. 2015)

Julia's experience of control and permissions and accepting the practice, related to her journey into the Quetico Provincial Park, Canada (1.1 million acres of wilderness). As Julia explains:

> You need an interior permit to go into the wilderness area. You have to pay a bit for every night you, you stay in there and that, kind of say about which directions you like, likely to go and they have a quota as well. (Sep. 2015)

Whilst an agent might choose to ignore the rights of access, even secluded and vast areas can nevertheless be highly restricted areas. Restrictions (as mentioned in the literature review regards traffic lights as a form of state control) can, as given in the examples above, also come in the form of wilderness area permits, and security access permission. The aforementioned point by Crouch and Desforges (2003: 6) of a "body that we own but do not wholly control" is omnipresent in wayfinding practice. In wayfinding, the ability to choose the route across the meshwork is quite often one that involves, as reflected in Bourdieu's field concept, the influence of numerous stakeholders (players) in the practice, a practice that should not be considered as an individually focused one. We often willingly act or behave in a certain and appropriate manner in these settings. Goffman (1966: 19) expresses this as a "behavior setting" where certain social occasions, have their own structure and an accepted way of acting. In wayfinding, this is important in that it suggests that differing routes have their own practices, that is, ways to be navigated.

5.4.7 Section Summary

In the "restricted body", the complexity of wayfinding and the body and presence, guidance and importance of others has been highlighted. Examples have been given of a

body in wayfinding that can be restricted by disability, tiredness, darkness, time, language and by controls put in place by others. Indeed, the concept of wayfinding being solely a cognitive practice is certainly already questionable. In this respect, the use of the meshwork as a model for understanding wayfinding, is useful, but needs to be seen as a multi-layered process to include factors such as the effects of restrictions within the practice. This new model is provided later in Section 6.3.2 in the conclusions.

5.5 Compliant Bodies

This section presents data related to what I have termed the "Compliant wayfinding body". I use the term Compliant to express the wayfinding body that is subjected to certain practices, by others. The Compliant wayfinding body leans further away from a cognitive only approach in wayfinding, and towards seeing wayfinding as a multi-discipline activity. This Compliant body in essence is expressed by Frank (1991, 47) in his remark that "people construct and use their bodies, though they do not use them in conditions of their own choosing", a precursor for our Compliant wayfinding bodies. The Compliant wayfinding body used here refers to a body where structural forces are apparent, with what agency we have, further dissipated. Examples of the "Compliant Wayfinding Body" are presented below.

5.5.1 Intentional Withholding of Information

Goffman's concept of "discrepant roles" (Goffman, 1990 [1959]: 141-165) and inside secrets was mentioned in the theory section and these secrets also emerged in the data. A common theme in the interviews was the intentional withholding of wayfinding related information, on the part of those who control and manage the spaces through which we must find our way. We sometimes lack knowledge of the rules of the practice, through no fault of our own and the opportunity for stakeholders to manipulate the unsuspecting wayfinder is highlighted by Lauren. Lauren works for one of the main cruise lines and is trained by the cruise line she works for to intentionally mislead passengers:

> For the port of call, we don't give maps…for several reasons. I would say it's - business, with most of it. Because at first, sometimes, we don't want the people to know that the city centre is so close, and it's so easy to reach. We prefer them to buy shuttle service...As a cruise line, they don't care about the poor, they care about to sell the shuttle bus service and the plans about the excursions. If people know it's so close and so easy to go to that church and then to that neighbourhood, well the excursion selling, the visit of that church and that neighbourhood may be, they will sell less. (Aug. 2015)

Andy highlights another example of the withholding of information, although for reasons of environmental preservation, as opposed to for commercial reasons, in relation to his work as a professional caver:

> Areas of significant beauty and significant importance, actually get restricted access. And that can occur either because they're blinkin' hard to find, so we don't tell other cavers about them. Or, or we can actually in some cases put gates. (Nov 2015)

This intentional withholding of information (or one might call this the masking of information) also sometimes takes place for security purposes, such as with the renaming of routes, to try and make routes less obvious to eavesdroppers, as Adrian explains:

> When it comes to communicating the routes, you don't say, argh, we're going on…Cardiff Road. You would name that route blue. And then if you were to go across a bridge going to Cardiff, you would call that blue one. So when you're communicating everything, then you could go that's blue one to blue two. So everyone else knows where you are but anybody listening in hasn't got a clue. (Nov. 2015)

Bob provides a further example, with a hotel intentionally misleading him and directing him to a surfing centre that, he later discovered, was working in collaboration with the hotel. Another much better surfing centre nearby was never mentioned or made known to him by the hotel. This idea of access to information matches the concept of "inside secrets" (Goffman, 1990 [1959]: 142). Indeed, being a member of a club such as the "Caravan Club" as also discussed earlier, can mean access to privileged information and can be the very reason for joining some clubs in the first place.

What was clear in the interviews was that how we navigate across the meshwork has commercial implications and that this means that we, as the wayfinder, are open to manipulation. Rather than withheld information, the following section relates to steering behaviour, another way in which stakeholders and owners of the spaces through which we navigate, can impact upon our route choices.

5.5.2 Steering Behaviour

In addition to the use of hidden information for commercial gain, stakeholders also steer us through less intentionally deceptive ways, but still in such a way that we can often be Compliant to the existence of such processes. Here I use the term "steering behaviour", taken from Nasir *et al* (2014: 1901) who, drawing from Gibson (2009), explain that "local path determination, known as steering, is a spatial behaviour that is based upon the cognitive process for choosing the next step location". Contrary to the use of this term by Nasir *et al*, as a cognitive process, I extend the use of this term to represent the full extent to which we are steered, as highlighted in the examples below.

Our routes, even when we believe they are our own choices, are sometimes routes which we have been steered along. This steering behaviour is sometimes designed to be very subtle and, other times, little effort is made to hide this behaviour. The process of forcing passengers to have to navigate through the Duty Free area (especially in many UK

airports) along an elongated path, in order that passengers can then enter a main departures area, came up in the interviews, including by Patrick:

> You've got to go through this long winding - and the whole thing is designed to maximise you're exposure to bottles of perfume and alcohol and whatever...It annoys me…When you take children into the duty free areas, you've got to be very careful because it's all laid out – it's like - they're sufficiently young that their hands are all over things…and that stuff's all quite stressful. (Jul. 2015)

Speaking with one airport manager during the research period (whilst doing airport wayfinding audits separate from this study), I was told that the increased income since forcing passengers on a route through the Duty Free area (in the airport this person manages) is so high that this enforced wayfinding will not change, even if it inconveniences passengers. A key point here is that wayfinding is not only for the benefits of passengers (or whoever is getting between A and B).

Moreover, steering behaviour can also have innocent and positive influences. Antonio, in his interview below, talks of aromas and how they can cause route changes because of the olfactory rather than the ocular:

> I remember in Pisa...there was this, this small bar, making waffles. But the smell was so incredibly...I remember that we were going to the station and they were like we turn, because we really want to go, it was really strong. In Amsterdam...like the kiosk roasting, so it was just like on the street so basically outside there is not many smell compared to Bangkok. So eventually in that time I remember you definitely, you are hungry and you are going around...you smell that. Yeh so you definitely can go, you can navigate with the smell. (Sep. 2015)

Steering behaviour can also be for reasons of security and for our own protection. The low ceilings and enclosed nature of security areas in airports, which are intentionally designed to act as serious spaces, are common examples. As Rojek (2005: 40) explains, "on close inspection most of our freedoms are confidence tricks".

5.5.3 Employer versus Employee Pressures

These controls from others can also come from employers. As a professional football manager in England, Hugo's club would get fined by the Football Association if they arrived later for a game. Ultimately, it is Hugo's responsibility for ensuring that his players reach games on time. Hugo comments:

> We do most trips on a Friday because we never know how long it's going to take us and if we go on a Saturday then, we get fined for the league if we don't turn up for the game on time. (Nov. 2015)

Whilst Hugo has two coach drivers who choose the route, it is Hugo's decision to travel the day before to most games, to guarantee the route is not problematic. In this case, we see control being handed over to others (two coach drivers), whilst overall control is maintained by Hugo so that employer's (Football Association) needs are met.

This employee versus employer consideration also affected Lauren in her cruise line work. Lauren explains the tensions in her role in relation to wayfinding as she is pressured to withhold information about free easy routes that passengers could take, in order to try and sell excursions:

> It's a balance…because I'm always staying honest. I don't want to lie to people, but of course sometimes, it's a little below the line as they say. (Aug. 2015)

For Lauren, a tension exists in being expected to mislead passengers (or at least to not provide information that could otherwise help them understand route options better). This interaction happens in a front stage region, where she must balance the needs of the cruise passengers with those of her employers (the cruise company), and colleagues (from whom she has learned much of the route information from and has to work alongside). In wayfinding, we see that, whilst the meshwork can represent the array of route options, these meshworks represent quite varied "fields" of interaction and ways of practising wayfinding. For Adrian (in his military and then private security work), we have the locals (both hostile and non-hostile), the government (he must follow certain rules and regulations), the colleagues he moves with and the commanders and team back at base. Certainly, in these two examples, wayfinding practice is very much a socio-cultural experience and one that has definite embodied impacts.

Employers sometimes also discipline employees for taking wrong routes. As Adrian explains concerning work he did with the army in Northern Ireland, the routes were set out precisely: "There were areas if we veered off the route, we'd be disciplined. There's an awful lot of that in the military. You stick to your routes!" (Nov. 2015). The employee versus employer structure provides quite distinctive practices of wayfinding. In Adrian's work in Northern Ireland, the "systems of durable, transposable dispositions, structured structures predisposed to function as structuring structures" (Bourdieu, 1992: 53) are such that certain aspects of the wayfinding are not intended for a decision to be made as the agent, but decided on at an operational level. In later examples, with Adrian in locations where he was in overall charge of the practice (the route designations), Adrian changes from being the Compliant body (in a body sense) to the educated body (discussed in Section 5.8).

Lauren's cruise example is interesting in that cruise owners are trying to make routes across the meshwork appear more complicated and longer than they really are, whilst at the same time trying to make these routes look simple if the official tour is paid for. For those familiar with the routes, meaning those with the cultural capital in the form of knowledge, the experience can be quite different. Likewise, the meshwork, as shown in Andy's caving example, with hidden entrances to protect the caves, provides another example of how the meshwork of routes might be viewed differently according to the agent's knowledge (cultural capital). As a member of the caving association in certain countries, Andy has knowledge and a map of these otherwise hidden caves. Here we see endorsement of Goffman's (1959) inside secrets and the effect on route knowledge. Without certain knowledge or forms of capital, we become Compliant ignorant wayfinders of sorts.

5.5.4 Section Summary

In this section on "Compliant Wayfinding Bodies', examples have been given that show how the wayfinder might be seen as a passive agent in wayfinding. The "hidden secrets" and withheld information being one example. Additionally, even when we are free to choose routes, there can be certain restrictions, such as because of the tensions that can exist between employee and employer. It is also worth remembering that being Compliant is not necessarily positive or negative in wayfinding, in that we can often experience routes better when we eliminate the need to be the one managing the direction finding.

The significance of the Compliant body type is that we begin to see a different and unique perspective on wayfinding, one that was highlighted in the other emerging body types which is much more than a cognitive based activity. For wayfinding strategy and design, the way in which wayfinding information is provided, and the way in which our bodies are controlled can be analysed further in the future.

5.6 The 'Empowered Body'

The following section is on the "Empowered Body", a wayfinding body over which we perhaps have a stronger opportunity to exert our own agency during the wayfinding experience, compared to other body types in this study. All wayfinding body types display a degree of agency to a greater or lesser extent, but this body is suggestive of a perceived level of agency that is used to try and exert control over wayfinding practice, by the wayfinder.

5.6.1 Agency to Choose How We Wayfind

Being a professional football manager and used to very high levels of control, Hugo, on driving across the UK for an interview with a professional club, chose the longer timed route. As Hugo explained on being asked why he didn't just fly, "I was in control because you're driving the car and if you're going by plane and taxi you're not in control and that can affect you mentality". Hugo goes on to explain this question of control:

> I think that when you're a manager, you want to be in control and if you're in control and you can affect a result…As soon as you're out of control, and the control's taken away from you, then you've got a problem. And it's probably the same as travel. You know, when you're not in control of your travel and somebody else is in control and it's out of your hands then that can affect your mentality. (Nov. 2015)

This point raised by Hugo is important in that a wayfinder may make route choices, for reasons of control and the desire or need to utilise their own agency. Hugo's example highlights the way in which wayfinding dispositions (such as the need to be on control) that we embody through habitus, help to shape the way in which we may select routes across the meshwork.

As a touring cyclist, Dave will rarely cycle with other people, much preferring the control which cycling alone affords him. Control is important to Dave and central to his enjoyment of getting between A and B:

> I do like making my own decisions and when you're cycling, if you've got a partner…then you gotta have someone compromise…shall we go this way, shall we go that way. You've always got to make a, a decision…when I'm on my own, I choose my own destination, I choose my road, I choose the type of cycling I want to do, fast, slow whatever it is, intermediate. And I'm comfortable with that. (Aug. 2015)

Dave is an ex-teacher and a person who normally thrives on social interactions, but in his cycling, being in charge of his own destiny is important to him. Dave goes on to explain:

> I think it's being responsible for your own destiny. It's as simple as that you know. I know the whole of Brittany is there and there are so many places I can go…it's the open road, it's the thrill of cycling and doing myself good and looking healthy. (Aug. 2015)

Rose also shares this need for agency and provides another example:

> When I have to go more than my thirty minute walk, I'll take a taxi so, but even then I am a little bit of a control freak so I kind of know where we're supposed to go, so I don't wanna be…ripped off by the taxi either so I'm always just like, looking and you know, just completely aware of the direction that we're going to and stuff I mean – the same with Rio. I was not just wandering around in Rio you know, by myself so [laughs aloud] or even you know, with my ex-husband who was a big guy. I was still the one, I was always like ok, we came from that direction and let's go back and you know. (Jul. 2015)

Incorporating the ability to have (or at least feel one has) agency and to feel empowered during wayfinding can be profoundly important in wayfinding design and implementation. Marquardt (2011), for example, explains how the dementia sufferers in care homes need to be able to find their way but also to still feel independent. Namazi and Johnson (1992: 16) also explain that this independence can be important to the "self-integrity" and "increase life satisfaction and improve the psychological and physical status of nursing home residents", in talking about the design of these homes and drawing on wayfinding examples. In addition to the relevance of empowered wayfinding in care homes, the examples in this study show that this sense of empowerment can also be important for a wide range of wayfinder types and this is an area that I would recommend for future research.

Wayfinding and the needs of certain user groups, such as those with dementia, means that routes through the meshwork have a complexity built into them that relates to independence and self-worth.

5.6.2 Paying Others to Hand over Control

The ability and option to pay other people to help guide us and to safely direct us between locations, also emerged from the interviews and has been given mention already in these findings. Charlie's experience in Cairo, Egypt, for example, draws attention to the benefits of utilising others to help navigate from A to B:

> There are places that I used to go like Cairo for example. Since I would never travel anywhere in Cairo except in a taxi, a map really didn't matter very much to me, except I did get to know roughly where certain places were...It's not a safe city. (Aug. 2015)

The idea of paid wayfinding help was common for foreign trips, another clear example given by Kevin, as he talked about the way in which he likes to find his way around new places. Kevin talks about his future plans and where he would like to travel to:

> Vietnam and if I, I'm hoping to go there in the next couple of years. Now that's quite important because I, I certainly wouldn't, I'm not really adventurous enough to just get a backpack and just go travelling around aimlessly. I would really need the help of a guide who knew you know, knew the area, knew the safe areas and could advise me on places of interest. (Oct. 2015)

One final example comes from Rex who explains that on driving to Southampton Ferry Port, in England, he intentionally chose one of the off-port parking areas provided for cruisers, so that he "could hand control of the directions and the stress of driving through the Southampton port area, to someone else" (Oct. 2015).

Paying others for help as wayfinders (as discussed in Section 2.3.4 on wayfinding stakeholders) is clearly important in wayfinding practice as a technique and, interestingly, existing definitions of wayfinding, seem to focus solely on wayfinding as being a solo practice, i.e. that of the agent. Peponis *et al* (1990: 561), for example, define wayfinding as "a term that can refer to a rather narrow concern: That is, how well people are able to find their way to their particular destination without delay or undue anxiety". Such a definition seems to ignore any social aspects to the practice.

The option to pay others and have them guide us, it might be argued, is no longer wayfinding. Goffman (1966), for example, talks of main and side involvements and, in this context, the moments when we are being guided (such as when on a coach journey with a driver or a guide), might be seen as a side involvement (i.e. we are aware of the journey from A to B but have less direct connection to the interpretive act of finding the way). Goffman (1966: 43) summarises main and side involvements as follows:

> A main involvement is one that absorbs the major part of an individual's attention and interest, visibly forming the principal current determinant of his actions. A side involvement is an activity that an individual can carry on in an abstracted fashion without threatening or confusing simultaneous maintenance of a main involvement. Whether momentary or continuous, simple or complicated, these side activities appear to constitute a kind of fugue like dissociation of minor muscular activity from the main line of an individual's action. Humming while working and knitting while listening are examples. (Goffman, 1966: 43)

Even when paying others to guide us, it is often the case though that we still try to maintain an awareness of our route as Rex experienced when he was clearly led on longer than needed route around Miami, USA, as the taxi driver tried to charge double the normal fare.

Indeed, even though finding the *main* destination may be managed for us if we pay accordingly, the need for wayfinding still exists within the trip. In this context, Ingold (2006: 26-27) notes that:

> Between two modalities of travel, namely wayfaring and transport…While on the trail the wayfarer is always somewhere, yet every 'somewhere' is on the way to somewhere else. The inhabited world is a reticulate meshwork of such trails that is continually being woven as life goes on along them. Transport, by contrast, is tied to specific locations. Every move serves the purpose of relocating persons and their effects, and is oriented to a specific destination. The traveller who departs from one location and arrives at another is, in between, nowhere at all.

As Ingold posits, wayfinding ultimately still takes place (whether it be to find one's seat on the train or to be aware of the correct stop at which to disembark), hence the consideration tends to be to what degree we are empowered with the role of wayfinder.

5.6.3 Planning as a Way to Have Control

Planning proved to be a popular theme across all interviews. Whilst getting from A to B includes the process which takes place in real-time (meaning the period of time of actual mobility between A and B), it can also involve a level of pre-planning. To illustrate, quite a striking example was given by Keith who actually *does* walk the route before the journey. As Keith explains:

> How I'd do this is go on the Google Maps satellite, actually take the little man off the gadget and walk the route so I can literally say, there's a shop, there's a Spare shop there on your left, and you'll find opposite there's a pub…When I used to take my children to children's parties, parents have, have told me where they lived and I've just been unable to find their houses. So what I've decided to do since, is literally pick the street and literally walk up and down it virtually, and find the front door. So, so when I go down in the car, I know where I am, even though I've never been there before. (Sep. 2015)

Planning took on varying degrees of importance for volunteers. Some volunteers, similarly to Keith, go to great lengths to test or to learn routes before-hand. Dave, on his touring cycle trips through France, plans carefully, purchasing maps that he gets sent from France before he travels. He says:

> I actually contacted a French friend so I had the, the most up-to-date maps. I sent her twenty euros and she sent me the maps she bought over there. That was the best way of doing it. So I followed maps all the way through...so I had my route and I planned campsites at certain points on the way, roughly fifty to sixty miles a day and I knew where I was going. (Aug. 2015)

Cecilia also illustrates the importance of preparation, stating:

> I like getting around but I don't like trying to find my way. That's why I try to prepare as much as possible, because I find it stressful. I don't like trying to find my way. So it's not something I enjoy. (Jul. 2015)

For Cecilia, planning is an important stage in the practice of wayfinding, in order that she can enjoy, as best as possible, the physical experience of getting between A and B. This pre-planning to gather knowledge on how to best navigate a route, suggests forms of capital that are converted into cultural and social capital during the journey itself.

This planning might also be viewed in Bourdieu's field concept as an attempt to better understand the rules of the game in order to optimise the outcome. This added knowledge through planning can be seen as a form of cultural capital (in the form of the ability to read maps or to find information) that helps to guide the wayfinder. Planning helps to research question 3 relating to techniques wayfinder use in wayfinding practice.

Few studies on wayfinding focus on the planning stages and, almost without exception, wayfinding research to date has focused on the real-time activity of direction finding. Existing definitions of wayfinding fail to explicitly include mention of the planning stage, a stage which, in this research, comes across as an essential part of how people eventually find their way.

5.6.4 A Passion for Paper Maps

Paper maps were mentioned more than any other theme in the interviews. Given the ubiquitous nature of mobile technologies, the absolute love affair that wayfinders of all kinds seem to have with hand-held paper maps, was surprising, with almost all volunteers discussing them. These paper maps, to clarify, were separate from any mention of digital maps such as those found on a mobile phone.

As "empowered bodies", maps, it became apparent, give wayfinders a distinctly tangible, hands-on living artefact, which is part of the preparation and almost acts as a travel companion for the wayfinder. Paper maps show the strains and stresses of the journey through folds and pen marks and these maps travel the same route and distance as the wayfinder. Some examples of paper maps were as follows:

> I always like to have a map...I would have a city map...I've got a collection of them...I wouldn't go very far without one. (Charlie: Aug. 2015)

> If I can get them - a small map, I'm big into maps, so I keep many of them...and in Venice they have behind like every card, a map… I definitely use paper maps. (Rose: Jul. 2015)

> I always manage – I have a map. So I will always find a way to have a map. (Lauren: Aug. 2015)

> If I go to a new city, I would always enjoy using their tourist map in the paper form. (Bob: Jul. 2015)

The use of objectified cultural capital, in the form of paper maps, took on another level of importance for the professional wayfinders interviewed. For Andy, for example, paper maps are vital for his caving explorations:

> If you're going into an area you don't know, without your map, you could die...we will carry that, because there is technology like GPS and SatNav, we will carry those as well. The trap you have to avoid falling into is relying totally on the GPS. You should always be navigating rather than just following the, following the bouncing ball. (Nov. 2015)

Adrian's example was similar:

> [I] utilise my map reading skills, as, as opposed to trusting my GPS...I've always been taught and I always agree…that any form of electric, electronic or technological devices are, are just purely an aid to navigation. What I do know is that the map is correct. Everything about the map is correct. That will not change. And as long as my compass is working, I know where north, south, east and west is. You know, the bottom line is, the map and compass will always work. (Nov. 2015)

This absolute passion and need for an artefact in the form of paper maps, particularly in a digital world, was, I felt, quite surprising. This perhaps suggests that the tangible nature of these maps that guide us, is a reason for their importance. Despite mobile technologies and "increased knowledge" (Dal Fiore, Mokhtarian, Salomon and Singer, 2014: 100) and hence with potential for us to be better informed on the places we go (such as via the use of downloadable maps stored on mobile devices), the technological options made little difference in terms of the desire for a tangible paper map, according to this research.

5.6.5 Section Summary

In attempting to answer question one and three of this study, in regard to how different people experience wayfinding and what techniques they use, the "empowered body" provides interesting clues as to the way in which wayfinding is practiced. There is a level of importance placed on pre-information and pre-planning and the examples from volunteers interviews show that this pre-planning helps to improve the perceived experience, avoiding stress and offering comfort. A strong demand for tangible products like paper maps also emerged as tools and artefacts that aid our ability to utilise agency as we wayfind. In response to question one, a challenge for some people is the need for the

control over their own routes and this can affect the way in which routes across the meshwork are attempted, such as through the vehicular choice.

5.7 The Sensing Body

In the following section, what I term the "sensing wayfinding body" represents a body that experiences emotions, makes use of the senses, and whose routes are affected by physiological needs of the body. The sensing body also includes the body that experiences wayfinding through and with the help of technology.

5.7.1 Emotions

Burkitt (1999: 3) posits that "the body and the emotions are seen as having pattern and form because they are part of social relations". As the examples below highlight, emotions in wayfinding support Burkitt's statement in that the emotional responses all relate to interactions with other people who, in some way, affect the wayfinding process of the agent.

Emotions are integral to wayfinding and even experienced and well-trained navigators become affected and sometimes overcome by the emotions of getting from A to B. Francis, in his work as a policeman in London, for example, talks of the "red mist" and how fellow police officers can be affected by it from time to time:

> I've seen people go into the red mist thing where you're just driving as fast as possible to get there and you are prepared to get anything out of the way! And they're the people who generally didn't arrive because they'd managed to crash the car on the way through. It was always called 'Red Mist'. (Aug. 2015)

Sarah's experience is one which involved high levels of emotion, as she got completely lost and overwhelmed in Macau, China as she travelled alone:

> It was awful, again I was on my own and I was - I got lost and - that was really difficult because in Macau, all the signs are in err, Chinese and Portuguese. I didn't know what to do. I asked people for directions and people didn't know and I was asking people like I was crying actually - it was. It was terrible. (Aug. 2015).

Below though, Dave's experience in one sense contradicts Burkitt's idea of a duality between emotions and social relations, although Dave's emotive link to the absence of others might, in its own right, be construed as an association between the two:

> The emotional liberty of cycling on my own, I always go on my own. It's nice because I have my own thoughts, I go with my own steam, I go with the direction I want to, I'm in charge of my own destiny (Aug. 2015)

Several volunteers related the feeling of disorientation and confusion that can also occur when travelling underground, such as on the London Underground system, because of the

lack of visibility of the environment including the shops and buildings above ground. The emotions can also include ones such as embarrassment. Rex and his wife, for example, had to try and find the naturist village entrance in France, by first catching a local bus service. Rex doesn't speak French:

> Having to try and communicate with the driver is hard enough, but having to admit to the driver that you are looking to get off at the 'Quartier Naturiste' can be a little embarrassing…Whilst trying to anxiously second-guess what was ahead once in the resort, focus still needed to be given to getting there. (Oct. 2015)

Emotions were mentioned by most volunteers in relation to wayfinding and these emotions included the terms shown in Figure 23 (expressed in the form they were used in interviews):

Anticipating	Fear	Apprehension	Frightening	Anxious	Stressed
Upset	Confusing	Intimidating	Fearful	Embarrassing	Traumatic

Figure 23 - Emotions that were mentioned most often in the interviews.

These emotions were almost all negative in nature and getting lost was the most common situation relating to these emotions. Getting lost though can sometimes be fun, such as when we are lost in a market and are having too much fun shopping to realise we are lost (and being lost temporarily ceases to be an issue). These emotions match that mentioned by Arthur and Passini (2002: 8-9) who discuss the emotional effects of "getting lost" and Churchill *et al* (2008) who talk of emotions such as frustration, helplessness, anger and resentment. Several mentions of stress and other emotions also populated the literature review earlier in this study, such as stress in relation to wayfinding time and to getting lost. There is consistency between wayfinding literature and the findings in this study regards the inter-woven relationships between emotional responses and wayfinding. Indeed, the point by Tuan (1977: 8) that "emotion tints all human experience, including the high flights of thought" is certainly true in the findings of this study.

These emotions impact upon our well-being such as through tiredness (Mokhtarian, Papon, Goulard and Diana, 2014) and anxiety (Bogicevicet, Yang, Cobanoglu, Bilgihan and Bujisic, 2016). One particular quotation from the interviews, which perhaps brings to light this fully embodied experience of wayfinding, is provided by Adrian in his discussion on trying to navigate a safe route across Baghdad whilst other groups tried to stop Adrian and his team from getting to point B:

> As soon as you become too fearful, you actually started looking inwards, as opposed to outwards. So you had to keep your focus on what was going on around you, rather than what you felt inside so, all I can explain is that it's a feeling of your heart racing…it's almost in your mouth. There's the - you know, the expectation, fear, apprehension. (Nov. 2015)

Although emotions were most often mentioned in respect of getting lost, the emotions nonetheless represented a range of situations. Such emotions include mention by Stef (Aug. 2015) where "there's been times when I've been in shopping malls and I couldn't find my way out and that's frustrating…It can make you a little bit anxious".

Whilst the meshwork (Ingold, 2011) from an aerial view might look like a relatively simple set of routes or lines of interactions, the visceral emotional effects during wayfinding, need to be overlaid onto this meshwork. The strong emotional responses, such as the "red mist" Francis saw fellow officers experience, would provide a more pragmatic way to view and understand wayfinding in real-world environments. In other words, although the meshwork looks simple in one-dimensional form, routes on the meshwork are often difficult to distinguish or access from all other alternative routes and this process can be emotionally stressful. These complexities are addressed later in Section 6.3.2 where a new model of wayfinding is provided.

5.7.2 Using the Senses

In addition to sensing wayfinding through embodied emotions, wayfinding is also experienced through the human senses. Examples of the senses guiding us is not a new phenomenon, but the concept was supported in this research. Some examples of the influence of the human senses are presented below.

The example of Antonio and the smell of waffles steering him onto a different route was mentioned already in relation to steering behaviour in the "Compliant Body". Indeed, the "Sensing Body" is also affected and steered such as through the olfactory influences that drift across the meshwork of routes. This use of the olfactory in this study supports the findings experienced by Hockey (2006: 194) who found that:

> What is smelt, acts to locate us at particular points in the route(s), it marks where we are and how far we have to go. So, on one particular route the curry aroma emanating from an Asian restaurant tells us we are a mere 300 meters from finishing the session. The flood of vehicle pollution from a busy traffic interchange designates that we are barely at the start of a route, and that the relatively clean air of a park will soon be inhaled. The stink from algae rotting on a lake denotes the halfway point of a particular six mile run. Some routes contain more smelt markers than others.

An equally interesting example of using the senses was given in relation to hearing and the change of route. Dave's experience involved cows as he cycled through France:

> On the canal path…I heard a lot of mooing. I thought, very soon I'm going to come across a herd of cows and I did…I took a short cut. I went around the corner and there was a herd of cows in the middle of the road. (Aug. 2015)

Sight though tends to be the predominant sense given mention in wayfinding literature (see Arthur and Passini, 2002; Caddeo, Fornara, Nenci and Piroddi, 2006; Bell, Reeves, Brown, Sherwood, MacMillan, Ferguson and Chalmers, 2009; Frankenstein *et al*, 2012) as discussed in the literature review. Indeed, Urry's and Larsen's (2011) book on the *Tourist Gaze* (whilst not about wayfinding directly, is a theoretical book on socio-cultural issues), received much criticism for its overly ocular nature, including criticism by Cater (2001) and Sparkes (2009: 24). In the findings of this study though, rather than an ocular bias, all senses tended to be mentioned. Given that volunteers in this study included the partner of a deaf person and a hard of sighted and partially paralysed volunteer, the highlighting of various senses is perhaps not surprising. A recommendation here for future research is to study a greater range of volunteers than was possible in this study, to include those with no sight and with no hearing.

The smell of coffee drifting through space across the meshwork of routes and lines of interaction, can be seen to lead wayfinders into making cognitive decisions that change their route, which leads towards an understanding of wayfinding as a heuristic practice. Indeed, wayfinding might best be seen as a very fluid *sensorial* practice in which routes and destinations constantly change. As mentioned in Section 3.2.2, the meshwork is intended by Ingold as a fluid space in saying that "the relation is not between one thing and another – between the organism 'here' and the environment 'there'" (Ingold: 2011: 69), meaning that there are numerous interactions and processes that take place on an ongoing basis.

But for a few exceptions (notably efforts by Bradley and Dunlop, 2005; Caddeo *et al*, 2006; Small *et al*, 2012), the senses are rarely the focus of wayfinding research and, from the limited findings in this study on the senses (given that the senses were only one aspect of bodied wayfinding studied), future studies are suggested.

5.7.3 Heuristic Wayfinding

We also sense wayfinding as embodied individuals through real-time needs. Very little has been written about wayfinding being a heuristic activity with the exception of Murakoshi

and Kawai (2000) and Wiener *et al* (2009). One example, which highlights these needs or desires, was from Dave regards his cycling tour of France:

> You can change your mind on the way and adapt your route according to circumstances and you know, as I have done on one or two occasions, I've have been cycling along and seen something interesting and stopped and as a result of that, adapted, modified my route accordingly. (Aug. 2015)

In the example above, Dave's route changes were for "self-actualisation" (Maslow, 1943) rather than for what Maslow termed "embodied needs" (see Figure 24).



Figure 24 - A Model of Needs (Adapted from Maslow's [1943] Hierarchy of needs)

In the diagram above, a non-hierarchical form is used, in order to represent needs based on priority according to time or the situation in which it occurs, in wayfinding. Furthermore, "embodied needs" represents integration of the biological body and of the mind, as opposed to Maslow's "physiological needs".

Embodied needs can greatly affect our route choices, destination and decision making. Dave's experience below is especially striking as he cycled rural France, in an area which was quite isolated:

> I couldn't find anyone and actually ran out of water. Now the fact that I was being sponsored and raising money for WaterAid, was particularly poignant because it got to the point, where I ran out of water and I was really thirsty. And that made me reflect very seriously on what it's like to be thirsty and not have access to water. (Aug. 2015)

Dave was cycling through France, from Cherbourg to Paris, in upper Normandy. Dave continues to explain his journey:

> I'm going through a fairly deserted area, lots of country lanes, very few houses, certainly no shops and having started off the day with three full bottles of water, my level of water, level of water was going down. And I was aware of this and was constantly looking for places either to buy or to ask for water from householders. There was…a dirty stream by the side of the road. And I thought, well I can take some water from that but it's probably full of bugs, it's going to give me diarrhoea, so what do I do. Do I have some of that or do I go on? I went on and fortunately, within a couple of miles, came to a house and the lady let me have some water from, from her tap. But that was something which was a fundamental experience if you like, raising money for WaterAid and putting myself in the position, not intentionally, where I knew exactly what it was like to be thirsty. (Aug. 2015)

Dave exemplifies the fluidity of routes that can exist in wayfinding, often fluid as a result of human needs. Routes on a meshwork are fluid in that they can flow or move in any direction and because of heuristic needs, including those based on the body, with these routes often evolving in real-time.

Another example is provided by Amy: "We had to get to the airport then we had to get food…we were sort of directed by our need to eat" (Sep. 2015). In a location such as an airport though, the route taken might simply be to go in search of a shop for a gift for a family member (love and belonging in Figure 24).

Furthermore, wayfinding experiences are often punctuated by smaller and temporary route needs. Portable technologies now mean that we have more opportunity be flexible in how we move, and thus a phone call from a friend is now enough to prompt a change of route, if the wayfinder reacts to a change of plan, similar, in terms of the fluidity of routes expressed earlier in Ingold's (2006: 24) example, to non-static destinations that occur in Inuit hunting as the targets/destination constantly moves.

Studies on wayfinding tend to ignore the effect of these heuristic fluid needs that directly affect and alter how we choose routes. In this research, one further example is given by Kevin who discusses the UK weather and wayfinding:

> On a nice day there's nothing like walking around through the parks and everything. Fantastic. But you know, in the UK, you can't always rely on that and quite often it's miserable and you just want to get your umbrella and get on the tube and get from A to B as quick as you can really. (Oct. 2015)

Along the same lines, Sheehan, Burton and Mitchell (2006: 279) remark:

> The situation observed was only partly controlled so a variety of physical settings, weather and traffic conditions could have affected results; for these reasons, conclusions should be cautious.

The simple feeling of not wanting to get caught in a downpour, is one that can easily impact the route choice and over time can form into a disposition that orientates future actions. Wayfinding systems thus need to factor in even the most basic of needs we have from an embodied perspective. This heuristic reality of wayfinding is supported by Li and Willis (2006:2) who found that:

> Individuals plans often change during the course of a task due to changes in the environment (e.g. it rains), changes in individual goal (e.g. I'm hungry), changes in device (e.g. poor GPS signal).

Likewise, Bertel (2004: 27) states (as discussed in Section 2.2 of the literature review), that "the environment encountered by wayfinders…is dynamic". Indeed, the problems faced by those who design wayfinding systems, who try to see wayfinding as a linear, direct and simplistic activity is, as Laws (2004: 30 - 31) explains, problematic (talking from a tourism point of view): "Much current thinking is hindered by a mechanical and linear approach to services in what is a 'heterogeneous, dynamic force'".

Urry (2007: 86), in his mention of the term "wayfinding" (albeit whilst discussing mobility), hints at this "heuristic" nature of wayfinding which also proved to be important in this study:

> Adventure involves the body as spatially situated, experiencing and knowing the world through being in and moving around it. This is 'wayfinding', moving around *within* a world, a process of constant engagement and readjustment in relation to the environment…The opposite of this is the kind of walking through spaces that are signposted, organized, and highly predictable.

Urry connects the heuristic nature of wayfinding with embodiment and the experience, but then devalues a major and vital aspect of wayfinding. Although Urry appears to see

wayfinding as being a very creative practice, expressing it seemingly as an agentic only activity, wayfinding in fact, as shown in this study, is a socio-cultural activity that can be as important for stakeholders (as discussed in the literature review Section 2.3.4) as it is for the agent. Wayfinding, in other words, is certainly not just about helping someone to get directly between A and B. To draw on "The Field" from Bourdieu (1992) wayfinding should not be seen as a game that takes place simply for the wayfinder (the player), but also for the fans (users of the same spaces), the team's owner and those whose are employed directly/indirectly. What has emerged in this research is that wayfinding is a heuristic practice that draws on needs of the body.

5.7.4 Multiple Experiences (Micro and Macro Journeys)

Wayfinding is rarely experienced as just one definitive journey, but is normally composed of many micro journeys within one macro journey. Many such types emerged from the data, some of which have already been touched upon in discussing other wayfinding body types. One illustration of these micro journeys evolved from Andy's kayaking trips, with multiple routes within the same experience:

> Getting to the start point of your enjoyable outdoor experience, requires cars, roads, signage, and all sorts of things. With a kayak for instance, you need to have worked out where you can put the boat in the water. So often, often the appropriate kayak insertion point is not on a map. (Nov. 2015)

Andy, in his interview, went on to explain the issues surrounding navigating through rivers and other waters, influenced by the water flows and the speed of the water. In his caving expeditions, Andy gave another example of these multiple routes, talking about how "the difficulty would be finding the cave initially", rather than finding his way through the cave being the only navigational experience.

Long routes can also become multiple routes, as we seek to reduce stress and to improve the route as an embodied experience. Charlie spoke of the journey with his wife, travelling between Bristol and Edinburgh:

> Because we did that the first year after Stef had her stroke, we broke the journey, going up. We stayed with her brother in Nottingham and then we booked into a hotel in Newcastle. And that destressed it. (Aug. 2015)

Many wayfinding experiences are micro experiences as Patrick notes, when trying to find the correct ticket machine for a train service in Sweden:

> There are always key moments aren't there, you know, the - you come out of the airport and then you - I knew what the train service was I was looking for but I couldn't find the blasted ticket machines. (Jul. 2015)

These small "key moments" are wayfinding experiences in their own right. For Francis, the challenge of arriving at an airport, used to be wondering "where is the smoking area" (Aug. 2015). In this sense, regular smokers and drinkers use different micro routes across the meshwork than those who do not indulge in these activities.

Numerous examples emerged in the data of this micro/macro element of wayfinding. Rose, in speaking about her experience whilst attending a music festival, notes that "you were meant to wander around and enjoy the festival" once inside the gates, but that you also have to get "to your destination" (Jul. 2015) in the first place. As a cruise ship worker, Lauren's cruise line example, on the other hand, will be a common experience for many cruise travellers as she remarks:

> I think there's two wayfinding [experiences]. With the first one on the ship…the guests lose themselves on the ship. How can I find the restaurant, how can I find my cabin, how can I find the spa, where is the spa, oh – on Deck 14…And then the second part, when they go off [at the ports]. (Aug. 2015)

The examples above (along with many others in the data) suggest that wayfinding should not be seen as one trip in isolation but as a series of inter-connected wayfinding experiences, which all help to shape the overall wayfinding journey. By seeing wayfinding as involving multiple experiences, wayfinding can be better understood as a set of "seamless" experiences.

Within these mini wayfinding experiences, transportation often influences the route and our ability or not to find our way. Laws (2004: 7-9) provides an interesting example of wayfinding in a customer service context, as he talks about the problems faced by travellers trying to get to the airport via bus in Edinburgh, Scotland. Laws writes about the:

> State of frustration, anxiety or anger (some may experience because they) have missed their flight because of the weaknesses in the bus service system.

The fragmented processes (Ryan, 1997; Baum, 1997) (in a tourism context) are important in wayfinding and the overall perceived route experience.

5.7.5 Through Artefacts

We also sense, feel and experience through the use and connection to artefacts in wayfinding. "Artefacts can become extensions of a person's body when they learn how to use them through habit" (Lo Iacono *et al*, 2016: 98). Burkitt (1999: 36) defined artefacts as:

> A created object in which human acting is embodied because it has been fashioned for some use within human practices ... certain forms of bodily carriage and movement appear, or ways of handling objects and manipulating them, which are culture specific. Thus, our way of 'being in the world', of acting, knowing and thinking, is largely dependent on artefacts and how they re-form embodiment.

Some rather interesting examples emerged from the interviews including Sarah's account of trying to find the ferry to Hong Kong from Macau when she could not speak the local language/s and was crying because she was genuinely totally lost and highly stressed. She says:

> I was asking people you know, how to get to Hong Kong and nobody could understand me, because nobody could speak English. I remember in the end like I had postcards of Hong Kong in my bag…[I] pulled out the *postcards* of Hong Kong and I was showing them the picture of Hong Kong. (Aug. 2015)

Another artefact, *compasses* were also given mention in the interviews, yet only by those who were wayfinding as a profession, whilst *business cards* were also an artefact used as a technique for the way back to a hotel. In order to avoid getting completely lost when staying in a hotel abroad, Rex discussed how he always takes a hotel business card as an aid to his navigation:

> My big fear…getting completely lost and being desolate, without my backpack and little money. I had though grabbed a business card from the youth hostel reception and jammed in my jeans back pocket to act as a safety net in case we or I got lost. (Oct. 2015)

Baggage (luggage) was another artefact that was seen to affect route choices and came up in several interviews. Charlie has a different problem, and that is the consideration needed for the wheelchair his wife often needs to use. In Venice, navigating over small bridges can be problematic:

> We can never take more than one suitcase…there's Stef, me, suitcase and wheelchair! Now we've found, the only practical way is for me to put the suitcase in the wheelchair and hopefully Stef doesn't have too far to walk. (Aug. 2015)

In several interviews, the transportation was an artefact, such as canoe, bicycle and kayak. Julia and her husband on the wilderness track had to portage their canoe anywhere they travelled other than when they were able to find water through which to paddle.

> Sometimes you're carrying the canoe, sometimes the canoe's carrying you and we move from lake to lake and sort of travel through this area. (Sep. 2015)

As Andy explains in his interview, the entry points have to also be a place he can also *exit* from the water, i.e. where he is able to also drag the boat out from.

In wayfinding, artefacts are an important part of the embodied wayfinding process, these items extensions of ourselves as Burkitt (1999) states. Indeed, these artefacts are influential in shaping the routes we take.

5.7.6 In Relation to Technology and Technological Artefacts

It would be hard to discuss wayfinding without mentioning technological developments, given that nowadays they are central to how we experience and sense wayfinding. Technology was unsurprisingly mentioned by every volunteer in some form, supporting the significance of technology that also strongly evolved in the literature review (Section 2.3.3). Within the theme of technology, three sub-themes emerged and these were i) technology aiding us in wayfinding, ii) technologically reliance and over-reliance, and iii) what I term "wayfinding by proxy". These three sub-themes are discussed below.

The quotidian and ubiquitous use of smartphones and other technologies such as the Internet, reflects the mention of the *benefits of technology* expressed in numerous interviews. The depth to which some volunteers use these technologies is perhaps summarised by Keith who, as already shown, uses Google Maps to walk routes beforehand and familiarise himself.

One might be forgiven for believing that Google are the sole solutions provider for wayfinding, given that over half of the volunteers mentioned their brand. Without any prompt to discuss technology at all, either Google Maps or Satellites View, were mentioned in relation to wayfinding. Sarah, who lives in Russia, speaks below of the very positive influence of technology in wayfinding:

> I was going to go to a restaurant today and you know, the first thing I did was you know, inputted the name on Google Maps...it's great really because it allows you to be so - be independent you know. Which is, which is so good especially when you're in a city where you don't, in a country where you know, you don't speak the language very well…you have so much more, more independence and freedom really so I think it's, I think it's great like that. (Aug. 2015)

In addition to the benefits these technologies bring to wayfinding, the issue of an *over-reliance* upon these same technologies also exists. Even a decade ago, awareness existed of the potential issues this reliance could bring. Aporta, Higgs, Hakken, Palmer, Palmer, Rundstrom, Pfaffenberger, Wenzel, Widlok and Aporta (2005: 745) for example state:

> This was evident in our observations of GPS use in the Igloolik region. Some inexperienced hunters and travellers who depended heavily on the technology suffered from the fallibility of all sophisticated technology in unforgiving environments—batteries fail, ephemeral features change, readings are misread, and the straightest line turns out not always to be the best line.

The issue of an over-dependence upon on technology in wayfinding was mentioned in some form by over half of the volunteers and examples were quite varied. Several volunteers, for example, spoke of a near complete dependence upon technology in the form of satellite navigation systems, one interviewee Rose reflecting that:

> I was solely reliant on my GPS and there was - I was out almost two hours into the countryside and I was by myself and I was like, if my phone dies, I don't know how I'll get there. (Jul. 2015)

Battery life was a common issue mentioned, another example provided by Patrick who stated:

> I had all the tickets and times all on my phone and on my iPad...I use that a lot anyway when I'm travelling to do things with. But of course, when I got off the plane, the train...I hadn't even thought that – well what if it doesn't work? (Jul. 2015)

In the interviews for this study, it was those who can be termed the "professional wayfinders" (more on this user type in Section 5.8.1), that is those who wayfind as part of their job, who were the ones who tended *not* to over-rely on technologies. A useful example mentioned earlier by Adrian being the need to "utilise my map reading skills, as, as opposed to trusting my GPS...I think I've always been taught and I always agree with…that any form of electric, electronic or technological devices are, are just purely an aid to navigation" (Nov. 2015). Andy reiterated this over-reliance:

> We're trained to do it without technology because it's far more reliable…most of us will have maps for most outdoor things, we will laminate them in some way. Either a hot-roll laminator or just err, a plastic sleeve with sticky tape on it. Just something to keep it waterproof, because your map is extremely important. If you're going into an area you don't know, without your map, you could die...we will carry that, because there is technology like GPS and SatNav, we will carry those as well. The trap you have to avoid falling into is relying totally on the GPS. (Nov. 2015)

These professional wayfinders are perhaps not representative of the majority of wayfinders, but certainly both highlighted the danger of this potential over-reliance on using technology for navigating. Both Andy and Adrian use wayfinding in potentially dangerous situations/locations, such as in underground caves (for leisure) and in Iraq/Afghanistan (for military work). Most of the examples of an over-reliance on

technology in the interviews were less extreme and less serious, but many still involved an element of danger. Rose, for example, explained how her GPS creates problems as she navigates between properties as a real estate agent in the United States:

> I get lost because I rely on my GPS, and the GPS makes me now always I don't know, puts me on this HV lane [Means High Occupancy vehicle lane] you know, and I'm only one person so I'm not even allowed to go on there, and then I try to detour and you know, it's, it's very stressful when – because there I'm always on time, you know, it's always my appointments so – umm – and I have the map out you know, for four to ten houses, I'm always mapping it out on MyMaps before-hand so I can see exactly, you know, which house we can see first. (Jul. 2015)

Rather than being a limited few examples of technological over-dependence, this issue was a frequent point made in the interviews and mentioned as being a sense of frustration and stress for several volunteers. In almost every case, the same people mentioned both the benefits and the over-reliance. Technology, in other words, presented a duality in how it was perceived.

Indeed, this over-reliance on technology is becoming more popular also in mainstream news and media stories. It has been reported, for example, by McKinlay (2016: para. 1) that "automatic wayfinding is eroding natural abilities" and that:

> Schools should teach navigation and map reading as life skills. The introduction of computers and calculators has not removed the need to understand numbers. The US Navy has started to teach celestial navigation again as a backup skill.

In the UK, "visitors doing [hillwalking] without maps and compasses are partly to blame for a growing number of emergencies, according to the mountain-rescue team covering Britain's highest peak" (Telegraph, 2015) also reports. Such cases are becoming more common, as people put their body at real risk from the reliance on these technologies. The reports of technology sending people the wrong way are numerous, one final example from *The Times* headlined "Sat-nav sends elite soldiers into ambush", a story about elite soldiers from the Israeli army (Carlstrom, 2016).

During the journey itself, smart-phone apps and tablet (such as an iPad) apps can act as real-time navigational and informational tools. It is important to make the point that not everyone might wish to use these technologies and, for this reason, technology can never fully be the wayfinding solution and there will always be the need for non-technological methods for wayfinding.

In a more direct corporeal sense, "the embodied experiences of travelling and being there in the flesh are increasingly accompanied by and mediated through new forms of communication and telepresence" Molz (2006: 378) contends. This embodied experience of technology also, as examples have shown from the research data, extends to wayfinding. Since the remarks of Molz, technology has continued apace and we are now more reliant on it. We can become so reliant upon these technologies, that "changes in device (e.g. poor GPS signal)" (Li and Willis, 2006: 2) can directly impact upon on our individual route choices, our mood and how we navigate our bodies through a given space.

If the developing reliance these wayfinding technologies is in any doubt, Linda, in her interview, explained how she spent some time with nomadic families in the middle of the Mongolian desert and that:

> Even in the middle of the desert, they were able to talk over the phone, if they need to ask for help from anybody… because of so it's vast, you still have places where there are nomadic families with their tents and everything, so if something happened, they can come with you, even if they come by camel or by horse, there's always been someone that can come to your rescue and they have phones, that really works in the desert. I don't know how, but they can actually get in touch and ask for help in case something happens. Yeh, they are pretty organised with that as well". (Nov. 2015)

Clearly, from the example above, what Urry (2007: 198) terms "location free information" already impacts wayfinding and the way in which we experience it. The opportunity now exists, through these technologies, to be safer bodies because we can call for help. Yet, as also highlighted, we can become somewhat less safe bodies in wayfinding because we over-rely on these technologies in wayfinding, and can put our bodies in dangerous situations, by ignoring the need to take an atlas and compass, for example, with us on a mountain walk.

One final theme relating to technology emerged from this study and this concept was specifically mentioned as being "wayfinding by proxy". This should not be confused with "virtual wayfinding", in that it is not in a virtual world in which the wayfinding occurs. In one example, dozens of people were able to follow the couple I interviewed, Julia and her husband, even though they had no intention to make their trip public and to be followed. Having bought a GPS Sender unit, for emergency purposes, they connected it to Facebook several years before the trip, and were unable to work out how to then disable the connection with Facebook. On returning to the UK, they found out that friends and family had a much clearer idea than they themselves had of their exact routes through the wilderness reserve they travelled through over a period of two weeks. Indeed, this example

matches the example provided in the literature review in relation to time-space (see Section 2.3.5) of the modern "mobile phone culture" (Urry, 2007: 175) that now exists as a form of co-presence and attachment to one's friends, family and work colleagues as we move between A and B, even when they are not physically in the same space.

Artefacts are being used in a range of journeys and globally, as highlighted via the examples given. These artefacts can directly help guide us such as via paper maps and electronic guidance systems. They can also restrict us such as when a wheelchair is needed. Additionally, these artefacts can be the transport form such as the bicycle Dave uses to tour France.

The way in which we are able to just follow routes through the meshwork are, in other words, dictated partly by how we use and interact with these artefacts. An over-reliance on a GPS app on a mobile phone whose battery dies, can for example, mean that we lose awareness of our location within the meshwork.

Given Goffman's (1966) work surrounding interactionist concepts, pre-dates the internet and technological revolution that we now see, his concepts understandably lack any real consideration for the relationship that digital technologies have with interactionism. Whilst this study is not concerned specifically with technology in wayfinding practice, the example from Julia of how friends and family were able to vicariously follow her route across the wilderness (unknown to Julia herself) highlights how technology now begins to shape and influence wayfinding and can involve a social context, sometimes even without our knowledge.

5.7.7 Nature, Environment and Climate

In addition to artefacts and technologies, wayfinding can also be experienced through nature, such as via the force of water. Andy, for example, noted how the water also acts with its own force in guiding:

> You have to work with the river, but the river certainly decides ultimately where you're going. If you get it wrong, you end up upside down, under a waterfall somewhere...I go for the other type which is gently river or open water kayaking. So it's a different type of kayak and it's more sedate. And then you have control over where you go. But what can be interesting there is, in large volumes of water, it's very easy to get lost. (Nov. 2015)

Other nature and environmentally connected effects, such as the climate, also help to guide us and influence wayfinding decisions. Indeed, much of Ingold's work has often included dialogue around the environment and landscape, including the "wind", "climate" and

"weather" (Ingold, 2000). Likewise, naturally occurring conditions also emerged from this study including the connection between needing to preserve nature versus wayfinding.

Naturally formed caves can be complex locations in which to navigate and great consideration is often given to whether or not to mark what some see as areas of natural beauty and that need to be preserved. As Andy explains:

> If there's a main sort of spine to a cave and you have to trog along the spine and there's a little hole behind a rock, and that is the exit you need to know about, we will tend to put an arrow on that just in chalk, something like that, on the wall pointing always towards the exit...it depends on how wet the cave is. It'll be chalk initially and then, if it's, if it's warranted, we will actually paint it on. But we try very hard not to do anything permanent in a cave. But, you have to weigh that against if a lot of inexperienced people are coming through from other caving clubs, then it's better than doing a call out every month than trying to find people who are lost. (Nov. 2015)

Bob provided a more common example, whereby a snowfall meant that every sign on an industrial park was covered fully in snow, causing Bob to be late for a job interview because he walked the wrong way. For Dave, on the other hand, the baking sunshine was the cause of him needing to alter his route to adapt to the climate:

> It was a very hot day and I was feeling the strain of the heat, so I got to the camp site quite by chance, about fifteen kilometres before the one I'd planned to stay on. Because it was so hot, I actually stopped early, so I did an extra fifteen K the next day. So you can modify your route you know, according to the circumstances.

Problems because of extreme temperatures also impacted upon Rex's trip experience of navigating in Winter Park, Colorado, as discussed also under "safe bodies". The consequence of being disorientated and lost late at night in sub-zero temperatures, in this case was potentially a critical situation.

The environment itself can also change. Julia's example was certainly one of the more unusual experiences, whereby the landscape itself changes in the wilderness, because of animal life. Julia reports:

> So they're all ways that you can walk between lakes and they change. You know, beavers move them and water levels change so it you know, each year he'll [the ranger] just check whether they're the same and stuff like that. (Sep. 2015)

Indeed, in order to fully understand the experience of wayfinding, it is necessary to include these natural phenomena that provide a different embodied practice for the wayfinder. The simple act of snow falling, or strong waters guiding our bodies in a direction we may not

wish to, or the effects of wind that Ingold (2000) talks of, all need to be considered within wayfinding design.

5.7.8 Section Summary

Wayfinding is sensed through emotions, the human senses and often with the help of artefacts and technologies. Furthermore, we experience wayfinding in relation to the environment and nature, such as via climatic conditions or the need to protect nature and certain routes. We also sense wayfinding through a combination of micro and macro processes that create a somewhat fluid and often heuristic experience. In the following section, a body that affords the agent high levels of agency is discussed, that of the "Educated Body".

5.8 The Educated Body

Training in the art of navigation; route preparation; physically preparing the corporeal body to be strong and resilient enough to take on certain tough and demanding routes; knowing how to guide others from A to B; and how to physically prepare others for difficult routes; are roles which a professional wayfinder will be familiar with. Andy summarises the professional wayfinders training in remarking that "funnily enough, part of the way we deal with that, is we have to be comfortable with being lost" (Nov. 2015). In addition to the professional wayfinder, a number of other relevant sub-themes emerged within this theme of the "educated body".

5.8.1 Professional Wayfinding

Certain volunteers, it became clear, had been trained in the art of wayfinding, and their skills impact the way in which they plan and manage their own route experience and the route experience of those people they take with them on journeys.

For Julia, her husband spent many years as a countryside ranger and also used to repair and document rural routes. Her husband though finds his way quite easily in some environments, but struggles in others as Julia explains:

> My husband's always the one who's really like knows which direction we're to head in…he's got this really key sense of where we are. And suddenly at the airport I was like, it's over here, and then we go here, and he's like, how'd you know all of this stuff. It's like well, well you read trees and lakes and maps and I read signs that tell us where to go. (Sep. 2015)

Julia's example suggests that being a professional wayfinder in one area of wayfinding, does not necessarily make you a professional in other locations or situations when the terrain or area of wayfinding is different from the one you are expert in. Wayfinding, in other words, can be seen to involve a set of dispositions that guide the way in which the practice takes place. Julia's husband displays a practised body, with a disposition towards being able to read the bucolic environment through transference interpretation (meaning that the conscious becomes sub-conscious as an action takes place, whereby the action becomes internally objectified).

Adrian can also be classified as a professional wayfinder, given that he has trained in how to navigate without using technology, such as by using a map and compass; and also through the physical training of his own body as a soldier in the army, to actually be able to attempt certain routes. This training of the body to manage difficult and challenging routes is what Bourdieu calls the "cultural unconscious" (Thorpe, 2011: 112). Leder (1990:

55) describes the same phenomenon saying that the "experience attests to a certain forgetting of the body in general". This deeply embodied ability to use our bodies to wayfind, was also noted by Gladwin (1974: 143) in his mention of how he was unable to perceive the effects of the waves and the reefs underwater, unlike the south Pacific tribe he was studying, in his wayfinding research. Andy, as an outdoor sports specialist, considers the skills element of wayfinding below as one of our professional wayfinders:

> There's a definite skill component. So you're always improving and honing your skills. Learning how to read the river better. Learning which direction you should go and why. If there's a boulder in front of you and water is streaming around it, one side might be more turbulent than the other. That's going to tell you more about which is the safer or least risky way to go.

Andy's trained mind is such that, in his words, he reads maps differently from the norm. "If a map is constantly spinning, I can't do that. So if it's always facing North, then I'll always work out my bearings, are there points of interest. So, hence I have my SatNav set in the same way" (Nov. 2015). The body is central to Andy's wayfinding experiences and how he guides others:

> I adapt the wayfinding to suit the trail and the capabilities of my body. For example: When somebody new does their first caving trip, they exit the cave after only 2 hours, completely knackered. I know they will be exhausted so choose an easy route to begin with, following obvious 'waypoints' of interest that they can remember after their trip. (Nov. 2015)

Andy proceeds to explain that one of the goals he has is "following a route they can manage but that will still tire them out completely" (Nov. 2015). The real body connection with wayfinding for Andy is described in his explanation of how he is able to choose routes according to the way in which his body develops, as it becomes more familiar with what to expect from certain routes:

> As my specific 'cave fitness' improved, so did my ability to travel further and longer underground - and at much higher speed. As such, I can progressively choose tougher routes as my body adapts to the environment through fitness…So in essence as my body's ability to work in such an environment improves, the amount of energy required for the same route reduces. This leaves more energy to explore new routes, thus my wayfinding actually adapts to my body, which in turn adapted to the routes I have taken in the past. In short, wayfinding adapts to my body as my capabilities improve…You can only take harder routes as your body adapts to the previous routes you have taken. Wayfinding itself I believe also follows, in that your ability to wayfind in a particular type of terrain also improves with the more complex routes you gradually take. Most of this is governed by the ability of your body to adapt to harsher routes. (Nov. 2015).

Andy's example above, which highlights the presence of physical capital, leads away from a psychological form of wayfinding to one which is very much body-centric. One other technique we can also learn from Andy from his caving experiences, comes from his training and experience, whereby he makes a point of "always turning around and looking over your shoulder to try and memorise where you've come from, because it looks completely different where you've come from, to where you're going". This way of understanding and being trained in wayfinding techniques, affords Andy less chance of getting lost.

Professional wayfinders are often highly skilled and trained, both cognitively and corporally speaking. Viewed as bodies that navigate the "meshwork" (Ingold, 2011) of routes, they do so often with high levels of skill and embodied experience. These wayfinders through training develop a "habitus" (Bourdieu 1977, 1984), whether intentional or unintentional, that helps to accommodate their ability to wayfind as professionals. These are wayfinders often with a very strong understanding and knowledge of the rules of the practice, often with high levels of symbolic capital within the practice in which they are experts. This symbolic capital (that is the sum of all the other capitals) often translates into forms of trust of others. Andy, as a caving expert, for example, it seems fair to assume, is held in high-esteem within caving circles and by those he guides underground. These wayfinders also often have bodies that have been shaped to accommodate the needs and challenges faced in wayfinding practice through physical and cognitive training. The identity and habitus together shape these professional wayfinders into bodies that are capable of using the meshwork in ways that might be beyond the capability of the average wayfinder.

5.8.2 Teaching the Body

The professional wayfinders discussed above, also need to sometimes educate the other bodies that they guide. VIPs, for example, often need to be guided from A to B and, once again, the body is central to how the VIPs are prepared for these routes, in this case below, in Baghdad as Adrian explains:

> We used to train with them. We used to take them on the ranges…and quite frankly chuck them around a little bit. Saying, this is what's going to happen you know, when a push comes to a shove...The physicality and the actual psychological aspect because you know, I've seen many many people over my time, freeze, when things go wrong. Just totally freeze and that's a fairly normal reaction you know. It's like a startled rabbit in the headlights. (Nov. 2015)

In the example above, the conditioning is largely psychological but with the body at the centre of this training. This physical conditioning of the body for taking on routes is also mentioned by Dave with his cycling:

> Living, as I do, in Wales I'm used to being faced with the challenges of hills....I can't go far from home without facing an incline of some description so I adopt the same outlook while cycling around France....if I come across a hill I've just got to climb it! (Aug. 2015)

Dave is already conditioned to take on certain routes. From Adrian's example though, we also see that certain journeys do require intentional conditioning of the body. This "educated body", or what Bourdieu (1991: 138) terms "practised bodies", is also affected by social conditioning (Baum, 1997; Burkitt, 1999; Bourdieu, 2010). In a wayfinding sense, this social conditioning can exist in group wayfinding, such as when a group of touring cyclists travel together.

Gathering information in order to educate oneself about the local surroundings and route options, also evolved from the interviews. Dave, in the following example, explains his strategy on arriving in a new location on holiday with his wife:

> I'll go out on the bike and I'll have a look around. And I go and explore the area and I say, well the shops are that way, and there's a nice restaurant that way and there's a nice country walk that way…so we use it as a means of finding out about the local area, which then makes our holiday better because we don't have to ask our way. (Aug. 2015)

Lauren learned navigation skills in the scouts as a youngster and notes that "every seven days, we did activities together...I learned to read a map, I learned you know, the scale on the things, how to recognise the level of a map, I had a badge for it" (Aug. 2015). Francis gave another example involving his work in the UK police service and the importance of learning and remembering local road names and areas:

> They [the police force] used to do a thing called a ten week street duties course, where you would be walked or puppy-walked round the entire of this patch and as you went, a decent instructor would wait until you were half-way along a street and go, where are you!

Training the body can also unintentionally happen in wayfinding as Buttimer and Seamon (2015: 154) found in their research. One of their research subjects was so familiar with driving a certain route to their friend's house that, whilst driving to the dentist, found themselves automatically taking a turning to their friend's house:

> My arms were turning the wheel…they were doing it all by themselves, completely in charge of where I was going. The car was halfway through the turn before I came to my senses and realized my mistake.

Buttimer and Seaton (1980: 156) explain that that "movement, explored phenomenologically, indicates that the body is intelligently active and through this activity efficiently transforms a person's needs into behaviours". Through practice, we absorb these embodied processes which then become quasi-automatic dispositions. For Bourdieu (1977:72) this is expressed in terms of habitus and learned embodied dispositions: "strategic-generating principle enabling agents to cope with unforeseen and ever-changing situations".

When the concept of "identity construction" (Goffman, 1961: 119) and of a "career…any social strand of any person's course through life" (ibid) is considered alongside Bourdieu's concept of habitus, this leads towards the suggestion that wayfinding requires its own habitus. In other words, and as highlighted by the professional wayfinder, there is sometimes the need to learn and fully understand the practice and to train the body for such a practice. Indeed, as this author argues in Symonds *et al* (2017), people develop their own "wayfinding habitus", expressed through practice via the body and which is built overtime and is, therefore, "embodied history" (Bourdieu 1990: 56). For the professional wayfinder (or career wayfinder), intentional effort is given to developing this habitus to develop the wayfinding ability of the agent in the same way in which people develop a "career habitus" (Mayrhofer, Iellatchitch, Meyer, Steyrer, Schiffinger and Strunk, 2004) over the course of a lifetime. We, in other words, develop a set of embodied and deeply engrained dispositions that ultimately shape our ability or not, and how we are able to, attempt routes, both as an individual and group. This "wayfinding habitus", whilst more consciously practiced by the professional wayfinders (whose expertise can be vital, especially for protecting others they guide), is not restricted to these professionals. The professional wayfinder takes on a quite different and often specialist role. As Goffman (1966: 203) relates:

> Just as there are differences between situations in regard to the tightness of conduct occurring therein, so, of course, there are differences between different roles, each of these differences being maintained across several different situations.

Hence, for the professional wayfinder, there tends to be a quite distinct set of rules of conduct in terms of how routes are navigated, with safety and/or security often central to this practice. This "wayfinding habitus" was also prevalent in terms of familiarity and is discussed below in the next section (5.8.3).

Reay (2004: 432) notes that "habitus becomes active in relation to a field, and the same habitus can lead to very different practices and stances depending on the state of the field".

It is when this habitus is overlaid onto wayfinding as the field of practice that in effect, "wayfinding habitus" can be seen to exist.

Whilst this study does not focus primarily on a cognitive approach as most wayfinding studies choose to, in seeing the cognitive as a part of the full embodied experience, the fact -finding approach taken by some volunteers is also worth noting. Volunteers such as Dave who, when arriving in a new holiday destination, go out and try and learn the way around the local environment, is what is known in wayfinding as cognitive mapping. Cognitive maps, defined by Arthur and Passini (2002, 23) as "an overall mental image or representation of the spaces and the layout of a setting" are often discussed in wayfinding literature (see also Passini, 1996; Golledge, 1999; Kato and Takeuchi, 2003; Caddeo *et al*, 2006).

5.8.3 Familiarity and Local Knowledge

The issue of un/familiarity that was discussed in the literature review, also materialised in the interviews, sometimes under the term local knowledge. The issue of familiarity was important in Julia's work with school children, for example, in which she helps children to get to know the local wilderness areas in their own community:

> It's the same with the kids who then realise that they could walk to a woodland and like well, who owns this. And I say, well you know, it's public. 'So can I come here on the weekend with my mum and dad?' It's like yes, if you know, and then they knew the route and they were able to lead their families there and we, we had a lot of chats with families who'd been up there because the kids knew how to walk there. (Sep. 2015)

Likewise, familiarity was discussed by Jason who works as a consultant in a hospital. Jason explained that, despite the great possibilities that colour coding can have in a hospital wayfinding system for guiding people, you need first to know what the colours represent. This example highlights the importance of familiarity in wayfinding:

> A lot of the corridors are colour coded. So if they want to get through to Physiotherapy for instance, you could turn around and say to somebody, just follow the blue line...If you know where that goes. But actually, if you didn't know that system existed, you wouldn't care what colour the floor was, or what was on the floor. You wouldn't take any notice. You'd still be looking for a sign. (Sep. 2015)

Francis provides one further example, this from his time in the police force:

> There are roads that I would not take and I would take other roads because I knew about the speed humps...So you'd – you use your local knowledge because trying to take a – a – a diesel Astra over some of London's speed humps at seventy miles per hour, you ain't gonna do it! (Aug. 2015)

Numerous examples were given in the data with respect to the value of local knowledge. For wayfinders, this local knowledge affords them greater route options or more viable choices. Familiarity and local knowledge can though be different in wayfinding. Rex went to one of Europe's largest music festivals and found that other festival-goers were more familiar with the best practice for wayfinding in such a crowded and temporary event:

> On talking to others, it soon became clear that they had got lost in the past, hence they were seasoned festival goers and greatly aware of the need to create some form of really tall visible landmark such as a flagpole and distinctive flag, which can be seen from a distance. (Oct. 2015)

According to Rex, temporary environments of this type can change quite quickly, as other festival-goers pitch up their tents, preventing one's own markings from being visible unless placed high. In one sense, the concept of heuristic wayfinding can once again be seen to be evolving.

The effects of "familiarity" in wayfinding (Walmsley & Jenkins, 1992; Page, 1997; Wiener *et al*, 2009; Farr *et al*, 2012; Farr *et al*, 2014) have been mentioned in several studies. This familiarity, in these aforementioned studies, refers to the familiarity of the places rather than the familiarity with the "practice" of wayfinding. The familiarity with the practice itself, is reinforced by Lauren: "…with a little experience at getting lost once too many times, at some point, you don't stress so much" (Aug. 2015). In short, becoming familiar with the practice of getting lost, is a disposition that helps to shape ones wayfinding habitus.

The examples of familiarity in wayfinding practice, included in the educated body, support the relevance of familiarity highlighted in the theory Section 3.2.4.3 and is illustrated by Hendry (2008: 265), who explains that a journey between A and B can take us outside of our usual social milieu (away from familiar surroundings) and involve areas "unconstrained by normal rules of conduct". This can offer the wayfinder a "sense of freedom and escape" (ibid).

5.8.4 Getting Lost Being a Good Thing as It Pushes You outside Comfort Zone

So far in this thesis, the suggestion has perhaps been that getting lost and almost all resulting emotions are negative. Getting lost though can also be positive both mentally and physically. Dave begins to connect getting lost with positive experiences that directly relate to the body:

> I certainly do get lost on occasions...it's all part of the exercise and one of the reasons I cycle is to stay fit, so if I do an extra few miles then so be it. It helps my fitness. (Aug. 2015)

As much as it is a cognitive experience of finding his way, for Dave such a journey helps to shape his body. Getting lost can also help to build and shape one's character as Lauren explains:

> You can see the environment and if you got wrong and if you lose yourself and you're not in the right place, well you know life will still have another adventure just to find your way back and, and for the moment, when you live like that, whatever happens just live it like an experience and yeah, it's not so difficult after a while. (Aug. 2015)

Keith and Linda also talk of getting lost meaning the chance to see new things. Keith explains that:

> Sometimes it's just nice to get out of your comfort zone when you're running and it is a bit of you know, a drain, but before now when I've taken wrong turns, I've, I've seen a couple of new things. (Aug. 2015)

Whilst Linda comments:

> Even getting lost you have a look around and say okay, good. I've seen a new place but now I wanna go back to that same place so. So it's also good to get lost sometimes...It might be positive. (Nov. 2015)

Whilst getting lost can in some situations, have clear implications in terms of the agents safety (see Section 5.2 on Safe Bodies), the examples above show that there can also be very positive aspects to getting lost and this can include the development of the body and mind as change is adapted to.

5.8.5 Section Summary

In the "educated body" the professional wayfinder and the way in which we can attain a "wayfinding habitus" was discussed. The wayfinding body can also be trained through familiarity and part of the practice can involve training others who might need to be guided. Familiarity can also extend to knowledge of wayfinding practice through "background knowledge" or "process experience". Furthermore, wayfinding can be experienced positively through habitus in the development of new dispositions such as becoming used to and comfortable with getting lost.

5.9 Pleasure Seeking Body

The final body type in this study is the "Pleasure Seeking Body" a body that goes intentionally out in search of challenging routes and which is perhaps perfectly summarized with the following quote from Andy:

> We just enjoy squeezing through things and walking through frigid cold water. So we will choose a direction depending upon what we want to experience. (Nov. 2015)

In the following sections, examples of this pleasure seeking body are further explored.

5.9.1 Recreational Wayfinding

The term "recreational wayfinding" (Fewings, 2001) expresses the way in which finding our way somewhere, can be for pleasure. The point made by Montello and Sas (2006: 2003), in their study on wayfinding, that "successful travel requires that we know where to go and how to get there" is questionable. Examples from the data in this research and concepts such as recreational wayfinding by Fewings, contradict the opinion of Montello and Sas (2006). We do not need to know how we get somewhere for wayfinding to be considered successful, but we may want the experience to feel pleasurable during the process, as shown below.

Venice, Italy, appeared to be the quintessential location in terms of recreational wayfinding. Rose, one of several volunteers to mention Venice, commented:

> [You] go with the flow it's actually like recommended to get lost, so that's how you kind of discover nice little corners and bridges and restaurants and stuff...even after fifteen years. I still let myself get lost sometimes you know. (Jul. 2015)

This form of pleasure through getting lost though, is possible in most locations worldwide. Patrick, for instance, expressed his experience of walking through Malmo and in what might be considered an exploratory form of wayfinding practice, within the confines of a city:

> I'm very happy to let me find what I find and so I wander around the streets - so what I'm doing is getting an atmosphere…spend some time wandering around the cafes, and shops and the streets and getting a sense of what city centre life was like in Malmo...I'm interested in is every day culture and everyday life…in terms of wayfinding. I'm very clear that one of my pleasures is just to stroll around without any great purpose. (Jul. 2015)

Bob also enjoys getting lost: "I sometimes get lost because I like getting lost in that environment as part of the experience, because you come up to something you don't

know" (Jul. 2015). Francis perhaps highlights the benefits as clearly as anyone with a definite appreciation of the benefits of getting lost:

> You'd always wander around the resort to see where the restaurants are, where the bars are...Especially if you don't know where you're going! There's more fun in it. You just go for a good wander around and see what's there. (Aug. 2015)

These data supported Fewings' (2001) concept of "recreational wayfinding" and, through this concept, we see that the emotions and embodied experience is one of pleasure and a body that is allowed to wander and get lost in time and space. The relaxed approach to time in the above examples, with terms such as "wander" and "just to stroll" reflect the difference in approach. Time pressures (discussed in literature chapter in Section 2.3.5 on time and in relation to the "Restricted Wayfinding Body" Section 5.4), as opposed to free available time to explore, changes the wayfinding experience.

5.9.2 Intentional Longer Routes

Routes can often be longer than they need to be. Lauren, for example, talked of her days backpacking and of a trip in Scotland which took her around the Glens:

> There was a more direct way to go, but I decided to take the long way because that was the whole point of being there...It was not, when you're on holiday to visit things, it's not to go fast from one point to another, it's to enjoy the travelling and the experience you can gather. (Aug. 2015)

These longer routes mean greater opportunities to also get lost but were taken on by Lauren for a greater embodied experience. Dave provides one further example:

> Very often I'll go for the most scenic, so obviously I don't want to go down the hard shoulder…I want to keep off main roads, use country roads, go through little villages, it's much more refreshing, it's much more interesting. You've got shops and cafes on the way, so you can buy your water and your juice and whatever it is. Stop and have a cup of coffee when you want and it's nice to get the atmosphere of the places you're going through, see the local colour, you know, to get a taste of the area that you're going through. (Aug. 2015)

Taking longer routes when wayfinding was also found to be important by Jain and Lyons (2008: 86) who note that some people "need to unwind on the way home…they would (and do) make a longer than 'necessary' return journey to give enough time to move out of work-stressed mode". Moreover, these longer routes for pleasure also evolved from the findings of Ramsden (2011: 179) who reports that one of her research subjects, named Phil, in her study on walking and performance, stated that "I choose different routes to go there, pretty much all the time, and there are ways that I've discovered that I'll sometimes

make a detour because I want to see the nice house with the mural or the willow-weaving fence because I like it". Clearly, longer and indirect routes are often chosen by wayfinders for pleasure.

5.9.3 A Mental and Physical Challenge

The interpretive craft of getting from A to B can also involve physical and mental challenges, which the agent seeks out, for the purpose of pleasure. Julia, in her trips to wilderness areas with her husband, has to carry all the food they need for the whole journey, a journey that can often last several weeks. They also portage their two-person canoe across land where needed. Getting lost and trying to find their way is central to the experience, as Julia explains:

> You could get really lost but – that's one of the things is, is about not getting lost you know and kind of having, knowing where you are and being able to navigate through that environment. It's part of the, the enjoyment for us and kind of surviving in that environment so… a lot of it is just staring at – walls of trees and trying to work out where is the most likely place for a route to be. You have them on the map and it, it says oh that's in a bay and you just stare at this blank wall of trees and go right, where's a bay going to be in there? And you go, that maybe there, and we sort of head in a direction and umm. I'm quite lucky that my husband is, he's really good at interpreting paper maps, so he, he'll kind of go, right I reckon, and he'll turn the canoe, I reckon it'll be about twelve o'clock there and then we'll head in the direction. (Sep. 2015)

A quite different wayfinding challenge undertaken for fun, was mentioned by Andy regards the sport of "rogaining", a sport that originates from Australia. Rogaining is a navigation sport which lasts for up to fifty hours and involves teams of two to five people having to locate specific remote locations. At these locations, competitors can stamp their game card and, depending on the distance from base and the difficulty to find each location, a range of points are awarded for the different stamps. This is a game of strategy and one that takes place over a course often of a hundred square kilometres in size. As Andy explains:

> The strategy behind the game is, do you risk it and travel the furthest distance to try and get the highest points or do you stay in close to the start point, and knock off all the easy ones. So there's a real strategy element to that (Nov. 2015).

This game is physically and mentally demanding and is a sport which, according to Andy, is about an adrenaline rush and an all-round challenge. Andy's experience also as a professional rock climber offers further insight into the "pleasure seeking body".

According to the level of physical and mental challenge you are looking for, you choose and tackle different routes vertically. As Andy explains:

> Rather than just climbing a piece of rock, you're looking for climbing a piece of rock in a particularly difficult way. So, there are actually guide books available: rock climbing guide books. You might come across one cliff face that might only be three meters wide, but there be in the guide book, five or six different ways of climbing that same piece. So, in terms of wayfinding, you would take a particular climb, which is a series of if you like, of way points.

Andy's love of physical route challenges with his rogaining, caving and rock climbing experiences, matches the idea of the "inherited…homo duplex model of man which recognized bodily pleasures" (Rojek, 1993: 16) in that it seems natural for some people to wish to take on the challenge of difficult routes. Andy's love of tackling difficult and (what others might perceive as) dangerous routes, involves a duality between embodiment and wayfinding. These two elements are central to Andy's experience as a pleasure-seeking body. For others, the same experience might be one of fear and terror as Chang, H (2013: 533) explains for some people:

> An unfamiliar destination may generate fear and anxiety; in others, it may enhance relaxation and happiness. Thus, some may perceive the wayfinding as risky, while others may perceive it as risk free.

Andy, on talking about the risk and getting lost, made the following comment:

> It's about being prepared, so getting lost doesn't have a risk. Or minimal risk. So whenever I go walking, wherever I am, I'm always carrying a substantial first aid kit, plenty of water err depending on the environment, either lots of wet weather gear and warm gear or lots of cooler gear and sun-hats and sunscreen. I always carry a lot of stuff. It means my backpack might be ten kilos or so, even for a half day hike, but it means if something goes wrong, or I get lost, it doesn't really matter than much because I'm safe. (Nov. 2015)

Alan's way of seeing a journey between A and B was quite different from Andy's as a form of pleasure seeking. Alan thrives on social interaction and takes every opportunity to speak to other people:

> Many times the journey to go from A to B, is the most beautiful experience of the holiday...I enjoy the journey. For me, every journey is an experience itself. In the journey you meet people. In the journey you move. You walk, you fly, you drive, you go on the train. It's beautiful because you are discovering every second, new situations. That is a journey. It's an experience itself that is sometimes best of all the holiday, you are going to do. (Jul. 2015)

Alan's experience is not necessarily one that is about the difficulties or pleasures gained from the interpretive act of wayfinding, but from the experience of getting from A to B. It was clear from his interview though, that these people with whom he interacts, are still central to how he finds his way. I see wayfinding as an activity which includes Alan's experience of getting from A to B, i.e. of not just working out the directions but of enjoying the experience as a whole. In this respect, I agree with the inclusion of the word "successful" included in Farr et al's (2014: 4) definition:

> Effective wayfinding is the successful outcome of the interplay between human and environmental factors resulting in a person successfully moving from their current position to a desired location in a timely manner.

Seeing wayfinding as an interpretive craft that also includes this experiential aspect (and that can include the pleasure seeking elements) I would argue needs to be factored into any definitions of wayfinding.

As discussed in the literature review and under "safe bodies" though, Hardie-Bick and Bonner (2015) research suggests that the majority of thrill-seekers they interviewed saw the practice as involving managing risk rather than seeking necessarily to increase risk. This is risk for pleasure as opposed to risk taken because of one's job, such as Adrian's earlier examples of guiding VIPs across Baghdad. Giddens (2006: 49), on the other hand, states that "fateful moments do not only 'befall' individuals – they are sometimes cultivated or deliberately sought after". The question of how much risk exists when navigating routes is not important in this study, suffice to say that risk is an important aspect of wayfinding practice. Giddens (2006: 43) may be correct in stating that "some aspects or types of risk may be valued for their own sake … such activities can be understood in terms of dimensions of 'cultivated risk'" yet risk as highlighted throughout this findings chapter, exists in all aspects of the practice of wayfinding.

The popularity of "recreational wayfinding" for pleasure in this study also highlights another way in which Ingold's meshwork might be viewed. Rose, in her interview, explained how certain boundaries can sometimes represent the safe area within which to wayfind. Rose provided the example of Venice (a city she lives in for six months a year and knows well) and a certain bridge which leads to what she considers a bad neighbourhood, as being one of the borders of area that is safe to get lost in.

Taking longer routes than normal for pleasure was common in the interviews, supporting the findings in Section 2.3.5 regards the concept of "excess travel" (Mokhtarian and Salomon, 2001). Moreover, in addition to taking longer routes because a wayfinder

chooses so, these longer routes can also be the result of stakeholders forcing us along commercial routes of activity (as highlighted in Section 5.5.2 on "Steering Behaviour").

5.9.5 Section Summary

In this section on the "pleasure seeking body" the idea that wayfinding practice can take place for the purpose of pleasure and for fun, in its own right, has been presented. Activities that involved wayfinding such as rock climbing, rogaining, wandering through a million square miles of wilderness, and the more sedate example of wandering through Venice, provide examples of embodied wayfinding experiences that a person may seek.

In order to illustrate these examples of the pleasure-seeking body on Ingold's meshwork, as posited several times in this findings chapter, the meshwork I propose needs to be seen as a three dimensional representation in order to best represent the dynamics of wayfinding as a practice. One of these dynamics is "risk", a subject discussed in Section 2.3.6 of the literature review and which permeates through many of the wayfinding bodies discussed. Connected with this risk, the pleasure-seeking body might be seen as one that often uses this risk factor as a part of the wayfinding experience, as shown in many of the examples in this section. A three-dimensional diagram of the meshwork that includes these dynamics of wayfinding is presented in the Conclusions Section 6.3.2.

5.10 Chapter Conclusion

In this chapter, eight body types were introduced and data from the interviews expressed under each body. The omnipresent body type was that of the "safe wayfinding body", a body which traversed all other body types. It is also worth drawing attention to the concept of *intersectionality* (Phoenix and Pattynama, 2006; Warner and Brown, 2011), in respect of these eight bodies. Intersectionality is a concept that draws attention to the fact that we are a combination of intersects, in that we may be female and disabled, of Korean decent, young and from the lower classes, or elderly and Indian. Each of us, in other words, is a combination of intersects according to our ethnicity, age, dis/ability, social status/class, and gender, and this has the potential to affect the route decisions we make. In other words, as mentioned earlier in Section 2.3.6, one might take a safer route because one is female and worried about safety when trying to find the way somewhere at night time. The example was also given earlier of the baladi peoples (see Section 2.3.7.3) and the Inuit people (see section 3.2.2.2). In this study though, because the sampling strategy was one that separated samples according to the diversity of wayfinding experience type, there was not an attempt

made to find examples that specifically explored wayfinding according to a persons or groups race, ethnicity, or age, hence why these are not specifically discussed in this social body section. Examples though have been given to individual elements of intersectionality in this findings chapter, i.e. regards gender, dis/ability and age. Future research though that expands on this study, could use the concept of intersectionality to further develop findings that make greater consideration for intersects such as race, ethnicity, gender, age and social class.

Full conclusions and then recommendations on all of the findings are expressed in the chapter that follows.

Chapter 6 Conclusions and Recommendations

Chapter Description

In this chapter, overall conclusions are provided.



6.1 Introduction

This chapter is broken down into six sub sections. The first of these, Section 6.2, is concerned with the four research questions for this study and how the findings help to answer them. Section 6.3 is then used to define a new way of understanding wayfinding that embodies wayfinding as a practice. Discussion is included in relation to previous wayfinding definitions and an explanation of the new definition and a new wayfinding model is provided. Next, in Section 6.4, the implications of the findings from this study are considered. The possible uses that these findings can have for those concerned with wayfinding design and implementation, are for example, discussed. Section 6.5 provides a reflection on the overall approach and methods taken in this study, and with consideration provided regards the effectiveness or not of this approach and methods. Section 6.6 details

some recommendations for future research on wayfinding, to build on gaps identified in this study and Section 6.7 is used for the final conclusions.

6.2 The Research Questions

6.2.1 Research Question 1

How is the wayfinding experience different for different kinds of people, and what can we learn from these differences?

The decision to interview as diverse a sample of wayfinder types as possible, successfully resulted in a wide range of experiences and issues in the findings. The phenomenological approach by Seamon (2000) (mentioned in Section 4.2) was similar to that achieved here. As a reminder, Seamon (2000: 158) classified phenomenology as being able to:

> Discover underlying commonalities that mark the essential core of the phenomenon. In other words, the phenomenologist pays attention to specific instances of the phenomenon with the hope that these instances, in time, will point toward more general qualities and characteristics that accurately describe the essential nature of the phenomenon as it has presence and meaning in the concrete lives and experiences of human beings.

Indeed, in this research, within these diverse wayfinding experiences, "underlying commonalities" (ibid) and "general qualities and characteristics" (ibid) were certainly found. The issue, for example, of wayfinding in darkness was mentioned in all forms of wayfinding, including in relation to backpacking, city living, holiday travel and commuting. The absence of consideration in wayfinding technologies for routes taken at night versus daytime is certainly apparent. Likewise, there was a clear perception from female volunteers of more concern over personal safety when choosing a route and yet wayfinding technologies lack the ability for a user to define route selection, such as on phone apps, by gender, fitness level or by available time.

Whilst the commonalities in the findings were very clear so too were the differences. Very different approaches can be seen, for example, between what I termed "professional wayfinding" versus other wayfinders. For the professional wayfinder, although risk was present in the data, risk for these wayfinders, who are often in charge of other people and helping these people to navigate in potentially dangerous environments, was even more pronounced. In the "Educated Body" the concept of a wayfinding habitus was presented. The deeply engrained embodied training that goes into the practice of being a professional wayfinder, included the need to be cognitively, emotionally, spatially and physically aware. Wayfinders develop their own "wayfinding habitus", as a system "of durable,

transposable dispositions" (Bourdieu 1977: 72), expressed through practice via the body and which is built overtime and is, therefore, "embodied history" (Bourdieu 1990: 56). One example of this wayfinding habitus was provided by Francis, with his example of previously working in the police in London, whereby he needed to walk and feel the street as he did "a ten week street duties course, where you would be walked or puppy-walked" so that you can learn every street.

It is important to remember that the habitus is not intended to work in isolation from forms of "capital" and the "field". The "field", I would posit, is important in "wayfinding habitus", in that this habitus tended, at least in this study, to be more clearly visible in the data in certain types of wayfinding. For Adrian, for example, the highly trained practised body applied for the most part to his work and the specific locations where he worked as a close protection officer. For Andy, this highly trained body referred to his work and pleasure time but for specific activities such as caving and kayaking. These embedded ways of practicing wayfinding and evaluating routes though, were expressed by Adrian below (Nov. 2015):

> I had cause to go to [UK airport name removed] airport recently and the security there for me, I was actually not going through the main terminals, I was going elsewhere in the airport and, I thought well the security's extremely lax, you know. And this will be absolutely simple to penetrate. And I, and you know, it's I think it built in me like the levels of security, so I'm always constantly analysing. You know, I wouldn't do this, I wouldn't do that, I'd, I'd improve this, I'd improve that.

Adrian's following remarks also connect with the habitus:

> One thing I've been able to learn doing so many outdoor activities is what my limits really are. So I'm quite acutely aware of how far I can push myself…some friends of mine wanted, you know, could basically see I was skiing and wanted to take me down a red run. I resisted, they insisted, I went down it and I couldn't manage it. It was beyond what I could do. That actually had a negative impact…So I should have stuck to my gut feeling, my training which was don't push yourself too far, go at a comfortable pace and that's how, how I was able to get to a certain stage with all of my outdoor sports without injuring myself and without risking safety. (Nov. 2015)

Certainly for the professional wayfinder, the art and craft of wayfinding is embedded and can never actually be separated from their being and does appear to then be applied to other fields. The expertise of these professional wayfinders affords them a certain symbolic capital and the opportunity for economic capital (explained further in the question 3 below).

The embodied experience of wayfinding such as through physical comfort, and the avoidance of negative emotions such as stress through delegating the art of wayfinding, was also seen to clearly exist. Whilst this is also discussed in more detail below in question 3 in relation to the techniques people use to facilitate the embodied wayfinding experience, relevance here concerns "capital". Whilst no definitive or clear examples of "symbolic capital" emerged from this specific study, economic capital is clearly an important difference seen to separate wayfinders. Many examples existed in the data of people willing to intentionally be "compliant bodies" where they are happy to pay to hand agency for the wayfinding to others on their behalf. Wayfinding, in other words, rather than being a simple task of the agent navigating, is a broader practice that includes social and embodied elements.

Differences according to bodily ability were noticeable also, such as by the ability or disability of a wayfinder. Whilst this might not be such a unique finding, the types of issues that are experienced are revealing. Stef, for example, with the benefit of Google Maps on her phone, yet unable to effectively use the phone one-handed given her paralysis, highlights a flaw with such technologies in wayfinding usage. The concept of a "wayfinding habitus" can again be applied although, in this case, Stef (and her husband as the carer) have had to relearn the corporeal ways of managing and practising wayfinding, to facilitate managing her disability. It is also worth pointing out that training for staff in how to best deal with those with special needs, is still lacking.

The differences in wayfinding experience can also be understood, from the data, as different modalities of route. Routes sometimes need to be as direct (in terms of time) as possible, whilst they can also be recreational (Fewings, 2001) such as for enjoying the bucolic scenery, and at other times for the purpose of an embodied challenge. To fully understand wayfinding as a practice, it is necessary to see the practice from the viewpoint of modalities. Different people have varying motivations in wayfinding from recreation, fitness (caving and jogging examples), work (close protection officer and policeman examples), commuting, and so on. Forms of modalities divided, for example, by transport type, time, purpose of travel, location type, and familiarity can be seen to exist. Almost every study on wayfinding that exists to date, also makes the mistake of analysing wayfinding as a solo activity, rather than as a modality divided by who the person is travelling with or not. Examples of this modality include the single traveller, as a parent, group travel, as a helper, as a guided tour and so on. This points towards the need for a systems approach to be used when planning wayfinding systems, because of the need to combine such a range of modalities.

This range of modalities also points towards the need to see wayfinding as being a process of getting between various points and in a non-linear way as a practice. Rather than nodes as locations, where decisions need to be made (Lynch, 1960), these points are locations within the practice which need to be navigated to, as opposed to being decision points along one route. The route through an airport, for example, might be:

Parking → Special Assistance counter → Check-in → Toilet → Security area → Coffee shop → Restaurant/pub → Newsagents → Chemist → Departure Gate → Toilet → Departure Gate.

These holistic routes that are experienced heuristically, can be seen in the meshwork, as a cluster of practices and interactions that involves a fluidity of routes and that is experienced by multiple social bodies that have varying needs. In this sense, wayfinding practice can be seen as being far more than an agentic practice that is a cognitive only or even dominant process.

6.2.2 Research Question 2

What Embodied Challenges Are Faced in Wayfinding?

Giddens' (2006) idea of a body that is perennially at risk, certainly helps to explain the influence of risk culture in wayfinding. Both perceived risk and real risk, and what I would call "unconsidered risk" were all present in this study's findings. These forms of risk all directly relate to the body and keeping the body safe.

Examples of the wayfinding risk both perceived and real included the need to consider route choices when selecting routes at night or underground, or the risk of getting completely lost in the wilderness. "Unconsidered risk", I posit, is a new form of risk that exists because standard risk procedures are ignored because of an over-reliance on technologies. The dependence on a mobile phone GPS app as a wayfinding device when the phone battery dies, for example, creates a new form of risk. This form of risk is *not* the opposite of risk-adverse i.e. risk-tolerant, but a certain naivety now exists with this dependence. This is certainly a form or risk that sits outside the tenure of Schiffman *et al*'s (2012) seven levels of perceived risk discussed in Section 2.3.6. Indeed, the value of understanding this new form of risk that exists through the developing over-reliance on technologies suggests that education is perhaps the key.

The socio-cultural aspects of wayfinding practice were also seen to be important in the embodied challenges faced. Examples given included the forced separation of carer and

disabled passengers; the effects of needing to factor in artefacts such as a wheelchair or luggage in how we choose paths; the fact that wayfinding can often be about guiding others and which holds its own challenges such as safety; the co-presence that exists in the spaces through which we move, with other people as co-wayfinders, employees and as inhabitants in these spaces, and the challenges this co-presence brings.

One such problem is the blocking of others in an attempt to stop them from being able to get from A to B. Examples given of this were of border restrictions and of the threat posed by rebels in war torn areas. Whilst Goffman (1966) explains that blocking others goes against the norm in social situations, certainly in an agency/structure respect, blocking the routes of others can be seen to be important in order to maintain controls. In this sense, the embodied challenge faced is the ability to have permission to complete certain routes and to be able to find ways of completing such routes.

Even though the meshwork is intended by Ingold (2011) to be an alternative to a network, in wayfinding, certain locations do act as hubs seen in Ingold's entwined knot. Whilst two people can never ever truly share the same exact space (because one body cannot be fully inside the other) there are points of space that act like network points. In this study, emotional difficulties in passing through hub points in the form of borders was an issue as discussed earlier, such as on the stress of having to strip at the security point in order to pass. Innovation to relieve anxiety and queuing can be tackled in wayfinding, nonetheless, via swipe cards, for example, that are used by cruise lines as a way to embark no matter what country the passenger is in.

Physical and mental ability were also seen to be important in wayfinding. The ability or not to take certain routes sometimes, as the data showed, depends on the physical ability of the wayfinder or in some cases, the weakest link in terms of the physical ability of the group members. These embodied challenges may be overcome by consciously developing the wayfinding habitus through training.

The effects of stakeholder influence were also seen to impact the embodied practice of wayfinding. When viewed as a game (Bourdieu, 1992) wayfinding can be seen as a practice that is certainly not an agent only practice and is a process that is highly commercialised. This commercialisation, as the data showed, creates a number of effects. Firstly, the wayfinding becomes a heuristic activity as we are pulled in various directions, as stakeholders attempt to divert us towards areas of commerce. Secondly, it means that economic capital can be used as resource to transfer agency to others to act as our guides,

in order to relieve stress and risk (such of getting lost or missing transport such as the ship when on a cruise).

Indeed, modalities of transport was seen in the data also to be important when trying to understand the embodied challenges in wayfinding. The form of transport, whether by foot, car, bicycle, on a cruise ship etc can all be seen to provide different wayfinding experiences for the body. Ingold's (2011) point that transport, which he sees as separate from the perambulatory, does reflect the different types of embodied wayfinding experience was explained in this study. The effects of being in a wheelchair, using a bicycle as the primary form of transport, or walking, have been described.

The level of access one has to information was also seen to affect the bodied experience. Being able to take certain routes, in other words, demands not only rights of access, but sometimes the knowledge of these routes. "Inside secrets" (Goffman, 1959) can be important in order to gain access to certain wayfinding knowledge.

"Time" was also seen to be important in wayfinding and the embodied experience. Time pressures and resulting anxiety directly impact route choices and the need or not to select direct routes in terms of time. When time is plentiful, less direct routes become more viable. Exactly how the agent relocates her/his body in space through the act of wayfinding, is often dictated by time.

6.2.3 Research Question 3

What Practical Techniques Do People Use to Facilitate Their Embodied Wayfinding Experiences?

The most interesting answers in this research relate to this question, with a number of interesting techniques that have, to date, not been mentioned in other wayfinding literature.

One of the most common techniques used, and which is never tested in wayfinding studies, is the art of "people asking". Wayfinding proved to be a highly socio-cultural practice and seems worthy of dedicated research in future wayfinding studies. The importance and value of people asking should not be under-estimated in wayfinding research, given the fact that people asking is the key strategy for some wayfinders.

Another issue ignored in many wayfinding studies is the fact that wayfinding often takes place as a multi-person practice. Travelling as a family, co-workers, couple, as a group and so on, means that wayfinding is often a shared process or one in which certain individuals can decide to become somewhat passive in terms of the creative art that is wayfinding. One

specific example of the techniques used in multi-person wayfinding is that of the "pivot system" (see Section 5.6.1). From an embodied perspective, this affords users the opportunity to offload baggage and to wayfind in a more relaxed and time effective manner, whereby individuals within the group can choose their own paths to and from the pivotal base.

Preparation also proved to be a useful technique that many people use in wayfinding practice. For some people this is a fairly casual process, such as the act of using technology to pre-walk a route via Google Maps satellite view. For others it was about doing a recce of the local area when arriving in a new place. In each of the planning and preparation stages, the body is ultimately embedded into the process, the planning taking place in order to reduce anxiety from getting lost and to make it easier for others.

Preparation in wayfinding can also be about ensuring that one is rested well enough, in order to make better cognitive decisions, and better able physically to attempt difficult routes. This planning also involved physically training the body and mind to be prepared cognitively and corporeally for certain routes. Moreover, this planning, as discussed in analysing question 1, relates to the concept of "wayfinding habitus". Practical techniques for facilitating the embodied wayfinding experiences, such as the cognitive and physical training, are sometimes used as practical techniques, to facilitate the body in wayfinding. Preparation ultimately becomes part of wayfinding itself and this preparation can take physical as well as cognitive forms.

Related in part to planning, the use of "time" also proved to be a key technique for the volunteers. Allowing extra time to attempt a given route might seem an obvious technique, yet was mentioned relatively few times. Another previous commodity, aside from time, was that of economic capital. Using economic capital to buy time in order to have access to certain areas on the meshwork, can mean a more embodied experience in terms of relaxation and cognitive sharpness. Economic capital was also seen as a way to pay for guidance or for a driver on certain routes. This is of course still wayfinding from the agent's point of view in that they themselves ultimately have to transport themselves from A to B and choosing a guide is one choice in the process. Even when being guided, agency was also seen never to be fully in the hands of the guide, in that the agent always still tends to need to show alertness and awareness of the route, such as in Antonio's example where he still has to be aware and awake when his bus stop is reached in Bangkok.

Using technology proved to be a common technique, although this usage can also prove to be counter-productive in its use. Maps on gadgets, such as mobile phones and other

devices, were mentioned often and certainly aided the volunteers and reduced anxiety. These maps and other technologies were equally, at least in this study, the reason for anxiety. Being sent the wrong way or into the wrong lane of traffic; the battery going dead on the device being used; and the difficulty in using a device such as a phone because of partial paralysis on one side of the body were also examples given.

The use of paper maps was a key technique still used and loved by the volunteers in this study and seemingly more important than any technology. The enjoyment of this technique is understandable in that a map can sit easily and conveniently into a pocket, travels the whole journey without the need for any confusing technology or the need for any connections to electronic means. The paper map can be touched, marked with a pen and is an artefact that aids a certain embodied experience in wayfinding.

The human senses were also drawn on, such as the need when deaf to sit very close to the message boards in an airport, to use sight as the main focus. Senses though, for the most part in this study, were discussed in terms of the senses being taken for granted. The drifting of the aroma of food, for example, making one volunteer change route, is what I have termed “heuristic wayfinding”. These senses that impact our way of learning to take unintended routes through the meshwork, signify a move away, once again, from direct linear routes through the meshwork.

Body rotation was also a technique used, although as part of professional wayfinding practice. Andy, in the interview, with his explanation of rotating his body as he moved through the caves, did so in order that he could visualise the route he would see when he would come back through the tunnels. Consciously trying to learn the reverse route was only mentioned by Andy, this technique seemingly the result of Andy’s trained and professional wayfinding expertise. The physical effort and twisting of the body and the use of the cognitive means to educate himself on the return route perhaps offers opportunities in other wayfinding situations. Such a technique might be worthy of consideration in training, particularly in places where there is a risk to getting lost.

Another technique used by the professional wayfinders was the observation of the “Pattern of Life”. Viewing the bodied daily expected patterns of behaviour of residents, such as the routes they take and at what time, proved an important tool in the military and can dictate the movement accordingly of key personnel from a military point of view. Such a technique applied to non-military situations could include following or asking other people (other bodies) in order to find a restaurant that is popular with locals.

Avoidance or appropriate preparation is another bodied technique that can be important according to the volunteers. The common mention of *darkness* in the interviews was accompanied by the avoidance of dark areas, particularly at night time. The act of putting one's body at risk due to real or imagined dangers that lurk in the dark, emphasises the need in wayfinding for proper lighting and security. The problem with darkness was seen not only to be about bodily risk, but also the risk of not recognising space in the same way as it was viewed in daylight. The closed shop fronts that in the daytime act as signs, at night became shop shutters that all looked the same. Anxiety, tiredness, and the physical effort of physically getting lost were emphasised.

6.2.4 Research Question 4

How Might Wayfinding Be Viewed Differently and What Can We Learn by Seeing It from a Socio-culturally Embodied Perspective?

At the beginning of this study, I expected using a socio-cultural perspective would provide valuable findings. However, the sheer depth to which wayfinding proved to be a socio-cultural practice was surprising. The data continually related back to socio-cultural elements such as people asking, following others, the hiding or sharing of information and so on. In this thesis, the key has been to highlight the missing body in wayfinding literature.

Moreover, without the use of a socio-cultural perspective, the majority of the findings in this research would have failed to emerge. Using a psychological cognitive only perspective would have failed to elicit so many examples that have been discussed in this study. People asking, group wayfinding behaviour, the issue of dark versus light, learning return routes by studying the reverse route by looking over the shoulder, the way in which the body itself is central such as through physical training for routes and so on, would have been less likely to have been found with a psychological approach.

I will once again re-iterate a point made at the start of this study in that the intention here is *not* to in anyway ignore and to undervalue cognitive based studies on wayfinding. Indeed, such studies are invaluable and are an essential part of the wayfinding discourse. Studying wayfinding from different ontological viewpoints, as shown in this study, can only add to the understanding of wayfinding practice and the body of knowledge. Moreover, many of the findings from this study could be used to suggest topics for future research from a psychological perspective, to add to this understanding. Some examples might include the

psychology of physical preparedness, and the relationship between mental toughness and risk calculation in wayfinding.

Wayfinding is so often assumed to be an agentic experience with focus on the agent finding her/his own way. I would suggest that wayfinding *is* in fact a primarily socio-cultural activity, given that this practice really is as much about stakeholders and other people, as it is the individual trying to find their way between A and B. Stakeholders guide us to places we may not have intended to go to, have the ability to block us and are the ones who finance and implement systems (such as traffic lights, road networks, security systems etc). The cognitive focus on wayfinding up until now, has simply ignored the agency/structure aspect of wayfinding as a practice and needs rebalancing, if wayfinding is to be more thoroughly understood in research.

Using a socio-cultural perspective has also made it possible to understand wayfinding as a heuristic practice, that tends to involve getting between multiple destination points (different from the concept of nodes i.e. decision points as Lynch [1960] discussed) in that wayfinding is about getting from A to B to C to D to E, for example. Multiple wayfinding processes often exist in the one journey and the body is always central to this experience, be it the need to re-route for reasons of dehydration or because of the influence of steering behaviour on the part of a stakeholder.

Responsibility was also seen to be important. The choice of route can be affected, for example, by the need to act as a carer or partner of a wheelchair user, to try and go somewhere with children, or to be in charge of guiding others. The act of navigating the meshwork is hence often a joint effort and one for which our own route adapts to the needs of the group. Both the socio-cultural and embodied elements of wayfinding evolved in the findings in relation to responsibility.

Having considered the findings from this study, in relation to each of four research question, the following section provides a new definition of wayfinding and diagram that has resulted from this study.

6.3 Embodying Wayfinding Towards a New Definition

6.3.1 Introduction

In this section, I present a new definition of wayfinding that evolved from this research. A full explanation and a diagrammatical illustration is presented below.

6.3.2 A Model for Wayfinding as an Embodied Socio-cultural Experience

The model that is shown in Figure 25 below, draws together the theories from three theorists, Bourdieu, Ingold, and Goffman, and also draws on two existing models. The first of these models comes from Farr *et al* (2014), a model focused on wayfinding in airports that utilises a quantitative methodology and provides some focus on human factors and the environment in wayfinding. The model also expands on Farr et al's (ibid) model to include both quantitative and qualitative elements. The second model, on which the diagram is based, is from the model of intangible cultural heritage (Lo Iacono and Brown, 2016). Their diagram provides a holistic view of dance and movement, with focus on a qualitative and socio-cultural in relation to intangible cultural heritage. In their model, individuals (as embodied agents who have emotions and knowledge), society, traditions, space, time and artefacts constitute a system in which "heritage and human beings are indissolubly connected and continuously shape each other in an open-ended fluid dialogue" (Lo Iacono and Brown, 2016: 100).

In the diagram, three key elements can be seen: society, embodied agents and environment and artefacts. These three elements are surrounded by separate dotted ovals for clarity, but this does not mean that they are separate from each other. Indeed, they overlap and connect with each other, hence we used arrows to represent connection but also movement within the meshwork. Following Ingold's (2011) concept, the meshwork is represented by lines along which embodied agents live and meet at 'entwined knots'. We see the meshwork as the physical setting in which wayfinding takes place, also occupied by environmental and artefactual elements, in which behaviour is ruled by society (in interaction with individuals and natural elements). In the society oval shape in the diagram, we have included fields, rules and capital, following Bourdieu's (1992) theory of practice according to which a field is a specific area of society, with its own rules and internal relationships, independent from the other fields. Inside each field, agents interact trying to increase their own capital, which can be social, economic or cultural.

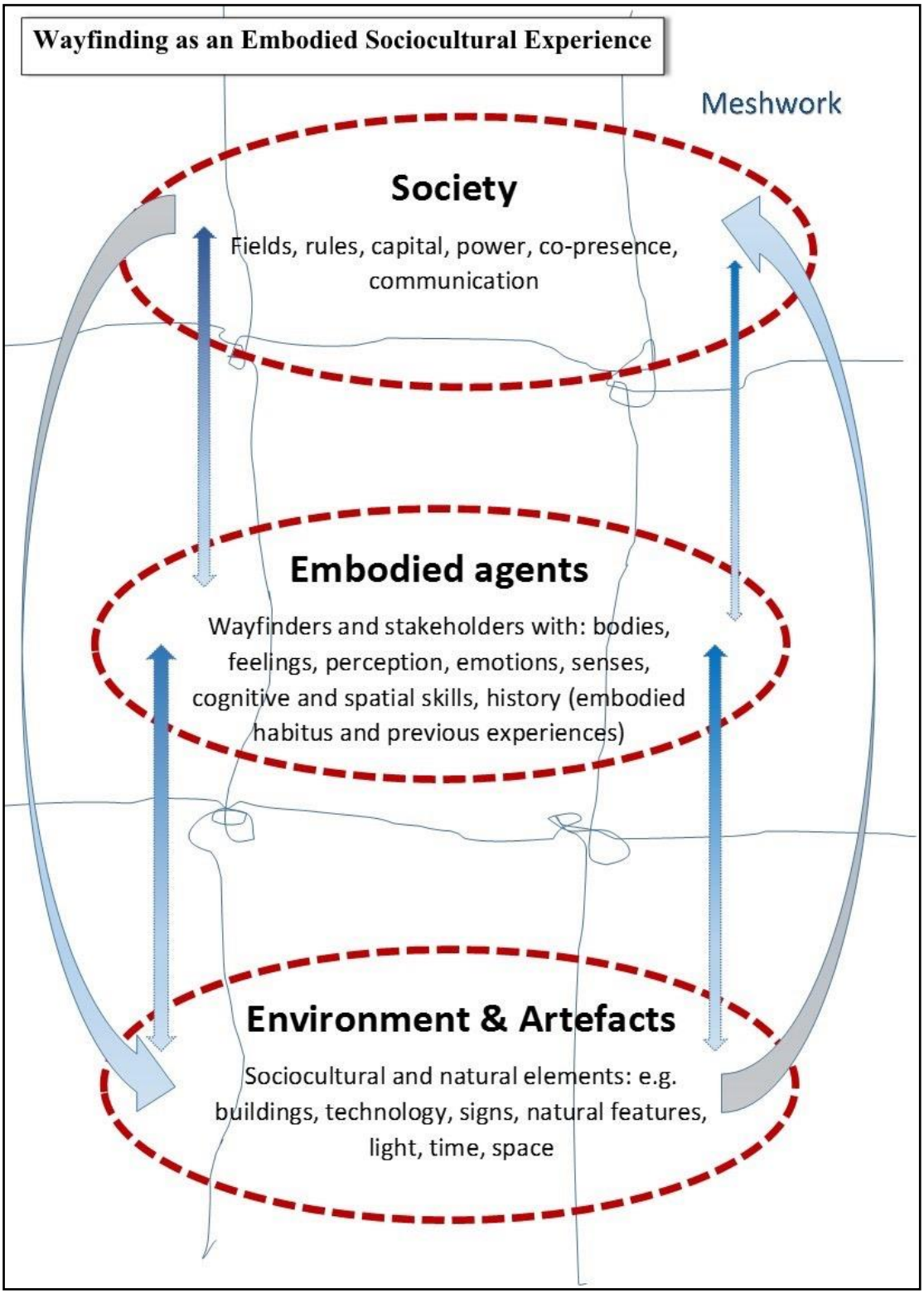


Figure 25 - Model for Wayfinding as an Embodied Socio-cultural Experience – Published in Sociological Research Online – Symonds et al (2017)

The diagram also factors in social and economic capital, co-presence (Goffman, 2005; 2008 [1967]), and communication. In the diagram, also:

> Embodied agents are individuals and groups of individuals who have a certain amount of freedom, or agency, to wayfinding, but within the limits imposed by society and/or the environment (built or natural). (Symonds *et al*, 2017: para. 4.5)

Stakeholders often guide and steer us and are included as embodied agents in the overall practice of wayfinding. Both individual agents and stakeholders interact within wayfinding practice. Embodied elements in the diagram, represent elements that include feelings, perceptions, emotions, senses, cognitive, spatial skills and history. Both spatial skills and history (which includes familiarity of a place) are both taken from Farr *et al*'s (2014) model.

The "environment and artefacts" oval represents the built environment, landmarks, spatial features, light, technology. In the model shown in Figure 25, these elements are presented by Farr *et al*'s (2014) model under different groups (for example, the web, maps and signs under communication, built elements under environmental factors). In Figure 25 these factors are placed in the same oval, given that these elements are external to the embodied agents but that are socio-culturally influenced and/or perceived. These elements can influence wayfinding or they can aid wayfinding. Moreover, artefacts that aid wayfinding are, as pointed out earlier in this study, objectified cultural capital (Bourdieu and Wacquant 1992).

To illustrate one example from this study in relation to the new model in Figure 34: the issue of 'responsibility' emerged from the data (see Section 5.3.3) and examples were given of wayfinding not only involving the route from A to B, but also as involving the responsibility that comes with having to guide children or a disabled partner (or a VIP) simultaneously along that route. The 'society' and 'embodied agents' (ovals in Figure 25) include these extra layers of complexity that exist in wayfinding practice. In terms of a practical use, the mode of wayfinding, in this example, provides a way for those who devise wayfinding systems to be aware and reminded of the dynamic elements involves in wayfinding practice.

6.3.3 A New Definition

In light of the new model for wayfinding above, a model that connects the holistic, socio-cultural and embodied aspects of wayfinding, a new definition of wayfinding emerges

from this study. The intention was to develop an updated definition based on the following criteria:

i. Both the cognitive and corporeal nature need to be considered.

ii. The process involves decision making in real time but can involve planning and re-planning.

iii. The experiential nature.

iv. There is always an origin and destination (the origin and destination can be the same point i.e. a circular route).

v. There are different mobility issues for different user types.

vi. There is no difference between small and long distances.

But we should also consider that wayfinding can involve the desire for:

- Longer routes (both in terms of times and distance)
- Routes that involve time delays and a challenge (as an experience)

Wayfinding does involve taking cues from the environment but not exclusively, given that external cues and learned cues, for example, are also very important, as highlighted by Dening (2008) and Gladwin (1974). For this reason, including mention of 'cues from the environment' is not appropriate in a definition on wayfinding because environmental cues are not exclusive to the process. In order to update present definitions, I propose the following definition:

> The cognitive, social and corporeal process and experience of locating, following or discovering a route through and to a given space.

6.4 Implications

Studying wayfinding without consideration for the body and for the social context in which wayfinding inevitably takes place and is practised, means that certain aspects of the practice can be missed. In this study, some of the findings will aid the understanding of wayfinding, particularly for those who design or are involved with the design of wayfinding systems.

One example of how these findings can be used, is in the design of wayfinding applications (apps), with better understanding of what these apps are missing, in order to make such applications smarter than they presently are. Apps which change route according to day or night for safety considerations; or apps which are able to measure

crowd behaviour along routes and suggest other routes; apps that also allow for routes according to available time and the scenic route; are some such examples. Indeed, the point made by Titchmarsh (2015) that *The problem with SatNav: it can't tell you the scenic route* is supported with the findings in this study. If technology is to be used effectively in wayfinding, then human factors and bodily needs need to be incorporated.

The use of human helpers is also clearly a valuable tool and certainly some airports in the UK have very recently begun to embrace to use of human helpers in a manner not done so before. Such helpers should be mobile and flexible rather than only at static counters, in line with the heuristic nature of wayfinding.

Wayfinding systems also need to be designed such that they do not *over* rely on technology. Likewise, education might prove to be a very valuable tool in the future for rescue services as people get lost because of a lack of preparation and the lack of knowledge on how to use basic tools such as a compass and to read a map.

The way in which wayfinding information is presented and made available also needs to be effective. Indeed, a very good example of such provision of information is seen by the development of www.seearoundbritain.com by Marg McNie (BBC News, 2016). Marg has photographed access information for disabled travellers at locations around the UK for many years and developed a database of information that can be found on her website.

Using a socio-cultural perspective also, as seen in this study, has highlighted the problems in some cognitive only wayfinding research projects. Studying wayfinding with one person navigating through an otherwise empty environment (in respect of other people), I would posit, leads towards an otherwise misunderstood practice in that embodiment is missed. Ingold's (2011) meshwork, used in this study as a representation of the routes in space, is a model that essentially includes the interactions that need to be included in wayfinding research. Put differently, a meshwork representation of an empty and busy airport would be quite different. A busy airport would include, for example, a person's departure gate being changed, toilets being out of use and the population of multiple wayfinders taking different routes within the same space. Indeed, the meshwork could provide a form of feedback for these types of systems, with data-tagged wayfindinders providing visual maps from their routes taken. These could be connected with experiential feedback and systems improved.

The inclusion of human factors and other people in wayfinding, might also help the understanding of wayfinding in locations such as care homes for dementia sufferers.

Likewise, human factors such as effective lighting on routes rather than necessarily more signage, provides an example of an alternative way of thinking and designing in wayfinding.

6.5 Legitimacy of Approach and Reflection on Methods Used

Quantitative methods of research are invaluable for certain studies. There is also a definite difference and benefit to be had from using a qualitative method for researching wayfinding, as I have shown throughout this research.

By letting the data collection and interpretation be driven by the research volunteers, rather than by preconceived theory and hypotheses, issues such as the problem which darkness creates, were able to evolve. In this study, the themes that emerged from the literature review helped to guide the semi-structured questions in the interviews, whilst the sensitising concepts (the concept and theories used from Ingold, Bourdieu and Goffman) aided but did not determine how the findings were shaped and presented. In particular, the use of Weber's 'ideal types' was an extremely useful technique (see Section 4.4.4.2 on Data Representation) for representing the various types of wayfinding body that evolved from the data. To re-iterate, the original Weberian meaning is that of *idea* rather than *ideal* types and, in this study, the use of ideal types is *not* to suggest that these body types used to group the data are suggestive of the perfect or ideal types per se. The ideal types is a way of representing the data in logical groupings in a qualitative study of this kind and I believe that this has been achieved in a way that allowed for many often ignored elements of wayfinding to evolve and to be presented in the findings chapter.

I would *not* change the methods in hindsight. The use of Skype as a research tool I also believe to have been insightful. The paper that resulted from the use of Skype in this research, led to additional refinements in this emerging data collection technique.

The use of Ingold, Goffman and Bourdieu was invaluable and the connections their theories and concepts was highlighted in the theory section of this study. The concepts from these three theorists I feel complimented each other in this study. Ingold has been used throughout this study in explanations of complex and multi-dimensional routes that exists in given spaces. Figure 25 (see Section 6.3.2) shows these complexities through the introduction of a new model for wayfinding. As also highlighted in the new model of wayfinding in Figure 25, Bourdieu was important for viewing the wider practice of wayfinding and the differential distribution of power and value attached to wayfinding activities, i.e. to include stakeholders, invisible elements such as capital and habitus that

inevitably guide how and why we take certain routes. Goffman was ultimately used to a lesser extent, but helped to provide explanation on some of the interactions that are naturally central to so many wayfinding situations, because wayfinding, as mentioned early in this study, rarely takes place in a social vacuum, despite the missing others and these interactions in many virtual wayfinding studies.

6.6 Recommendations for Future Research

There is also the opportunity, in the future, for studies to build upon the individual wayfinding body types presented in this study, that is, for these bodies to be studied further. Below I will briefly discuss each body by providing examples of what could be further investigated in relation to each of these bodies.

Safe Body - The example of wayfinding at night time and in situations where the environment is dark (such as in caves, and unlit streets and parks) was mentioned many times in this study and opportunities exist for a more applied research. For example, digital apps can be developed for mobile and cell phones, which provide route options that accommodate the change from daylight to darkness. Likewise, digital signage and other wayfinding apps can be developed to enable safer route options when needed. Further survey research could also try and understand range and frequency of situations that can potentially be improved to make routes safer.

Empowered Body – More in-depth research on specific user groups, such as those with disabilities, could be undertaken. A study, for example, involving blind wayfinders could help to provide some useful findings for both blind and sighted people. Likewise, further research could be done on locations such as care homes and environments in which identity and independence for long term users is a part of wayfinding. Other forms of empowerment specifically, for example, training the body to be prepared for wayfinding, digital apps that empower users, education to empower (e.g. map reading skills for travellers) might also be focused on.

Restricted Body - Far more, I would suggest, can be researched in terms of wayfinding for those with both physical and mental disabilities. Both research and development, for example, of routes that are wheelchair friendly and to understand more on time and route options. In terms of restriction by time, the fastest route when selected by the masses, for example, can then become the slower route because of the co-presence along the route in question. Wayfinding, research that focuses on restricted wayfinding such as because of

time, locations where users are likely to be tired, locations where language issues become more likely or where there are restrictions by disability, can be explored.

Compliant Body - Many opportunities exist for stakeholders to benefit commercially by providing services that cater for those who wish to have wayfinding managed on their behalf. Indeed, this is one area of research that is already central to real-world wayfinding, with a number of companies working to try and find new ways to guide us (Symonds PA, 2017). The use of big data and use of mobile technologies will continue to be pursued by companies connected to wayfinding in the business world. However, the findings from this study suggest that more ethnographic studies in specific locations could provide additional and equally important knowledge for stakeholders seeking to develop wayfinding environments and systems. My experience is that there is some room for improvement; it was quite astounding in fact, from my own experience whilst doing a wayfinding audit in a UK airport, that even just by standing in the middle of the departures area with a clipboard, I was approached every few minutes with a question by someone who could not find something (be it a departure gate, the toilets and so on). This made me realise that stakeholders can quite quickly and easily gather invaluable data to allow their users to be Compliant bodies (i.e. bodies who do not need to consciously wayfind). This type of qualitative research tends rarely to be used and could prove beneficial.

Sensing Body – A number of opportunities exist to aid the way in which we sense routes along which we navigate and to sense how we navigate them. Technologies, for example, already exist in the form of map applications that show the fastest and shortest routes, routes to avoid accidents or congestion on motorways. The opportunity though also exists, to offer maps that enable scenic routes or routes that enable certain experiences to take place. A route, for example, that is based on different sensual experiences when walking in bucolic locations. Another idea emerging from the sensing body type is that of randomised but safe routes to provide unique experiences each time a person navigates a given area, such as a major city, when sightseeing. Moreover, whilst Urry and Larsen (2011: 14) mentioned “a so-called 'performance turn [in tourism]…tourist experience places in more multi-sensuous ways, touching, tasting, smelling, hearing”, certainly in wayfinding, research on these senses is almost non-existent. Connected to this point is the suggestion that a much larger study could take place that builds on the 23 interviews in this study, in order to capture a more extensive range of sensory experiences common in wayfinding.

Social Body – Very little has been researched on group behaviour in wayfinding practice and future studies that explore the effects of co-presence and build on this study, I would

suggest, could further build the knowledge base on wayfinding. Furthermore, this study might fairly be considered too Western in bias. Several non-Western examples were given of wayfinding in the literature review, with mention of Polynesians, Arab and Egyptian Baladi peoples, for example. In terms of the volunteers for this study though, almost all were westerners, although some were living in non-Western countries during the interviews and talked of experiences in these locations. The key point here is that future research could build on the findings from this study by investigating wayfinding in non-Western cultures and societies. The example given earlier of "Arabs traveling in the Sahara desert, where wayfinding cues are scarce, will travel single file so that the person in the back can notice when the leader deviates from a straight line" (Hill, 1998: 34) provides but one example of how wayfinding techniques might be partly based on cultural setting. I accept that there are limitations in this study regards the range of cultural settings used, however, this critical aspect is at least illuminated by it.

Educated Body - research to understand how professional wayfinders work might provide valuable clues in the future to help all other body types. Professional wayfinders use quite different techniques, such as the caving example, whereby Andy systematically looks backwards every so often as he walks in order to record a visualisation of the route as it will look on the return back through the cave. Of course though, as we have seen, this route may be different on the return if different others populate the route and, for example, create a blocked route. Nonetheless, further research to interview a much larger and wiser sample of professional wayfinders could provide invaluable insight into wayfinding practices.

Pleasure Seeking - Further research into the pleasure seeking body would not only provide the opportunity to try and make wayfinding more fun, but, I would suggest, could also connect with sustainable practices and education of the environment. This move towards not only helping us to find our way between A and B for fun, but to help us do it in a way that gives us pleasure and pride in environments through which we do so, could be a positive one. One of the research volunteers has become involved in such an area by now taking out school groups and other young people, on forest tracks and into wild areas to teach them how to find their way by getting lost in the outdoors and to learn to appreciate the environment as they discover their way. This is just the beginning, I would suggest, of the opportunities that exist for understanding pleasure seeking in and through wayfinding.

6.7 Executive Conclusion

The missing body identified by sociological research has been addressed in this study in relation to research on wayfinding. The use of sociology has clearly brought a more clearly defined embodied element to this study, both the embodied experience of individual agents and the bodies of others who populate and affect the wayfinding experience. Seeing wayfinding as a bodied experience can help to give greater depth of meaning to wayfinding practice, a point supported by (Talbot *et al*, 1993: 744) who state that:

> Consultants do much of the work in this area [in wayfinding], and their reports are often not available in refereed journals. For these and for other reasons there is little published research that explores factors that impact the effectiveness of portable of hand-held maps. Yet such hand-out maps are, in fact, widely used.

Having also involved myself with wayfinding consultancy during the time period of the PhD process, I agree with Talbot *et al* (1993) above that there is a gap between academic literature and consultancy work in wayfinding. For this reason, this study is just the beginning in potential findings in wayfinding literature and much more may be achieved. Using a different ontological perspective from most wayfinding studies has re-addressed the need for greater lived understanding of wayfinding, rather than more traditional 'scientific' approaches to wayfinding that ignore multitude of the difficult-to-quantify social and interactionist variables. Sociology can offer much to wayfinding and the body is clearly central to wayfinding and needs to be brought into the mainstream understandings of the term. In this study, a sociological perspective led to an investigation into the bodied experience in wayfinding and resulted in findings of previously undocumented understandings.

My own journey in this study originated with watching Julie Ayres on television regards the re-design of wayfinding signage in Gatwick Airport, London, several years ago. As a result of the knowledge gained during this study, this directly led my being able to provide consultation for two international airports, and, in a sense, the interest in airports and wayfinding has gone full circle. Furthermore, as a part of the wayfinding audits completed for these airports, focus on the in-depth reports was included on the embodied effects and socio-cultural elements of wayfinding.

Appendix 1: Interview Guide



Cardiff Metropolitan University

VOLUNTEERS CONSENT FORM

Reference Number:

Participant name or Study ID Number:

Title of Project: Wayfinding as embodied activity

Name of Researcher: Paul Symonds

Participant to complete this section:

1. I confirm that I have read and understand the information sheet for the above study. I have had the opportunity to consider the information, ask questions and have had these answered satisfactorily.

_____ (Yes/No)

2. I understand that my participation is voluntary and that I am free to withdraw at any time, without giving any reason.

_____ (Yes/No)

3. I agree to take part in the above study.

_____ (Yes/No)

4. I agree to the interview being audio/video recorded

_____ (Yes/No)

5. I agree to the use of anonymised quotes in publications

_____ _____

Signature of Participant Date

_____

Printed Name

(Note: You can print your name here and, by emailing the form back, this will count as a signature)

Appendix 2: Participant Information Sheet



Cardiff Metropolitan University

Volunteer Information Sheet

Wayfinding as embodied activity: Learning from travellers' experiences.

Ethics Approval Number: 15/3/02R

You are free to choose if you wish to be involved or not and you may change your mind at any time.

What I want to achieve from this project is to gain a better understanding of the role which the body and emotions play in the wayfinding process when we travel. I will investigate how different factors affect us as we try to find our *way* from one place to another.

The benefit for you personally as a volunteer is the chance to have been involved with academic research. The benefits to others are that I hope that in the future, the knowledge gained from this study will help those who design and facilitate the wayfinding systems and who manage travel spaces through which we travel, to improve our embodied experience.

If you volunteer and take part, you will be interviewed for up to one hour once. If you agree and it is considered useful to the study, then there may be a second follow up interview. The interview would be recorded but would be used only for research and analysis purposes by myself. You can also ask to have a pseudonym (fake name) used in the write-up of the PhD if you wish to protect your own identity. These interviews can take place either via Skype online or in person.

If you are under 18 you will unfortunately not be able to volunteer. Ethical approval is not being applied for, to include under 18s in this research.

For any interviews which are completed via Skype video calls, you will have control over the place where you are interviewed. It is important that you choose a place which will allow for a private conversation to take place so that all data can be fully protected. It is important that you are able also to choose a place in or at which you can speak for up to 1 hour 15minutes and will not be disturbed.

As a volunteer, you might find benefit from being involved in a research process and I will be more than happy to provide you with a copy of the final PhD on completion if requested, and to answer any questions on doing a PhD and the process, or any educational or wayfinding questions which can provide you with benefit from the study and your involvement.

I am sorry to say that I cannot offer any financial reward for participation. Where interviews take place in person in the same room (as opposed to via online) hot drinks will be provided for at my own expense. If travel is from the same city I would be willing also to consider taxi costs provided the amount if agreed before-hand.

The information sheet and the consent form can be made available in a variety of formats e.g. large print, Braille, audio, and in languages other than English on your request.

Appendix 3: Techniques Used in all Interviews

- In order to be as focused as possible and in order to be able to remember each interview clearly afterwards when making notes, I decided to follow the recommendation made by Mason (2002: 75) who suggests doing no more than one interview per day, in order to avoid confusion over what took place when writing up notes and in remembering facts.

- Cohen et al (2007: 367) reminds us that "as an interviewer, you have the responsibility for making sure the interview runs well" and I was aware that in two separate instances, the ladies who were volunteering to be interviewed, had to put their children to bed first. I made it clear at the start of the interview that it would not be a problem at all if the interview needed to be stopped, paused or continued at another date, if child care became an issue during the interview.

- I always checked about two thirds the way through the interviews to ask the interviewee if they were good to carry on for a final quarter of an hour or so. I knew that they were happy to do up to one hour but I wanted to be seen even during the interview, to not be taking their time for granted and also to give them a chance for a break or to end the interview if there was any reason.

- I felt a certain responsibility to volunteers and to make sure as best as I could that they also enjoyed the interview, because they had freely given their own time.

- At the end of each interview, each participant was thanked for volunteering their time, with a follow up thank you email two days after their main interview. They were also invited to email me at any time if they had any further points to make and if they might have any further questions for the researcher.

Appendix 4: Interview Issues Experienced

- **Time Zone Problem (Skype interviews) -** In one specific interview, there was initial confusion over the time-zone and time difference. We both understood there was a 7-hour time difference having both separately checked, but in the end it turned out there was a 6 hours difference.

- **Interview Delays and Cancellations -** In three instances, interviews were either delayed or postponed. One interview was delayed roughly 30 minutes, whilst the volunteer finished off a work task. Skype creates an environment whereby it is just so easy to delay an interview i.e. there is perhaps more of a casualness in one respect to using Skype for interviews. One interview did not take place at all with the volunteer not being ready at the allocated time. On emailing, the response was that the volunteer was not feeling very well. This person was left alone and not bothered after this.

- **Liminality Question –** Questions around the subject area of liminality were asked in the initial interviews, but proved to be somewhat redundant questions in that volunteers had nothing to say in this respect and the interview lost momentum. This topic was dropped from the last two thirds of interviews.

- **Being Star Struck** (in person interview) - The problem of being star struck i.e. when your favourite football manager pops his head around into the room as you wait, and offers to make you a cup of coffee, before you are about to interview him. It is hard not to try and do all of the talking when starting an interview, when initially star struck.

- **Extra Presence (Skype interviews) -** In one interview, I had the sense that there was another person in the room with the volunteer, off camera. The inability to be 100% sure that the person is alone is impossible to ascertain sometimes in Skype video interviews. In this particular instance, the volunteer was asked afterwards if someone else had been present. Someone had walked very briefly into the room and left again once she realised the volunteer was talking on Skype.

- **Background Sound (Skype interviews) -** In three interviews, there was a sound in the background which sounded quite loud and, in each case, this turned out to be a fan next to the computer.

- **Slow Internet Speed (Skype interviews) -** Poor internet connections made three of the interviews harder to transcribe because of what I would call a fuzzy sounding connection in parts of the interview. The overall meaning of the dialogue though was clear for transcription.

- **Line of Questions** – An important thing to note is that most topics emerged and were not question led. It was not necessary, for example, to ask questions about technology or time because such topics naturally emerged in the dialogue. A topic such as 'night-time' and wayfinding was mentioned in the literature review, but emerged as having a quite different meaning in relation to wayfinding, as the results will reveal.

- **View (Skype interviews) -** In the recorded videos, if the person is sitting relatively close to the screen, then the face and shoulders can be viewed and any analysis of body language in the transcriptions would relate to these parts of the body. A person can both be further from the screen but an external microphone may be needed and this was not tested in this study.

- **Extra Opportunities for Interviews** - After completing the interviews, the opportunity presented itself to interview a blind person. I already felt I had saturation of data and certain time-frames to keep to for practical reasons and rejected the opportunity.

Appendix 5: Paul's Interview Guide

Pre-Information:

- PARTICIPANT INFORMATION SHEET
- EXEMPLAR CONSENT FORM
- Take 1 trip you do in the last few years, which was for non-quotidian (daily) purposes.
- Explanation of wayfinding and embodiment terms.

Planning and Navigation

1. Can you begin to tell me about the trip you did [specific trip approached because of]?
2. How did you prepare for the trip?
3. How do you manage with the language and getting around?
4. Trip went smoothly?
5. Did you become disorientated or lost at any time during the journey?
6. How did you spend your time on the journey?
7. Were all parts of the journey easy to navigate, i.e. signage?
8. How could the wayfinding experience be improved for you?
9. Would you rather to get to the destination by tele-transportation or travel there as you would normally? Why?

The Meaning of the Trip

1. Familiar or unfamiliar route/journey?
2. Getting to your destination is part of the experience for you or something that you just have to do?
3. (If you are happy to talk about it) - How influential are your parents on your travel choices (travel type i.e. train, destination choice, people with)?
4. What motivates you to travel?
5. Do you prefer to travel alone, with group or other?
6. How would you describe yourself i.e. your own personality characteristics?

Embodiment

1. What physical and mental experiences did you experience during the actual travelling? Emotions, physical experiences?
2. How would you describe the emotions of the journey?
3. How would you describe the physical aspects of the trip?
4. Have you ever been upgraded when travelling?

Technology

1. How, if at all, do you find that technology helps or does not help you in your travel wayfinding experiences?
2. How do you use technology before, during and after your trip, if you do at all, to aid the way travel?
3. What technological items do you use when travelling - and any for navigation purposes?

Socio-cultural

1. How important were others in getting from A to B on the trip?
2. Do you travel better alone or with others such as family or friends?
3. What cues do you take from other travellers?
4. How do you overcome the language barrier when travelling?
5. How did you travel as a child - Habitus

After-Experience/Liminality

1. How has the journey changed you if it has in any way?
2. Imaginative Variation: If you do not already use 1st class travel, how do you think it would change your travel experience? If you travel first class, how do you feel travelling economy class would change your experience?
3. Is there anything else you would like to tell me about your wayfinding experience on the trip discussed? Any other key situations from other journeys

The Skype Experience

1. Have you used Skype video before today?
2. How did you find it? Any thoughts on being interviews on Skype?

Appendix 6: Bristol Airport Flight Announcements



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