

Interdependent temporalities and the everyday mobilities of visually impaired young people

Abstract

This article examines the everyday mobilities of a group of visually impaired (VI) young people in London. We do so through a critical engagement with the notion of independent mobility central to the work of UK charities, campaign groups and professional bodies aiming to improve accessibility for people with VI. Drawing upon data emerging from self-directed videos and go-alongs with participants across London transport, we call for greater account to be taken of the politics of discourses around independence and how they intersect with disability and visual impairment. We make two interrelated arguments. First, that notions of interdependence are a more appropriate framework than independent mobility for engaging with the complexities of the everyday mobilities of young people with VI. Second, that considering the everyday temporalities emerging from the mobilities of VI young people provides alternative engagements with the contested term of independence. We conclude by stressing the significance of the politics emerging from the interwoven, compromised, and negotiated speeds and rhythms of VI young people's engagement with in(ter)dependent mobilities.

Key words: independent mobility; visual impairment; young people; temporality; video methods; mobile methods

1. Introduction

'We have our own method, our own different ways, and different methods of doing things'
(Ali, research participant)

'If I've got something that I need to [do], then I'll do it. With abundance of style'
(James, research participant)

'We need to refigure the idea of the urban, not as a singular abstract temporality, but as a site where multiple temporalities collide' (Crang 2001: 189)

The notion of 'independent mobility' is central to the work of UK charities, campaign groups and professional bodies¹ aiming to improve accessibility for people with visual impairments (VI). The emphasis of such work is either on changing existing spaces or structures which pose a barrier to independence, or on developing technologies and apps which enable VI people to navigate their journeys without 'help' or assistance from others, thus 'allowing users to navigate the city more independently and become more self-sufficient' (Eltis, 2014). In the current UK context where eligibility for mobility support is being restricted and important funds such as the Independent Living Fund (ILF) have been cut, it is unsurprising that the notion of independence is often instrumental in political struggles for rights, access and resources. However, this term is also contested, with some critiquing the way in which the binary of 'independence' and 'dependence' (Oliver 1990: 85) obscures the complexity and ongoing need for care, support and connection between different groups of people (see for example, Goodley et al 2014; Imrie 2000; McRuer 2006; Schwanen et al., 2012; Shakespeare 2003). Furthermore, it has been argued that disabled bodies have come to represent a source of anxiety in contemporary society (Shildrick 2009), which is counteracted through attempts to render differently disabled bodies 'mobile' and 'independent' (Imrie, 2000). This 'hegemony of the mobile body' (*Ibid*), is often manifested in discourses which emphasise speed, fluidity, and flow in the 'liquid city' (Castells 1996; Bauman, 2000) and which therefore fail to take into account, parallel experiences of slowness, collision, unpredictability, tension or pain.

The role of time and temporality emerges as fundamental in the construction and negotiation of independence. To date there has been little work on temporality in the context of disability and visual impairment in relation to explicit concerns with transport and mobility. Notable exceptions include Sawchuk's (2014) writing on temporality and impairment and Wong's (2018) work using a qualitative space-time approach to understanding visual impairment and urban mobility. A significant contribution of this paper is attending to this absence. In doing so, we move beyond dominant linear and singular understandings of time and temporality by engaging with a multiplicity of times, temporalities, speeds, and rhythms through close attention to 'experiential time' as opposed to 'clock time passing' (cf. Crang, 2001). Urban mobility challenges for people with VI in London, involve the negotiation of a sequence of different mobilities (eg. bus-train-tube-taxi-walking), each with its own spatiality, sociality, rhythms, affordances, and systems of governance. These mobilities necessitate certain knowledges, methods, practices, and 'styles'. The independent mobility of people with VI can therefore be understood as a 'delicate relational achievement', bound up in the complexity of how these multiple mobility systems are entangled and negotiated (Schillmeier, 2008: 217-218). However, as this paper will discuss, these systems are often informed by, and re-produce, a series of normative and ableist conceptions

¹ Transport for All, Royal Society for Blind Children (RSBC), Guide Dogs UK, Royal National Institute for Blind People (RNIB)

of mobility as representative of health, bodily competence, freedom, and independence (Imrie 2000).

Drawing on fieldwork carried out with young people with visual impairments in London², this paper explores how divergent meanings of independence are mediated in different ways through everyday mobility practices and temporalities. We draw upon work across the social sciences, including that by disability scholars (Geurts, 2002; Imrie, 1998; Roulstone, 2003), in responding to calls for a closer alignment between mobilities studies and critical disability studies (Goggin, 2016; Parent 2016). Our analysis develops Worth's (2012) work on VI young people's social strategies for independent mobility, by asking how VI young people are disabled by both physical and social infrastructures and what strategies or methods they adopt to navigate these barriers. In doing so, we provide in-depth critical understandings of the everyday mobility experiences of visually impaired young people to the existing work of RSBC, Wayfindr³, and Transport for London (TfL) in developing alternative methodological approaches to accessibility across transport networks. This engagement contributes to an 'alternative politics of mobility', through which the liberal moral conceptions of 'independent mobility' can be reassessed (Imrie, 2000: 1651).

The paper is organised into four parts. The first part explores the disciplinary histories and absences of disability, visual impairment and youth within the social sciences, namely the fields of geography and mobilities studies. We critically reflect upon our methodology in the second part of the paper; a self-directed video methodology using GoPro cameras, and go-alongs with participants across London transport. In the third section, we analyse data from videos, in-depth interviews, and fieldnotes in presenting the argument that notions of interdependence form a more appropriate framework for engaging with the complexities of the everyday mobilities of young people with VI. We argue that this focus is essential for informing how 'independent' mobility is conceptualised, allowing us to expand our understanding of accessibility to one that is networked, relational and social as well as physical and architectural. For as McRuer (2006) claims; 'an accessible society... is not simply one with ramps and braille signs on 'public' buildings, but one in which our ways of relating to, and depending on, each other have been reconfigured' (94). We finish by exploring how temporality is harnessed as a way of mediating between independence and interdependence, through the concept of temporal collisions. We stress the significance of the politics emerging from the interwoven, compromised, and negotiated speeds and rhythms of VI young people's engagement with interdependent mobilities.

2. Visual impairment, geography and mobility

Historically, disability, visual impairment and youth have been largely overlooked by geographers, urban theorists, and mobilities scholars who have assumed a mobile, 'unmarked', subject who is quite often male, adult and almost always non-disabled (Barker et al., 2009; Cresswell, 2006; Gleeson, 1996; Jensen, 2006). Over the last 25 years attempts have been made by social scientists to engage with experiences of disability in their research. These include the positivistic and medicalised approaches of Golledge (1993) and Park et al. (1998); and their critics, who called for more attention to the social model of disability within geographical research (Butler, 1998; Gleeson, 1996). Responding to Golledge's early work on

² The project was developed in dialogue with the Royal Society for Blind Children (RSBC), a London based charity supporting young people, under the age of 25, across London and the SE with visual impairments.

³ Wayfindr is a non-profit organization who aim to create a benchmark in standards for accessible digital wayfinding on mobile devices (<https://www.wayfindr.net>)

visual impairment, Gleeson argued that any geography 'of' or 'for' disability, must first and foremost be 'the result of a joint quest with disabled people for a phenomenology of experience of which they [disabled people] are the principle authors' (Gleeson, 1996: 394). This approach departs from the medicalised/'individual model' of disability (Oliver, 1990), instead placing an emphasis on accessibility, as defined by those who experience social oppression resulting from a lack of access; and the complex intersections between the socio-spatial and material factors of disability, such as housing, finance, employment, the built environment and family circumstances (Gleeson, 1996; Imrie, 1996; Oliver, 1990).

Whilst the social model makes an all important distinction between impairment and disability, some have criticised it for failing to interrogate the ways in which the category of impairment is also constructed through biomedical discourse and disciplinary knowledge/power regimes (Sawchuk, 2014; Tremain, 2002). For example, Corker (Corker and Thomas, 2002) draws upon her own experiences as a Deaf writer, researcher, and educator in highlighting how her Deafness is emphasised in a world of loud voices and discourses. She critiques the way in which the social model tends to homogenise disabled identities, without taking into account different experiences and dimensions of struggle amongst differently disabled people. Corker warns that the social model of disability taken to its logical conclusion, could result in the sidelining and erasure of less powerful voices within the disability movement, such as those with cognitive and sensory impairments.

The work of Rob Imrie has been central in the field of geography and disability, sitting at the intersection between the social model and more critical approaches. Imrie's work urges us to question binary notions of independence and dependence, able-bodied and disabled or mobile and immobile, opening a space to explore that which has been disavowed, in order for these concepts to hold meaning within hegemonic discourses of independent mobility and mobile bodies. He engages with the discursive, epistemological, and methodological undercurrents which inform structures of disablement; grounding these theoretical concerns in practical applications to issues of social justice and access (see Imrie, 2000, 1998; Edwards and Imrie, 2007; Bates et al., 2017). His work on shared space⁴ in collaboration with the Thomas Pocklington Trust⁵, exemplifies this through deconstructing the individualistic and visual biases which underlie these increasingly popular design initiatives/philosophies, and make them less safe and less accessible for pedestrians with visual impairments (Imrie, 2012). This reveals the lack of engagement amongst designers, planners, architects, and policy makers, with the needs of visually impaired road users; and thus demonstrates the vital role that social research can play in conversation with campaigns for rights and access.

With the exception of Imrie's work on shared space, VI mobility has been largely approached through the quantitative lens of transport studies that has tended to focus on singular aspects of mobility experiences such as public transport (Gallagher et al., 2011; Hine and Mitchell 2001) or driving (Wood 2002). These studies have usefully illuminated access issues associated with the built environment. However, the complex entanglement of different mobility systems, practices, technologies, affects, encounters, self-defined needs and affordances that form part of the everyday experiences of VI young people as they move through and around the city have received far less attention. A notable exception is the work of Nancy Worth (2013)

⁴ Shared space is an approach to urban design first developed by Hans Monderman. It aims to remove traffic regulations such as curbs, road surface markings, signs, and traffic lights to create a space in which different types of road user have to negotiate each other's mobilities using eye contact and body language.

⁵ The Thomas Pocklington Trust is a national charity which commissions social and public health research in order to inform policy on a local and national level to 'improve the lives of people with sight loss'.

who brings attention to the everyday experiences of young people with VI through focusing on the social strategies adopted for independent mobility. Worth's interest is in how certain spaces are negotiated and 'engaged with', as opposed to focusing on barriers and difficulties (2013: 574). Amongst the participants in Worth's study, strategies for engaging with the city as a social space included memorising routes, investigating wayfinding technology and developing a strong group of friends who understood participants' needs and positionalities. Worth identifies the role of negotiating public space and 'achieving "unremarkable" mobility' as important for young disabled people in their 'transition' to adulthood (2013: 574). Worth's analysis shows that embedded in the idea of autonomy is a strong reliance on social groups and friends to move around with, attend social activities with, and through whom to challenge parental authority (cf. Butler, 1998). However, in her analysis Worth discusses this evidence of interdependency amongst social groups as a 'downside' of VI strategies (2013: 579). We argue that this risks placing a moral value upon the ideal of 'independent mobility', rather than acknowledging its multifarious manifestations and relational qualities. In a related vein, Hall and Wilton (2017) make a compelling argument for a 'relational geography of disability'. In their critical review of work emerging from the 'relational turn' they draw upon both geographical and disability scholarship. In particular, they turn to non-representational theory (NRT) as an approach to consider 'relational becomings' with respect to 'how all bodies become dis/abled in and through their everyday geographies and how such becomings might be made otherwise' (729). Our research extends Worth's important work, whilst attending to these 'relational becomings', by exploring and deconstructing the meaning of 'independence' in the context of VI youth mobilities.

The scarcity of studies in the field of mobilities on disabled people's experiences of mobility is at the forefront of recent work examining concerns with the exclusionary politics of differential mobilities (Castrodale, 2018; Parent, 2016). In particular, Goggin (2016) uses the example of mobile phones to illustrate the importance of disability to understanding changing societies and social relations with digital technologies. As we discovered in our own research, the mobile phone and associated technologies are of great significance for the everyday mobilities of disabled people. Goggin begins by noting 'the nascent state of research' between disability and mobilities. As such, he sets about drawing together mobilities scholarship concerned with the politics of mobilities (cf. Cresswell, 2010 and Sheller, 2015) with work emerging from critical disability studies (cf. Corker, 1998; Garland-Thomson, 2003; Imrie, 2000; Parent, 2016). In doing so he argues 'for a rich, new wave of work at the interface of mobilities research and critical disability studies paradigms' (538). Our work responds to this call by contributing to the work of geographers, theorists, activists and mobilities scholars through attending to the ways in which notions of independence are lived, negotiated, and practiced. The disciplinary histories and debates outlined above, have informed our approach to working collaboratively with participants, who took us on journeys around the city, narrating moments, tensions and encounters from their everyday lives. At the same time, they have urged us to question and reflect on our practices and positionalities as sighted researchers, with our own shifting experiences of disability, care and assistance at different points through our life course⁶.

3. Methodological context

⁶ However, as Skeggs (2002) suggests, this can become a way of reinforcing power dynamics within research: 'The ability to be reflexive via the experiences of others is a privilege, a position of mobility and power, a mobilisation of cultural resources' (361). She calls for a move away from telling and confession towards a focus on practice and positionality throughout a research process.

The following research was carried out as part of a small-scale exploratory study investigating the underexplored intersection of youth, visual impairment, mobility, and public transport. The aims of the project were fairly open, becoming more defined through discussions with the Youth Forum and staff at the RSBC (previously RLSB). Our project was designed to complement the work of the Youth Forum through providing qualitative research into young VI people's everyday mobility experiences. Through this focus on everyday experience our aim was to feed into debates about how transport could be better organised and promoted for these groups in the future. Another of our methodological intentions was for the research to be participant led, opening up a space for the 'unexpected forms of expression and participation that take shape in children's [and young people's] actual picture making practices' (Kullman, 2012: 2), as well as responding to Gleeson's (1996) call for research by, and with, disabled people (see also Kitchin, 2000 and Parent, 2016). The participatory mobile methodology proposed involved the use of GoPro cameras, worn by participants on their everyday journeys, to document and record whatever felt significant to them (see Figure 1). The audio-visual material collated by our participants was then revisited in interviews, and used as a tool for eliciting discussion around the moments recorded. We also used go-along methods to accompany participants on some of their journeys, in order to familiarise them with the technology and offer any additional support. Through these go-alongs we gained a valuable experiential insight into participants' everyday journeys⁷. This assemblage of methods drew upon the audio/video diary approach used by Bates (2013), Porcelli et al. (2014), Parr (2007), and Worth (2013) in their respective studies of physical and mental health, and visual impairment (see also Luttrell, 2010; Kullman, 2012; Lomax, 2013; Macpherson, 2009; Haaken and O'Neil 2014, for examples of similar go-along methods used with young people, visually impaired adult leisure walkers, and asylum seekers).



⁷ The final pack (see Figure 1) given to each participant, included a GoPro camera (<https://gopro.com>), chest harness, cable to download footage, instruction manual, and laminated card which participants could show to transport staff or members of the public in case their presence with the camera aroused curiosity or suspicion. The card provided details of the project, researcher's contact details and a key point of contact at TfL. When each participant was met to handover the pack, we conducted an accompanied go-along to familiarise them with the equipment, answer questions and provide additional support. Participants were given the kit for varying lengths of time between two weeks and two months. After which we met for a follow-up interview in which we reviewed and discussed the footage.

Figure 1: Participant pack including GoPro camera, chest harness, cable to download footage, instruction manual, and laminated public information card

Our wish to draw upon a participant led or participatory approach emerged from a desire to challenge existing power relations in mobilities research with VI young people (Parent, 2016) and thus to develop further critical engagement with mobile methods (cf. Merriman, 2014; Letherby et al., 2010). The ways in which participants harnessed and re-oriented the research tools to incorporate them into their own methods for navigating urban life, provides an example of this shifting power relation. Our methods became their methods and vice versa; situating the research as a site of methodological exchange. However, as the fieldwork unfolded we also came to realise that the intention for the research to be participant led assumes an independently mobile subject, able to navigate and steer through the complex physical and conceptual research terrain unaided. As we came to doubt conventional understandings of independence, the possibility of research being wholly participant, or even researcher led also came into question. Instead we became aware of how participants worked collaboratively with us to co-produce videos, journeys, and interviews. They would call on us for assistance to get around, for feedback, and guidance on the videos they made, and for help with the technology that was not as accessible for some participants as we had hoped it would be. As part of this interdependent methodological exchange, time was also shared and exchanged in unexpected ways. A research project that was initially meant to take one year, went on for three. Time slowed down and sped up depending on what was going on in our lives⁸, travel delays, times of day, and temporal collisions (discussed in Section V).

With regards to the use of cameras as research tools, Kullman (2012) stresses how moving with a camera for the purposes of research, already diverges from an ordinary everyday practice for young people. For example, some of our participants found the idea of 'everyday mobilities' a challenging one, because they did not feel they had everyday journeys or fixed routines with some not leaving the house for a few weeks. The GoPro's therefore elicited journeys, and what could be positioned as a performance of the everyday, or what Jackson refers to as an 'idealised space' (1996: 737). Kullman (2012) draws attention to the 'picture-making practices' of participants including: the performance of mobility for the camera, the sharing of cameras and perspectives within groups of young people, and the consumption of images during and after fieldwork (5). This ongoing process he says is emblematic of 'the careful adaptation work between bodies and cameras' (ibid, 6). It is important therefore to bear in mind whilst reading our findings, that many of the moments, encounters, collisions may or may not have been performed in response to the presence of the camera. This points to the ways in which mobilities and encounters are often performed in relation to different bodies, technologies, devices, and temporalities. During interviews when we would review the footage collected by participants, the difficulty in interpreting the data (videos that were upside down and impossible to flip, poor sound quality, slow uploading time) all placed constraints on the interviews in different ways. Data handling was also a challenge with such large video files. Due to the amount of time involved, we found it impossible to go through all the footage with each participant. This issue informed our decision to host three subsequent film-making workshops where participants worked with researchers and a film-maker to co-produce six short films currently hosted on a dedicated project website (<https://www.vi-mobilities.co.uk>) and

⁸ As with much research, the project ran alongside multiple other pressures and tensions in both researcher's and participant's lives in which we have supported and assisted each other (eg. job and funding applications; caring responsibilities; conducting fieldwork; writing together; and film making).

screened at an accessible film screening⁹ at the Rio Cinema in Dalston, London in October 2018. We consider this to be an important project development, in not only disseminating the project findings to a wider audience but also respecting the labour of participants, who took part in the research and gave their time and energy to gather, compile, and produce this powerful range of films. We worked with eight participants who were all recruited through their links with RSBC. Six people conducted video go-along's followed by in-depth interviews, with four continuing to be part of the film making workshops.

4. Independent/interdependent mobility

Our project began with three group discussions at RSBC headquarters in Victoria, during which we talked about the accessibility of the research methods, the Youth Manifesto, and one of the manifesto's key topics: independent mobility. Participants initially discussed their own levels of independence, mostly describing themselves as highly independent and confident in spaces they were familiar with, or not independent at all in unfamiliar locations, or where they encountered various barriers or 'obstacles' (discussed below). Through peer group discussions independence emerged as an important and valued term; signifying maturity/adulthood, upbringing, freedom, one's 'achievements'/potential, and the ability to be as active and social as one's peers. It was also highly contested with one participant describing independence as appearing to be sighted/non-disabled yet moving on to explain how the more independent you looked the harder it becomes to get assistance.

At the same time as wanting to appear to be independent, participants also found it important to highlight the different barriers they face on a day-to-day basis and which prevent them from achieving full independence. These barriers included: the presence of street furniture and clutter, pavement design, parking on pavements, cab fares, different bus systems, complex junctions, traffic, crowds of people moving at unpredictable or threatening speeds, lack of awareness amongst the public about the white cane and guide dogs, levels of familiarity with an area, the speeds and rhythms of bus and train doors, poor transport assistance and support, amongst many other things. As well as being something which participants oriented towards and seemed to desire, some participants' accounts revealed an uncertainty and ambivalence towards the notion of independence. As a group it seemed important for participants to describe their independence as being the same or equal to that of their friends and peers, perhaps due to independence as signifying an 'achievement' and hence holding with it a sense of status amongst young people who are in the transition to adulthood (Worth 2013).

Quite often knowledge and familiarity of an area was gained through the ability to mobilise assistance either from the public, from trained sighted guides or from transport staff, and/or to harness relevant navigation apps. Interactions and exchanges with people and technology are deeply woven into participants' combined definitions of what it means to be independent and 'know' an area. Embedded in the term independence is therefore a complex and polysemic narrative of social interactions, networks, and relations alongside notions of autonomy and

⁹ An accessible film screening includes wheelchair access and space (lifts, ramps, floor space, accessible toilet etc); audio description; subtitles; relaxed screening (not too dark, audience allowed to make noise/move/walk around if they need to); warnings about flashing lights/startling sounds; British Sign Language (BSL) interpreters for introductions / Q and A; assistance available; accessible website for online advertising/marketing of event; affordably priced/free.

separateness. When asked to define what independence meant to them in 1-1 interview discussions, many participants reflected this complexity in their responses. This included: on the one hand travelling alone, without help or assistance; as well as, on the other hand, the acknowledgement that asking for or accepting assistance was a fundamental part of independent mobility. These semantic tensions point towards a broader discursive collision between hegemonic liberal notions of independent mobility (as separate and autonomous movement) and participants' reconciliation of this with their own everyday embodied experiences of navigating the city as young visually impaired people.

James is 21 and has been blind since birth. At the time of the research he had just started using a recently trained guide dog called Honey. The following interview extract demonstrates how different meanings of independence cohabit and collide with one another:

Researcher: *If I said the word 'independent', the term 'independent mobility', what does that mean to you?*

James: *Independent to me just basically means you can get around yourself, on your own. And I think it also kind of goes a little bit hand in hand with you've got the confidence to turn around and say, right, I'm gonna go here, I'm gonna go there, I'm gonna go to Victoria today, um, and basically do this and this and this and this... Whether you need assistance or not, it's entirely up to you.*

James begins by equating being independent with the physical act of movement ('*you can get around yourself, on your own*'). However, he further develops his position as he highlights how independence also relates to '*confidence*'. How this form of independence is claimed as experienced is evidenced through an imagined journey achieved through drawing upon the particularities of James' local knowledge ('*I'm gonna go here, I'm gonna go there, I'm gonna go to Victoria today...*'). However, the discursive orientation shifts again in the way he positions independence as also being intertwined with assistance. Although James quickly moves to distance himself from such forms of independence in his claims that '*some of the times I don't bother*'. This extract demonstrates the shifting and multiple meanings of independence and the varied ways it is harnessed and performed. The tensions and contestations emerging from these divergent mobilisations of independence, signal to its discursive power, and significance amongst the group of young people with whom we worked. Throughout the interview James positioned himself as highly independent and knowledgeable about London transport networks. In the below extract he explains how his guide dog Honey assists him in moving around '*obstacles*':

James: *I mean, like, when you're using a cane, I mean, you're manually doing obstacles yourselves. Do you know what I mean? You've got to, you've got to avoid them. With a cane, it's like table, chair, coat, everything, you know. You've got to be careful not to bash into somewhere else. Another table. Do you know what I mean? Um, Honey takes you around all that kind of stuff.*

James starts with an illustrative description of the potential collisions you encounter when using a cane. He places the emphasis of his account on the active accomplishment of avoiding various obstacles ("*you're manually doing obstacles yourselves*") and the significance of the assemblage between his body, the cane, Honey and different objects. James' high level of independence is thus achieved interdependently through, and with, his guide dog.

Ali is 27 years old and has a small degree of peripheral vision. He is able to see some very close up images but his sight is still very limited. Ali gets around interdependently through using navigation apps and technology, travel assistance, and assistance from the public or family members. In the below interview extract, Ali reflects upon the notion of independence:

'I think, what it is, is, because of the need for a visually impaired person to rely on, either people for assistance, because we all need assistance with some things. We can't be completely independent.'

Ali clearly acknowledges the 'need' of assistance for VI people in their everyday lives. However, in doing so he questions the idea of independence, suggesting that assistance is something we all need. In our discussions with all participants', the interdependent relationships with people, animals, spaces, objects, rhythms and technologies were figured as part of what it means to have/do or be moving towards independent mobility. Interdependent practices were also linked to knowledge/epistemologies (of an area, of oneself) and meaning making (Imrie and Street, 2014; Pink, 2009). Porter et al. (2014) have argued that the dominant discourse of independence when attached to the field of disability policy and practice 'belies the reality and necessity of interdependence'¹⁰. This position is also reflected by Hall and Wilton (2017) as they highlight the problematic nature of disability politics insisting on independence as 'it fails to acknowledge that all persons (both disabled and non-disabled) depend to a greater or lesser extent on human and non-human others for their capacity to act' (739). Whilst interdependence is rarely recognised at a policy level, our research shows how participants collectively and individually are doing the work of incorporating their interdependent experiences into wider discourses on independence, thus redefining, and re-purposing/re-orienting the word (cf. Slater, 2013 cited in Goodley et al. 2014: 349) as part of their mobile methods/practices. However, more is at stake than the multiple discourses around independence and interdependence and the ways in which these are mobilised. Further sense can be made from participants' accounts through a consideration of how the interdependent mobilities of VI young people are mediated through multiple temporalities. In what follows, we discuss how participants' everyday practices harness time as a method for mediating different meanings of interdependent mobility.

5. The temporal politics and mobility inequalities of VI

As Simmel documents in his influential writing on 'the Metropolis and Mental Life' (1903/1971), the standardization of time through the mass-circulation of the pocket watch gave rise to the emergence of metropolitan values such as timing and punctuality, alongside the growing assertion of individualism and independence through 'the blasé attitude'. This points to the way in which mobility, transport systems, networks, technologies, and objects are all key agents in the production of time, space, and subjectivity. However, due to the spatial privileging of sighted, non-disabled, 'productive bodies' (Imrie, 2000: 1644) within transport planning and society at large, this has produced spatial and temporal regimes that frequently create barriers to young VI people's mobility. Within the field of transport and mobilities, the most prominent engagements with time emerge in relation to work on travel time and how, contrary to much policy thinking, travel time is not always dead time that people seek to minimise (Hannam et al., 2006; Jain and Lyons, 2008). More culturally informed work on spatio-temporal mobile experiences can be seen in work on the everyday rhythms of mobilities, particularly around pedestrian practices (Middleton, 2009; Wunderlich, 2008). In Wong's (2018) work on the

¹⁰ www.walkinginterconnections.com

everyday mobilities of individuals with VI in the San Francisco Bay area, she highlights that while social geographers have sought to understand the experience of VI in relation to space and place, the 'temporal dimension' has frequently been overlooked. Wong makes an important contribution in attending to this absence through adopting Hägerstrand's space-time constraints in a qualitative analysis of individuals' everyday mobility experiences. However, there is a notable absence of well-established critiques of time-geography including feminist work questioning the assumptions that time is a resource we all have equal access to (cf. Davies, 2001) and concerns emerging from cultural geography that time is not something that is necessarily self-evident or measurable (cf. Crang 2001; Latham, 2003). Furthermore, time is referred to throughout the paper in the singular or as a 'temporal dimension' (86). We argue that this singularity overlooks the multiplicity of time in relation to timings, tempos, temporalities, and rhythms which in turn serves to neglect 'experiential time' (Crang, 2001). Here we not only contribute to addressing the scant attention that temporality has received in work on VI mobility but demonstrate the significance of 'experiential time' to understanding the everyday mobilities of VI young people.

5.1 Time of life/time of day

At the time of the research, most of our participants were at a transition point in their lives, and many were actively seeking employment, training opportunities or support to help them navigate the world of work. Often the journeys that participants chose to share with us were connected to this pursuit in some way and included dropping off CVs, or travelling towards meetings, college, or training sessions¹¹. Some participants found inventive ways of harnessing the research process as a means to get closer to their various goals, approaching it as an opportunity to learn about a new piece of technology, develop skills, experience, or a personal project, or get assistance/advice from us to get somewhere they needed to be. Through going along on these journeys, we became interested in how these transitional times of life, were interwoven with the temporalities of everyday travel and interdependence. These concerns began to unravel on a go-along with Salih in central London described in the below researcher field diary extract. Salih was 21 at the time of the research, and describes himself as having been 'B3'¹² since birth. He hoped to use the video methodology to raise awareness about partially-sightedness which he felt was often misrecognised by transport staff.

'As we walked towards a café where we planned to sit and discuss the video methodology, and how Salih might wish to use it, we passed under a brick archway causing the light and atmosphere around us to change. At that moment, Salih's body froze and his grip on my elbow tightened, so that I also paused in motion for a moment too, slightly taken aback by our sudden change in pace.'
(extract from researcher's field diary)

In the below interview extract, Salih explains how his partially sightedness and night blindness is affected by light, and how his capacity to see the world around him changes dramatically depending on the time of day and the seasons:

¹¹ Though these journeys did not always pan out as intended, sometimes resulting in feelings of disappointment, rejection, anxiety or 'wasted time'.

¹² B3 is a medical based [Paralympic classification](#) for [blind](#) sport. Competitors in this classification have partial sight, with [visual acuity](#) from 2/60 to 6/60.

Salih: *Because I'm not really working at the moment, because there's no time limit for me, I can just work from whenever I want, and in the winter that's actually a problem for me. See what I mean?*

Researcher: *Yeah*

Salih: *Like if I wake up at like two or three, how am I going to go out, it's going to get darker isn't it. But if you work, or like get into like doing stuff, you have to time yourself, you have to wake up early or stuff, you see what I mean....Because I can't see anything in the dark, it goes pitch black. For example, even now, I can't actually, like midway I can see your face, because it's dark in here. My eyes have gone blurry already, that's what I was saying. So it's all about the light.*

For Salih, the way in which his visual impairment manifests itself has become entwined with his time of life and the fact that, as he is not currently employed and has fewer time constraints, he finds it hard to get out and about to make use of the daylight in order to 'do stuff'. This affects his mood and his sense of independence. Like other participants, Salih requires assistance in navigating spaces that are unfamiliar to him, and enjoys the interactions and conversations he has with people who assist him. Reflecting again on his time of life, he notes how making connections with people in this way could 'open up doors', creating informal networks and leading to possible opportunities. However, for some participants, their time of life and transition towards 'independence' was felt through the foreclosure of vital resources and support networks. For example, in the below extract James reflects upon this transition:

'Now to find out, hold on (a) second, you're on your own now. So, I mean, it hasn't thrown me, but now it's like I've got all this time on my hands, I'm not exactly sure what to do with it. Do you know what I mean?' (James)

For James, he positions this time of life and being 'on your own' in relation to having more time available to him. In our discussions with him he explained how having this time meant he was able to travel and explore. Like James, Ali had recently discovered that he was no longer eligible to receive support from the youth group he had been attending. Though motivated to find work and be 'independent', he was beginning to face difficulties in accessing employment (due to discriminatory attitudes, cuts to Access to Work, few entry level opportunities etc.) and expressed through our discussions some feelings of displacement at being denied access to his youth support network. 'Independence', as a feature of adulthood, emerges as something which is desired and needed in order to navigate what Ali described as 'the outside world', as well as being something which potentially signifies separateness and being 'on your own'. For Ali, this was felt in terms of an increasing pressure on his time and activities, causing him a great deal of anxiety. In the below extract, he describes being pressurised and rushed both in the context of his family/home life and in his everyday mobility around the city:

'Not being able to do things in a relaxed manner at their own pace. Because if people are, if, if people are being rushed and pressured against their will, which is not natural for some blind people who prefer to be, you know, to take more care and to, you know, take their time and doing it at their own pace because as I explained last time, we have our own method, our own different ways and different methods of doing things but we take longer and being rushed and

pressured is, isn't, is not healthy. So, you know, you, you feel tense as well as anxious.'

Ali's account is orientated towards what it is to feel '*tense*'. He accomplishes this through situating his account in relation to concerns with temporality ('*own pace*', '*rushed*', '*take their time*', '*own pace*', '*take longer*',). Yet there is more at stake in Ali's account than temporal descriptors of feelings of '*tension*'. He demonstrates how the '*pressures*' associated with his time of life and concerns about '*growing up*', play out through the everyday temporal experience of being rushed against his will. This is expressed as a pressure/force which pushes him to abandon his methods and ways of doing things (which require '*care*' and '*time*'), in order to adopt the pace and temporality of others. This results in feelings of '*anxiety*' and '*tension*' showing how temporality (of life, movement, speed and travel) and the pressure to move and exhibit independence are deeply woven into a complex emotional and affective landscape, which are part of Ali's experience of disablement. Reporting on the experiences of becoming mobile for a group of young wheelchair users, Pyer and Tucker (2014) use the term 'transport anxiety' to conceptualise the emotional work of becoming mobile and accessing places and services. However, what our research demonstrates, through accounts such as Ali's, is that the anxiety associated with independent mobility extends far further than concerns solely with transport. It is therefore important independent mobility is conceptualised in such a way that takes account of transport and accessibility within the broader context of the temporal dimensions of people's everyday lives. In what follows we further extend our concern with time through a focus on temporal collisions.

5.2 Temporal collisions

The issue of collisions with other people or objects emerged as a prominent theme throughout the research both in terms of the video footage content and subsequent interviews. These concerns have long been engaged with in disability and medical literature on visual impairment particularly in relation to concerns with wayfinding (see for example, Golledge et al., 1996; Koutsoklenis and Papadopoulos, 2011; Manduchi and Kurnaiwan, 2011). A dominant discourse that feeds through much of medical literature relates to improving 'performance', through avoiding potential collisions, and increasing the 'efficiency' of walking speeds for visually impaired people (see for example, Clark-Carter et al., 1985). In other words, the overarching aim of such research is to seek ways in which walking speeds can be reached that match those of a non-disabled/sighted pedestrian. This is also reflected in the development of activities by organisations such as Wayfindr; a non-profit organisation aiming to create a benchmark in standards for accessible digital navigation. However, whilst there is certainly much value in this work, it can be argued that there is an underpinning neo-liberal demand that VI people are assimilated into the capitalist flows, rhythms, and ideologies of urban space. Whilst there is now a well-established critique of such medicalised/neo-liberal approaches to disability, our research highlights how collisions are not necessarily material, dangerous or something to be avoided. In this section we focus on the notion of 'temporal collisions' as a means of examining how collisions are both experienced and harnessed by visually impaired young people in a multitude of different ways. Whilst collisions can of course be understood as material or social and relational forms of encounter, the significance of what follows is how temporality/ies mediates these 'relational becomings' (Hall and Wilton, 2017).

One piece of Ali's video footage¹³ (see Figure 2), which he chose to share with us, shows him walking from a train platform to the station. In the station he suddenly stops when eight or nine people run in front of him, perhaps rushing to catch another connection. The pounding of their footsteps and the speed at which they appear and disappear again, communicate a kind of blasé indifference (cf. Simmel, 1903/1971) to the participant's presence, causing his body to freeze and retreat. A bystander interjects and encourages him to go on ahead once they have passed, to which Ali responds: *'I just don't want to bump into any people because they're rushing you see'*. The bystander then walks with him up the steps muttering: *'no, I know it's awful, it's frightening, are you ok though?'*. He talks to her about the *'nightmare'* of crowds for a visually impaired person whilst she assists him in picking up his route, and pointing him towards the shopping centre where he is heading. This example exemplifies different types of collision. Firstly there is the temporal collision between the rushing crowd, and Ali's more cautious and careful pace and mobility through the station. This temporal collision becomes a barrier for Ali, almost like an invisible wall that causes his body to freeze in order to avoid a physical collision with other bodies. This moment echoes the walk with Salih, in which his body suddenly paused in motion as a result of the change in light and the built environment. However, the video extract also shows another 'temporal collision' in which a member of the public reaches out to offer assistance, solidarity, and to support him in continuing on his journey. Throughout the many hours of footage collected by participants there are countless examples of members of the public stepping forward from the crowd, to offer assistance, or conversation demonstrating moments of human connection, interaction and support which we think are significant. Stories and small talk get exchanged, and participants are able to navigate their journeys interdependently with this assistance. Several participants wanted to use the video methodology not only to demonstrate the barriers they face but also the ways in which they are helped and assisted by members of the public. In many ways receiving this assistance seemed to form part of the relational achievement of independence showing how practices of independence are threaded through with interdependent exchanges.

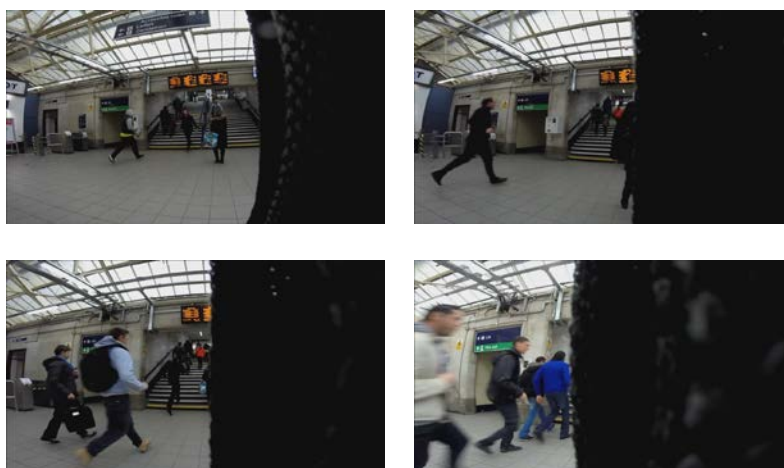


Figure 2: Stills from Ali's video footage. Also part of 'In(ter)dependence' short film (see: <https://www.vi-mobilities.co.uk>)

In contrast with Ali's account, many participants talked about their own need to rush (despite often meticulously planning their journeys in advance), and the frustrating experience of being

¹³ This was also edited into a 7 minute short film entitled 'In(ter)dependence' during our participatory film workshops. All films can be found at: <https://www.vi-mobilities.co.uk>

held up or slowed down by poor assistance, or complex transport infrastructures. For example, James describes needing to get to a professional meeting and being delayed:

'I haven't got time to sit around faffing about. I've got somewhere I need to be. Why are you like, why are they, you know, thinking that I don't exist? Do you know what I mean?'

James' account describes how he can get agitated when he is in a rush because the assistance systems at train stations do not always allow for VI people to be in a rush¹⁴. Sophie, whose local station had been experiencing severe staff cut backs at the time of the research, also shared with us her frustration at being made to wait for long periods due to lack of assistance, and the uncertainty associated with this: *'hmm, what's it going to be like today? Are we going to have an assistant or am I going to have to wait twenty minutes to get anywhere?'* In the below extract, Katerina who is in her mid-twenties and lives in south London, also reflects upon the temporal experiences of being in a rush:

Katerina: *I was rushing to meet my partner because I had to meet him at Charing Cross. Um, and I had to kind – that was kind of mad really because I decided that and I jumped – like I ran off to, you know, er, to – to get the train and it was just so crazy. And then like I met like a woman that was pregnant running around the place with me to try and find the train to go to Charing Cross. It was just crazy. Yeah, I think that was the most important one.*

Researcher: *Okay. Yeah, that's interesting as well. Like do you think it was because you were rushing that it was particularly crazy or – what does it mean for you to sort of be rush – in a rush?*

Katerina: *No, I just wanted to make sure because basically, um, I wanted to make sure that I could see him before he had to catch him – his train. So it was all kind of crazy. And you know, I never went to Charing Cross on my own before, but I still decided to do it. So it was kind of crazy. And then you know, I managed to see him and things worked out. But yeah, I felt sorry for the woman though because she was like seven months pregnant and I made her walk around the, you know, tube and she was like walking as fast as she could. And you know, in the end she told me that she was pregnant, I felt really bad.*

Researcher: *Oh. Um, did you have a nice interaction though or was it a bit difficult?*

Katerina: *No, it was good. It was good and she actually let me feel her belly to feel the baby and stuff.*

Researcher: *Ah. Um, and I guess because you're smiling is you remember it and it all worked out and you got to see your boyfriend.*

Katerina: *Yeah.*

A sense of the rushed and stressed nature of Katerina's journey to meet her boyfriend emerges very clearly in her account. The frenetic pace of her experience is emphasised through

¹⁴ This is also exemplified by the 'In(ter)dependence' film on the project website (<https://www.vi-mobilities.co.uk>)

mentioning, on six separate occasions, how 'crazy' or 'mad' the journey was. However, the pleasant interaction and positive outcome of this encounter/'temporal collision' demonstrates how participants and assistants or members of the public are able to, on occasion share and exchange their speeds, temporalities and mobilities, holding on tight to one another, exchanging stories, perspectives, and moments in their lives, which become memorable. For as Latour (2005) contends: "time is not in itself a primary phenomenon. Time passes or *not* depending on the *alignment* of other entities" (178). In some ways the GoPro added another layer to Katerina's memorable moments, generating an affective and multi-sensory archive, through which moments could be shared and communicated with others. In other instances, the GoPros created stress and posed another barrier to mobility and access demonstrating a further temporal collision between the research methods and participants. For example, in interviews and video footage collected by Sophie, the 'fear' and 'panic' at getting lost, or left on one's own came up again and again, and in the below extract was exacerbated by the demands of the camera:

Sophie: *Because obviously we got a little bit lost in that one, trying to find our way around. That for me is a fear, I hate getting lost, I freeze up, I panic, I get upset, I can't – if I'm with friends and they've got like a logical head on their shoulders I can do it, two heads are better than one. But if I'm on my own and there's no one around to help me, I can't stay logical. I just freeze, I can't deal with it.*

Researcher: *Thinking about the methodology as well and the camera, did that feeling of panicking and freezing with just trying to use this GoPro camera, did that feel – was there any parallel between that and getting lost?*

Sophie: *It kind of adds a lot more stress to it, because you've got to think, have I turned it on correctly, has it made the right amount of beeps, have I got it on myself? For me personally it adds another level of – not in another way, but another level of stress to the journey in effect.*

For Sophie, the experience of being alone is almost synonymous with being lost, or feeling anxious, and stressed. The powerful affects of fear and terror that she describes here are also linked to a bodily sense of 'freezing up', bringing to mind previous embodied reactions to accessibility barriers from Ali and Salih. Furthermore, Sophie's struggles and frustrations in coming into contact with the GoPro demonstrate the need for care in the use of this technology as methodological tool for future iterations of this research with young VI people. This collision of temporalities effectively slowed Sophie down in her daily mobilities, revealing that the design of the GoPro's is not accessible for some visually impaired people. Despite our best attempts to support her with the camera and reassure her that she did not have to use it at all, the presence of the GoPros still brought her stress. This was an unanticipated limitation of the research design which we deeply regret. It is worth noting that several other participants' used the GoPro as a method for sparking up conversations with others. As such, the GoPro mediated these encounters leading to what Moser and Law (1999) refer to as 'good passages'. The encounters or 'collisions' we have described here where strangers stop, change direction, offer their seats, and give time to each other are temporal in that they bring together different people's temporalities, and times of life at different times of day. Our conclusion turns to the politics of these 'collisions'.

6. Conclusion

This paper has challenged the normative and moral assumptions associated with the 'independent mobility' of visually impaired young people and in doing so responded to calls for a closer alignment between mobilities and critical disability studies (Goggin, 2016; Parent 2016). Through the analysis of in-depth interview and video data on the everyday mobilities of young people with VI, we have demonstrated the complexity emerging from notions of independent mobility: something which is desired and aspired to as well as representing an impossible and potentially unattainable/hostile state of separateness. Through its temporal dimensions, independence embodies a source of anxiety and pressure as well as constituting a key part of young people's identities and peer group statuses. Whilst this is probably the case for lots of young people, for those with visual impairments, it becomes entangled with other concepts of compulsory able-bodiedness, accessibility, and access to resources. The meaning of independence is under construction being constantly mediated and resignified amongst the group of young people with whom we worked.

Drawing upon the work on disability of those such as Porter et al. (2014) we have argued that notions of interdependence, rather than independence, form an appropriate framework for engaging with the complexities of the everyday mobilities of young people with VI. Our analysis has shown how interdependence is a mobile method/tactic of VI young people. We agree with Butler (2012) that there needs to be more in-depth research with policy makers and service providers as well as with non-disabled transport users and members of the public in relation to their experiences of offering and giving assistance. Interdependence also emerged in relation to the methodological approach; between researchers, participants, and research tools. This highlights how in considering the interdependency of relations between participants and researchers, we must be attentive to the networks of technologies and research tools that mediate, interrupt, and shift research relations. This raises a series of issues relating to how charities and transport policy makers can be encouraged to recognise the role of interdependency so that service provision and the support offered is responsive to these needs and practices. Rather than these discourses and affective experiences intractably colliding with each other, the focus should be on how they can be integrated, and go-along with one another. Despite the technical difficulties experienced by some, although not all, of our participants, elements of this methodological approach could be harnessed as a tool for raising awareness and understanding amongst policy makers. For example, the films have been incredibly well received by TfL who are currently considering, at the time of writing, how they might be incorporated into staff training programmes.

Considering the everyday temporalities emerging from the mobilities of VI young people assists in the development of alternative engagements with the contested term of independence. From a consideration of temporality emerge issues of constraint, tensions, and an ethics of time (Simmel, 1903/1971) that add further complexity to the everyday relations and practices of interdependent mobilities. Collisions were used to punctuate much of the discussion of people's everyday mobility experiences. However, the heterogeneity of the use of the term suggests that to collide with people, objects, temporalities, light, sound, crowds, etc. signifies different things in different moments. The video and interview data illustrates that these collisions were sometimes useful in allowing participants to orient themselves, navigate complex terrains and obtain or elicit assistance from others. The temporal dimension of collisions emerged as particularly significant with VI young people not wanting to be rushed, pressured or left waiting around as well as non-disabled transport users rushing from a to b and not wanting to be slowed down, interrupted or collided with. When people engage in interdependent mobilities their speeds and rhythms become interwoven, compromised, and negotiated from which emerges a distinct politics. For example, several participants drew

particular attention to the speedy and premature opening and closing of bus and train doors, which posed a barrier to them. This example highlights how disability can be frequently positioned in opposition to the moral values associated with the neo-liberal temporality of the city. Whilst at the same time, it also resonates with Kafer's (2013) notion of 'crip time' as 'being not only an accommodation to those who need 'more' time but also, and perhaps especially, a challenge to normative and normalizing expectations of pace and scheduling' (27). Furthermore, much of the video footage that was shared with us showed how the speeds and rhythms of crowds pose yet another temporal barrier to young VI peoples' everyday mobilities. According to some participants a lack of awareness or inattentiveness of people around them resulted in the collision of different temporalities (Crang, 2001) in a way which was disabling. This caused young people to slow down, stop, wait or arrive late for appointments, including on occasion those with us. The shifting and contested temporalities of the research process therefore came into being through interdependent relations between researchers, participants, and wider networks of people, infrastructures and technologies. In taking this agenda forward we call for future research to take greater account of the politics of discourses around independent mobility and how they intersect with disability and visual impairment. This is something that needs to be addressed on an ideological level if wider understandings and practices surrounding independent and interdependent mobility are to shift.

References

- Barker, J., Kraftl, P., Horton, J. and Tucker, F. (2009) 'The road less travelled? New directions in children's and young people's mobility', *Mobilities*, Vol. 4, pp. 1–10
- Bauman, Z. (2000) *Liquid Modernity*, Cambridge: Polity
- Bates, C. (2013) 'Video diaries: audio-visual research methods and the elusive body', *Visual studies*, Vol. 28, No. 1, pp. 29–37
- Bates, C., Imrie, R. and Kullman, K. (2017) (Eds) *Care and Design: Bodies, Buildings, Cities*, Chichester: Wiley
- Butler, R. (2012) 'Bodies, Buses and Bureaucracy: Reflections on common interests in disability rights and service provision', seminar given at the *Transport Studies Unit Seminar Series*, Oxford, UK, March 14
- Butler, R. (1998) 'Rehabilitating the images of disabled youths' in T. Skelton and G. Valentine (Eds) *Cool Places: Geographies of Youth Cultures*, pp. 83–100. London: Routledge
- Castells, M. (1996) *The Rise of the Network Society, The Information Age: Economy, Society and Culture*, Vol. I, Oxford: Blackwell
- Corker, M. (1998) *Deaf and Disabled, or Deafness Disabled?* Milton Keynes: Open University Press
- Crang, M. (2001) 'Rhythms of the city: temporalised space and motion' in J. May and N. Thrift (eds) *Timespace: geographies of temporality*, London: Routledge, pp. 187 - 207
- Cresswell, T. (2006) *On the move*, London: Routledge
- Cresswell, T. (2010) 'Towards a politics of mobility', *Environment and planning D: society and space*, Vol. 28, No. 1, pp. 17–31
- Daems, A. and Nijs, G. (2012) 'And what if the Tangible were not, and vice versa? On boundary works in everyday mobility experience of people moving into old age: For Daisy (1909–2011)', *Space and Culture*, Vol. 15, No. 3, pp.186–197
- Eltis (2014) *Warsaw wins funding to improve mobility for visually impaired* [online] [accessed 29 June 2018]. Available from: <http://www.eltis.org/discover/news/warsaw-wins-funding-improve-mobility-visually-impaired-poland>
- Gallagher, B. A., Hart, P. M., O'Brien, C., Stevenson, M. R., and Jackson, A. J. (2011) 'Mobility and access to transport issues as experienced by people with vision impairment living in urban and rural Ireland', *Disability and rehabilitation*, Vol. 33, No. 12, pp. 979–988
- Garland-Thomson, R. (2003) 'Integrating Disability, Transforming Feminist Theory', *NSWA Journal*, Vol. 14, No. 3, pp. 1 - 32
- Gleeson, B. J. (1996) 'A Geography for Disabled People', *Transactions of the Institute of British Geographers*, Vol. 21, No. 2, pp. 387 – 396
- Goggin, G. (2016) 'Disability and mobilities: evening up social futures', *Mobilities*, Vol. 11, No. 4, pp. 533 - 541
- Golledge, R. D. (1993) 'Geography and the Disabled: a survey with special reference to vision impaired and blind populations', *Transactions of the Institute of British Geographers*, Vol. 18, No. 1, pp. 63 – 85
- Golledge, R. G., Klatzky, R. L. and Loomis, J. M. (1996) 'Cognitive mapping and wayfinding by adults without vision.' *The construction of cognitive maps*, Dordrecht: Springer, pp. 215–246
- Goodley, D., Lawthom, R., Runswick Cole, K., (2014) 'Posthuman disability studies', *Subjectivity*, Vol. 7, No. 4, pp. 342 - 361
- Haaken, J. and O'Neill, M. (2014) 'Moving images: Psychoanalytically informed visual methods in documenting the lives of women migrants and asylum seekers', *Journal of Health Psychology*, Vol. 19, No. 1, pp. 79 – 89
- Hall, E. and Wilton, R. (2017) 'Towards a relational geography of disability', *Progress in Human Geography*, Vol. 41, No. 6, pp. 727–744

- Hannam, K., Sheller, M. and Urry, J. (2006) Editorial: Mobilities, Immobilities and Moorings, *Mobilities*, Vol. 1, No. 1, pp. 1 – 22
- Hine, J. and Mitchell, F. (2001) 'Better for everyone? Travel experiences and transport exclusion', *Urban studies*, Vol. 38, Vol. 2, pp. 319-332
- Imrie, R. and Street, E. (2014) 'Autonomy and the socialisation of architects', *The Journal of Architecture*, Vol. 19, No. 5, pp. 723 – 729
- Imrie, R. and Edwards, C. (2007) 'The geographies of disability: Reflections on the development of a sub-discipline', *Geography Compass*, Vol. 5, No. 1, pp. 623 – 640
- Imrie, R. (2012) 'Auto-disabilities: The case of shared space environments', *Environment and Planning A*, Vol. 44, No. 9, pp. 2260-2277.
- Imrie, R. (2000) 'Disability and Discourses of Mobility', *Environment and Planning A*, Vol. 32, No. 9, pp. 1641 - 1656
- Imrie, R. (1998) 'Oppression, Disability and Access in the Built Environment' in T. Shakespeare (Ed) *The Disability Reader: Social Science perspectives*. London and New York: Continuum, pp. 129 – 146
- Imrie, R. (1996) *Disability and the city: International perspectives*, London: Sage
- Jackson, M. (Ed)(1996) *Things as they are: New directions on phenomenological anthropology*. Bloomington: Indiana University Press
- Jain, J. and Lyons, G. (2008) 'The gift of travel time', *Journal of transport geography*, Vol. 16, No. 2, pp. 81-89
- Jensen, O. B. (2006) 'Facework', flow and the city: Simmel, Goffman, and mobility in the contemporary city', *Mobilities*, Vol. 1, No. 2, pp. 143-165
- Kafer, A. (2013) *Feminist, Queer, Crip*, Bloomington: Indiana University Press
- Kitchin, R. (2000) 'The Researched Opinions on Research: Disabled people and disability research', *Disability & Society*, Vol. 15, No. 1, pp. 25-47
- Koutsoklenis, A. and Papadopoulos, K. (2011) 'Auditory cues used for wayfinding in urban environments by individuals with visual impairments', *Journal of Visual Impairment and Blindness*, Vol. 105, No. 10, pp. 703 - 714
- Kullman, K. (2012) 'Experiments with moving children and digital cameras', *Children's Geographies*, Vol. 10, No. 1, pp. 1 – 16
- Latham, A. (2003) 'Research, Performance, and Doing Human Geography: Some Reflections on the Diary-Photograph, Diary-Interview Method', *Environment and Planning A*, Vol. 35, No. 11, pp. 1993 - 2017
- Latour, B. (2005) 'Trains of Thought: The Fifth Dimension of Time and its Fabrication', in A. Perret-Clermont (ed) *Thinking Time: A Multidisciplinary Perspective on Time*, Cambridge, MA: Hogrefe and Huber, pp. 173 – 187
- Letherby, G., Shaw and Middleton, J. (2010) 'Researching Mobility: The Implications for Method, Methodology and Epistemology', *Unpublished Paper Presented at the 42nd Universities Transport Study Group Conference*, Plymouth, UK, January 5 - 7
- Lomax, H. (2012) 'Contested voices? Methodological tensions in creative visual research with children', *International Journal of Social Research Methodology*, Vol. 15, No. 2, pp. 105 – 117
- Luttrell, W. (2010) '"A Camera is a big responsibility": a lens for analysing children's visual voices', *Visual Studies*, Vol. 24, No. 3, pp. 224-37
- Manduchi, R., and Kurniawan, S. (2011) "Mobility-related accidents experienced by people with visual impairment." *AER Journal: Research and Practice in Visual Impairment and Blindness*, Vol. 4, No. 2, pp. 44-54
- McRuer, R. (2006) *Crip Theory: cultural signs of queerness and disability*, New York: New York University Press
- Merriman, P. (2014) 'Rethinking mobile methods', *Mobilities*, Vol. 9, No. 2, pp. 167-187

- Middleton, J. (2009) 'Stepping in Time': Walking, time and space in the city', *Environment and Planning A*, Vol. 41, No. 8, pp. 1943 – 1961
- Moser, I., and Law, J. (1999) 'Good passages, bad passages', *The Sociological Review*, Vol. 47, No. 1, pp.196-219
- Oliver, M. (1990) *The Politics of Disablement*, London: Palgrave
- Parent, L. (2016) 'The wheeling interview: mobile methods and disability', *Mobilities*, Vol. 11, No. 4, pp.521-532
- Parr, H. (2007) 'Collaborative film-making as process, method and text in mental health research', *Cultural Geographies*, Vol.14, No. 1, pp. 114-138
- Park, D., Radford J., and Vickers, M. (1998) 'Disability studies in Human Geography', *Progress in Human Geography*, Vol. 22, No. 2, pp. 208 - 233
- Pink, S. (2009) *Doing Sensory Ethnography*, London: Sage
- Porcelli, P., Ungar, M., Liebenberg, L. and Trépanier, N. (2014) '(Micro)mobility, disability and resilience: exploring well-being among youth with physical disabilities', *Disability and Society*, Vol. 29, No. 6, pp. 863-87
- Pyer, M. and Tucker, F. (2017) 'With us, we, like, physically can't': Transport, Mobility and the Leisure Experiences of Teenage Wheelchair Users, *Mobilities*, Vol. 12, No. 1, pp. 36 – 52
- Roulstone, A. (2003) 'Researching a Disabling Society: The case of employment and new technology' in T. Shakespeare (Ed) *The Disability Reader: Social Science perspectives*. London and New York: Continuum
- Sawchuk, K. (2014) 'Impaired' in P. Adey, D. Bissell, K. Hannam, P. Merriman, and M. Sheller (Eds) *Routledge Handbook of Mobilities*, New York: Routledge, pp. 409 – 420
- Schillmeier, M. (2008) 'Time-Spaces of In/dependence and Dis/ability', *Time and Society*, Vol. 17, No. 2-3, pp. 215-231
- Schwanen, T., Banister, D. and Bowling, A. (2012) Independence and mobility in later life, *Geoforum*, Vol. 43, No. 6, pp. 1313 - 1322
- Shakespeare, T. (Ed) (2003) *The Disability Reader: Social Science perspectives*. London and New York: Continuum
- Sheller, M. (2015) 'Uneven Mobility Futures', *Mobilities*, Vol. 11, No. 1, pp. 15 – 31
- Skeggs, B. (2002) 'Techniques for Telling the Reflexive Self' in T. May (Ed) *Qualitative Research in Action*. London: Sage, pp. 349-375
- Simmel, G. (1903/1971) 'The Metropolis and Mental Life', Chicago: University of Chicago Press
- Thomas, C. and Corker, M. (2002) 'A journey around the social model' in M. Corker and T. Shakespeare (Eds) (2002). *Disability and Post Modernity: Embodying disability theory*. London and New York: Continuum
- Tremain, S. (2002) 'On the subject of impairment' in M. Corker and T. Shakespeare (Eds) *Disability and Post Modernity: Embodying disability theory*, London and New York: Continuum, pp. 32 – 47
- Wood, J. M. (2002) 'Age and visual impairment decrease driving performance as measured on a closed-road circuit', *Human Factors*, Vol. 44, No. 3, pp. 482-494
- Worth, N. (2013) 'Visual Impairment in the City: Young peoples' social strategies for independent mobility', *Urban Studies*, Vol. 50, No. 3, pp. 574 – 586
- Wong, S. (2018) 'Traveling with blindness: a qualitative space-time approach to understanding visual impairment and urban mobility', *Health & Place*, Vol. 49, pp. 85 - 92
- Wunderlich, F. M. (2008) 'Walking and rhythmicity: Sensing urban space', *Journal of Urban Design*, Vol. 13, No. 1, pp. 125-139