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Looking at and looking back: visualization in mobile research

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ABSTRACT This article discusses mobile and visual methodologies and the use of visual and mobile methods in the context of a study exploring the negotiation of risk on the journey to school. It sets out an epistemological approach that encompasses the 'mobilities turn' in the social sciences and current debates on visual methods, arguing that 'mobile' and 'visual' methods are not only compatible, but often indivisible. This argument is developed through the researcher's experience of using mobile and visual methods to explore the range of social, emotional and sensorial responses to mobile space. In particular, it is argued that methods that are both mobile and visual produce insights into everyday life experiences, especially of excluded groups such as children and young people, which are not available using more traditional methods.

KEYWORDS: *film-elicitation, mobile methods, mobilities, research with children and young people, school travel, visual methods*

There is increasing recognition of the need to adopt less static methods of exploring our mobile social world and to develop methodological approaches that are premised on the rapidly expanding volume of theory associated with the 'mobilities turn' in the social sciences (Crang, 2002; Cresswell, 2006; Thrift, 2006; Urry, 2007). This 'paradigmatic' shift in thinking is considered to be the outcome of a series of often disparate theoretical developments that, in spatializing social relations, mobilize them; from Simmel's (1908) century-old analysis of city space to more contemporary analyses of mobile society (Urry, 2007). Mobile practices are placed at the centre of social relations, and social relations are placed at the centre of space and place (Crang, 2002; Creswell, 2006; Urry, 2007). Mobility is produced through social relations and produces space and time through the process of time-space compression (Cresswell, 2006) and de-compression (Massey, 1991). Urry (2007) argues that society is becoming increasingly mobile, not only in terms of corporeal movement but also in the increasing speed and extent of flows of information, objects, and ideas and through increases in virtual and imagined mobilities.

Of course, central to many of these mobilities is the movement of images as visual representations are increasingly available and mobile through advances in communication technologies.

Mobile relations pervade society and contribute to social inequality, in that increased mobility is spatially and socially uneven. As Adams (1999) argues society is becoming hypermobile in a way that is both socially and environmentally unsustainable. While space and time are compressed for some, others experience barriers to travel and access to mobile communications (Massey, 1991). Children and young people, in particular, are often considered to be increasingly hypomobile as technologies encourage a more sedentary lifestyle. At the same time children and young people's independent mobility is curtailed through a complex set of factors that includes their parents, and particularly their mothers', negative experiences of mobile space (Murray, 2007). It will be argued that the ability to explore the impacts of such developments on young people, and in particular on their independent mobility, which is the subject of the research considered later in this article, is made possible through the adoption of visual and mobile methods, and that such methods can be applied successfully to a range of social studies.

Mobile methods enable an understanding of socio-spatial processes as they are lived, exploring the everyday mobile practices that are produced by social relations and that create particular cultural practices. In association with an increasing awareness of the importance of mobility, there has been an increasing interest in visual experiences and imagery in defining cultural practices (Rose, 2007). The social world is becoming more visual as the boundaries of visual imagery on global and local levels are extended through an ever expanding range of visual media such as television, internet and mobile phones. Paradoxically, given the corporeal hypomobility of children, their overall mobility is being expanded through developments in visual technologies. The exploration of the changing social world therefore requires methodological approaches that encompass these developments with methods that are both *mobile* and *visual*. Visualization is an essential element of mobile methodologies and 'mobile' methodologies and methods need to encapsulate the visual. This article develops this argument using research that included the application of visual techniques to explore mothers' and children's everyday experiences of the journey to school. I discuss the importance of researching on the move, representing mobile experiences both in situ and in retrospect. In addition, my research involves 'looking' from participants', as well as the researcher's, perspectives, with visual data interpreted and re-interpreted by both the participant and the researcher, in its social and spatial context, as part of a collaborative project.

Why use mobile methods

Urry (2007: 18) argues that 'thinking through a mobilities "lens" provides a distinctive social science'. He advocates a new way of looking at a social world

that is constructed through mobility and this notion underpins the emergence of methodologies that are distinctly mobile. In order to fully understand the social world we must therefore adopt a new way of looking, through methods that capture mobile practices, beliefs, meanings, cultures and emotions. Understandably, given the contextualization in space that these methods allow, the growth in application of mobile methodologies and methods is being developed particularly within geography (see Anderson, 2004; Barker and Weller, 2003; Lashua et al., 2006; Laurier and Philo, 2006b), with a well attended session devoted to the subject at the 2007 Royal Geographical Association with the Institute of British Geographers Annual International Conference. In sociology also, and particularly through the 'mobilities turn', mobile methods are increasingly under discussion. Indeed, in setting out their 'new mobilities paradigm', sociologists Sheller and Urry (2006: 217) identify seven types of mobile method: the interpretation of face-face social contacts, mobile ethnographies, 'time-space diaries', 'cyber-research', the exploration of 'imaginative travel', research-based memory and the study of immobility in mobile space; all of which are concerned with 'observing directly or in digitally enhanced forms mobile bodies undergoing various performances of travel, work, and play'. Visual recollection, representation and interpretation are implicit in all of these mobile methods, and explicit in a number of them. Mobile methods are also emerging from social studies that were not previously concerned with mobile experiences but have adopted visual methods (Emmel and Clark, 2007; Pink, 2007b). This study seeks to both draw from and contribute to this emergent and interdisciplinary literature, setting out the successes and some of the issues arising from the application of mobile and visual methods.

Methodologies that are predicated on the importance of understanding and harnessing mobile cultures and practices along with methods that encompass the act of moving with participants have been used to study various mobile cultures and social processes. For example, Laurier (2005) uses video recordings to explore automobile culture; and Lashua et al. (2006) use walking interviews in their study of young people's movement and place in areas undergoing regeneration. They found that the mobile interviews provided a 'three-way conversation' involving participants, researchers and place. As well as specifically exploring mobile relations, there are also a number of examples of the use of mobile interviewing in seeking an understanding of broader social processes, such as Anderson's (2004) study of radical environmentalism and Hurley-Depret's (2006) exploration of community and violence in Northern Ireland. Mobile methods are predicated on research in context, within the physical and social space that the study relates to. They encompass the exploration of movement from one spatial and social context to another. In this way mobile methodologies represent a 'new approach to excavate and access the meaning of human constructions of the world' (Anderson, 2004: 254) in a world that is increasingly shaped by mobility.

Everyday activities are considered to be so embedded in space that to carry out research in another space can limit the potential of the data as it removes

the immediate relationship between the participant and that emotional and social space. Anderson (2004: 254) argues, in particular, that the walking interview provides a means of accessing human knowledge that is 'inherently socio-spatial'. He contends that the geographical context of the interview is often ignored despite the relationship between spatial identity, human action and knowledge formation. For Anderson, methodologies that encompass the 'co-ingredience' of people and place allow the understanding of placed practices as well as contextual cues for prompting life-course memories. This interplay between place and everyday experience is a key factor in the justification of mobile methodologies and one that can be effectively explored through visual analysis in contextualizing social practices in space. Before setting out the rationale for this, however, it is useful to discuss how theory has evolved in this field in recent years.

Developments in visual methods

Although visual ethnography has most often been associated with anthropology (Banks, 2001; Pink, 2007b), theoretical innovations have also been developed within sociology (Emmison, 2004; Emmison and Smith, 2000), education (Prosser, 1998), tourism (Burns and Lester, 2003) and geography (Rose, 2007). There has been much debate, and some disagreement, over the last 20 years on the application of visual methods (Banks, 2001; Pink, 2007b). Pink (2006) argues rightly that anthropological approaches to visual methods, particularly those based on observation, have often been mistakenly criticized due to a lack of acknowledgement of the historical specificity of these approaches. However, common interdisciplinary ground is emerging with anthropologists (Pink 2006, 2007b) sociologists (Emmison, 2004; Emmison and Smith, 2000), geographers and cultural theorists (Rose, 2007) agreeing that visual methodologies should be critically driven. As Rose (2007: 12) suggests, this means that 'cultural practices like visual representations both depend on and produce social inclusions and exclusions, and a critical account needs to address both those practices and their cultural meaning and effects, Rose (2007) usefully argues that the critical understanding of images is aided by looking at three sites: the site of image production, the image itself, and the 'audiencing' of the image. I will return to these sites of analysis later in this article.

The degree to which the various applications of visual methods across the social sciences adheres to this critical approach is, however, contested. Although Pink (2006) argues that, along with cultural theorists such as Lister and Wells, Rose and Banks have developed the approach to visual methods from positivist to interpretative, this is in contrast to Emmison and Smith's observational approach and their lack of contextualization in terms of content, contexts and subjectivities. Pink (2006) agrees with Rose that a critical approach to visual methods must also be a reflexive one, but argues that its audience should be extended to the researcher and image or the researcher

and the participant, with a need to think about how 'images or material objects implicated in the interview mediate [their] relationship' (Pink, 2006: 33). Reflexivity is thus about more than where the researcher came from, but about the processes of co-production of knowledge given the positionality of researcher and participant. Pink is critical of Emmison and Smith's (2000) lack of ethical reflexivity, claiming that for them reflexivity is instead based on validation. She also contests their questioning of the need for recorded images in visual research.

However, as Emmison (2004) sets out in a later explication of Emmison and Smith's (2000) argument, this is based on what he considers to be an over-emphasis on the recorded image, which has led to an uncritical approach to visual methods. Emmison argues that a static recorded image itself cannot say very much, but that its value lies in the theoretical and conceptual under-standings we assign to it. He argues that the reliance on photographs has been a barrier to the theoretical development of visual inquiry and that such images should not be considered data but ways of 'preserving, storing or representing information' (2004: 251). However, as a number of visual researchers have argued (see Pink, 2006, 2007b; Rose, 2007), the recorded image can be an important part of a critical methodology in providing material representations that allow both researchers and participants to reflect, and in doing so, co-construct knowledge in a particular way.

Despite apparent limitations of Emmison and Smith's argument and approach to reflexivity, their assertions are critical here in drawing out the importance of the dimensionality of visual images. In arguing that 'objects, places and locales carry meaning through visual means just like images' (2004: 250), Emmison provides a way of reflecting on these visualizations in spatial contexts, citing a number of critical and reflexive studies that he con-siders are exemplary. He argues for a spatial dimension to visual research methodology that aims to contextualize social processes, where it is the inter-pretation of images in their social and spatial context that is significant. Within this, visual research that looks at lived experiences is interpretative and qualitative and therefore should encompass existing methodological theory. The researcher must therefore look beyond the observed image and contextu-alize within a specific theoretical framework as well as within lived experience, including everyday mobile experience.

Pink (2007a: 250) develops this spatial approach in 'Walking with video', in which the process of filming the act of walking is seen as a way of place-making, 'a more involved approach to the question of how place and identities are constituted'. Indeed mobile methods such as walking with a video are nec-essary methods of research in enabling an understanding of mobile social practices. They not only enable understanding of how place is made, but how space and spatial identities are co-constituted and are constantly re-constituted in the context of contested notions of mobile space and of the mobile body. The contextualization of social processes in space is therefore a

fundamental element of methods that are both visual and mobile. As Latham (2004: 119), in his study of sociality, argues, 'the sequence within which people and materials pass through and inhabit particular locales, as well as the frequency and intensity with which they do so, is a fundamental element of contextuality'. To appreciate this sequence of events, Latham used a visual diary method, asking participants to represent their everyday lives using photographs in order to gain an understanding of how sociality is produced.

A critical methodological approach that is both mobile and visual can draw from the range of interdisciplinary debate in being both reflexive and contextualizing, contextualizing in the social as well as the spatial, as 'like all sensory experience the interpretation of sight is culturally and historically specific' (Banks, 2001: 7). Some visual methods of investigation are particularly conducive to facilitating a mobilization of approach.

The mobility of video

The mobility of the video camera is clearly appreciable in that it can be moved from one place to another and, at the same time, can record moving images. These mobile characteristics make video a key tool of exploration within a critical visual and mobile methodology. The video contextualizes in time and space. While referring to still images, Latham (2003) argues that we need to be more sensitive to the 'moment-ness' of participant accounts to take on board the ontological position of the making of the world through social practices. In addition, he suggests that visual images can capture the 'texture' of the relationship between people and place, the 'sense of mood and ambience – of the colour and energy – of a particular moment' (Latham, 2004: 126). By appropriating this notion to video, this contextualization can be broadened as the video records not only static images that can be attributed to *a* moment, but a sequence of moments within both a spatial and temporal frame (Grimshaw and Ravetz, 2005; Pink, 2006). The video thus provides a more mobile method of data capture, a means of contextualizing in the moment both spatially and temporally while conveying a sense of motion.

The movement of the camera and the recording of a mobile image allows an exploration of what Buscher (2006) terms the 'moment-to-moment production of vision'. Thus each moment of vision in its particular spatial context is defined in relation to the previous moment and to the moments that follow making up a sequence of mobile visualizations. The video also provides the opportunity, not only to capture a sequence of events but to study sequences of action precisely by looking at them over and over again (Dant, 2004) where such visual sequences are representations rather than reflections of the action (Pink, 2007). This ability to reflect on the data is available not only to the researcher but to the participants as well as future audiences (Holliday, 2004; Rose, 2007).

A number of researchers have recognized the merits of video in allowing the exploration of non-verbal communication and thereby providing a distinctive

way of creating knowledge (Dant, 2004; Knowles and Sweetman, 2004; Pink, 2006; Rose, 2007). Applications of video techniques can draw from the diversity of studies that have used still photography in providing a means of reflecting on parts of everyday life that might not normally be included in research (Latham, 2004). Both Latham (2004) and Heath and Cleave (2004) found that the use of disposable cameras in their research allowed participants to represent themselves in everyday taken for granted images that may not otherwise have been considered. Latham (2004: 122) argues that traditional methods such as interviews and observation can be limited in this respect and especially where the 'social interaction under study is both spatially dispersed and involves a significant level of routine'.

This is not to say that moving images can speak for themselves. Dant (2004) drew attention to the potential narrowing of context as video only captures part of the action at any time in a bounded spatial context. However, a reflexive approach to visual methods is based on visual sequences as representations rather than reflections (Pink, 2006) and so further verbal explanation is usually needed to broaden the context through a process of reflexivity. It is also recognized that images need to be made sense of, and this usually means accompanying them with additional written material (Pink, 2006; Rose, 2007). There will always be a series of external factors that influence our visual experience and this specific sensory experience cannot be considered in isolation. Neyland (2006) demonstrated the importance of this in his study of how perceptions of immobility are used to understand motive, intent and moral standing in his study of CCTV footage of young people. He argues that the use of silent CCTV footage immobilizes the story and, in his research, constructed a group of young people as risky. Mobile and visual research should seek to avoid such immobilization of stories, using a combination of visual and other qualitative methods to facilitate this.

Nevertheless, the video camera provides a means of making sense of images that is integral to this visual method and does not have to be silent. It not only allows capture of images in a narrative form but also records audio, an advantage recognized by both Pink (2006) and Rose (2007). Pink (2006) illustrates this through her study of housework where her participants used metaphors to illustrate their particular housework strategies, and the video was considered a particularly useful sensory tool. Holliday (2004) also considers this sequencing of events into a narrative as a crucial part of her methodology. In her study of representations and performances of sexual identities across time and space, participants were given a video camera and asked to make video diaries. This 'self-filming', which Pink (2007b) traces back to Sol Worth and John Adam's 'Navajo Film themselves' made in 1966, gives participants the opportunity to represent themselves in time and space. Holliday argues that this process is distinctive as it allows visual representations to run alongside participants' commentaries, a means of visual and verbal representation.

Using video can therefore be socially and spatially contextualizing on a moment-to-moment basis as it can: allow reflection on data as well as its re-negotiation; capture taken for granted elements of human action; allow exploration of a range of sensory experiences; and facilitate the narrativization of data. In the following study, it facilitated visual self-representation of everyday mobile life, in a way that could be extended more generally to mobile outlooks that determine mobility decision-making (Murray, 2007).

Visualizing the journey to school

Mobile methods were put into practice in my study of risk in the mobile space of the journey to school, which sought to develop an indepth understanding of an aspect of mothers' and children's mobility. As well as drawing from developments in the mobilities turn in social sciences (Urry, 2007), the theoretical framework for my research and its epistemological approach were based on feminist approaches to motherhood (Miller, 2005), social studies of childhood (James et al., 1998) and sociocultural theories of everyday risk (Douglas, 1992; Tulloch and Lupton, 2003). Mobile risk outlooks were analyzed within the context of everyday experiences (Tulloch and Lupton, 2003), where everyday interactions with space are contingent primarily on local rather than global discourses. Used alongside other ethnographic methods, and drawing from previous studies with children and young people (Loescher, 2005; Mitchell, 2002), visual methods were considered to be particularly suitable to this analysis of risk with young people as they gave insight into the range of sensorial experiences that continue to underpin mobility decision-making. I used more traditional and less explicitly visual techniques in exploring the mobile experiences of mothers. Nevertheless, in interviewing mothers in the study, they visualized mobile experiences and beliefs in looking back through their lifecourse experiences, picking up on some of the visual cues from their children's videos.

Twenty-five young people filmed their journey to or from school, often describing their feelings and responses to mobile space as they travelled. Videoing was followed by film-elicitation interviews,[1] where the young people's footage acted as a focus of discussion. The young people's films, the film-elicitation interviews, and the indepth interviews carried out with the young people's 18 mothers, provided an insight into: the role of personal biography in mobility decision-making; the importance of social networking and local cultures of risk; the impacts of lifestage on risk landscapes; and the inextricable links between risk and cultures of mothering and blame.

The mobility of video methods in exploring the journey to school enabled a range of sensorial responses (see Pink, 2006) to movement and to the spaces occupied during the journey to be included, as well as the making sense of shifting spatial and mobile identities, cultures and practices in a way that could be studied on a moment-to-moment basis (Buscher, 2006). Importantly, in the context of researcher/participant power differentials, young people were given

cameras to film whatever they chose. As Holliday (2004) argues, this gives participants the opportunity to record their experiences in specific social and cultural contexts. The visual methods were therefore facilitating an exploration of everyday mobile experience through a process of self-representation in space and time, with knowledge co-constructed by participants and researcher. This was a visual representation of their experiences that was later complemented with verbal representations, which sought to make further sense of the video footage.

Visual images are not, therefore, considered any more or less reflective of experience than verbal descriptions, but at the same time can create knowledge of everyday experiences through this co-construction of data, which is as valuable as verbal descriptions in interviews. Of course, participants were not necessarily freed from direction as they may have filmed scenes that they thought I wanted to see, based on the limited briefings about filming and their understanding of the research project. In seeking to present them with a degree of autonomy, I gave them a wide brief in my description of the research: to identify the positive and negative aspects of the journey and any barriers to travel they experienced.

Imaginative ways of researching children's issues such as the use of video methods have been advocated and used by a number of childhood researchers and are believed to empower young people by removing them from a situation where the researcher asks questions and they simply provide answers (Barker and Weller, 2003; Christensen and James, 2000; Clark, 2004; Loescher, 2005; Mehan, 1993; Punch, 2002). Of course, there is always a risk that representing and interpreting people's lived experience may deprive them of control. As with most methods of research beyond those that are wholly participatory, it is the responsibility of the researcher to minimize this (Banks, 2001), avoiding the creation of images that 'reflect our personal taken for granted assumptions' (Harper, 1994: 409). Facilitating self-representation through visual imagery can therefore create opportunities for participants to empower themselves in a unique way. Pink (2001) argues that by giving people, especially marginalized people, a video camera it allows them to incorporate their own visual 'truth' into the research process, which then enriches the process of co-construction of knowledge. She cites a study by Barnes, Taylor Brown and Weiner carried out in 1997 where mothers with HIV were facilitated in producing a video for their children to see after their deaths. This research adopted a feminist approach where women are the originators and consumers of knowledge. Pink considers this important as it acknowledges the role of video method in producing a series of truths about mothering and how these need to be situated (Pink, 2001, 2007b). These truths are based on visual representations that are always interpreted into data in research through a process that involves both the researcher and the participants, leading to the co-creation of knowledge. In my research, this led to the creation of knowledge about the cultures and practices that surround young people's use of mobile space.

Following on from feminist approaches to motherhood (Miller, 2005) and social studies of childhood (James et al., 1998), it was considered that both children and mothers (see for example Valentine, 1989) are marginalized in space and that notions of childhood are constructed through adultist processes (James et al., 1998; Valentine, 2004). The cultures and practices surrounding the journey to school exemplify this as young people are disenfranchised through adultist transport and other social policies and often excluded from decision-making processes at home, in school and in public space. Young people in particular can be further marginalized by the research process (Christensen and James, 2000; Fraser et al., 2004) and it is therefore considered important to use methods that have been identified as being accessible to them (see Barker and Weller, 2003). A crucial aspect of my reflexive approach was the awareness of the reproduction of hierarchies of power, which can arguably be challenged through the co-construction of data facilitated by the use of visual methods (Kindon, 2003). The facilitation of children's self-representation, particularly by visual means is seen as empowering; as Mitchell (2002) asserts it is a 'decolonization tool' in a children's world colonized by adultist norms. Mitchell argues that it allows children as actors and as knowers, as experts in their own lives and in childhood. This is a view supported by Loescher (2005) who argues that the camera 'signifies [children] as social agents'.

Drawing from the studies discussed previously (Heath and Cleave, 2004; Latham, 2004) the use of the visual in exploring young people's everyday experiences provides a means of familiarization with elements of social life that are taken for granted within adultist perspectives of childhood. Knowledge was created through the contextualization of experience in space through videoing journeys and through the use of film-elicitation interviews, which enabled young people and the researcher to re-visit their collected images and re-interpret their experiences. Film-elicitation thereby enabled young people to participate in the interpretive elements of the research by elaborating on their experiences and re-negotiating the visual representations of their journey to or from school.

Audiences as producers of contexts

It was also recognized that, in line with Rose (2007) who was referring to photo-elicitation, the researcher's agenda can tend to dominate the treatment of images in research. She discusses an alternative approach to photo-elicitation where the image is not 'subordinated to the interpretive work of the researcher' (2007: 246) but instead can be used either as a means of backing up findings, of convincing the reader, or as a means to get a feel or 'texture' (Latham, 2003) of places, a sense of place. Indeed, the videos in this study have been used in this way, depicting a narrative developed from the visual and written data in the form of a short film, 'Through Our Eyes', produced from participants' video footage. This can be used alongside the written findings to convey

such a 'feeling' for the journey to school. It also provides the opportunity for the audiencing of the visual images, a process that Rose regards as being a critical part of visual methods, as it is where meaning can be renegotiated. Pink (2007b) also found that the audiencing of her documentary film 'Home from Home' gave insights into the socio-cultural contexts of participants.

The video footage was negotiated and indeed continues to undergo this process through presentations of the film. During filming some young people were aware that they would present the video to their families. It became apparent that expectations around the filming were not limited to the young people involved but that many of the parents were eager to watch the videos as a shared experience, to take pride in their children's 'work', but also to glimpse a part of their children's lives that many did not have access to. In this way the process became one of surveillance, which raised ethical questions of young people's rights to autonomy when participating in research. It could be argued that ethical procedures often overlook this aspect as they are based on protection of young people within prevailing cultures of childhood that underestimate young people's agency. This is related to the issue of parents' direct involvement in the research process in directing their children's participation, which became evident during filming of escorted journeys.[2] A number of mothers directed the filming over the entire journey, telling their children what to film and how to film it. For most, this corresponded to mothers directing the journey also, telling their children where to walk and where and how to cross roads. This is interpreted as a finding in itself and relates to mothers' control of risks to their children in public space (Murray, 2008).

Such audiencing also allows for a re-spatializing of the visual material. The moment-ness of experiences was particularly evident through the inconsistencies between responses during the filming and interviews. Responses given in situ – in mobile space – were based on the relationship with space at that time, in that moment. Often very different responses were given when participants were static and removed from the space. For example Evie talked of being wary of certain spaces because of 'strange men' during her journey, but when asked about any worries or fears she had when travelling to school during the interview, she said she 'didn't have any'. Participants reconstructed, not only their experiences but their emotional responses to their experiences, retrospectively. It is these secondary responses that would normally be recorded in a methodology that was based on static methods, whereas the approach used in this research allowed re-visiting based, not only on memory, but also on a series of visual and aural cues. This presented the opportunity for an iterative process of looking at and then looking back, with varying, although equally valid, responses to experiences at different times. It demonstrates one of the strengths of adopting mixed methods in allowing the visceral and emotional aspects of mobile experience to be explored alongside more considered static responses. This was possible through gauging, not only dialogue, but gestures, facial expressions and the visible embodied range of sensations associated with being mobile.

Meanings, contexts and video style

Another site that is considered crucial to the study of visual images is the site of production and in particular the way that the young participants chose to video. The way that young people chose to mediate their relationship with space through the camera emerged as a key contributor to the knowledge creation process, illustrating the nature of their relationships with mobile space. The young people demonstrated different levels of interaction with the camera and with space and the filming process had varying degrees of impact on their journey. Styles of filming fell into three main categories, which, through a process of evaluation that included discussions with young people in the interviews, came to be known as: 'extension of gaze', 'video diary', and 'documentary'. Of course, some of the young people's approach was based on more than one of these conceptualizations. Through their different styles of filming, participants demonstrated varying levels of confidence, security, communicativeness and spatial awareness and this gave insight into the participants' relationship with their journey and the mobile spaces they occupied en route.

Young people who adopted the *extension of gaze* style of filming, used the camera as an extended way of seeing and of looking. I felt that it gave me a participants' eye view of their journey. Participants using this method were more likely to ignore the camera, either holding the camera at eye level or by their side, without looking at the video camera screen very often. Some participants said that they forgot that they were filming at all. There was little attention paid to the filming process in general, including to the researcher. Any dialogue was related to their journey, rather than the filming and with the family or friends accompanying the participants on the journey. This presented the opportunity to see through the young people's eyes and at their level, which allowed an 'experience' of risks that may not normally be within the researcher's risk landscape. For example, Molly filmed a sequence while crossing a busy road and it was clear that her view was significantly more restricted than that of the adults around her. When this was discussed during the film-elicitation interviews, Molly explained that she felt disadvantaged because of the way roads and crossing were planned and engineered and that these practices fail to take on board young people's perspectives.

In contrast, the *video diary* method emerged as a more personal approach to filming, where participants actively shared this part of their lives as they confided in the camera in a similar way to Holliday's (2004) participants. There was some evidence that the young people were likely to have been acculturated into adoption of this style through reference to reality television (Buckingham, 1994; Noyes, 2005), which for many is an important part of their visual lives. The young people who used this method described their journey through their choice of film shots, through dialogue with the camera and through emotional responses to their environment. They described not only what they saw, but what this meant to them and how it made them feel. They looked and reflected, sometimes seeing things that they may have normally taken for

granted. As Harry said: 'I can see better through the camera than with my own eyes' and Daisy also commented: 'It's really weird videoing it. I never actually just like look. I'm always just walking along head down. It's weird'. Both Harry and Daisy used the film-elicitation interviews to expand on these initial reactions, reiterating the significance of the camera as a mediator in highlighting parts of the journey that they took for granted and using it to re-negotiate their relationship with space and objects within it. A number of young people, such as Daisy and Ellie, introduced the camera to their friends and Harry pushed his camera into some flowers along the footpath saying, 'can you smell this camera?', an indication of the camera's assimilation into their everyday lives. The video diary approach therefore represented a means of engaging with the young people's range of responses to their mobility in a way that is distinctive, particularly in allowing exploration of a range of sensory experiences.

The third method of filming was more 'documentary' in style, involving more of a performance.[3] The films were created as something to be presented either at the time or to a wider audience after filming. On some occasions the camera was used to mediate a relationship with people and space that was particularly empowering. The most significant example of this was George, whose journey to school by bus was made in part with his mother and in part independently. George began filming in a documentary type style, with dialogue typically de-personalized: 'This is the bus garage ... a new building. That lady in the blue jumper works for Sainsbury's'. At one point, when he is on the bus without his mother he says 'I'm making a documentary ... everyone act like the camera isn't here'. When he is joined on the bus by a group of boys who he finds intimidating, his manner changes, but his filming method remains one of performance. George uses the camera as a barrier between him and the boys: 'These boys are year 11s and 10s. They also think they're hard. Let's see what happens when they see the camera'. George's manner, gestures and choice of filming method indicated that he felt empowered by the research process. He was able to stand, travel and film his journey from the front of the bus rather than remain seated and hidden, which during the film-elicitation interviews he discussed as being his 'usual' everyday practice. Both observations of George on his journey and the risk he experiences, even though he is not necessarily engaging with the camera in the same way as those using the video diary method, facilitated a more direct representation of emotions, some of which was related to the act of performing.

Performing to camera

Given the extent of some of the young people's performance, the study could be seen as an exploration of this performed journey rather than a representation of their everyday lives. I would argue, drawing from Holliday (2004) and Loescher (2005), that it is both. However, as Smith (2001) maintains, knowledge and self-representation are only fully possible through performance and

an understanding of performance is necessary in accessing the unknowable and the unconscious. Adopting visual methods provides a means of capturing and exploring this performance in a distinctive way. This conceptualization of emotional and sensory experience became a key element of my research as young people's and mothers' spatial emotionalities became part of their mobility and risk outlooks and therefore were significant in influencing their mobile decision-making. The researcher should therefore remain aware of the context in which filming, as well as making the journey, is planned and played out, as well as the impact of filming on the research process. However, as part of the reflexive approach, this then becomes a part of the research rather than something external to it.

As Holliday (2004: 509) found, rather than view the level of performance to camera as a barrier to 'true' representations, they should be embraced as an indication of a complete self-representation, where participants were able to act out their identities and the video diaries allowed the exploration of the 'performativities of identity'. As Holliday argues this was not a 'unified truth' but a record of experience in specific socio-cultural contexts. This was similarly the case for Loescher (2005) in her study of children's use of an adventure playground. At the beginning of the research Loescher found it problematic that the children performed for the camera, creating identities around these performances. However, she realized later that the children were representing themselves in this performance, an identity which is informed by their urban visual world. The performance was centred on showing their relationship with space rather than trying to please and the camera became an integral part of their world. In this way Loescher (2005: 63) found that 'visual language becomes the language of research rather than its tool'. The way the young people chose to film extended knowledge on their relationship with mobile space as much as their representation and interpretation of this. As Laurier and Philo (2006a) argue, the video becomes part of the 'ordinary' and the research needs to encompass this new construction of everyday life. In doing so the process of visual methods leads to a questioning of representations of the ordinary, the natural; a reflectivity that contributes to a more rigorous research approach.

Using video as an accessible method

The use of video enabled a glimpse of mobile space through the eyes of the participants, providing a clearer view of what is more or less important to them. It illuminated the particular issues experienced in the moment, the sequence of visual images that form a narrative and represent a mobile practice in a way that it is most easily understood. To some extent, I was able to look at their journeys through their eyes, both through the camera lens and through exploring these visual images with them. As Mehan (1993: 103), an educational researcher, argues: 'when we listen and look at social life closely, which is what a videotape or film enables us to do, we see and hear a different version

of social life than is otherwise possible'. Like adults, young people communicate in a number of ways, both verbally and non-verbally. They use body language and different facial expressions, and their physicality reflects their embodied use of space and reactions to ambient noise. A mobile and visual approach allows us to analyse more of these reactions than more traditional interview or questionnaire methods. The production of the film in this research also facilitated a kind of 'cultural brokerage' in a way similar to Chalfen and Rich's (2004) project involving young people with chronic illnesses, where video was used to represent their daily lives to medical practitioners.

In this research, therefore, interpreting the filming process and its context was about how the space, the contested space of the journey from school, is constructed and given meaning; and how this can be experienced visually. The co-ingredience of participants, researcher and mobile space and place created knowledge that may not have otherwise been accessible. The video allowed the capture of the sequence of events and how they were contextualized in space, enabling the looking and looking again, the opportunity for re-interpretation and re-negotiation. The mobility of video facilitated the narrativization of the journey, not only the journey that was made on the day of filming but journeys made before and recalled, as well as aspirational journeys that perhaps involved a greater amount of freedom than the young people had access to at the time.

Most importantly, however, to this research is that the use of visual methods allowed the participants to take part in the research in a meaningful way. First, the young participants were able to make choices themselves that impacted on the direction of the research as they could choose how they filmed and the structure of the film-elicitation interviews. Second, the use of visual methods attracted young people to the research who would not normally have responded. I asked the young people in the research about their experiences during the research process and a number explained that they only volunteered because of the use of visual methods. In particular, visual methods facilitated the participation of young people who prefer non-verbal communication. For example, Loren has a disability that would have prevented her from fully engaging in a more traditional interview. The filming of her video, along with observation and dialogue during this process, became the key method of exploration of her journey. Third, visual methods facilitated young people's empowerment to represent their own stories and in doing so engage in the co-construction of knowledge, allowing exploration of the sensorial and emotional aspects of the journey that may not have been accessible by other means.

The methods employed with mothers were less explicitly visual, nevertheless in asking mothers to look back at their own mobile experiences and to visualize their children's mobile experiences, the approach here was both mobile and visual. It was also an integral part of the research, as I was exploring the mother–child relationship within the family as well as children's first-hand experience of their journey. The personal narrative that this research entailed called upon mothers' recollection of memories from childhood. For both

mothers and children, but more so for mothers, it was recognized that the distortions of memory mean that this 'narrative is always a story about the past and not the past itself' (Ellis and Bochner, 2000: 745). The past is therefore premised on a construction of meanings and beliefs around certain memories rather than any 'accurate' recollection. The issue of 'faulty' memory (Fontana and Frey, 2000) is therefore considered less relevant as memory is considered temporally and spatially dependent. In view of this, it could be argued that the interviews with mothers may have more usefully taken place within the mobile space of the journey to school to allow full emotional and social engagement during the interview process. This is, of course, more difficult for mothers than for children as about half of my participants no longer accompanied their children and those who did felt responsible for their children's safety during the journey.

It is equally difficult to take mothers back to the spatial context of their childhoods, although there is some potential for this, which could be explored further. For example, mothers could re-visit their childhood spaces and video their routes to school to re-situate them in the space that they are being asked to re-visualize. As this was not within the scope of this research, interviews were static in space and time but required imaginative mobility in space and time. This again reflects one of the key benefits in the use of mobile and visual methods in contextualizing in time and space. Participants are often asked to temporalize experience in interviews, to travel back in time and revisit the experience of a particular period or moment. However, it is arguably more difficult to spatialize outside of the relevant space. Using methods that incorporate mobility in space can therefore enhance the quality and richness of data.

Conclusion

I am proposing a convergence of mobilities and visual methodologies and methods using a critical approach that takes account of the social production of visual images and mobility. Adopting methodologies that are distinctly mobile is a relatively new approach to research, requiring epistemologies that draw from existing methodological paradigms and from contemporary approaches to mobilities, most notably Sheller and Urry's (2006) 'new mobilities paradigm'. It is argued too that adopting epistemological approaches that accept a mobile methodology necessarily requires mobility across disciplines and acceptance of a range of theoretical approaches relevant to the mobile subject and research context. From mobile methodologies come mobile methods and it is argued that the use of visual techniques is an inevitable element of these as mobility and visualization increasingly shape the contemporary world. The use of video methods in particular allows the moment to moment contextualization both socio-culturally and spatially. Video is itself mobile, facilitating reflections on a sequence of events that can be negotiated into a narrative as part of a collaborative process between the researcher and participant.

It has been argued that, in essence, the application of visual, mobile methods allows the researcher to capture the discrete interplay between research subject and space, contingent on prevailing meanings and beliefs at that time and in that space, while recognizing that these meanings and beliefs are in constant flux. At the same time, however, their capture gives an indication of the range of experience, the emotions, and overall characteristics of this encounter in this space and time that can be re-visited and re-interpreted by both the researcher and research participant to develop further understanding of human interaction with space. In particular, the use of visual methods broadens the scope of the research to include participants that are often excluded and yet whose mobility outlooks are the foundation of future patterns of mobility. In this way mobile and visual methods can be empowering, giving groups who are often excluded from the research process a voice within it. There are many good examples of such critical applications of mobile and visual methods and this study seeks to contribute to this emergent body of literature in seeking to demonstrate the potential of these methods across the social sciences. There remains a need to further mobilize visual methodologies and visualize mobile methodologies.

NOTES

1. These usually took place a few days after the young people filmed their journey to enable me to transfer the footage onto a tape or DVD.
2. Ten of the 25 young people in the research were escorted to school by their mothers. The average age of independent travel to school for the remainder was 10.
3. Performance is used here in terms of the children acting out something for the process of filming and in doing so, exaggerating their behaviour. This was more evident in groups and particularly when participants filmed with only the researcher present and then in a group context.

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