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Journeys to school in rural places: engaging with the troubles through assemblages.

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Abstract

This paper engages with bus journeys to school, a familiar part of daily life for children living in rural areas, where journeys tend to be longer. Although they have a central role in the school day for many children, journeys by bus from home receive little attention from policy makers, researchers and school leaders. With changing patterns of school provision in rural areas, generally involving school closure or 'consolidation', the associated journeys to school are changing too. In addition to facilitating access to education, the transport used to get to school impacts on children, their families, communities and environments. The longstanding, knotty problems of the provision, running and experience of school buses are not well understood. Bus journeys to school lie in the shadows of schooling and in the spaces between government departments, research disciplines and between children, their families and schools and so receive little attention. In this neglected space of bus journeys to school, there are implications for rural children, schooling, communities and socially just and sustainable futures.

Complex problems need new and different research engagements in the search for solutions. It is argued here that the processes involved in vital materialist approaches to enquiry such as assemblage, where both human and non-human actants are understood to have agency, offer different ways of working. Assemblage approaches to enquiry have the potential to offer new insights for those looking to improve bus journeys to school for the

wellbeing of children and the planet as they offer an opportunity for producing knowledge differently.

The paper presents a worked example of the use of an assemblage approach to a rural community case study. It is argued that an assemblage approach to the enquiry, offered a process with which to surface and work on a key emerging issue for the young people in the case study; that of their bus journeys to school.

Key words: school, bus, journeys, assemblages

Introduction

Journeys to school are a central part of a pupil's day and for children living in rural places these journeys tend to be by bus and are longer and tougher (Howley et al, 2001). These journeys from home and the long standing problems associated with them, lie in the shadows of schooling and in the spaces between government departments, research disciplines and *between* children, their families and schools, so receive little attention. This paper makes a contribution to understanding of the knotty problems of the provision, running and experience of school buses for those looking to develop solutions.

Journeys to school are an experience of transition and connection; connecting children from home to school, through and across families, friendships, communities and places. In privileged nations of the world, the majority of journeys to school in rural places made by older children who go to secondary schools, are made by bus (Vincent et al, 2014). Bus journeys to school are a familiar part of daily life for many living in rural areas and play an important part in the school day, yet receive little attention from researchers and policy makers despite a great deal of anecdotal evidence of trouble on and with bus journeys to school.

The problems with the provision of school buses are most obvious in and exacerbated by rural contexts. They include; the impact of changing patterns of school networks in localities particularly school closures in rural areas leading to longer commutes; unsustainable financing in times of smaller government where there are state funded home-school transport systems; the impact of reductions in public transport provision; the increasing dissonance between policies of choice in education and transport; bullying and bad behaviour among some young passengers; the impacts of longer journeys and waiting times on children's health, wellbeing and flourishing. These problems are complex,

multifaceted and have been around for a long time (Robbins, 2004). Entangled in these problems are really important issues of social justice, children's rights and welfare which need to be surfaced and addressed.

As well as being central to the daily lives of children, commutes to school play a big part in the lives of their families, their communities as well, other travellers and road users and the environment. Bus journeys to school are a neglected part of the generally well-studied commuting patterns of people and vehicles, emissions and pollution through places. The journeys to have clear implications for the three tenets of sustainability, economic, environmental and social sustainability.

Bus journeys to school lie in a space between many different intersecting elements. They lie between traditional areas of government responsibility and policy such as schooling and transport, they intersect academic research disciplines and areas of service provision and practice such as public and private transport, logistics, health and safety. By definition, they lie between schools, families and children. In England, for example, schools have responsibility for children only when they are on the school premises, parents are responsible for getting their children to school and transport companies are responsible for the getting children to school safely. Bus journeys to school are consequently a classic case of a complex issue that falls "between"; between policies and practices as well traditional research disciplines and approaches to enquiry.

This paper offers up a worked example of the use of a vital materialist approach to investigating these kinds of complex issues. Vital materialist approaches are different from traditional humanist approaches to enquiry in that they recognise and acknowledge the influence of nonhuman objects and spaces as well as humans. Here *things have power*, the 'curious ability of inanimate things to animate, to act, to produce effects dramatic and subtle'

(Bennett, 2004:351). Journeys to school by bus are considered as transitory *assemblages*, collections of human and non-human elements; the machinery and Carbon production of the bus, the surface and topography of the road, the weather conditions of the journey, the time it takes and the distance travelled, the policy and legislative framework, the bodies of the young passengers and so on. In addition to offering a different way to look at complex problems, working with assemblages also responds to the call for a new research agenda for education in rural places by Kvalsund and Hargreaves (2009), which includes promoting increased engagement with theory.

Following a review of the literature context for school bus studies, the paper continues with a discussion of vital materialist ways of working and the use of assemblages in research enquiry. After a brief visit to a case study in which the enquiry was rooted, the paper presents a worked example of how an assemblage approach was taken in the analysis of the study. The process of the enquiry and some products in the form of vignettes are presented. The paper concludes with how these vital material ways of working might be useful to those looking for different ways of investigating knotty problems which are multi-layered and located between agencies, disciplines and people.

Research and developments on journeys to school by bus

Around the world, a significant proportion of the secondary school population (aged 11 to 18) are transported to school on buses whether public ones or bespoke ‘school buses’. In the UK, using a bus is the most common way to get to secondary school (National Travel Survey, 2014). Similarly in New Zealand, secondary school aged young people are the biggest users of buses, including commuting to school (New Zealand Household Travel Survey, 2015). In the US, more than half of all students travel to and from school on school buses (Vincent et al, 2014).

Evidence gathered around the world shows that journeys to school in rural areas tend to be longer and tougher than those of more urban areas (see for example Howley et al, 2001 in the United States; Morojele and Muthukrishna, 2012 in South Africa,). Even though travelling to school by bus is such a common experience, there is little substantial research on the practices, policies and experiences of these journeys (Henderson, 2009). There is a particular silence in the literature from education researchers. This may be because the children's journeys to schools are generally considered a peripheral part of the school day and the ambiguity about responsibility for these journeys and not a priority for school leaders.

One particular noteworthy example of work that has been done in the United States is that of Howley et al (2001). In their very large scale studies across five states, they show 'that rural school children were more likely than their suburban counterparts to have bus rides of 30 minutes or longer. Their rides also tended to be more arduous, traversing poorer roads and more hilly or mountainous terrain than those experienced by suburban students. In addition-- for good or ill--rural elementary children were quite likely to be "double-routed", an efficiency measure placing them on buses with middle and high school students' (Howley and Howley, 2001:3).

In places where research on journeys to school generally has been carried out (and these are generally privileged nations) it is clear that there are troubles and injustices (Gristy and Johnstone, 2017) to be surfaced and challenged. For example some countries offer state funding for transport to school but for the majority, the journey to school is the responsibility of the child's parents, so implicitly tied up with the social justice issue of mobility capital (Kaufman et al, 2004). Also, though the picture is not clear and there are many exceptions, it is generally the case that children in rural areas have fewer schools within reach, are more likely to travel further and are less likely to use public transport to get to school. de Boer and

van Goeverden's (2008) extensive studies across Europe show the issue of journeys to school is complex, changing and contingent with the particularities of localised contexts.

Published research on general transport to school (including cars, cycling, walking etc) covers a number of areas and is traditionally focussed on urban contexts. These include environmental sustainability of transport systems (eg Lucas, 2011), its place in school choice (eg Butler and Hamnett, 2011), young people's safety, health and well-being (eg Thornthwaite, 2009; 2016) and young people's behaviour (eg deLara, 2009, Putnam et al, 2003). There are also investigations of young people's experiences of 'mobility' and the journey to school (eg Fusco et al, 2012; Ross, 2007; Temiz, and Yilmaz, 2018) and the role of transport in facilitating and sustaining social inclusion (eg Hamnett and Butler, 2013; Lucas, 2011). Research focusing on environmental impact includes modelling carbon emissions (see for example Bearman and Singleton, 2014) and pollution generally (see for examples, Li, 2009; Marshall et al, 2010; Wolfe, 2017).

One other area of research is focussed on the changing lengths of daily home to school commutes, linked to closures and clustering of schools and access to school choice. There is detailed modelling work on the commute to school emerging from areas of Eastern Europe which focus on social and economic impacts. These countries are witnessing school closures on an alarming scale particularly in rural areas, which is having significant impacts on children's journeys to school (see for example Bajerski, 2015; Kovács, 2012). de Boer and van Goeverden (2008) suggest that there does seem to be some increase in the distances that children are travelling to school, however more research is needed to clarify patterns of change. Similarly, Andersson et al (2012) in their study in Sweden says that travel distances have increased since 2000 and travel patterns have changed but the situation is very complex.

There are different levels of change to school commutes in rural areas compared to urban areas, particularly areas which are undergoing programmes of rural school closure (see for example Bajerski, 2015; Kučerová et al, 2011; Solstad and Solstad, 2016) and where there are reductions in public transport services. With concerns about increasing journeys lengths and travel times, there is a small body of research work which considers the impact on children's safety, health and well-being (see for example Solstad and Solstad, 2016) and also educational achievement (see for example Lin et al, 2014; Spence, 2000). There are troubles here particularly for children living in rural areas and particularly for those who have limited capital and as a consequence limited choice as to how they access their education and/or schooling (see for example Rosvall et al, 2018; van Ristell et al, 2013; Walker and Clark, 2010).

In summary, the literature on journeys to school tends to focus on urban contexts and general transport studies with very few specifically on bus journeys. Generally the empirical studies are 'a calculus of emiseration' (Slee, 2001:174) and studies which offer ways forward are hard to find. This paper therefore offers a contribution to the literature for those looking for new knowledge and research practices to develop understanding and inform developments of socially just and environmentally sustainable school bus provisions in rural places.

Vital material ways of thinking and assemblages

To understand and develop solutions to improve the complex problem of bus journeys to school is a significant challenge. New and different approaches to enquiry are needed for many reasons including the following: Firstly there has been little development in school bus practice despite research and changing social and political contexts. Secondly there is a risk that reports of journeys to school for children in rural places become entrapped in static

narratives of rural deficit and disadvantage (Corbett, 2015) which are very familiar in the rural studies literature. Thirdly, if we use the same knowledge we used to make the problem, we don't stand a chance of making a different solution.

We cannot hope to solve old problems (in this case the troubles of the school bus) using the same thinking we used to create them. There is a need for new thinking that is reparative, collaborative and bridging (Felski, 2015; Sedgwick, 2003) which will help us think and write to more hopeful worlds (Cooper, 2018). Lather calls, this 'a time of becoming in the Deleuzian sense as researchers ... imagine and accomplish an enquiry that might produce different knowledge and produce knowledge differently' (Lather, 2013:635).

Using an assemblage approach mean children's journeys to school can be made sense of in an integrated, holistic way engaging at different scales, concurrently; assemblages acknowledge micro, meso and macro levels and contexts (Smith and Dunkley, 2018). For example at a micro level with children, the engineering of the bus and the surface of the road and the bus timetable; at a meso level with local transport practices and the geomorphology of the place; at a macro level with climate change and globalisation. (see Cervone, 2018; Cuervo, 2016; Gulson and Symes, 2007 for good discussions here). Bus journeys to school can be understood as complex, multi-layered, bundles of trajectories (Massey, 2005), spaces on the move contingent with multiple policies, legislation, practices and responsibilities. Envisioning school bus journeys in this way requires not just interdisciplinary approaches to study, engaging with the issues of environmental, economic and social sustainability but also an acknowledgement of and engagement with the *materiality* and *agency* of places, localities and practices.

School buses are collections, assemblages of human and non-human things; the machinery and Carbon production of the bus engine, the surface and topography of the road,

the weather conditions of the journey, the time it takes and the distance travelled, the policy, legislative framework in which this journey sits, the bodies of the young passengers and so on. Considering the vitality and agency of the non-human elements of the school bus as well as the human ones, is a vital materialist approach. Seeing the world with a vital materialist orientation, where humans are decentralised, can generate knowledge in new ways which is important when engaging with complex and seemingly intractable problems.

One approach to research enquiry that is informed by this vital material orientation is assemblage. The work of Jane Bennett is particularly useful to those looking for ways of working on real, lived world “problems” as it offers a space to consider how all things (human and non-human) are inextricably linked together. For Bennett, the things that make up the constituent human and non-human elements of assemblages are referred to as ‘actants’(Latour, 2005) and operate as an ‘intervener, or operator, something which makes a difference, makes things happen’ (Bennett, 2010: 9). So ‘all bodies become more than mere objects as the thing powers of resistance and agency are brought into sharper relief’ (Bennett, 2010:13) and value is distributed more generously across the material world so ‘all bodies are kin, inextricably enmeshed in a dense network of relations’ (Bennett, 2010:13).

In Bennett’s work ‘Vital Materials: A Political Ecology of Things’ (2010), she presents a practical approach to the process of putting vital materialist thinking to work making use of vignettes, small detailed workings that trace movements of thinking. This vignetting (Gale, 2018) and resulting written forms, allows the processes being carried out by the inquirers to be made tangible. It helps make explicit ‘the grid of intelligibility’ (Foucault 1978:93) through which the analysis can be thought. So in response to the call from St. Pierre (2011), to ‘tell what you think you do when you think – when you do analysis’ (622), this paper offers a worked example (see also Lupton, 2018) which attempts to explicitly articulate the thinking processes of the enquiry by ‘showing the workings’ of the process and some of

the products of an assemblage approach to the analysis of data collected as part of a case study of a rural community.

Assemblages approaches to enquiry appeal when considering long standing, complex problems because they refuse a priori privileging of the structural and systematic (Prince, 2010), the very structures and systems that have perhaps led to the problem. For example in his innovative work on redeveloping a 19th century rail system for the 21st century, Woolcock (2016) argues that working with and as assemblages gave the research group the tools to navigate the very complex ‘terrain of neo-liberal times where the business of government is more distributed across networks in different domains than ever before’ (15). Working with assemblages allows for creative, innovative engagement with the complexity of the world, offering up productive spaces in which to acknowledge and engage with materialities and multiplicities; silences as well as voices, affect, the geography of a place, time, movement, policy, people and so on. So if we go with this idea and approach school buses through assemblages, what work does this do and how does it ‘alter established notions of moral responsibility and political accountability?’ (Bennett, 2005:2).

The original case study.

Case studies appear frequently in rural education enquiry, usually with an explicit aim of investigating lived experiences and places in detail. Corbett (2015) suggests, there are risks associated with these kinds of studies which can trap or become entrapped in static narratives of deficit. In their reviews of rural education literature, Kvalsund and Hargreaves (2009) argue for increased engagement with theory to disrupt this stasis and entrapment, to optimise the benefits of the ‘research footprints’ (White et al, 2012) and extend the reach of the research. The vital material assemblage approach to enquiry offers both a different way to

think about a complex issue (the school bus) and a way of extending the footprint of the case study.

The original case study explored the relationships between young people and their schools in a rural locality in South West England. The community on which the study focussed is referred to as Morton (please note all names and place identifiers have been changed). Morton has been subject to a great deal of negative discourse since it became a post-industrial community at the turn of the last century. It is no rural idyll (Bunce, 1994) and has, in more recent times, been identified as a place of economic deprivation. Many of its inhabitants experience poor housing and socio-economic disadvantage; access to services and transport are particular problems. Morton is a large compact village, a 45 minute bus journey from the nearest town, Riversville. There is a limited public bus service and a government funded daily school bus service. There is a small primary school (with around 60 children on roll) while those aged 11-18 go to the secondary school in Riversville. Secondary school attendance data showed a widespread and significant problem with poor attendance by Morton students. This poor attendance at school was leading to a disconnection of students from Morton from their wider community of peers, and from the institution of the school with its collected resources and services.

The original case study data archive included the following; interviews with students, teachers and school leaders at the Morton primary school and Riversville College, with parents of children at the two schools and interviews with Morton residents and community leaders. There were also minutes of Parish Council meetings and neighbourhood renewal (community development) meetings, school attendance data, stories about Morton from the local and regional newspapers and from history books and socio-economic data collected by local and regional governments and agencies. In addition to this data archive, the researcher

kept a research diary noting experiences of and responses to being in and travelling to and from the place.

The case study data, mostly collections of words in a variety of forms, was first analysed in a ‘traditional’ way using an approach informed by grounded theory. However, this approach seemed to be insufficient. There appeared to be stories in the data that were surfacing and having an effect on the researchers but could not be traced by the analytical tools being used. One particular story that seemed to be everywhere but was not being picked up by the original analysis approach was the story of the school bus. There were hints and slippery mentions of the school bus throughout the archive of case study data. The school bus appeared briefly in interviews, minutes of meetings and conversations in school and in the community; in various places in and out of the data. However, there was nothing substantial enough to code in the traditional sense. It seemed that the school bus was everywhere but nowhere. It was this experience of the insufficiency (MacLure, 2008; 2013) of the original analytical approaches that was the catalyst to approaching the analysis of the case study, the sense making, in a different way.

Putting assemblage approaches to work

In vital materialist approaches to sense making such as assemblages, the idea of data is problematic (see Brinkmann, 2014 for a useful discussion). As all things are considered to have agency, the human and non-human elements in the ‘archive’ are referred to as actants. Using actants means there is no data as such to code, so making sense of the entangled human and non-human actants is done through *assembling* the actants together as assemblages. There is no coding and associated emerging themes. The researcher becomes attuned to the multiplicity of sites of control, choke points or nodes in the assemblages and is liberated from a search for themes or core principles (Salter, 2013).

The process of assembling happened in various and unexpected ways. As might be expected, the researcher considered material from the data archive, researcher diary entries, reflections and memories along with the geography of Morton and the experience of the place. Through the process of assembling there were serendipitous and new juxtapositions for example with sections of interview transcripts, pieces from parish council meeting minutes, driving the rough road to Morton and experiencing the frequent fog and heavy rain fall, legislation and practices of school bus services in the UK and memories of the authors own bus journeys to school. Acknowledging these juxtapositions and entanglements led to a new and different story emerging from the case study; that of the school bus and its impact on young people's connections with school. Through further work with the school bus, now as assemblage, different understandings of the school bus as a significant site of trouble and injustice for the children of Morton and their education became possible.

Reporting of the assemblage process

In the format of printed text, it is only possible to communicate certain experiences and “findings” of an assemblage approach. By its very nature, writing produces linear and static representations that do not reflect the vitality of assemblage processes so only parts of the approach can be reported through writing.

Informed by Bennett and Gale, this paper uses the form of vignettes to represent some elements of the assemblage sense making processes. What follows here are a series of vignettes put together as a result of assembling and considering different actants in the enquiry process. They include “entanglements” with various elements from the case study archive such as the researcher's memories and journal entries, interview transcripts, school transport policy and legislation

Vignette 1. Memories and chance conversations

Memories of my own (the researcher's) school bus journeys.

I grew up in an isolated rural area of England similar to Morton and travelled to primary school and secondary school on a school bus. The journey to secondary school took 45 minutes from my village. We had to wait for the bus outside the village social club. There was no shelter, only the wall of the club that you could put your back against if the wind and rain were from the east, but as we had prevailing westerlies we generally got wet and cold. We always seemed to be wet when we got on the bus. This only added to the steamy, smelly atmosphere that we then sat in while the bus wound its way through other villages on its way to town. I remember sitting at the front because I felt sick. The bus prefect was a senior student; she was bossy but she let me sit near her. The back seat was full of the older kids. We sat and did homework some days, we sang a lot and there were plenty of arguments. We did not like the children who got on at Downland; that was when the arguments started. There was often trouble with the old buses used for the school run. There was one big hill on the journey and sometimes, on icy mornings, we had to get out and walk up the hill because the bus could not make it loaded with kids. On one occasion, the bus crashed into the hedge when its brakes failed. None of us was hurt but the bus was badly damaged. I still have a piece of the bus that fell off that day.

(Journal Entry)

A reflection on chance conversations.

In a casual conversation with Morton resident Mr John Seccombe, whilst waiting for a community meeting to start, I heard that Mr Seccombe's daughter, Megan, was not going to school. He said the reason was that 'she hates the bus. In another chance conversation with a Morton parent at a youth football training session in Riversville, I heard a similar story.

The children of this family were being taken to school every day in the car because they could not stand being on the school bus.

(Journal entry)

The lived experience and memories of the researcher become entangled with other actants arising in this assemblage of the researcher considering a rural community and her own long journey to secondary school by bus. These researcher-body-memories have acted on the fleeting, serendipitous references to the school bus in these chance conversations. Snippets in the conversations suggest there are big problems associated with the school buses which take students from Morton to the secondary school in Riversville. Although they are but slippery snippets of a mention in the conversations with parents from Morton, they give significant insight into the agency the bus might have on young people from Morton. Megan ‘hates the bus’, will not get on it so does not go to school. The other children ‘could not stand the bus’ and again will not ride but here the parents have the resources to drive their children to school. The bus appears to have agency here, acting on the children and preventing them from travelling and in Megan’s case, from attending school.

Vignette 2. Listening to young people and their parents.

The case study data archive included interviews with young people from Morton, talking about their secondary school. There were also interviews with parents. In this short piece of interview transcript, two young people, Mike and Lenny, are reflecting on their transfer from primary to secondary school. There were six other students in their year group at Morton primary school including Richard, Kate and Karmel.

Interviewer: *Have you stuck together? (in secondary school)*

Lenny: *Me and him have.*

Mike: *Richard, he's drifting off.*

Lenny: *Karmel – we barely see her – on the bus, that's the only time we see her – I'm glad me and him are together 'cos we are best friends.*

Mike: *Kate? – I never see her.*

Lenny: *Yesterday was the first time I saw her in three weeks – oh no, I saw Kate at youth club yesterday but Richard doesn't catch our bus.*

(Mike and Lenny interview transcript)

The school bus is mentioned briefly in this conversation, as a place of visibility, a place to be seen and not seen. It also acts as a key link, a connector for some students but not for others. Mike and Lenny connect with Karmel but not with Richard, their former friend at primary school, because he (like Megan we heard from earlier) will not travel on the bus.

The second piece of interview transcript is with Lucy Martin, a Morton parent of two children, one at the secondary school and the other preparing to transfer from the village primary to the secondary school later in the year. Going to secondary school means having to use the school bus. Lucy is talking about the process of preparation for students to transfer and talks of the school bus and the stories associated with it:

Lucy: *We had an open day at the school and they [the primary school students] visited the school once – they [the secondary school leaders] came up – the headmaster came up and at the time, we were having a lot of trouble with the school bus.*

Interviewer: *The college bus?*

Lucy: *Now that has a very bad reputation, the school bus, that I think they have sorted, I hasten to add – there are two buses that run and they used to be full up and used to*

be horrendous and they are now both half full, so the actual amount of kids going on the buses now or the actual amount of kids going to College, now that has dropped dramatically.

She continues:

They eradicated [the trouble on the bus] – they actually make the trouble makers use the service bus and that's that and they don't let them back on the bus – the main trouble makers are banned from the school bus – they have the odd incident but nothing in comparison – but when they [the secondary school leaders] came up – when I asked the headmaster about the problem, he wasn't that interested in discussing it – you didn't feel like they [the Morton students] came from the school and they [the secondary school leaders] were terribly friendly and nice – I didn't feel that – I just like – he said that problem will be sorted – to be fair maybe he was very optimistic and right or – I didn't feel you were allowed to discuss anything that you thought might be an issue.

(Lucy Martin interview transcript)

We hear here of 'trouble on the bus' and the impact this has had on who travels, perhaps linking with Megan, Richard and other children's avoidance of the bus. The ambiguity about responsibility for the bus, the travellers and what happens 'on the bus' is certainly clear from Lucy's comments.

These next three vignettes are thought pieces from the researcher's journal. The agency of elements of 'the school bus' raised through case study data are considered in turn.

Vignette 3: School transport policy, legislation and old buses.

Consider the agency of the policy and legislation around the provision of transport to school. In England, school bus services are paid for by a local government authority (via a national government agency) to fulfil their duty under national legislation to facilitate access to

school for children who live more than 3 miles from their school. This facilitation is often done with the provision of 'free to travel' school buses. Contracts are given to private transport companies who put in the lowest tender, so the buses used for school journeys tend to be the older vehicles in the fleet; maybe noisier, smelly and already damaged. This makes the school bus a noisy, smelly unpleasant space to be in- a space that has been used and abused perhaps, for years. The only adult on the bus will be the driver who should be keeping their eyes on the road and hands on the wheel, keeping the bus and its passengers safe. They do not have the time or opportunity to intervene if the young passengers get rowdy. Perhaps we can begin to understand why some young people do not want to travel in the school bus.

Vignette 4: The road, tyres and friction.

The friction (or lack of friction on some occasions) between the tyres of the bus and the road as well as the mechanical sounds from the engine effects the noises that the bus makes. As the tyres on the road and engines makes more noise, the noise levels inside the bus rise which impacts on the passengers, some of whom respond with raising the volume of their voices. Some find the noise unpleasant and perhaps plug in their music headphones to listen to something more pleasing. Others find the noisy bus an impossible space to be in so cannot get on board and go to school.

Vignette 5: The incessant rain of Morton and water in the bus.

Water has the ability to percolate through small spaces. The bus bodywork has cracks and splits which allow water into the bus. Water seeps into the framework and fabric. The passengers, arriving with wet clothes and footwear, sit on the seats and more water soaks in. The presence of so much water and warmth makes an ideal growing environment for microbes, making a damp, smelly environment. In cold weather, the glass windows become covered with condensed water vapour, restricting the view for passengers inside. So the

water in the bus has agency in the assemblage, playing its part in the development of the smelly, damp atmosphere inside.

Here we hear of the troubles with and on the school bus; a moving space of trouble. Massey (2005) uses the concept of a bundle of trajectories to help articulate the complexity of spaces and situations like these. The school bus is on a journey, a trajectory, and at the same time is itself a bundle of trajectories; it is a ‘multiplicity of multiplicities’ (Deleuze and Guatarri, 1987:34) a smelly, shuddering, agentic assemblage. Bringing it all together conceptually in this way draws the trouble on and with the bus into a story that can be told. With Bennett’s agentic assemblage, (2005:446) the school bus can be considered as a ‘volatile mix’ of actants; rubber, metal, diesel, glass, water, passengers, friction, legislation, timetables, carpets, mechanical engineering and education and schooling systems. It is tangible enough to be considered in the round, to be useful to those looking to develop understanding of the complexities of journeys to school by bus.

Discussion

By making use an assemblage approach to the Morton research case study, understanding has developed of an important issue for the young people of Morton and their connection with school, the daily journey from home by bus. The agency of the school bus assemblage interfered with students’ attendance at school and has troubled accepted understandings of the journey to school for these rural children. The importance of the school bus as a real and physical barrier to school attendance certainly disrupts hegemonic knowledge about school transport and its role in facilitating access to school. As in many other countries of the world, the Morton school bus is funded by the local authority as part of a statutory requirement to facilitate access to school for young people in their constituency, and the funding required to do this is very significant. However, as this study shows, the school bus is not facilitating

access to school for all children. In fact it is quite the opposite, the school bus is proving to be a barrier to school attendance for some.

The school bus has acted as a connector; it connected Lenny, Mike and their friends together and got them to school (or at least out of Morton). It acted as a space for visibility; a place for Karmel to be seen and for Kate to be not seen. For other young people, the bus made them feel sick and for other like Richard and Megan they ‘hate’ the bus and do not agree to travel on it. At the micro level, for young people from Morton with no other means of transport to town and no public bus service, if they don’t get on the school bus, they miss out on school. The school bus is clearly playing a part in school attendance, an actant in the process of getting young people to school, particularly for those students who have no other form of transport. However, it is not acting as might be expected by those who fund, organise and use it. Problems associated with the school bus and poor school attendance at school, are entangled at a meso level too with other social disadvantages such as low household income, experienced by young people in Morton. When looking from a macro level, poor school attendance is often associated with children’ poor education achievement outcomes and wellbeing for children (Banerjee et al, 2014).

The agency of the school bus can be traced through a number of spaces and levels. The school bus assemblage has agency which is ‘distributed along an ontological continuum of beings, entities and forces’ (Bennett, 2005:445). If we go with this and return to Bennett’s important question, how might this alter established notions of moral responsibility and political accountability? (Bennett, 2005:2). It would seem to question the hegemonic practices of expensive, statutory school bus provision in this rural locality.

Using assemblages as an approach to sense making in this case study has allowed an engagement with the school bus which proves to be multi-layered complex problem.

Assemblages entangle the human, the non-human, the micro, meso and the macro, all at the same time. Juxtapositions of instances from policy, mechanics, smell, noise, conversations, and memories have allowed different knowledges about school buses to emerge. For example that school buses can act as barriers to school attendance (instead or as well as facilitators).

From this worked example it would suggest children on their bus journeys to school is something that needs to be considered holistically, as Bennett would say, in its multiplicity-ness. So if we go with this, what might this look like, for example with the impact of ever longer journeys to school by bus for children in areas experiencing school closure or ‘consolidation’ programmes? At a macro level, market oriented education systems (sitting in wider neo-liberal markets) are agents here, contingent with the meso context of school closures in rural areas and changes in community structures and services. The longer bus journeys to school act at a micro level on children’s health and well-being, increasing roadside pollution and local public transport patterns.

Conclusion

The use of vital materialist assemblage approaches to enquiry have played a part in altering established notions of moral responsibility and political accountability for home to school journey transport provision and access to school. For those looking to develop understanding of complex and seemingly intractable problems such as these bus journeys to school might find assemblage approaches useful in their own investigations. For example where families, school leaders and local authorities are exploring socially just, efficient, safe and sustainable ways to get children to school in rural communities where there is no significant public transport provision. Or in localities where planners are working with communities, transport and education providers with decisions about school network consolidation and school closure (for an extensive report of an example from Finland see Tantarimäki and Törhönen,

2017). Moving away from the domination of humanist thinking and into vital material ways is challenging, however the benefits of focussing on the agency of non-human as well as human materiality, catalyses different kinds of thinking where new knowledges may be found. New knowledges are necessary to find solutions to complex, knotty problems such as bus journeys school; for communities in rural areas experiencing local school closure, children with increasingly long journeys to school each day, and for policy makers and planners looking to develop efficient, sustainable and socially just home to school transport systems.

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