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HOW CAN AN UNDERSTANDING OF MOBILITIES OF CARE LEAD TO MORE HUMANE CITIES?

Keywords
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Abstract

This paper draws on a literature review of 27 international papers on 'mobilities of care'. In this paper, the concept has been expanded to include the mobility of any person(s), of whatever age, who look after someone or perform caring tasks (e.g., elder relative, child, partner or friend). The approach and findings from these papers is of crucial importance to future transport planning and the design of 'humane cites', providing compelling evidence of the continued lack of transport provision to support such journeys, and the effects of the resultant transport poverty on the lives of the carers and the cared for.

The paper argues that the lens of 'mobilities of care' provides an opportunity to break away from technocentric approaches to the design of 'smart humane cities' to ones which are built around principles of caring for citizens and are truly humane.

1. INTRODUCTION

'Care work can be defined as the unpaid labour performed by adults for children and other dependants, including labour related to the upkeep of the household' [1]. The concept of 'mobilities of care' has been transformative in understanding and responding to the travel experiences and needs of (primarily) women and young children. It was developed as a counterpoint to mobility 'for paid employment' which was designed around the needs of the chief, usually male 'breadwinner'. It can be used to include many activities previously described as 'other' or 'recreational' in transport surveys such as shopping, visiting, chauffeuring and escorting duties. Classifying journeys as 'other' trivializes their signifance, and leads to gender bias. Care related journeys are not only undertaken more by women, but actually form a substantial amount of everyday journeys. For example, [2] estimates that 32% of women's daily mobility and 25% for men's mobility is care related.

Cresswell [3] argues that researchers " … have developed ways of telling us about the fact of movement, how often it happens, at what speeds, and where." This type of analysis does still predominate, e.g. in surveys, traffic counts, collection of bigdata. But it provides little information on how transport contributes to a humane city, especially as data can be used to reduce certain services.He continues "Recently, they have also informed us about who moves and how identity might make a difference". Qualitative approaches developed and favoured by feminist transport geographers and social scientists enable us to understand individual journeys and micromobilities. They provide insights into what travel involves, means and its role in human life. Yet such studies are undervalued.

In delivering against green mobility, technology roadmaps (e.g. [4]) a powerful technological push has been created for R&I to achieve zero fatalities, reduce carbon emissions and congestion, increase efficiency, and implement shared and autonomous transport systems. The role and investment in social science and human centred design in such projects is limited. Technology has become an end in itself, rather than an enabler of humane smart cities (which should encompass smart living, smart people, smart governance, smart mobility, smart environment, and smart economy and smart social inclusion). In delivering safer, regenerative, sustainable and fairer cities, local authority employees receive little support in overcoming the challenges in applying sometimes unproven technological solutions to improve transport, whilst at the same time keeping the city working, and making structural organizational changes to overcome silo mentalities and lack of trust [5].

Costa and Oliveira [6] amongst others, stress the need to address the right question in the design of 'humane smart cities' i.e, Who is at the centre of our research efforts; is it people or technology in all its guises (e.g transport, sensors, cameras)? Transport has transformed the design of cities, leading to spatially segregated areas (e.g.residential, employment commercial, entertainment, education) which necessitate travel. This has created many of the problems that urban dwellers are subjected to e.g. stress, pollution, congestion, accidents. R&I investment seeks to address these whilst at the same time supporting new forms of personal vehicles for 'privileged users'. The EU funded TInnGO project (https://www.tinngo.eu) aimed to create a paradigm shift to enable gender sensitive smart transport solutions, in this, [7]'s media analysis of the automotive industry's portrayal of smart cars showed a lack of representation of diversity (e.g. women, ethnicities, people with disabilities) or public transport. Inclusive transport, and the needs of real people are not featured prominently in future scenarios except in the most idealistic ways. Without a recognition of these needs how can a humane city be created?

Transport poverty has been largely ignored by the sector [8]. In the UK, SUSTRANS estimated that nearly '1.5 million people are at high risk of suffering from transport poverty' [9]. In developing an interdisciplinary approach to creating a humane smart city, transport should play a key role in poverty reduction, by enabling affordable and fair access [10]. It should not create or perpetuate social excusion a lack of insight,empathy, poor design and safety or a failure to meet the needs of all potential users. Researchers have argued since the 1980s that transport systems fail to consider the needs of women in terms of the way in which their role as carers shapes their mobility, and their concerns over safety and security, lack of space and facilities.

Gender blind approaches should be replaced by gender sensitive ones [11]. Given the reluctance of key transport stakeholders to make changes, the key research question is how can existing qualtiative research on transport be used to create more humane smart cites and reduce (gender) transport poverty?

2. SELECTION OF PAPERS

A subset of papers from transport which addressed 'mobility of care' was selected to uncover emergent themes which could shape more humane cities. Searches were conducted on the TRID database and SCOPUS using key words transport/mobility, mobility of care, children, young people, adolescents, pregnancy, older people, disability, health and wellbeing. This resulted in over 170 papers. From the analysis of abstract, title and key words 10% of the papers were selected to ensure coverage across different disciplines, transport modes, data collection methods, geographic location, user and trip type, The resultant papers (listed from [12] onwards) provide a representative snapshot of current research. The papers demonstrate how quickly researchers from many disciplines have embraced the concept of 'mobility of care' and its usefulness in not just highlighting disparities in transport provision and gender related care, but also in furthering understanding of intergenerational relationships and the significance of transport in people lives. Here the emphasis is not simply on counting who uses what forms of transport and when, but on understanding how im/mobility shapes and gives meaning to peoples lives. Of special significance is the inspirational work by researchers in developing countries

Together the papers point to the difficulties shared by women across the world in time management where care duties have to be squeezed into busy schedules, are not shared equally between genders, or considered by transport planners. This significantly reduces the quality of life of female carers (who have to pay more for safer modes of transport, trip chain, and select where and when they can work) and those they care for. In the rush to provide technological solutions to move more people and goods, the sector has lost sight of the people and quality of life they are designing for. The following section provides of brief overview of some of the ways in which care - related journeys provide a lens through which we can study how cities and transport fall short of creating humane and caring cities.

3. OVERVIEW OF ISSUES RAISED

The concept of mobilities of care was first raised to highlight gender differences in mobility. Although figures vary with income, age, residential location, number of children [2, 25, 26, 28] and culture, in most countries, women make the most care related trips and those from lower income households rely more on public transport. Ravensbergen [2], noted that where integrated ticketing does not exist, women who trip chain to perform caring duties, not only undertake unpaid labour but face higher transport charges to do this.

Holistic considerations of the mobility of care were recurrent themes in research from developing counties and low-income neighbourhoods – meaning that one cannot

simply look at transport on its own, but in relation to cultural practices and needs. Porter et al's comparative study of the mobility of care provided by women in low-income families in Abuja, Cape Town and Tunis during covid, showed how vulnerabilities of intergenerational caring duties and mobility become worse and more complex as women's burdens increased [23]. During lockdown women were the main carers and providers for multigenerational families – as carers their risks increased (through intimate care related contact with relatives), in travelling further to find work and searching for food. Covid restrictions meant that transport, employment and food were scarce and more expensive. This was exacerbated by patriarchal cultures that influenced where, when and how women could travel; transport deficiencies in low-income neighbourhoods – irregular, insufficient and costly public transport, poor infrastructure and a shortage street lighting. Even during covid women were subjected to pushing, stealing, verbal and sexual assault and were afraid to travel.

Women always plan their journeys to minimize risks even when they are performing caring duties or looking after their unborne child [20 and 31]. Minimising risk requires complex calculations, balancing time, cost and safety against quality of life. Plyushteva and Schwanen [22] used mobility biographies (at a micro level) to focus on intergenerational care in low-income households in Manila and London to explore intergenerational and close family and community ties effects on patterns of im/mobility, stressing the complexity of changes and how these are negotiated in time and place. Their study is one of few that address care in the community and local neighbourhood. Journeys which may be made on foot, in unlit and unsafe streets, and which are certainly never recorded in transport surveys.

Croucher et al's (2021) longitudinal, qualitative study is noteworthy because it addresses mobilities of care made by older carers [14]. It challenges our stereotype of ageing. With an ageing population and a drive to keep older people in the community, little attention has been paid to the mobilities of care of older people who become carers. For many, later life becomes a period in which attention is focused on the needs of others. Circles of care can include partners, grandchildren, life time friends and neighbours - some of whom may live with the carer, nearby, in a medical facility or many miles away. Journeys may be made to health care facilities, checking on welfare, shopping, and for leisure trips – taking someone out who may otherwise be alone and not get out the house. Such journeys are undertaken by older people who may be suffering from age related conditions themselves (e.g., cataracts, arthritis) and depend on private transport. With reductions in, or no, state provision for care in the community these trips become more frequent. They take an emotional, psychological, physical and financial toll on the care giver and take on a unique significance, for example when visiting a long-term partner in a hospice. Transport research focusses on the development of autonomous vehicles as a potential solution, but does not address how public transport could be improved.

Much research has naturally focused on parenthood [e.g.,15, 24, including chauffeuring of children e.g., 25, and 26] and motherhood [e.g., 12, 13, 15, 16,17, 27]. As well as looking at the gendered division of work in families, the papers deal with the role of transport in relation to characterizations of good parenting,

accessibility, safety and promotion of sustainable travel behaviours in young people (cycling and walking).

In terms of the development of humane cities, they provide valuable insights into how mother/parenthood is experienced, develops and is enacted during journeys with children in the public domain, and the role of transport (and its users) and the urban environment in this. A new unit of attention is also raised, e.g. Boyer and Spinney 'mother and baby assemblage'. '*Parenting assemblages form between a wide range of human and non-human entities from grandparents, other parents, health visitors and paedetricians to night-lights, teddies, nappies, change mats, baby ibuprofen (et cetera).*' [29, p112] , this can include baby buggies, prams etc and the way other (actor)s interact/react to the assemblage. Carrying this forward an assemblage can also be related to any caring composition (e.g. [14]'s elderly carers and associated mobility aids). Currently the design of transport systems is still around the needs of fit, young commuters excluding the design for any one or thing that might be part of an assemblage – whether it is a pram, wheelchair or shopping bag – i.e., anything which takes up space or reduces the rate of flow. The lack of accessibility in the system shapes all transport decisions.

Grant-Smith et al (2020) discussed the lack of child friendly transport provision in terms of UN Declaration of the Rights of the Child, which argues that the right to safe and accessible transport is critical for 'just cities' for all citizens [16]. Children on public transport are not given sufficient space or consideration whether they are in buggies or travellers in their own right – often being regarded as little more than a piece of luggage. In a US study, [19] explored intersectional effects of low-income mothers travelling with disabled children on public transit. Participants described how their marginalization and exclusion shaped their lives with many experiencing barriers including affordability, safety, discrimination and accessibility. Women worried about their personal safety (sexual assault and harassment) at poorly lit stops which discouraged them from riding certain routes at particular times. Women with small children described the stress of having to collapse a stroller to get on and off the bus, finding it easier to walk. Latino women faced racism from bus drivers (e.g., not letting them sit down before they started the bus). When neighbourhoods were not served by a school bus, the high cost of public transit forced mothers to home school children or choose between health care or educational needs. They raised concerns about the safety of their children on the buses owing to poor bus driver behaviour. In Sweden, [18] explored the experience of mothers with disabled children who ewer forced to use private cars due to lack of viable alternatives. They experienced difficulties with the heavy and time-consuming activity of lifting their children, wheelchairs and other equipment in and out of the car, which meant that they made arrangements to travel without their child or ran errands durinng school time. Their mobility became centred around the needs of their child.

Very few studies have addressed maternal health, [20]'s intersectional review in the US highlighted the substantial barriers to public transit faced by pregnant women which were further exacerbated if they were also caregivers, were Black, Indigenous, People of Colour (BIPOC) and from lower income groups. Taking a 'whole journey perspective', pedestrian routes to transitm stops and stations were poorly maintained (lack of sidewalks, lighting, safe crossings), with little access to safe, clean public

restrooms. Transport infrastructure was designed to accommodate pushchairs/strollers or those who may walk more slowly. When in vehicles, overcrowding and a lack of courtesy by fellow passengers to vacate seats added to their discomfort. This was further exacerbated if they were accompanied by children or were pregnant women of colour – in which case they experienced subjected inherent bias or outright hostility. In their analysis of Transport for London (TfL), [30] found expectant mothers suffered similar problems, with overcrowding and heat adding to their stress, fatigue and feelings of nausea. Commuting was so intolerable some took early maternity leave. To overcome the discourtesy faced by pregnant women, TfL introduced a 'baby on board 'badge scheme' designed to nudge passengers to give up their seats to pregnant women. This received mixed reviews – many passengers did not notice or ignored it, women felt that it drew unwanted attention to them and wearing it even resulted in verbal abuse.

4. CONCLUSIONS

The paper has described some of the insights arising from research conducted in by researches working on 'mobilities of care.' They point to specific ways in which transport falls short of the standards we would wish to see in humane cities of the future. It is critical that new research projects and transport engineers embrace draw on the findngs from transdsicplinary research and develop transport systems which are truly inclusive and facultate the creating of caring, sustainable and more humane cities.

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