



The car-free journey to, and through, parenthood

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Accepted: 25 January 2024
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Abstract

In the context of increasing urgency and interest in the need to reduce private car dependence, it is surprising that we know very little about people who choose to live without cars. This is particularly so for those living through life-stages, and in structural and cultural contexts, generally associated with private car use. Parenting children is one such life-stage. The common understanding is that the vulnerabilities and complexities associated with parenting are best attenuated by the autonomy, security and seclusion of the private car. Others, by choice or circumstance, parent by ‘altermobility’ – without the private car. Using data from in-depth interviews with car-free parents of young children in Sydney, Australia, this paper records how parents come to live without private cars in a city that is dominated by structures, cultures and expectations of private car use. It proposes travel trajectories based on past and present events, experiences and inclinations. In doing so, the paper exposes the sheer complexity of influences of the past on present and future mobility practices, calling into question linear understandings of travel socialisation and mobility biography research. Automobile childhoods, for example, do not necessarily produce car-dependent adults. And the onset of parenthood is not necessarily a time of increased private car attachment. In conclusion, the findings query assumptions about the impact of the early years of parenting on private car dependence, proposing that it is the child, not the infant, that cements the seemingly intractable bond between parenting and private car use.

Keywords Automobility · Mobility biography · Parents · Families · Australia · Private car

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Introduction

An array of contemporary urban problems could be eased by reduced private car use. Recognising its ability to perpetuate environmental (Bieker 2021), social (Gössling 2016; Sheller 2018) and physical harms (Monfort and Mueller 2020), scholars have sought to challenge the “car system” (Urry 2004, 25) almost since its slow dawning through the first half of the 20th Century (Goodwin 2012). It is surprising, therefore, that we know very little about people who inhabit automobile cities, yet live without cars. This is particularly so for those living through life-stages, and in cultural contexts generally associated with private car use. Parenting children is one such life-stage. For many, it seems, the vulnerabilities and complexities associated with parenting are attenuated by the autonomy, security and seclusion of the private car. Others, by choice or circumstance, parent by “altermobility” (McLaren 2018, 846) – without the private car.

Using data from in-depth interviews with 28 car-free parents of children under the age of 12 in Sydney, Australia, this paper explains how and why urban parents come to the practice of parenting without a car. It has an intentional focus on parents living without private cars in a city that is dominated by structures, cultures and expectations of private car use. A mobility biography approach (Lanzendorf 2003, 2010; Müggenburg et al. 2015) is deployed, but the biographical details recorded are not limited to accounts of travel practices past and present. Instead, the focus is extended to the patterns, beliefs and affordances encircling the mobile subject through time to produce their present circumstance of parenting car-free. The result is a deeper understanding of the reasons parents live without cars, including as shaped by their experiences and inclinations developed through childhood, adolescence, early-adulthood, parenthood and beyond. In doing so, the paper exposes the sheer complexity of influences of the past on present and intended future mobility practices. It contributes to existing work which questions linear understandings of travel socialisation (Sattlegger and Rau 2016), and challenges mobility biography approaches to look sideways from actual practices of travel and towards the complexity of co and independent elements shaping all aspects of life.

The paper opens with a review of literature on living without a car in car-dependent contexts, and the impact of life stages, including socialisation, on transport practices. The background to the study, and the method for data collection and analysis, are then outlined. Data is analysed under biographical themes, traversing the lives of participants to understand how they came to be parenting car-free.

Background

The colonies of the global north often feature cities that have literally ‘grown up’ around the assumption of private car access and use. These cities are predictably structured to support automobility as the dominant transport regime (Newman and Kenworthy 1999; Urry 2004). There are long distances between uses which are homogenised into large zoned tracts of residential, commercial or industrial uses (Levinson and Wu 2020). Public transport is designed to accommodate the regular journeys to work or services, but fails to support the other messy trips associated with modern life (Kent and Mulley 2022). Alternative autonomous modes – such as walking and cycling – are often marginalised, with space on roads

(Kaplan and Prato 2016; Kaplan et al. 2019), and in the minds of the drivers who use them (Walker et al. 2023), dominated by the speed and bulk of the automobile.

While automobile cities may be structured by and for the car, they are also home to people who, through restriction or choice, live without a private car (Sattlegger and Rau 2016; Kühne et al. 2018; Lagrell et al. 2018; Karjalainen et al. 2021). Yet even though the need to challenge the automobile is urgent (Bohm et al. 2006; Conley and McLaren 2006), the way this apparently desirable condition comes to be is relatively unexplored. Of course, there is abundant literature on children's independent mobility, which is inevitably without a car up to a certain age (for example Carver et al. 2013, Buliung et al. 2017, Porskamp et al. 2019, Smith et al. 2019). Beyond this, the condition of being without a car is more often explored as a consequence of deprivation. Understandably, particular attention has been given to those who are without a private car by constraint, commonly termed 'car-less' (as opposed to being without a car by choice, known as 'car-free' (Brown 2017)). Brown (2017) for example found that almost 80% of California's zero-car households did not own a car because of economic or physical constraints. This body of work rests on the assumption that "not owning a car is a fundamental vulnerability factor when faced with [environments of] car dependence" (Motte-Baumvol et al. 2010, 609), and various studies have interrogated practices to cope with car-lessness when it is forced not preferred (King et al. 2022; Klein et al. 2023; Wang and Renne 2023). Studies have also sought to confirm and understand the differences in travel behaviour between car-less (without a car by constraint), car-free (without a car by choice) and car-keeping (with a car) households. This includes the range and regularity of travel, and trip purpose. Most agree that the car-less and car-free in car-dependent contexts travel less distance and less often (for example, Lagrell and Gil Solá 2021). They also do less discretionary travel, particularly visiting family and friends (Ornetzeder et al. 2008; Blumenberg and Pierce 2012; Blumenberg et al. 2020; Paijmans and Pojani 2021).

A series of recent studies have viewed periods of car-independence as increasingly common and indicative of just one of a number of "cracks" in the automobility system" in auto-dependent contexts (McLaren 2018, 845. The ubiquity of this system is no better demonstrated by the structural story that "if you have kids you need a car" (Freudendal-Pedersen and Kesselring 2016, 580), and scrutinising the strength of the link between parenting and automobility has become an alluring challenge to those seeking to puncture the private car system. While quantitative data continues to tell the story that parents need cars (for example Prillwitz et al. 2006, Oakil et al. 2016, Klein and Smart 2019), a series of smaller, qualitative studies have explored the possibility of an alternative narrative emerging. Some have drawn attention to the ways parents are increasingly aware of the benefits of children walking to school (Lang et al. 2011; Mammen et al. 2012; Pojani and Boussauw 2014) and children relishing access to independent, car-free, mobility (Goodman et al. 2013). Others have located parents who retain ambivalence about the idea of needing a car to parent, and appreciating other modes while travelling with children (Pooley et al. 2011; Cuzzocrea and Mandich 2015; Clement and Waitt 2017; McCarthy et al. 2020). There have also been studies comparing the affective affordances and freedoms of private car use with that of public transport for parents, concluding there are instances of comparable intimacies, advantages and drawbacks associated with both, particularly for parents of younger children (McLaren 2018).

While various studies have examined the practices of parents without cars to explain how parenting and altermobility co-exist, the orientation of work on the car-free is skewed

towards practice – for example, seeking to understand the infrastructural enablers and constraints as experienced by those living voluntarily without a car (Paijmans and Pojani 2021). Few have examined the precedents to being car-free, including the life histories of those who embrace the state by choice. This paper is firmly focussed on these stories of precedent. While acknowledging that enabling and constraining cultural and structural elements are relevant, it proposes that trajectories towards being car-free are also of importance as a way to understand how these trajectories might be replicated, modified or customised in the pursuit of sustainable transport outcomes.

Any focus on journeys through life as a way to understand the role of life-events, both big and small, on mobility practices must logically fit within a body of work known as mobility biographies. This is an increasingly popular approach to unpicking the complexity of changes in mobility practices over time (Lanzendorf 2003; Scheiner 2007). Co-evolving with the inclusion of considerations of habit and disruption in transportation modelling (Verplanken et al. 1997, 2008; Garling and Axhausen 2003), as well as the application of biographical approaches to housing choices (for example Coulter and Van Ham 2013), this lens has been applied widely to understand the impact of life events and adaptations to everyday travel practices, positioning them as ‘biographical’ (Scheiner and Holz-Rau 2013). The modern-day entry to parenthood, with its glorious mess, vulnerability and unimaginable upheaval, is an obvious target for this concept, and many have modelled, explored and attempted to explain the impact of childbirth on travel behaviour. The results have been contradictory. Some have found an immediate reduction in women’s travel following childbirth (Scheiner and Holz-Rau 2013), others have confirmed accepted understandings that childbirth comes with increased car ownership and use (Prillwitz et al. 2006; Oakil et al. 2016). In a rare qualitative study, Lanzendorf (2010) questioned the power of entry into parenthood to prompt increased private car use through interviews with 15 mothers of children under the age of six. Using a retrospective mobility biographies approach, this study also found mixed results, with some mothers increasing their use of the private car, and others doing the exact opposite.

The current study is, in part, inspired by the work of Lanzendorf (2010), particularly the conclusion that “travel behavior changes after childbirth are not as simple as general opinion might suggest” (p. 291). Of relevance to understanding the heterogeneity of impacts of parenthood on mobility practices is the subtle shift in mobility biographies literature to recognition that life events might not necessarily need to be monumental to engender change (Sattlegger and Rau 2016). Originally conceptualised as “adaptations” (Müggenburg et al. 2015, 159), the focus has been on concepts such as travel socialisation’s impact on children (Baslington 2008; Haustein et al. 2009; Buliung et al. 2012), or the slowly contracting activity spheres of the elderly (Curl et al. 2014). These studies rest on the idea that past behaviour and exposures shape practices in later life, and impact reactions to catalysts for travel behaviour change. For example, in an early study, Cahill et al. (1996) found that children in the United Kingdom brought up without a car prefer the use of active transport modes when older. More recently, Smart and Klein (Smart and Klein 2018) found children in the USA exposed to public transport are more likely to use public transport in adulthood. Using data from the case study city of Australia, Acker et al. (2019) found that private car use in childhood informed pro-car attitudes in later life. Cass and Faulconbridge (2016), however, extended this focus to pay close attention to the ways people fit shifts in mobility practices into and around the negotiation of everyday modern life. Their work reveals the

extent to which responses to seemingly minor disruptions can create a change in practices, though are also reliant on the various competences and skills embedded in existing and previous practices of mobility and other life domains. This was further explored by Kent et al. (2017) through a series of interviews with car-sharers. Deconstructing events through the elemental schema of materials, skills and meanings traditionally used in social practice theory (see Kent 2021), their analysis unpicked the detailed background leading up to the actual decision to join a car-sharing service. They found that while a single shock, such as a car breaking down, could cause change, a series of events bundled to multiple aspects of life could be just as influential. Termed “second wave approaches” by Sattlegger and Rau (2016, 24), these consistently inductive approaches have come to dominate qualitative studies into the influence of past experience on mobility practices (for example Bonham and Wilson 2012, Jones et al. 2014).

Recognition of the importance of situating disruptions as both minor and major, and inevitably connected to already developed skills, experiences and resources, is important foundational work for this analysis, which seeks to extend existing work on the impact of parenting on private car use by looking behind and beyond the disruption of childbirth. The concept of travel socialisation, and method of mobility biographies are both used, not only as ways to understand the impact of a particular disruption, but also to explore disruptions in the context of parents’ previous practices and future intentions, including and beyond intentions related to transport. The paper examines the especially complicated problem of how parents come to the task of being car-free in an urban environment that is car-oriented. In doing so, the complexity and heterogeneity of the temporality of interpretations and influences of parenting on mobility practices is revealed.

Context and method

This paper draws upon qualitative research undertaken in Sydney, Australia. With a population of 5.9 million, Sydney is in the southern hemisphere but part of the colonised global north, with high per capita income and relatively stable gross domestic product. The city itself was developed around the assumption of universal private car ownership and is, by global standards, a low density city (Newman and Kenworthy 2006), sprawling across 12,500 square kilometres. Although pockets of higher-density mixed-use infill development are increasingly scattered around transit services throughout middle ring ‘greyfield’ suburbs and the already compact inner city, low-density residential urban form remains a popular option, particularly in outer suburban areas (Randolph and Freestone 2012). This low residential density essentially makes planning for the use of alternative transport in Sydney a very difficult task (Glazebrook 2009). There are long distances between commonly accessed uses and opportunities, rendering walking and cycling impracticable. While fixed and light rail, bus and ferry services are available, public transport accessibility is not uniform across the city. The network is poorly designed for non-work trips, with connections unpredictable, timetables limited outside peak hours, and structural affordances hindering the ability to carry a load, including an infant. As a result, in Sydney, as in many other major cities in the colonies (including North America), travel by car as driver or passenger dominates mode-share for all trip purposes (NSW Bureau of Transport Statistics 2020).

Although a quintessentially “automobile city” (Newman et al. 2016, 432), just over 10% of Sydney’s households do not own a private car (Australian Bureau of Statistics 2021). While these households are least likely to be families with young, dependent, children, there are also parents who raise children without cars. It is within this unlikely context that this study sought to understand how urban parents with children had come to the practice of parenting without a car.

To recruit study participants, notices were placed on the pages of a series of family friendly Facebook groups, requesting parents in households with children 12 years or younger and without regular access to a private car within their household to participate. Altogether 32 parents (18 mothers, six fathers and four heterosexual couples) agreed to be interviewed. Participants were offered a gift voucher as a token of thanks for their participation. The study was approved by the University of Sydney Human Research Ethics Committee (ref: 2019/063).

Before the interviews, participants were e-mailed a demographic questionnaire requesting data such as parents’ gender, household structure (including age(s) of child(ren), whether participants had a drivers’ licence and suburb of residence). They were told that the study was about the way families in Sydney travel. Once the screening questionnaire was returned, a time and place was arranged for the interview, which was conducted face to face and recorded during 2019.

Each semi-structured interview lasted between 45 and 90 min. Interviews opened with three structured questions. First, each participant was asked why they are currently car-free through the question: “you’re participating in this interview because you’re a parent living in a household without access to a car. In your own words, can you tell me why you don’t have a car right now?”. Asking this was imperative to understanding each participants’ subjective assessment of how, at that moment, they had come to be without a car. They were then asked to nominate, on a scale of 1–5, how easy it would be for their household to obtain a private car in the immediate future. This question was important to determine where each participant sat on the spectrum of being car-free (without a car by choice) or car-less (without a car by constraint). The third structured question asked participants to nominate on a scale of 1–5 how likely it would be that they will be without a car in five years’ time, with 1 being very likely and 5 being very unlikely. The less structured strand of the interview progressed to concentrate on biographical experiences. Each participant was asked to tell the story of their childhood experiences of mobility and schooling, and their perceptions of the parenting style deployed by their own primary carer(s) (Smetana 2017). This included questions around the degree of independence they had been afforded, and the extent to which they were encouraged to question norms, be autonomous and stimulated, all within the context of the story imparted by the participant. Participants were then asked to describe their entry into early adulthood, including any punctuating events or interventions they feel may have shaped their existing inclinations and practices, as well as more minor details, such as experiences of alternative and independent mobility, shifting living arrangements, interests and investments. The interview progressed to explore the lead up to the birth of the first child and beyond, concentrating on experiences of mobility, and the pursuit of various value-laden, temporally and financially intensive projects such as residential relocations, shifts in employment, and milestones in child development. Again, minor details were also explored, including familial participation in recreational activities outside of school/work hours, practices of shopping, visiting family and friends and seeking medi-

cal care, all recorded biographically from the entry into the parenting journey to the time of interview. Finally, participants were asked about existing household routines, including mobility practices.

At the conclusion of each interview, the author spent time reflecting on emergent themes and writing memos based on these reflections which were combined with transcripts to form the data for analysis. At least three days were scheduled between each interview to allow for this reflection, and ensure the process of data collection was iterative with each interview informing the approach to the next.

All interviews were transcribed professionally. Data analysis and interpretation was conducted by the author and it is a limitation of this research that additional, external, validation of themes did not occur at the time of analysis. The process of analysis first involved a careful analytic reading of all interviews and memos, to identify commonalities and differences in stories and elements of stories. At this point, emergent themes were contextualised against loose *a priori* assumptions informed by existing theoretical and empirical work on car dependence. Central topics and tensions emerged, with coding then split into two streams, one addressing practices of parents without cars and the other, which is the subject of this paper, biographies of parents without cars. This distinction was informed by the interview approach and has carried through to the data analysis and reporting. From here, the analysis emerged through an in-depth inductive process of moving back and forth between reading transcripts and memos, re-examining audio material for intonation and emphasis, further coding, and simultaneously contextualising emergent themes against theoretical constructs, with a particular focus on mobility biographies and travel socialisation.

Before progressing, there is a need to acknowledge and address a tension in the pursuit of transition away from private car use that is particularly relevant in car-dependent locations and lives, and subsequently relevant to this analysis. This tension is ‘between sustainability (which ultimately seeks to secure modal shift and discourage car use) and social exclusion (which recognises that there can be social and health benefits of car use)’ (Jones and Lucas 2012, 8–9). It infuses a serious risk into attempts to understand the biographies of families without cars as a way to inform transition. This risk is the perpetuation of exclusion through glorifying adversity as a sustainable choice, as opposed to the result of systemic inequality. The data reported in the analysis that follows is selected from 28 participants in the broader study who saw themselves as car-free at the time of interview as a voluntary circumstance that could be remedied or avoided with very little effort or penalty (see Table 1). The paper does not report data from parents living without cars as a result of financial and physical constraint, nor from a position of wanting and needing a car to flourish, but being unable to afford or take advantage of one. This is intentional. It is not because the stories of these parents’ journeys to carlessness are unimportant and in dire need of telling. Instead, through acknowledging the distinction, this paper seeks to understand how parents come to *preference* living without a car, in the hopes of informing ways to replicate or ease their journeys into the future.

Table 1 Participant details

Name*	Gender**	Children	Stated likelihood of car-free status in 5 years (1 = very likely, 5 = very unlikely)	Stated catalyst	Circumstantial (CCF) / Passionate (PCF)
Andrea	f	3 children, 11 months, 6 and 8 years	5	Car registration due	CCF
Annie	f	2 children 2 and 4 years	5	Move – international (USA)	CCF
Arlene	f	1 child, 10 years	5	Car registration due	CCF
Catherine	f	1 child, 7 years	5	Car broke down	CCF
Damali	f	1 child, 14 months	5	Move – international (Asia)	CCF
Domenica	f	1 child, 8 months	5	Move – international (Brazil)	CCF
Ellie	f	1 child, 9 months	5	Move – domestic	CCF
Emily	f	1 child, 3 years	5	Move – international (UK)	CCF
Hiba	f	1 child, 4 years	5	Move – international (Asia)	CCF
Isabella	f	1 child, 18 months	5	Move – international (Canada)	CCF
James	m	1 child, 8 years	1	Car registration due	PCF
Jasmine and Maz	hc	1 child, 12 months	5	Car broke down	CCF
Jessica	f	1 child, 11 months	4	Move – domestic	CCF
Klaus	m	1 child, 18 months	5	Car registration due	CCF
Kristina and Rowan	hc	1 child, 5 years	5	Car broke down	CCF
Lachlan	m	2 children, 1 month, 4 years	2	None - never had licence/car	PCF
Leanne	f	2 children, 5 and 7 years	1	Move – international (New Zealand)	PCF
Mark	m	2 children, 6 and 9 years	2	None - never had licence/car	PCF
Matthew	m	1 child, 20 months	2	Move – international (Netherlands)	PCF
Nick	m	1 child, 8 years	4	Move - domestic	CCF
Nicole	f	1 child, 4 years	5	Move – international (USA)	CCF
Nina and Joe	hc	1 child, 2 years	5	Car registration due	CCF
Tanya	f	2 children, 1 and 3 years	5	Car registration due	CCF
Thomas and Michelle	hc	1 child, 6 months	5	Car registration due	CCF

*Pseudonyms have been used **as identified by participant

Findings

Of the 32 parents who participated in this study, 28 indicated that their family household unit could obtain and drive their own private car, but they had chosen, at this point in time, not to. In the language of Brown (2017) these parents can be considered car-free, not car-less. Beyond this commonality across participants in this study, an obvious rift emerged. There were those who were passionate about being car-free:

Interviewer: You were saying before one of the reasons that you're living car-free now is that you do recognise there's a lot of congestion and you want to be part of a solution to that. Is that something you feel really strongly about?

Lachlan: Yes, extremely strongly about. I feel like you've got to live the virtues that you express.

And those who see their life without a car as an accepted by product of other decisions and circumstances, and reflective of a particular time in their lives:

Emily: Yes and it's not like we hate cars. I mean our favourite thing to do is road tripping. [My husband] loves cars, he will watch any You Tube video about cars, it's not that we don't like cars, it's just we can live without one right now so we kind of think, why bother going out and getting one.

In this study, the first group is referred to as 'passionately car-free' (PCF – 5 participants) and the second group as 'circumstantially car-free' (CCF – 23 participants). The circumstances leading to being car-free, the impact of childbirth, and trajectories into the future, differ for each group. This distinction is often called upon in the analysis that follows, and is also reported in Table One, which contains basic details of the 28 participants whose data is used in this paper. These 28 participants were all part of a heterosexual couple with children. In a minority of cases, both parents were interviewed together, and the data that was analysed and reported here is taken from the interaction between the couple.

Although situated in a city dominated by private car use, this study's participants had consistently, and to the best of their ability, positioned themselves to be in transit rich areas. In most cases, they inhabited the pockets of higher density and transit-oriented infill development described in the [background](#) section above. Parents described lives that were lived within the immediate neighbourhood; with childcare, schools, parks, shops and services all accessible by a short journey on foot. Parents that worked could access the place of employment by public transport or cycling, and many were able to work from home for some of the time. They had developed skills to navigate the public transport system encumbered by the load and temporal time bomb that can be a tired toddler. Bikes, prams, car sharing cars, and the cars of family and friends, were all enlisted to fill the gaps between home and destinations inaccessible by public transport. And when all options were exhausted, parents simply let the activity, appointment, catch up or purchase pass them by, usually without fuss or consequence.

While these elements of the ways parenting can be practised car-free are interesting, this study seeks to deconstruct the biographical details of how this state of practice comes

to be. It is inspired by the need to understand the multifaceted circumstances that precede becoming a parent without a car. The remainder of this section is structured to traverse this group of parents' biographical journeys, with a focus on explaining becoming car-free, and accounting for the impact of parenthood on this state. Starting with childhood experiences, the section concludes with reflections on future trajectories.

Childhood experiences of mobility

Through prompting to recall childhood memories and experiences, including of mobility, participants were able to identify various ways their childhood influenced their existing situation of parenting car-free. A subset of participants from both the passionately and circumstantially car-free groups had experienced the quintessential free-range childhood (Kyttä et al. 2015) where they were encouraged to be independently mobile from a young age, and developed skills of travelling without a car in the process. Circumstantially car-free mother of one, Nicole, for example, explains early experiences of independent mobility:

I think I started biking to school by myself, never fully by myself, because there was always neighbours to catch up with, I want to say probably from about the age of eight, and even probably actually younger with my brother and sister, when they were at the school.

Others, however, had experienced less independence, and this filtered through to constraints on their ability to be mobile without parental supervision. Most often this meant they'd been chauffeured in a car on a regular basis, as explained by Hiba (CCF):

I grew up getting driven everywhere – my dad would drive me to school, to wherever I wanted to go, like visiting friends, to netball, swimming, everywhere. Sometimes I'd get lifts I guess, but mostly I think my Dad was happy to do it. Probably because it meant he knew where I was!

Passionately car-free, Lachlan, described similar experiences:

Living in the suburbs we just didn't get to walk anywhere because everything seemed so far away, so we'd drive. But I guess even when there were things closer – like my best friend for lived a few streets away – and my mum would still drive me there and pick me up.

Contrary to existing understandings of the linearity of socialisation into transport practices (for example, Baslington 2008, Smart and Klein 2018), for this study's participants the influence of childhood on existing travel behaviour was often unrelated to childhood experiences or understandings of *actually travelling*. Some, particularly those passionate about being car-free, attributed their lack of a car to compatible, yet unrelated, beliefs handed down by parents or mentors over the course of childhood. These included respect for the environment, encouragement to question social norms, rejection of materialism, and the value of being financially independent and frugal. Passionately car-free Mark, for example, recalls socialisation into respect for the environment:

I think my parents were first generation greenies or something, and they taught me that as well. We spent a lot of time camping, in the bush. So it probably all started when I was young, then doing environmental stuff after school, playing in the bush, and that just extended to wanting to not wanting to be like the other kids, when they were all getting cars and driving, I was riding my bike everywhere.

Circumstantially car-free Jasmine, valued lessons in financial prudence:

My Mum always taught me to live within my means, and I think [husband]'s parents were the same. You know, you work hard and you save money, and that's what we are doing now, we're saving, which is why we don't have a car.

Also circumstantially car-free, Isabella, who had an extremely car-dependent upbringing, describes how her parents always invited her to question social norms:

My parents never wanted me to just follow a path, they always wanted me to explore and encouraged me to try new things. I think that has something to do with how I am as a mother, I want my child to have that too, and in a small way, probably taking the bus, walking in the rain, that's ok for me - it's different, I want her to have that.

Others, particularly the circumstantially car-free, had experiences of financial hardship, and attributed their existing car-free state to a desire to avoid replication of those hardships for themselves and now their children.

Tanya (CCF): We both grew up without much money and a lot of debt, in both our families. We really wanted to be debt free when we had kids, which is why we sold the car rather than getting a loan to replace it.

Similarly, some participants had experienced a typically suburban and car-dependent upbringing, which inspired aspirations to live their own adult life as more urban, including being car-free.

Ellie (CCF): I lived a car-based lifestyle for 27 years, I grew up with it, and I didn't want to go back to that. When I moved out, I wanted to live a life that was different to where I grew up.

First freedoms

For this study's participants, skills and access to driving was cemented during adolescence or early adulthood. Three participants had never had a drivers' license. For two, this was attributed to the absence of carer/parental support to learn at this life-stage, with both now daunted by the thought of learning as an older adult.

All participants who could drive, regardless of where they lived or whether they were passionate or not about being car-free, recalled a desire to attain the skill of driving as soon

as possible. Passionately car-free James, for example, describes what seems to be a common experience in Australia:

I'm pretty sure I got my license the day I legally could. It meant independence and freedom at the time, I was desperate for it and so were all of my friends, it's just what you did.

For some, however, this enthusiasm waned in early adulthood. Several participants recalled bad experiences while learning to drive and labelled themselves "bad drivers" to this day (Nick, PCF). Some had been involved in car collisions, or known family or friends who had been injured or killed by cars. These participants did not attribute their existing car-free status to this fear, however they did indicate it had prompted their initial interest in other ways to travel as an adult and resulted in the development of skills to live without a car.

In the period immediately post the teenage years, many participants had experimented with different lifestyles, often in other countries and cultures. For some, these were periods where skills and appreciations for less car-dependent lifestyles could be honed, often as part of an overall experience:

Nicole (CCF): So, I always drove when I was living at home. Then it was a taste of a car-free lifestyle at uni, and then London for six months was the first time I did not have a car at all. It was a very freeing experience – not just the car but the whole thing, being away from home, meeting new people.

Others, however, drew very little connection between their early experiences of being mobile as an adult and the way they travel now:

Jessica (CCF): I was always more than happy to drive, and I enjoy driving, always I guess. Which is kind of weird, I've just done a complete flip, I suppose, for now. I still enjoy driving but day-to-day, when you're living in a big city, it's pointless.

Kristina (CCF): As a kid I grew up on a bike, but for some reason, in my twenties I think it was the luxury of having a car and a licence and all that – I liked it. I liked having a car then, but for now I am back on my bike.

Finally, some participants had carried their childhood experiences through to adulthood but then questioned them later in life:

Tanya (CCF): ...when I was young it was an initiation, of going into adulthood, you get your license, you get a car. It's not like we thought about it or second-guessed or asked, do I really need it? You just get a car. But now we are older, we are realising we don't really need it at all.

Being or becoming carless

Only two participants had never owned a private a car in their adult life. Both were passionately car-free and had never learned to drive, but came from very different backgrounds. One grew up in a relatively car-dependent suburban context with parents willing to drive to school and activities (Lachlan). The other grew up in an inner-city suburb with a family who didn't have regular access to a car (Mark).

The remaining participants had all experienced periods with access to a car – either their own or shared with an intimate partner or family member. The immediate explanations as to why participants did not have a car at the specific time of interview are reported in Table One. They cover themes well-known in the literature such as residential relocations, the decision to not renew a car's registration (often linked to financial difficulties or a re-orientation of resources), and the abrupt or imminent end of the life of a car which was not revived or replaced. In many cases participants cited combinations of these three themes.

An international move was the most common primary catalyst to becoming car-free. Moving, like childbirth, is a major disruption, often examined by those interested in the way habit discontinuity relates to life events and subsequent changes in travel behaviour (for example, Adhikari et al. 2020). Relocation works as an opportunity to reassess otherwise entrenched and taken for granted routines, and establish new ways of living more in line with aspirations than circumstance. It is also often expensive, leaving little left over in the immediate future for items considered discretionary. Many participants who had moved had deprioritised purchase of a car in their new country of residence even before they arrived, and chosen to live in an area well-served by public transport:

Domenica (CCF): We moved to around here, because of the different train routes. It was part of our criteria where to go. We would want somewhere near a train station, but not too busy, and with shops close by. So before we came, we just knew all the train stations and then we looked for buses as well, because we knew we wouldn't buy a car right away – we'd been thinking that way for a while in [country of origin], that we wanted to not have a car.

Experiences of acute financial hardship, or a reorientation of financial resources, were other catalysts to being car-free, with the circumstantially car-free often describing the realisation that they hardly used the car and could be saving a lot of money by getting rid of it. Tanya (CCF) and her husband, for example, are small business owners who needed to save to invest in the business:

We'd been trying to save for a while already and going really well. Then our car was getting old and the services were getting more and more expensive. And registration was coming up in October, and we were like: Is it another expense we can really afford? Do we want to keep paying for this car or get a new one? And we decided that it was a bit more of a luxury at the end of the day, so we sold it.

Rather than a financial shock, participants described a slow process of reducing the amount they used the car as a way to save money on running costs, which eventually turned into selling the car altogether:

Klaus (CCF): Petrol was getting expensive, maintenance, I mean the expenses, it's not cheap anymore. Sometimes I would fill the car up and it would sit there for weeks because I would try not to use that fuel – kind of like a game. So once we could do that we figured why not just sell it. So we did, and it was great, we used the money for a holiday with the kids.

Related to this, some of the circumstantially car-free had decided not to repair, or replace, a car that had broken down. Often this was positioned as a temporary experiment:

Catherine (CCF): The car just stopped working one day and it was going to cost more than it was worth to fix it, so we thought about it and decided to try and live without a car for a while rather than replace it right away, just to see whether we could do it.

Importantly, the experiences that immediately preceded participants being car-free were simply a convenient catalyst, often giving them the opportunity to try out a lifestyle they'd been considering over various timeframes. This consideration had been honed by previous experiences, sometimes from childhood, and at other times developed later in life, often through experiences in other countries or parts of the city where cars were not necessary. The actual moment of becoming car-free, it seems, was not necessarily the point in time where the decision was made.

Becoming parents, becoming car-free

All but three parents were car-free at the time of the birth of their first child, embarking on the parenting journey without a car from the very beginning. Three parents, all circumstantially car-free, went through the process of deliberating shedding the family car with children already in tow.

Passionately car-free parents described only brief periods of contemplation of whether to buy a car when they were first pregnant, which were often followed up with a proud assertion of determination to face parenting in the same way they faced other aspects of life: without a car. They generally did little preparation to shift their existing mobility options, however one participant invested in the purchase of an e-cargo bike and another joined a car-sharing service. One contemplated obtaining a drivers' license but "ran out of time before the baby was born, and now there's just no way I'd even try" (Lachlan). This group was particularly hesitant to enlist the support of family and friends, even proudly describing their egress from the hospital post birth in a car share car, on a bus, or walking with a pram:

Interviewer: How did you get home from the hospital when you had [second child]?

Lachlan (PCF): We've got a pram with a bassinet. We took her on the bus - I have a photo of us waiting at the bus stop if you want to see it.

Upon becoming pregnant, car-free parents generally described more detailed considerations of whether to purchase a car. Often these were contextualised in expectations – both their own and those of others – that "being a parent meant having a car" (Jessica CCF).

Emily (CCF): We did consider, when I was pregnant, we were like, okay, we need to really think about this, seriously, do we need a car?

Tanya (CCF): Well we were thinking of buying a car when we knew we were having [child], but I guess since we could already get around without one, we decided it's not really a priority.

For many, it was deemed a case of "let's see how we go" (Nick CCF)).

Nicole (CCF): We sat down and discussed whether or not we would get a car before [child] was born, while I was pregnant I guess. We almost did get a car, and then we realised, well, let's just see how it plays out. What do we really need it for?

Ellie (CCF): My husband and I had conversations about a car at first, a lot of conversations actually. But we still haven't really decided one way or the other because we're both very much just wait and see, roll with the punches types.

Parents who had shed a car after they had a child or children gave little consideration to the impact not having a car might have on their ability to parent. The choice was articulated as just the logical thing to do and they voiced confidence in their decision because they knew from experience that they could satisfy the majority of their day-to-day travel, including travel with and for children, by other modes. Tanya (CCF) and her husband, for example, described slowly decreasing their use of the car to save money on petrol and running costs, until they felt they could try some time without it:

Parking around our work, it's horrible. So we decided to catch the bus to work and childcare anyway, and so then we used to drive the car only on the weekend, and then I found a place for (child) to do jujitsu which was closer to home so we didn't even need it much on weekends. So we kind of weighed up how much we were using it and we thought, you know, we'll do it for six months and see.

For others, any potentially negative impacts on children of not having a car were justified by the idea that it was not a permanent state. Kristina's (CCF) car had broken down when her son was five years old, but they were planning an international move so didn't see the point in replacing it:

The thing was we were planning to go back to [country of origin]. And we wanted to go back last year. So when our car completely failed and packed up, we decided not to get a car because we were going to go. That was six months ago, and we still don't know what's happening with the move, and so we still don't have a car.

Being parents

Parenting is a journey through ages and stages (James and Prout 2003). Babies are born entirely dependent, yet their requirements are relatively simple. As children grow, their

needs shift. In many contexts, children's lives become more complex (Gilbert et al. 2022), as do the societal norms shaping the expectations of parents (Prout 2004; Joelsson 2019).

The parents in this study often described their mobility needs in the context of the age(s) of their child(ren). Parents of babies or toddlers had routines that were logically and easily localised. Parents described neighbourhoods where the basics of life with a baby - a local playgroup, a café, a park and some shops - can all be accessed easily by walking with the infant in a pram. As children grow to attend primary (elementary) and then secondary school, their mobility needs become more demanding and more complex. This transition is described by Nicole, whose 4-year-old daughter was about to start her first year of school:

Interviewer: When you first realised you were pregnant, did you think you might need to get a car?

Nicole (CCF): Yes, we did, but decided not, initially. Because, at that time I was home for a couple of years and just walking her and I didn't really have a need to. I think it's only been, say, probably in the last year, year and a half, where I kind of thought about it. So a lot of the activities, like swimming and stuff, she does locally, but, I want to take her to gymnastics and there's nothing easy to get to from here and, or if I take public transport it's going to take me like an hour, which should be like a 25 min journey. So I think really that's kind of in the past year or year and a half I've kind of thought more that we really should think about getting a car, because I feel like it's going to restrict what I can do with her.

Experiences or anticipations of the expanding geographies of growing children prompted the majority of circumstantial car-free parents to indicate that they would obtain a car at some time in the future. For some this was related to the kinds of opportunities they envisaged giving older children. Jessica (CCF), mother of one, for example, gave this response when asked whether she would think about getting a car in the future:

Yes. I suppose it's a wee way away, but that Saturday morning sports, where he needs to be ferried to places that are not as accessible on public transport, or that it's absolutely belting down with rain, that makes it hard. We'll get a car then.

Thomas (CCF) had a similar sentiment:

But I do think we would need a car down the track. I can't really see us having a ten-year-old and not owning a car.

Others were happy to insist that their younger children experience what they saw were the down-sides, or discomforts, of being car-free, but once childhood memories were being officially cemented, they preferred to provide children with the perceived comfort and convenience of a car:

Annie (CCF): We figured that they will remember things when they're older - the experiences and things. But when they're younger, they don't know that public transport is hard, and they're not really going to remember whether the bus took 30 min

compared to a car taking 10 min. Once they're ten or so, you want to take them to soccer, and people's houses, and big camping trips, and you need a car for all that, so then we will get one.

Others aligned being car-free with a period in life where they are saving for the future of their children. Often the car was seen as towards the end of a line of material objects or circumstances to be obtained as parents in a sequential way:

Nina (CCF): We'll rent (an apartment) for a while, get a car, then upgrade to a house, so by the time she's ten we will have a car and a house.

Malilhe (CCF): My plan is when my daughter goes to school next year, then I can go and work, and then I will get a car, because we'll be doing more.

Importantly, the majority of parents spoke about their mobility futures as malleable. Most described ongoing engagement in processes of weighing up the costs and benefits associated with living without a car:

Isabella (CCF): It really is, like, important to me right now, not to have a car. But I'm not that closed minded to say, "I will never have a car", I'll think about it when I start feeling like we need it, when (Isabella's daughter) is older.

Emily (CCF): We just play it by ear so if we would need it somewhere down the line, we'll get one down the line.

Ellie (CCF): I do feel like it's still temporary here, or something – where we live and all of that. Eventually we will have to grow up and get a car and be like our parents, one day.

Those who had become car-free while they had young children, also thought of the experience as temporary – a process of dipping in then out of car-free life. Kristina (CCF), for example, explained that parenting without a car was almost like an adventure, to be embraced rather than endured:

My son loves it because he has fun on the bike and it's still a novelty for him, and same for me really, to be like one of those Dutch mums and do everything by bike. The novelty might rub off sooner or later, but if that happens and we still haven't moved, we'll just get a car.

Catherine (CCF), whose car had broken down, had decided not to replace it in part as a way to provide her son with the experience:

I home school (Catherine's son) so I am always looking for ways to give him different experiences and we feel like this is part of that. It's made us try new things and sometimes he complains. We'll get a car again some day, but it's been good to do it.

Discussion

This paper further validates existing research which looks to past experiences for explanations of existing transport practices, including those that are less dependent on the private car. For each participant in this study, the state of parenting without a car has come to be because of a series of bygone events and experiences. These have shaped inclinations to self-select into locations where living car-free is perceived as acceptable, even in the midst of the notoriously car-dependent life-stage of parenting and even in an automobile city. The dominant paradigm in transport research trends towards using individual instances of travel to understand transport behaviour (for example Hafezi et al. 2019, Dixit et al. 2023). The findings of this paper challenge us to improve the way we account for the influence of prior experiences in attempts to understand why people travel the way they do.

These parents' stories also extend research on mobility biographies and travel socialisation through revealing the sheer diversity, and sometimes contradictory, influences of life histories on car-free living. For this study's participants, beyond the commonality of the past actually having an influence, there was little consistency around the life stages and milestones at which their being without a car was pre-determined. For some, childhood experiences of travel were relevant, but for others a desire to live without a car, or at least contemplation of the idea, developed later in life. Some even cited their appreciation of life without a car as a rejection of childhood experiences, while others were dedicated to emulation of the values and practices they had learned as children. This suggests that, contrary to existing understandings (for example Sigurdardottir et al. 2013, Hopkins et al. 2021), a childhood of socialisation into car dependency (Baslington 2008) may not result in a car-dependent adult or parent, indeed, it may result in the reverse. Although not explored in this research, it is possible that a childhood of socialisation into sustainable transport practices may also result in defiant rejection. This is not to refute entirely the idea that childhood is a time when experiences shape transport inclinations. There is, however, more at play than exposure to images and routines of actually travelling when it comes to socialisation into transport practices. Other messages and experiences – of respect, frugality, questioning the status quo and embracing adventure – were, it seems, even more influential in these parents' decision to take parenting on without a car. This conceptualisation of travel socialisation adds a layer of depth to existing understandings, suggesting the need to focus on the whole experience of childhood, and the inclinations it endows, as opposed to interrogating simple patterns of mode-share through the life-course.

This study also confirms existing understandings of the key catalysts to changes in transport behaviour (for example, Bruns and Matthes 2019, Schouten 2022). For those who had once owned a car, three events immediately preceded being car-free: moving house, an existing car breaking down, and car registration being due. But while these events provided excuses to try living car-free, their interpretation into a car-free life was always fuelled by other experiences, aspirations and circumstances to make the lifestyle a desirable reality. A broken-down car, for example, was not replaced because of aspirations to save money. A car was not acquired upon moving house because of a desire to experience a new city car-free. Importantly, these inclinations had been developed by each participant throughout life to this point, rather than inculcated at any one particular life stage. An enabling aptitude was fostered through multiple and diverse previous, yet temporally staged, experiences, including experiences in other car-free stages of life. In this way, while transport research needs

to keep an eye on key catalysts, these “shocks” (Kent et al. 2017, 200) won’t necessarily result in change unless preceded by circumstances which plant the seeds of an idea to try something new.

Surprisingly, and contradictory to existing understandings yet echoing the finding above that shocks do not necessarily engender change, the onset of parenting failed to catalyse intense scrutiny of mobility practices. For each parent, the disruption of childbirth did not prompt immediate change. Parents did not see childbirth as a reason to acquire a car. Indeed, for many, the early years were seen as the best years to be without a car, not only as parents but also as people. This makes sense in that the early years of parenting are often characterised by shrunken activity spheres (Lupton 2000; Chivers et al. 2021). The lives of very new parents are easily localised, walkable and predictable. The urban environment, even in cities structured around the car, can usually accommodate the day-to-day travel demands of a small baby and their weary carers. This study’s participants described how this shifts, as children grow to be their own mobile subjects, with demands for trips that, in car-dependent contexts, are less likely to be accessible without a car. Opportunities deemed by parents as obligatory to the provision of a well-rounded childhood – weekend sports, camping trips, visits to friends – all also deemed only attainable by car in the case study city. This suggests that it is not the infant that shapes the familial mobility biography, but the child. As such, mobility scholars and practitioners seeking to challenge the hegemony of the private car in parenting practices would be better placed to focus on the entire journey, and not necessarily the onset, of parenting. Indeed, these parents’ stated intentions demonstrate the way parents can be prone to dip in and out of car ownership and use, with each new phase opening both opportunities and threats to living car-free.

In summary, and broadening these findings to wider mobility research, this study first unpicks the previously accepted bond between childhood experiences of mobility and mobility practices in adulthood, challenging us to look sideways from actual practices of travel to other avenues of influence on children’s socialisation into transport preferences. It also suggests people do not necessarily change travel practices in response to immediate disruptions, but instead take time to reflect, cataloguing the pros and cons of change, taking on board information as they go. This gives further clarity to contemporary research on mobility biographies that emphasises culminations in disruptions, and minor shifts, as influential in change. Finally, these findings suggest those interested in the mobility trajectories of parenthood should look beyond childbirth and towards the mobile child as a predictor of parental dependence on the private car.

Conclusion

Parenting and private car use are often seen as entwined, more so than other periods of life. But parenting is a long journey, presenting opportunities for habits to be called into question through natural disruptions as children grow up and their needs change. The impact of childbirth on mobility practices therefore needs to be viewed the same as its impact on all other facets of life – constantly evolving, infinitely disruptive, often confusing and never experienced as the same from one parent to the next. While officially we become parents the moment a child enters our lives, the process of becoming does not stop there, nor does its impact on the way we travel as parents.

The influence of parenting's temporalities is further complicated by the fact we rarely come to the task of parenting, nor travel as parents, without previously developed appreciations, values and experiences. As the rich volume of scholarship on mobility biographies and travel socialisation demonstrates, our day-to-day travel decision making is shaped by the past. Yet, even so, using collective stories of the past to determine travel futures, risks under-estimating the diversity of influences on mobility practices. Past experiences of travel are contextualised in other experiences – of learning, developing, and shaping who we come to be as subjects, including mobile subjects, and mobile subjects with children. While discontinuity of this past through major disruption may open windows of opportunity (or threat) for sustainable transport transitions, these major events are interpreted through these complex histories. They are unlikely to provide impetus for change in the absence of inclinations and a willingness to try something different. In addition, childhood experiences are shaped by generational shifts and shifts in context, and interactions between experience, willingness, generationally inculcated practices and built environments over time are fruitful avenues for further research on the influence of past experiences on present and future travel preferences.

In conclusion, the structural and material affordances implicit in these parents' stories need to be acknowledged. The case study context for this paper is not universal, representing as it does one particular city in a wealthy nation. Each parent in this paper was in the position of being car-free by choice. As such, they had the resources to be able to live in one of several pockets within the car-dependent case study city where it was possible to access contact, services, employment, entertainment, and time out, without a private car. These areas were generally built to reflect the environments proven to be associated with less private car use – higher densities with good access to public transport networks, provisions for public open spaces, shops and services within walkable distances. They were also all adorned with plentiful commercial car sharing cars. While this study does not emphasise the role of materials and structures in shaping these parents' transport practices, it does acknowledge that the ability to parent car-free in a car-dependent context is, ultimately, dependent on existence of a supportive built environment. Its point, however, is that supportive built environments will only be inhabited by parents (and others) if the skills, inclinations and experiences they bring to the task at least invite them to “give it a go” (Ellie). As is always the case in any attempt to understand why people travel the way they do, both structures and their interpretation by individual agents are relevant.

Acknowledgements This study was funded by the Australian Research Council (DE190100211). Thanks to the mums and dads who participated in this study, many of whom juggled babies, toddlers and pre-schoolers with ease as they shared their stories.

Author contributions The paper is sole authored.

Funding Open Access funding enabled and organized by CAUL and its Member Institutions

Declarations

Competing interests The authors declare no competing interests.

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