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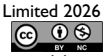
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Mobility freedoms: Conceptions of freedom in contestations over urban transport

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Abstract

The link between urban transport and freedom has long been recognised in academic literature and is drawing renewed attention in controversies over initiatives to reduce car use within urban areas and flying between cities. This paper analyses how multiple conceptualisations of freedom from across the humanities and social sciences are, and can be, implicated in public contestations over urban transport. It suggests that individualised notions of freedom are commonly invoked by adversaries of car- and flight-curbing initiatives, a dominance that reflects prevailing histories of systems of automobility and aeromobility across the Global North. It also proposes that those initiatives can be understood as applications of Mill's harm principle by the (local) state seeking to reconfigure the co-evolution of mobility freedoms and unfreedoms. Yet, the harm principle is ultimately inadequate as legitimation for interventions in urban transport on a climate-constrained planet given its grounding in individualised freedoms. The paper therefore elaborates a collective, dynamic and non-sovereign conceptualisation of mobility freedoms as a framework for changes to urban mobility systems from above and below. The paper concludes that harnessing freedom's descriptive and performative capabilities can enrich analysis of urban mobility contestations and facilitate practical action to transform urban mobilities at times of climate emergency.

Keywords

aeromobility, automobility, climate emergency, freedom, transport policy, world-making

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摘要

城市交通与自由之间的关联，在学术文献中早已得到认可。如今在城市内减车、城市间限飞倡议的争议中，这一议题正重新受到关注。本文分析了人文和社会科学领域中，多元的自由概念化路径在城市交通公共论争中已有的及潜在的嵌入方式。本文认为，个体化的自由观念常被减车和限飞倡议的反对者所援引；这种主导性态势反映了全球北方汽车与航空交通体系的主流历史。本文还提出，这些倡议可以理解为（地方）政府对密尔（Mill）的伤害原则的运用，旨在重构出行自由与不自由的协同演化。然而，鉴于其以个体化自由为基础，在地球面临气候约束的背景下，伤害原则终究不足以成为城市交通干预措施的正当性依据。因此，本文详细阐释了一种集体性、动态性且非主权性的出行自由概念化路径，将其作为城市出行系统自上而下与自下而上变革的框架。本文的结论是，充分利用自由的描述性与施为性潜能，既能够丰富对城市出行论争的分析，亦有助于推动气候紧急状态下，城市出行系统转型的实践行动。

关键词

航空出行、汽车出行、气候紧急情况、自由、交通政策、世界构建

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> *To raise the question, what is freedom? seems to be a hopeless enterprise … depending which horn of the dilemma you are holding on to, it becomes as impossible to conceive of freedom or its opposite as it is to realize the notion of a square circle.*
>
> Arendt (1961: 147)

Introduction

Reciprocal linkages of transport and mobilities with freedom have long been recognised in academic literature. Yet, with notable exceptions (Freudendal-Pedersen, 2009; Moore and Kay, 2025; Sheller, 2008), transport and mobilities scholars rarely discuss freedom in much depth. Rather, freedom functions as an underlying concept (as in scholarship on mobility capabilities (Shin, 2011)); as an affective experience (as in research on concessionary bus fares (Jones et al., 2013) and visually impaired individuals' mobility (Low et al., 2020)); or as an explanation for observed relations and patterns (as in studies of automobility (Rajan, 2007; Tuvikene, 2018)). Research on Toronto's 'war on cars' (Walks, 2015) and on 15-minute city initiatives (Loader, 2023; Marquet et al., 2025) shows that car use-discouraging policies are often framed as crippling individual freedoms. Similarly, air travel-reducing actions are characterised as attacks on individuals' summer holidays (Randles and Mander, 2009). At least in the UK, urban mobility freedom has become sharply contested and embraced as a cause célèbre by populist movements. Politicians have become anxious about their electoral fate being affected by urban visions like the 15-minute city (15MC) and transport policies like low-traffic neighbourhoods (LTNs), clean air zones (CAZs), reductions in car parking, and expansion of cycling or bus lanes.

This is where Arendt's wry observation comes into play. For the understanding of freedom in those contestations is often unduly narrow and simplistic, only one of many possibilities. Trying to realise a square circle is precisely the task at hand, given what is at stake. The fossil fuel-powered mobilities of people and goods within and between cities are today clashing with the climate emergency, and globally the transport sector is far from minimising its

contributions to that emergency (SLOCAT, 2023). New technology alone will not suffice; policy must also reduce travel within and between cities (SLOCAT, 2023). The backlash triggered by policies to discourage car use in cities may well intensify as the urgency of the climate crisis increases. Urban transport will remain a fraught and high-stakes policy domain.

In this paper we discuss how different conceptualisations of freedom from across the humanities and social sciences are, and can be, implicated in public contestations over urban transport. We argue that mobilising a plurality of notions of freedom is analytically and practically useful in unsettling prevailing conceptions of individual liberty. This is because freedom as a concept can play, following Austin (1962), both constative, or descriptive, and performative roles in academics' engagements with urban mobility conflicts. Freedom offers many analytical possibilities to characterise the politics of urban transport on a climate-constrained planet. Thinking with freedom also empowers more radical ways of achieving deep change in urban transport systems if attention is shifted from individualised freedoms to freedom as collective, dynamic and non-sovereign world-making.

Rather than reporting empirical research, we introduce a set of ideas and a research agenda. Throughout, our focus is on intra-urban and inter-urban transport. The former is the site of most car use (SLOCAT, 2023) and where backlash against transport policies is concentrated. The latter is considered because of aviation's rapidly increasing contribution to global CO_2e emissions (Lee et al., 2021). Scholars have identified an 'aviation exceptionalism' (Ellis, 2020), with prevailing discourses legitimising both much weaker climate policy regulation than for other sectors (Huwe et al., 2025) and growing public concern and contestation of aeromobility's environmental harm (Griggs and Howarth, 2023). Evidently, not all aviation is 'between' cities as spatial concentrations of people, activity and infrastructure. However, under a planetary urbanisation lens (Brenner and Schmid, 2015) aviation helps to enact 'extended urbanisation' – the network of sites and territories that enable the functioning of cities as agglomerations of people, activity and infrastructure.

Conceptualising freedom

Freedom is a deeply contested concept in the history of Western philosophy, and Arendt is certainly not alone in emphasising the challenges of grappling with the term. Below we selectively review key conceptualisations using four dualities – negative/positive, given/generated, individual/collective, and before/since the climate emergency – to which we return in subsequent discussions of auto- and aeromobility. By working with freedom's dualities, we can keep the discussion succinct and avoid delving into related but complex notions like rights or the law.

Negative or positive

A convenient inroad into the literature on freedom is the distinction between negative and positive liberty that Isaiah Berlin offered in a 1958 lecture (Berlin, 2002). In simple terms, negative liberty is about 'freedom-from' while positive liberty amounts to 'freedom-to'. The 'from' in negative freedom is a topic of debate. Like Hobbes, Locke, Bentham and Mill before him, Berlin emphasised *interference:* 'I am normally said to be free to the degree to which no human being interferes with my activity' and negative liberty 'is simply the area within which a man [sic] can act unobstructed by others', including the state (Berlin, 2002: 169). Critics of liberal philosophy like Arendt (1961) and Patterson (1991) recognised that freedom from interference is one aspect of

freedom but also held that freedom can never be reduced to it.

Pettit (2021) has argued that the 'from' in negative freedom should be *domination* rather than interference. His argument is that perfectly free reflective choices are only possible if 'there's no one who's got the power of interference with you at will' (Pettit, 2021: 106). Freedom as condition also demands that there is no mastery, however benevolent or hidden, in one's private or public life, as a master can always (re) assert their control at a whim. The uncertainty this creates can be enough to discipline individuals in ways that norms and expectations stipulate. Pettit raises the bar, from non-interference as the absence of *actual* action and associated harm or violence, to non-domination in terms of *potential* action, harm and violence. This has due consequences for the role of the law and regulation. If freedom is understood as non-interference, the relationship of freedom to the law is close to a zero-sum game in which more of one equates to less of the other: '[law] is the enemy of freedom, except in a minimal manner' that ensures the most basic of rights and non-violence (Pettit, 2021: 116). If freedom equates to non-domination, 'you must recognize that freedom depends on the law' (Pettit, 2021) as this supplies people with the institutional constraints on arbitrary intrusion into people's choices and, more generally, the positive liberty to live on their own terms (Krause, 2023).

Positive liberty, for Berlin (2002: 178), 'derives from the wish on the part of the individual to be his [sic] own master'. This view goes back to the ancient Greek idea that people desire, and are expected, to develop themselves and realise their full potential, and is aligned with the thinking of psychologists like Maslow who consider self-actualisation the ultimate purpose in human life (Ernø and Birk, 2024). Yet, Maslow and many others see negative and positive liberties as intimately connected. Over the 1960s Berlin also came to recognise that a strict distinction between negative and positive freedom was hard to maintain, arguing that true freedom lay in conscious intentions and motivations as 'the true explanation of his [sic] activity' and 'not in in some hidden psychological or physiological condition that would have produced the same effect' (Berlin, 2002: 254).

Negative and positive liberties are not simply amalgamated for any one individual. They are also imbricated and co-evolving across individuals: enhancing the negative freedom of individual x can diminish the negative and positive freedom of y. This idea undergirds John Stuart Mill's *harm principle*. A staunch advocate of negative freedom, Mill argued in 1859 that 'the only purpose for which power can be rightfully exercised over any member of a civilised community against his [sic] will, is to prevent harm to others' (Mill, 1910: 73). If individuals' free acts are hurtful to others and violate 'constituted rights', punishment through the force of the law is appropriate; in less grave instances of hurtfulness, naming and shaming will suffice (Mill, 1910: 132). Mill's version of the harm principle focuses on interference and thus actual harm and violence; the principle can also be applied more expansively to domination and potential harm and violence (see 'Before or after the climate emergency').

Given or generated

The idea of freedom as given and inhering in human beings goes back to Epictetus, Kant and others in the history in Western philosophy (Arendt, 1961). Yet recent social theory, and Black critical thought especially, argue that freedom is historic-geographically contingent, an outcome of practices in particular times and places. Orlando Patterson (1991), for instance, has located its emergence in

ancient Athens and Rome as heavily slavery-dependent societies. He conceptualises Athenian freedom as a 'chordal triad' (Roberts, 2015: 18) comprising personal, sovereignal and civic freedoms. These are associated with respectively (former) slaves, slave-owning patricians and peasants and others who have never been enslaved. Patterson's personal freedom refers to the ability to not be coerced or do as one pleases without compromising others' ability to do the same. It resembles the imbrication of Berlin's negative and positive conceptions of freedom with a built-in version of the harm principle. It is this latter element that separates personal from slave owners' sovereignal freedom, which is the capacity to do as one pleases irrespective of the wishes of others. Civic freedom relates to the capacity to participate in the life and governance of a community. It shifts the balance of positive and negative freedoms further to the former when compared with personal freedom.

Patterson usefully suggests that sovereignal freedom has dominated thinking and practice in the Western world since European Antiquity and Sheller (2008) has used his triad effectively to think about the freedom/mobility nexus. Yet, Roberts (2015) contends that Patterson's framework remains eurocentric and conceives of the chordal freedoms as steady (end)states rather than as processes or agentic movements away from slavery. This is why he conceptualises freedom as *marronage* – the flight from enslavement and other conditions that negate people's agency. He reconceptualises freedom as *becoming* rather than being, as a dynamic, agentic and open-ended process of physical and imaginary movement.

Where Paterson traces the historical origins of contemporary conceptions of Western freedom, Rose (1999, 2017) analyses the practice and experience of freedom under neoliberalism. Freedom, he suggests, has become a central 'technology of government' since the 1970s (Rose, 1999). Public and private sector actors have *obliged* individuals to be free – 'to imagine [their] life as a kind of enterprise created by acts of free choice' (Rose, 2017: 306) and to narrate their everyday practices to self and others as resulting from negative and positive liberties embedded in do-it-yourself biographies. Rose (2017) also argues that freedom practice and experience have changed with the rise of authoritarian populism and politicians like Trump, Le Pen and Wilders. Populists increasingly frame 'hard-won' freedoms – especially negative, sovereignal ones – as precarious, at risk, and in need of safeguarding from the threats of immigration, wokeism and climate doomerism. Driving and flying for 'well-deserved holidays' exemplify these freedoms under threat.

Individual or collective

The discussion so far has skirted around a third duality. Berlin may have remained preoccupied with individual freedoms but Mill's harm principle, Patterson's chordal triad and Rose's freedom as obligation hint at the shared nature and collective constitution of freedom(s). It is in thinkers like Hannah Arendt that freedom is explicitly conceptualised as a collective achievement and practice of non-sovereign worldmaking.

For Arendt (1961, 2017) freedom was the *raison d' être* of politics and the purpose of revolutionary change. She, therefore, sought to understand how people could best live free within differentiated pluralities (Butler, 2024; Roberts, 2015). Drawing inspiration from Ancient Athens, she elaborated a conception of freedom with four characteristics. Hers is, firstly, resolutely action-oriented and collective: freedom is 'only experienced in acting and associating with others' in public spaces where people are freed from the necessities of life (Arendt, 1961: 163). There and then they, secondly, generate new *worlds*

– genuinely novel and hitherto unforeseeable modes of collective life grounded in the human capacity to start anew and disrupt automatic processes. They do so, thirdly, in *non-sovereign* ways – 'without compulsion, force, and rule over one another, as equals among equals … [and] managing all their affairs by speaking with and persuading each other' (Arendt, 2005: 117). For '[i]f men [sic] wish to be free, it is precisely sovereignty they have to renounce' (Arendt, 1961: 165). Arendt, finally, distinguished freedom from liberation. The latter entails 'release from one's chains' (Roberts, 2015: 32), including poverty and – we suggest below – the systems of auto- or aeromobility, and may require forms of violence. Liberation has to be complemented by the institutionalisation of freedom, which for Arendt (2017: 60) requires not so much civil rights or free enterprise as 'admission to the public realm and participation in public affairs.'

Before or after the climate emergency

The above conceptions of freedom were almost all developed before the climate emergency became manifest, at times when nature/Earth/Gaia functioned as a passive background to human action rather than the active and disturbed agent it has become and will remain (Stengers, 2015). The realisation that deep transformations to society are needed to prevent the harms that are not already baked into anthropogenic climate change to date has instigated multiple reconceptualisations of freedom, which reject individualistic conceptions and learn from Arendt and Black critical thought.

Butler (2020, 2024) combines a relational and expanded notion of (human) selves in which others are implicated with Arendtian freedom as non-sovereign worldmaking, to offer an understanding of freedom that centres interdependency, action and agonism. This avowedly political understanding is articulated in shared but non-violent action against the conditions that destroy human and more-than-human life and against the actors and forces sustaining those conditions. Debate and contestation among those enacting freedom and rooted in their particular biographies, experiences and capabilities is welcomed because 'the living processes of which we are part deserve our best thinking and action, and none of that can happen without one another' (Butler, 2024: 229–230).

Anker (2022) pursues a different politics of freedom by foregrounding a dual ugliness of freedom. On one hand, she chastises understandings of freedom as negative and positive liberties grounded in individual sovereignty, rejection of more-than-human interdependency, and ownership and expropriation of land. She criticises Berlin's (2002) privileging of negative liberty for ignoring the coercion and domination enacted by the exercise of negative freedom by some individuals, and for devaluing collective action as mainly coercive and disciplining. She advocates for a stronger version of the harm principle that foregrounds the avoidance of the capacity to harm – and thus potential rather than actual harm – yet also moves beyond this by arguing, like Butler, that freedom thought needs to be purged from the heroic, autonomous and masculine subject.

On the other hand, Anker builds on Arendt by foregrounding freedom as shared non-sovereign world-making, which she defines as 'the fight for and the activity of composing and caring for the world alongside others, in equality and mutuality, across and in celebration of difference' (Anker, 2022: 19). Yet, unlike Arendt and Butler who respectively concentrate on deliberation and resistance, Anker valorises minor and marginalised freedoms enacted by unruly, out-of-place hybrids that many may consider disorderly, repellent and too insignificant to trigger progressive change. She examines, for instance, how what appear to be

autonomously acting, free individuals are in fact unevenly interconnected through their 'rel[iance] on dirt, guts, porous bodies and toxic systems' (Anker, 2022: 173) for practicing freedoms. She follows indigenous scholarship on land (see also Country et al., 2016) in arguing that cultivating non-sovereign freedom demands place-based rehabilitation. Places, including streets, can be cultivated as sites of care, nourishment and interdependence of more-than-human hybrids without domination.

Krause (2023) advances 'an Earthly politics of freedom', to be realised through eco-emancipation – a collective transformation that liberates our climate-constrained planet from domination by ruthlessly profit-maximising corporations, resource extractivism, consumerism, environmental pollution, subjugation of nature and supporting conceptions of freedom. This transformation entails institutionalisation of firstly constraints on arbitrary power that embed Pettit's non-domination, and secondly collective, non-sovereign and more-than-capitalist practices of world-making. How eco-emancipation will unfold cannot be fully specified in advance. It will, however, vary geographically and involve contestation as many people will be 'undone in some respects, because it means abandoning the sense of human entitlement and the identities that go with this sensibility' (Krause, 2023: 152). It will likely exhibit an always-unfinished quality, meaning that the freedoms it generates will be as processual and variable as Roberts's (2015) conception of freedom as marronage. Krause therefore likens eco-emancipation to more-than-human marronage.

Towards urban mobilities

The above overview suggests that freedoms can be understood and imagined in many ways in relation to urban mobilities. Below we propose that individualised freedoms – especially negative, positive and sovereignal ones – may dominate public, policy and academic discourses (see 'Contested freedoms in urban transport') and are unevenly configured in historic-geographically contingent ways (see 'Mobility freedom as historic-geographical contingency'). But there is no prior reason to valorise those conceptions, and they are not the most useful for reimaging intra- and interurban mobilities at times of climate emergency. We therefore harness freedom's performativity and utilise post-Arendtian conceptions of freedom as collective, dynamic and non-sovereign world-making to contribute to the reconfiguration of auto- and aeromobilities on a climate-constrained planet.

Contested freedoms in urban transport

It is difficult to pinpoint when, precisely, urban transport emerged as a site of contestation over freedoms, perhaps as early as Ancient Greece's *poleis* where freedom was invented (Patterson, 1991). Mobility has long since been understood as enhancing freedom and as freedom itself (Freudendal-Pedersen, 2009), but as suggested above, this relationship is today contested sharply as public authorities worldwide grapple with congestion, air pollution and transport-fuelled CO_2 emissions. Below we use some of the conceptions of freedom summarised above to interpret contestations in intra- and inter-urban mobilities.

Intra-urban mobilities

The controversies over efforts to reduce private car use such as LTNs, CAZs and the reordering of road space, can be understood as clashes of, on the one hand, attempts by the (local) state to maximise Patterson's

(1991) personal freedom and experiment with sensible applications of the harm principle and, on the other, a pre-existing combination of negative and sovereignal freedoms for car users.

Aware that car-dominated urban transport is a major source of harm manifested in 'violence, ill health, social injustice, and environmental damage' (Miner et al., 2024: 1) and generates unfreedoms for users of alternative transport modes (Sheller and Urry, 2000), local governments are particularly keen to achieve modal shifts away from privately owned vehicle use. Planned or implemented measures differ across localities but primarily consider the *potential* harm that cars can do; they thus go beyond Mill (1910) and are closer to Anker (2022). Blanket bans on car use are the exception and usually only implemented on specific street segments. Schemes like LTNs and CAZs filter out the car traffic that is understood as potentially harmful locally – through-traffic on residential streets in the former, and vehicles that transgress maximum emission levels in the latter. Hence, and because reduced car traffic volumes enhance the freedom to cycle, walk, wheel and play on streets, most car use-reducing schemes seek to optimise Patterson's personal freedoms. If interpreted generously, these schemes begin to recognise streets as more than sites of unevenly structured competition for space and rather, per Anker (2022), as places of care, nourishment and mutuality. Arguably, they do not nearly go far enough in this regard.

These reflections immediately foreground the relational imbrication and co-evolution of mobility freedoms and unfreedoms on urban streets. As the carrying capacity of streets is limited, and financial resource and political will for road widening are rarely available (at least in Europe), the freedoms available to and exercised by individual car (and van) users compete with those of other vehicles and human beings. This competition has been intensified by 'mobesity' – the long-term growth in the size, width and height of passenger cars (Brand, 2024). SUV-ification and vehicle electrification have reinforced mobesity as car manufacturers have increased the share of SUVs within their market offerings and promote SUVs because they carry large batteries and so diminish range anxiety among prospective customers. It remains unclear whether SUV drivers are aware of the unfreedoms their vehicles impose on other road users, and especially cyclists and pedestrians. Experience gained from our participation in public events and mini-publics suggests that most are unaware of such effects. Ignorance rather than selfishness and malintent seems to underpin the co-evolution of mobility freedoms and unfreedoms within the mobesity transformation.

Adversaries and proponents of car use-discouraging schemes support their respective case in public debate, social media echo chambers and everyday conversations by relying on multiple but different conceptions of freedom. Firstly, while both groups sense that specific freedoms are under threat, opponents tend to understand negative freedom in terms of interference (Berlin, 2002) by the (local) state while protagonists seem to focus on domination (Pettit, 2021) by cars, vans and the drivers of both. For the former, objects and measures such as bollards, planters, automatic number plate recognition or reduced parking seem to cause actual harm, interfering into the positive freedoms of people from all walks of life going about daily life and local businesses seeking to attract customers. The interventions are sometimes even framed as a 'cap' on aspiration. In contrast, scheme supporters tend to call for non-domination rather than non-interference. It is the potential of cars jeopardising their and their loved ones' safety and freedoms on the street they challenge. This is why, following Pettit, their

position vis-à-vis law and policy differs fundamentally from that of opponents. Unlike opponents calling for fewer restrictions on their sovereignal freedom (Patterson, 1991) to drive and park as they please, protagonists call on the (local) state to adequately protect and support the personal freedoms to use streetscapes in other ways than as a car driver.

Secondly, and relatedly, implied in these respective calls for non-interference and non-domination are different understandings of the character of streets and who streets are for. The opponents' position amounts to disregard for streets as places of care, nourishment and interdependence without domination (Anker, 2022) for *all* users, whether on an e-scooter, with a walking stick, or in a car. It would be naïve to suggest that protagonists think of streets as places in the manner Anker suggests, given that they too may demonise some cyclists and micro-mobility users on residential streets as risky and 'irresponsible, dangerous and criminal' (Spinney, 2008). Yet they still come closer to Anker's position than scheme opponents.

The negative and sovereignal conceptions of freedom mobilised by opponents disregard the numerous ways in which the exercise of agency as car drivers depends on infrastructures, rules, permissions and customs. Measures to achieve modal shift entail adjustments to the infrastructures and coordination rules that enable the freedom to drive rather than the imposition of novel constraints onto a landscape of previously unrestricted agency. They alter a social practice that is already hyper-regulated, prescribed and monitored through digital surveillance technologies (Loader, 2023). Moreover, Freudendal-Pedersen (2009) shows that people seek to strike a balance of freedoms and unfreedoms that (auto)mobility enables. Too much freedom is not necessarily desirable and raises questions about security and belongingness. The freedoms of automobility are also compromised the moment others begin taking advantage of those same freedoms, as the daily reality of urban traffic congestion attests.

Inter-urban mobilities

Connecting cities within and beyond nation-states has long been a policy priority and facilitated by large-scale investments in rail, road and – more recently – aviation infrastructure. Aviation was responsible for 4% of human-induced global warming by 2020, and demand for aeromobilities – especially between urban areas – continues to grow: If pre-COVID-19 growth continues, then aviation alone will be responsible for 0.1 °C of heating by 2050 (Klöwer et al., 2021). Air travel-reducing actions are, therefore, proposed and (slowly) implemented. Salient examples include restrictions by national governments and organisations on short-haul flights, incentivisation of alternative modes such as high-speed rail, and removal of aviation subsidies. Other measures, discussed primarily by non-governmental organisations, include frequent flyer taxes and personal carbon allowances (Gössling and Lyle, 2021). Yet observed and articulated resistance to efforts to curb flying is not comparable in scale or intensity with that for intra-urban automobility, in part because only about 11% of the global population engages in air travel (Gössling and Humpe, 2020). Public support is greater for 'less coercive' measures such as high-speed or night train subsidies and climate performance labelling than for 'high coercive' measures including air passenger or frequent flyer tax and personal carbon allowance; the latter are 'perceived as both more unfair and more infringing on personal freedom of choice' (Larsson et al., 2020: 1308). Emotive and freedom-based arguments against frequent flyer levies have been identified (Hodgson, 2024), and resistance to flight-reduction

policies can also intensify during implementation (Kantenbacher et al., 2018). UK right-wing media continue to suggest that the deservingness of overseas holidays for hard-working Britons is under threat from 'woke environmentalists' (see Randles and Mander, 2009).

Aeromobilities combine the freedom *to* fly and freedom *from* constraints like taxes and levies. The positive liberty connotations are quite strong, although concerns over interference transpire when the prospect of curtailing aviation is raised. Resistance to air travel-reducing measures comes mostly from industry actor groups including airlines, airports, plane manufacturers and associated lobby groups plus the right-wing press. In the European Union, freedom has been a centre point of industry actors' complaints about short-haul air travel bans and evocations of the EU's principles of 'freedom to provide air services for any European airline' and 'freedom of movement'. Many nation-states also have vested interests in maintaining or increasing air travel as owners, sponsors and customers and because of the jobs and tax income aviation creates (Huwe et al., 2025). This reduces their motivation to enact flying-discouraging policies. Public and civil society resistance to air travel-reducing actions is likely to be greater in countries like the US or Aotearoa New Zealand where

> the thought of not being allowed to fly may be hard to imagine. Flying across the state, across the country, and even internationally has become so common that some would argue the ability to fly is a necessity to function in today's society. (Altmeyer, 2015: 720)

The idea of aviation as 'necessity' makes flying akin to driving and risks turning strategies to limit its reach into attacks on liberties.

As with intra-urban mobilities, framing attempts to curb flying as reducing negative freedoms disregard the ways in which the freedom to fly for the few is enabled by, and co-evolving with, unfreedoms for many others and for more-than-human life across spatial contexts, now and in future. The harm principle is clearly violated and the creation of unfreedoms operates through air and noise pollution, airport and runway expansion into greenbelts, and urban redevelopment to cater to airports' customers. These effects have also contributed to the emergence and growth of no- and low-fly movements (Hendy, 2019), largely decentralised and individualised actions to stop or limit flying on the grounds of environmental impacts. Undertaking such actions is often seen as constrained by employers not enabling the substitution of flying with more sustainable modes of travel (e.g. long-distance rail), and norms and expectations about regular in-person visits by family and friends living far away. No-flyers, therefore, call for greater personal freedom and less interference by employers, relatives and others who normalise flying.

Mobility freedom as historic-geographical contingency

Mobility freedoms are both historic-geographically contingent and refracted by coloniality, race, class, gender and disability. They represent place-specific histories of modernity and progress, aspiration and entitlement; affect and desire; and people's relation to the state, rules and regulation, and confinement and liberation. Research on contemporary contestations over urban transport should carefully heed the shadows these histories cast over current contestations and their immanent possibilities.

Automobility's history is well documented (Braun and Randell, 2022; Freudendal-Pedersen, 2009; Sachs, 1992; Urry, 2007; Volti, 1996). Since the car transitioned from being a plaything for early-20th century

Global North elites to an item of general and widespread consumption, universalising discourses have connected cars to social mobility, prosperity and aspiration (Rajan, 2007; Tuvikene, 2018). As Davison (2004: 114–115) argues:

> Since the 1910s … the ideological affinities between political liberalism and organised motoring have been strong. The car was a freedom machine, a physical expression of the liberal principles of free movement, free association and free enterprise … The car cut human beings free from the conventional limitations of time and space. It was a mechanical expression of the self, conceived as an autonomous, rational, self-actualising individual.

While inscribing a series of negative and positive liberties onto cities, automobility has also obliged (Rose, 1999, 2017) individuals to participate 'freely' in activities across sprawling cities at any time and helped make them responsible for do-it-yourself biographies (Freudendal-Pedersen, 2009; Urry, 2007). The individual freedoms cars offer have fuelled national modernisation projects and collective dreams of future prosperity, registered since the early 20th century in the cultivation of national car industries and large investments in road infrastructure to support automobility and low-density, monofunctional and sprawling urban development (Braun and Randell, 2022; Sachs, 1992; Urry, 2007). The car has been folded into dominant representations of the good life and responsible citizenship, become a symbol of consumer belonging and been extolled as the means to 'get on' in life (Sheller and Urry, 2000). Many adolescents still crave acquiring a driving licence and a first car (Hopkins, 2016) and older adults often give up their driving licence reluctantly (Róin et al., 2025), hoping to hang on to the multiple liberties cars afford. Today, the associations of car ownership with middle-class sociality and self-representation also characterise urban life across Asia and Africa (Gopakumar, 2020; Hart, 2016; Zheng, 2019).

Yet literature on automobility's gendering and racialisation shows that automobility's history has been more variegated and ambivalent than dominant notions of mobility freedom suggest. In the early 20th century the freedom to drive was largely prescribed to men as '[t]he motor car was perceived to be a piece of masculine machinery which was difficult and dirty to drive and was beyond the capability and fastidiousness of women to operate' (Walsh, 2008: 380; see also Moore and Kay, 2025). Only after the mid-century were cars marketed at (middle-class) women and did women across class backgrounds begin to enjoy the individual freedoms of driving on a large scale (Donatelli, 2001). This not only enabled greater labour force participation but also helped to reconfigure their sense of self and social identity (Hanson, 2010). While women's experiences vary widely, the freedoms women enjoy because of car access and use often remain more limited than men's. Many women's auto-freedoms remain strongly conditioned by family considerations and care-giving responsibilities (Macias-Alonso et al., 2023; Siren and Hakamies-Blomqvist, 2005) and women tend to be more aware of the interdependence of their car use with unfreedoms for human and non-human others (Polk, 2004).

US and Australian studies have highlighted the complex imbrications of freedom, control and cars (Alderman et al., 2022; Clarsen, 2017; Sorin, 2021). In the mid-20th century, middle-class Black communities in the USA were among early auto-freedom enthusiasts (Sorin, 2021). Car travel was, however, not without risk for Black motorists as they regularly experienced denial of food, fuel, repairs or overnight shelter and encounters with white mobs, inducing preparedness-cultivating measures like larger

vehicles and ample provisions. Guidebooks sprung up listing businesses where Black drivers would be welcome and served, including the *Negro Motorists Green Book* (Alderman et al., 2022). Cars have remained prominent in Black American life and culture, often infused by a 'strong democratic and counter-cultural charge' (Gilroy, 2001: 87). Given memories of slavery and ongoing injuries of racialised hierarchies, cars provide Black Americans with visible signs of (compensatory) belonging, status and participation in the 'allure of speed, autonomy and privatized transport' (Gilroy, 2001: 86). Like fashion, music and bodily comportment, car ownership and use are sites where 'Black freedom remains elusive and contested', offering at once creative and heavily disciplined opportunities for Black subversion and self-fashioning (Walcott, 2021: 89).

The idea of aero-freedom can be traced back to the early days of civil aviation. 'Freedoms of the air' became the foundational pillars for commercial aviation following World War II (Fay, 1945). The 1944 Convention on International Civil Aviation established a framework for cooperative international commercial aviation, based on the idea that air transport would preserve friendship and understanding among the nations and people of the world. During the 1944 Conference, nation states discussed five 'freedoms' to 'open the skies' (Fay, 1945). Yet unlike earlier agreement on the 'freedom of the sea', states could only agree upon the most rudimentary of freedoms – permissions to fly through other states' airspace and to land for maintenance and fuelling (Debbage, 2014). Consequently, some 2500 nation-to-nation bilateral aviation agreements were created post-WWII (Butler and Keller, 1994). From the 1970s, however, liberalisation sought to overcome the limits to this approach, particularly in the US and Europe.

Liberalisation soon developed into a demand-focused freedom to fly, or aero-freedom, which established flying for some people as a necessity, although debate remains over whether these freedoms have actually 'opened the sky' for *all* countries and airlines (Tretheway and Andriulaitis, 2015). Liberalisation cultivated aero-freedoms through reducing regulation and increasing competition in the sector, triggering the emergence and growth of low-cost airlines (Lin and Frétigny, 2022), which, in the UK, have not made aviation accessible to more people but rather allowed those already flying to fly more (Banister, 2018). Nonetheless, while 3.5 million passengers flew on the 176 planes in service in 1944 (Fay, 1945), 9.5 billion passengers flew globally in 2024 (Airports Council International (ACI), 2025), surpassing pre-pandemic volumes.

The 'freedom' to fly is also highly unequal, not least by race. In November 2001, two months after the 9/11 attacks on the World Trade Centre, Americans' support for racial profiling of Black and Latino air travellers was around 20% whereas support for the 'counterterrorism' profiling of 'people who are Arab or of Middle Eastern descent' totalled 66% (Glaser, 2014). For Glaser (2014: 134), the greater tolerance for racial profiling in airport security screening signalled a 'pragmatic sense of the need to trade off freedoms not just for security but also for personal convenience'. This indicates that aero-freedoms are both relational and racialised, with the positive freedom of predominantly white/Euro-American passengers premised on the profiling and potential detainment of Arab, Middle Eastern and/or Muslim passengers (Blackwood et al., 2015). However, racial profiling on US airports has been extended to women of colour, with African American women disproportionately subjected to strip-searches and such additional screening as being X-

rayed or forcibly fed laxatives (Sharma, 2003). With the often racialised and xenophobic undercurrents of contemporary migration politics, aviation is taking new forms, where migrant deportation flights are becoming sites of protest (by other passengers on commercial airlines), and show how aeromobilities can be forced rather than free.

This schematic historical reconstruction of intra- and inter-urban mobility freedoms and unfreedoms confirms that freedoms are generated within socio-spatial formations rather than naturally given. Contemporary variations along lines of gender, race/ethnicity, class, location and their intersections are, to a considerable degree, inherited from place-specific pasts and condition mobility futures in an increasingly climate-constrained world.

World-making

> *If modern freedom stands in the way of fighting for the future of the planet, then how can freedom not merely be limited, but reimagined to support that fight?*
>
> (Anker, 2022: 153)

Arendt's understanding of freedom as non-sovereign world-making is useful in addressing this question, particularly if combined with the ideas of Patterson, Roberts, Butler, Anker and Krause. Intra-urban mobility freedom as collective, dynamic and non-sovereign world-making rests on the pillars of non-domination and association. It demands that automobility be understood as a system of domination that creates all kinds of unfreedoms, especially for people who do not drive or for whom driving appears as the only option. Automobility is best transformed into intra-urban transport systems that maximise Pattersonian civic mobility freedoms for *all* people and that allow new associations and open-ended and non-sovereign collective freedoms to emerge among people with differently intersecting identities and non-human forms of life.

The creation of such intra-urban transport systems entails more than modal shift away from car use as forms of Pettit-like domination can be associated with other transport modes. Consider, for instance, gentrification induced by investment in urban rail, bus rapid transit or cycling infrastructure (de Assis et al., 2024) or middle-aged men in Lycra – MAMILs – becoming the prevailing representation of cyclists in policy processes in a city (Osborne and Grant-Smith, 2017). This is why multi-faceted political action from above and from below (see Roberts, 2015) is needed. What exactly this entails cannot be explicated fully in advance (per Krause, 2023), not least because of historic-geographically specific inequities in mobility freedoms (see 'Mobility freedom as historic-geographical contingency') and the necessary transformation will likely be always-unfinished (Krause, 2023). Action will have to worked out iteratively, experimentally and agonistically on an ongoing basis in each city, but some general suggestions can be offered.

Initiated or orchestrated by (local) public authorities, collective, dynamic and non-sovereign world-making from above is irreducibly plural. It includes, but is not limited to, the creation of 15MCs and physical interventions like LTNs, CAZs, reduced parking availability and expansion of cycling or bus lanes; government-initiated street experiments, including *ciclovias* (Bertolini, 2020); and commissioned deliberative mini-publics (e.g. citizen juries or assemblies) focused on intra-urban mobility. Framing LTNs, CAZs, etc. in this manner makes them appear less as attempts to recognise the harm principle and curb sovereignal freedoms than as modest stepping stones towards enshrining collective mobility

freedoms. They (can) work like street experiments such that intra-urban mobilities not only offer access to destinations as spaces of association and for the governance of urban life but themselves become sites of chance encounter, community-making and governance (Smeds and Papa, 2023). Interventions like LTNs or the expansion of cycling infrastructure and government-led street experiments also raise questions about freedoms in (democratic) decision-making. These questions concern the roles of the local state and different publics in the city in envisioning, deliberating and deciding how streets and public spaces can best be turned into Anker's (2022) places of care, nourishment and mutuality. Experimentation and iteration are again required, which is why we include deliberative mini-publics focused on re-imagining intra-urban mobility futures among political actions from above (see Moseley et al., 2025).

Collective, dynamic and non-sovereign world-making action from below also takes different forms. It includes non-violent grassroots activism that challenges firstly libertarian resistance against 15MCs, LTNs, CAZs and other schemes that is premised on understandings of freedom as individualistic, negative and sovereignal, and secondly government-led versions of 15MCs, LTNs, CAZs that trade automobile domination for another, like street designs and transit-oriented developments that predominantly cater for the needs and wants of certain classes, racialised groups or age categories. Beyond resistance and deliberation, action from below also includes the cultivation of Anker's (2022) minor and marginalised freedoms, for instance the creation of parklets out of individual parking spaces or the planting of flowers in potholes and cracks in road surfaces. The resulting more-than-human associations foreground and locally counteract the multiple unfreedoms for more-than-human life that fossil fuel-powered mobilities create within urban areas, among others through air pollution, soil poisoning and biodiversity reduction.

Foregrounding intra-urban mobility freedom as collective, dynamic and non-sovereign worldmaking does not require complete abandonment of car use. This would be unrealistic, especially in low-density sprawling suburbs and peri-urban settings, and given cars' unique suitability for specific trips (e.g. chauffeuring children to places beyond reasonable cycling distances) or people (e.g. with disabilities that make walking too challenging or painful). Yet it is a call to cast aside mobese private cars, including SUVs, that isolate the people inside from the city as seemingly 'liberal, autonomous subject[s]' bobbing along in their privatised floating buffer zones (Mitchell, 2005: 97). Non-dominant forms of car use with ideally community-owned small vehicles will (have to) be a part of intra-urban mobility systems that cultivate civic freedoms, care and mutuality.

Discussions of aero-freedoms are also overshadowed by individualised notions of freedom. To the best of our knowledge, no study or thinker has elaborated what a collective, dynamic and non-sovereign worldmaking perspective might mean for aeromobility. This partly reflects the grounding of Arendt's and Patterson's conceptions of freedom in democratic governance models in the Ancient Greek; there are no straightforward inter-urban equivalents that can inspire thinking on collective, dynamic and non-sovereign worldmaking in inter-urban mobilities. However, transposition of the idea of intra-urban mobility freedom as world-making to the inter-urban scale yields two sites for scrutiny and urgent action.

The first concerns the extraordinary, recent growth of private jet use (Gössling

et al., 2024). Private jet CO_2e emissions increased by 23% in 2020–2021 alone (Sobieralski and Mumbower, 2022), and further growth will have happened since. As the SUV of the air, the private jet epitomises aero-mobesity while, unlike its road-based cousin, being available to the mere 0.003% of the global adult population who constitute 'ultra-high net worth' individuals (Gössling et al., 2024). The supporting infrastructures, from first-class lounges to limousine airport connections, symbolise hyper-consumption and domination, in the air and on the ground. Here action from above and below could be twofold (see Krause, 2023). One leg comprises the institutionalisation of spaces for awareness-raising (including through art) and public deliberation about whether the negative sovereignal freedoms that private jetting offers to the very few justify the harms caused to other people, non-human beings and the wider planet. The other leg involves challenging and curbing the arbitrary power of the aviation industry, business elites and the ultra-rich to interfere in the lives of other people and non-human life.

Second, the growth of flying between cities impacts on 'extended urbanisation' (Brenner and Schmid, 2015) encompassing airports and immediate surroundings plus all other localities supporting the aeromobility system, including sites of bauxite and other minerals' extraction, forests developed for emission offsetting, and the tourism attractions that depend on steady flows of money-spending visitors. Air, light and noise pollution from airports affects local populations of human and non-human beings, with impacts on birds' migratory patterns and proximate flora and fauna well recognised (Bauer et al., 2025). Perhaps places around airports are the first and most important to consider through a mobility freedom as collective, dynamic and non-sovereign world-making lens. This is because airport expansion has become such a politicised topic in the UK and elsewhere (Griggs and Howarth, 2023); because car- and van-dependent mobilities to/from airports by consumers, workers and logistics firms create the same issues as discussed for intra-urban mobilities, which can be addressed in the same manner as for those mobilities; and because of the urban redevelopment that commonly takes place on or near airports. Industry experts and consultants have coined multiple concepts related to that redevelopment, including aerotropolis and airport city (Hirsh, 2019). Real estate development by airport industry actors sits at the heart of 'VIP urbanism' – exclusionary urban (re)development that seeks to capture kinaesthetic elites and likely displaces poorer communities (Frétigny et al., 2024), including low-income airport workers who may be facing long coerced commutes as a result. Here, action from above should institutionalise genuine public deliberation, and action from below should non-violently challenge arbitrary interference into the everyday lives of people in residential areas close to airport infrastructures and into the air, soils and water that nourish human and more-than-human life. Experimentation with the airport-equivalent of parklets and other out-of-place hybrid associations is similarly desired.

Conclusion: Towards a research agenda

> *The iceberg has emerged as a powerful tool for communicating the idea of a diverse economy.*
>
> (Gibson-Graham and Dombroski, 2020: 9)

Contemporary contestations over the future of mobilities within and between cities are pervaded by rhetorics of freedom. Animus towards measures to reduce driving and flying is typically grounded in claims to

negative, sovereignal freedom – for individuals to be left alone to move around as they see fit. This conception of freedom effaces both the public infrastructures and regulatory regimes that constitute mobility freedoms in the first place and the unfreedoms the driving and flying impose upon human and non-human life. Recognition of the co-evolution of freedoms and unfreedoms allows initiatives to curb driving and flying to be re-framed from assaults on personal freedom as efforts to effectuate Mill's 'harm principle' in urban transport. Moreover, we have suggested that harnessing freedom's performativity can push thinking about mobility freedoms in new and generative directions that foreground collective, dynamic and non-sovereign world-making. Like capitalist businesses, waged labour, commodity production and market exchange constituting the tip of the iceberg of the full economy (Gibson-Graham and Dombroski, 2020), personal liberties, sovereignal freedom and even the harm principle make up only the part of mobility freedom's iceberg above water.

Our hermeneutic reconstruction of mobility freedom opens-up two lines for empirical investigation and further theorisation. The first involves paying close attention to what conceptions of freedom are mobilised and how these are utilised in contestations over intra- and inter-urban mobilities in particular times and places. Based on our analysis we recommend that analysis offers closely observed, place-specific genealogies of the formation and reproductions of modern auto- and aero-mobile subjects, and the ways in which these subjectivities are entangled with projects of economic prosperity, nation-building and urban development worldwide. Those genealogies should carefully consider dynamics over time and space in the gendered, racialised, classed and aged imbrications of mobility freedoms and unfreedoms. They should also heed the affective dimensions of mobility freedom, deciphering both the situated experiences of freedom that have come to be associated with driving and flying, and the ways in which contestations over future urban mobilities transport are also bound up with affective attachments to, or passionate reactions against, specific ways of moving and forms of life. This, in turn, requires close reading of the ways in which the affective experiences of mobilities are articulated and utilised in public ideologies of mobility freedom produced by national and local authorities, transport industries, urban developers, and the interest groups, grassroots campaigners and other publics assembled by intra- and inter-urban mobilities as 'matters of concern' (Latour, 2004).

The second line concentrates on mobility freedom as collective, dynamic and non-sovereign world-making as a particularly generative mode of thinking about freedom at times of climate emergency. Part of the task at hand is to develop the kind of inventories Gibson-Graham has cultivated as critical components of the diverse economy research programme. For mobility freedoms these should consider the politics, both from above in a Arendtian-Butlerian vein and from below as per Anker. Using participatory methods, research can also instigate and directly facilitate mobility freedom as worldmaking in specific localities. It should rectify historically emerged uneven distributions of mobility freedoms, heed the likelihood that any redress will provoke additional struggle and – in Krause's (2023) terms – undo some people, and embrace both the open-endedness of mobility freedoms as emergent processes and the inevitable uncertainties any transformation entails. Doing all this may not quite square Arendt's circle but offer a glimpse of how to imagine and enact mobility freedoms suited for a climate-constrained planet.

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References

Airports Council International (ACI) (2025) *Joint ACI World – ICAO Passenger Traffic Report, Trends and Outlook*, 28 January. Airports Council International.

Alderman DH, Williams K and Bottone E (2022) Jim Crow journey stories: African American driving as emotional labor. *Tourism Geographies* 24(2-3): 198–222.

Altmeyer LR (2015) Freedom to fly: An analysis of the constitutional right to air travel. *Journal of Air Law and Commerce* 80(4): 720–748.

Anker E (2022) *Ugly Freedoms*. Duke University Press.

Arendt H (1961) *Between Past and Future: Six Exercises in Political Thought*. The Viking Press.

Arendt H (2005) *The Promise of Politics*. Schocken Press.

Arendt H (2017) The freedom to be free. *New England Review* 38(2): 56–69.

Austin JL (1962) *How to Do Things With Words: The William James Lectures Delivered at Harvard University in 1955*. Clarendon Press.

Banister D (2018) *Inequality in Transport*. Alexandrine Press.

Bauer S, Güttler N and Schlünder M (2025) "Birds have procedures too": Avian mobility, airport infrastructure and mixed knowledges. *Osiris* 40: 260–280.

Berlin I (2002) *Liberty*, 2nd edn. Hardy H (ed.) Oxford University Press.

Bertolini L (2020) From "streets for traffic" to "streets for people": Can street experiments transform urban mobility? *Transport Reviews* 40(6): 734–753.

Blackwood L, Hopkins N and Reicher SD (2015) Flying while Muslim: Citizenship and misrecognition in the airport. *Journal of Social and Political Psychology* 3(2): 148–170.

Brand C (2024) Confronting mobesity is vital for the global electrification of transport. *Nature Energy* 9: 909–909.

Braun B and Randell R (2022) *Post-automobility Futures: Technology, Power, and Imaginaries*. Rowman & Littlefield.

Brenner N and Schmid C (2015) Towards a new epistemology of the urban? *City* 19(2-3): 151–182.

Butler GF and Keller MR (1994) International aviation policies: is it time for change? *Transportation Quarterly* 48(4): 367–380.

Butler J (2020) *The Force of Nonviolence: An Ethico-Political Bind*. Verso.

Butler J (2024) Judgement, freedom, solidarity: Thinking with Arendt. *Journal of Italian Philosophy* 7: 212–230.

Clarsen G (2017) "Drive it like you stole it": Automobility as a means of communication in settler colonial Australia. *Mobility and the Humanities* 17(4): 520–533.

Country B, Wright S, Suchet-Pearson S, et al. (2016) Co-becoming Bawaka: Towards a relational understanding of place/space. *Progress in Human Geography* 40(4): 455–475.

Davison G (2004) *Car Wars: How the Car Won Our Hearts and Conquered Our Cities*. Allen & Unwin.

de Assis R, Loureiro CFG, Freitas CFS, et al. (2024) Transport-induced gentrification in Latin America: An urban conflict arising from

accessibility improvements. *Transportation Research Part D: Transport and Environment* 134: 104352.

Debbage KG (2014) The geopolitics of air transport. In: Goetz AR and Budd L (eds) *The Geographies of Air Transport*. London: Routledge, pp. 25–40.

Donatelli C (2001) Driving the suburbs: Minivans, gender and family values. *Material Culture Review* 54: 84–95.

Ellis E (2020) Sectoral responsibility for climate justice: Is aviation exceptionalism defensible? In: Moss J and Umbers L (eds) *Climate Justice and Non-State Actors*. Routledge, pp. 61–83.

Ernø S and Birk R (2024) Rethinking freedom for contemporary psychology. *Culture & Psychology* 30(3): 479–498.

Fay SB (1945) Civil aviation after the war. *Current History* 8(41): 7–13.

Frétigny JB, Magnan M, Maulat J, et al. (2024) "Airport city" or "VIP" urbanism? Questioning the market-led land development strategies of airports. *Human Geography* 17(3): 262–277.

Freudendal-Pedersen M (2009) *Mobility in Daily Life: Between Freedom and Unfreedom*. Ashgate.

Gibson-Graham JK and Dombroski K (2020) Introduction to the handbook of diverse economies: Inventory as ethical intervention. In: Gibson-Graham JK and Dombroski K (eds) *The Handbook of Diverse Economies*. Edward Elgar, pp. 1–24.

Gilroy P (2001) Driving while black. In: Miller D (ed.) *Car Cultures*. Berg, pp. 81–104.

Glaser J (2014) Flying while Arab: Racial profiling in counterterrorism. In: Glaser J (ed.) *Suspect Race: Causes and Consequences of Racial Profiling*. Oxford University Press, pp. 127–160.

Gopakumar G (2020) *Installing Automobility: Emerging Politics of Mobility and Streets in Indian Cities*. MIT Press.

Gössling S and Humpe A (2020) The global scale, distribution and growth of aviation: Implications for climate change. *Global Environmental Change* 65: 102194.

Gössling S, Humpe A and Leitão JC (2024) Private aviation is making a growing contribution to climate change. *Communications Earth & Environment* 5: 666.

Gössling S and Lyle C (2021) Transition policies for climatically sustainable aviation. *Transport Reviews* 41(5): 643–658.

Griggs S and Howarth D (2023) *Contesting Aviation Expansion: Depoliticisation, Technologies of Government and Post-Aviation Futures*. Policy Press.

Hanson S (2010) Gender and mobility: New approaches for informing sustainability. *Gender Place & Culture* 17(1): 5–23.

Hart J (2016) *Ghana on the Go: African Mobility in the Age of Motor Transportation*. Indiana University Press.

Hendy S (2019) *#NoFly: Walking the Talk on Climate Change*. Bridget Williams Books.

Hirsh M (2019) Developing successful landside real estate: An airport urbanism approach. *Journal of Airport Management* 13(2): 186–197.

Hodgson E (2024) Europe talks flying: navigating public opinion on aviation and climate. *More in Common*. Available at: https://www.moreincommon.org.uk/media/vfrjyxga/europe-talks-flying-report-9th-april-2024.pdf.

Hopkins D (2016) Can environmental awareness explain declining preference for car-based mobility amongst generation Y? A qualitative examination of learn to drive behaviours. *Transportation Research Part A Policy and Practice* 94: 149–163.

Huwe V, Hopkins D and Mattioli G (2025) Aviation exceptionalism, fossil fuels and the state. *Review of International Political Economy* 32: 76–100.

Jones A, Goodman A, Roberts H, et al. (2013) Entitlement to concessionary public transport and wellbeing: A qualitative study of young people and older citizens in London, UK. *Social Science & Medicine* 91: 202–209.

Kantenbacher J, Hanna P, Cohen S, et al. (2018) Public attitudes about climate policy options for aviation. *Environmental Science & Policy* 81: 46–53.

Klöwer M, Allen MR, Lee DS, et al. (2021) Quantifying aviation's contribution to global warming. *Environmental Research Letters* 16: 104027.

Krause SR (2023) *Eco-Emancipation: An Earthly Politics of Freedom*. Princeton University Press.

Larsson J, Matti S and Nässén J (2020) Public support for aviation policy measures in Sweden. *Climate Policy* 20(10): 1305–1321.

Latour B (2004) Why has critique run out of steam? From matters of fact to matters of concern. *Critical Inquiry* 30(2): 225–248.

Lee DS, Fahey DW, Skowron A, et al. (2021) The contribution of global aviation to anthropogenic climate forcing for 2000 to 2018. *Atmospheric Environment* 244: 117834.

Lin W and Frétigny JB (2022) *Low-Cost Aviation: Society, Culture and Environment*. Elsevier.

Loader I (2023) 15-minute cities and the denial(s) of auto-freedom. *IPPR Progressive Review* 30(1): 56–60.

Low W-Y, Cao M, De Vos J, et al. (2020) The journey experience of visually impaired people on public transport in London. *Transport Policy* 97: 137–148.

Macias-Alonso I, Kim H and González AL (2023) Self-driven women: gendered mobility, employment, and the lift of the driving ban in Saudi Arabia. *Gender Place & Culture* 30(11): 1574–1593.

Marquet O, Anguelovski I, Nello-Deakin S, et al. (2025) Decoding the 15-minute city debate: Conspiracies, Backlash and dissent in planning for proximity. *Journal of the American Planning Association* 91: 117–125.

Mill JS (1910[1859]) *Utilitarianism – Liberty – Representative Government*. JM Dent & Sons.

Miner P, Smith BM, Jani A, et al. (2024) Car harm: A global review of automobility's harm to people and the environment. *Journal of Transport Geography* 115: 103817.

Mitchell D (2005) The S.U.V. Model of citizenship: Floating bubbles, buffer zones, and the rise of the "purely atomic" individual. *Political Geography* 24(1): 77–100.

Moore H and Kay A (2025) *Roadkill: Unveiling the True Cost of Our Toxic Relationship With Cars*. John Wiley & Sons.

Moseley A, Sandover R and Devine-Wright P (2025) Integrating citizens' assemblies into local climate governance: Lessons from a UK case study. *Environmental Science & Policy* 168: 104052.

Osborne N and Grant-Smith D (2017) Constructing the cycling citizen: A critical analysis of policy imagery in Brisbane, Australia. *Journal of Transport Geography* 64: 44–53.

Patterson O (1991) *Freedom in the Making of Western Culture*. Basic Books.

Pettit P (2021) Freedom as nondomination. In: Buckle T (ed.) *What is Freedom?*Oxford University Press, pp. 100–117.

Polk M (2004) The influence of gender on daily car use and on willingness to reduce car use in Sweden. *Journal of Transport Geography* 12(3): 185–195.

Rajan SC (2007) Automobility and the liberal disposition. *Sociological Review* 54(1): 113–129.

Randles S and Mander S (2009) Aviation, consumption and the climate change debate: 'Are you going to tell me off for flying?' *Technology Analysis and Strategic Management* 21(1): 93–113.

Roberts N (2015) *Freedom as Marronage*. University of Chicago Press.

Róin T, Petersen MS and Róin Á (2025) "I can still drive a car." Self-presentation in later life and the symbolic value of driving. *Ageing and Society* 45(1): 164–175.

Rose N (1999) *Governing the Soul: The Shaping of the Private Self*. Routledge.

Rose N (2017) Still 'like birds on the wire'? Freedom after neoliberalism. *Economy and Society* 46(3-4): 303–323.

Sachs W (1992) *For the Love of the Automobile: Looking Back Into the History of Our Desires*. University of California Press.

Sharma S (2003) Beyond driving while Black and flying while Brown: Using intersectionality to uncover the gendered aspects of racial profiling. *Columbia Journal of Gender and Law* 12(275): 275–309.

Sheller M (2008) Mobility, freedom and public space. In: Sager T and Bergmann S (eds) *The Ethics of Mobilities: Rethinking Place, Exclusion, Freedom and Environment*. Ashgate, pp. 25–38.

Sheller M and Urry J (2000) The city and the car. *International Journal of Urban and Regional Research* 24(4): 737–757.

Shin H (2011) Spatial capability for understanding gendered mobility for Korean Christian immigrant women in Los Angeles. *Urban Studies* 48(11): 2355–2373.

Siren A and Hakamies-Blomqvist L (2005) Sense and sensibility. A narrative study of older women's car

driving. *Transportation Research Part F Traffic Psychology and Behaviour* 8(3): 213–228.

SLOCAT (2023) SLOCAT Transport and Climate Change Global Status Report – 2nd Edition. Available at: https://tcc-gsr.com/

Smeds E and Papa E (2023) The value of street experiments for mobility and public life: Citizens' perspectives from three European cities. *Journal of Urban Mobility* 4: 100055.

Sobieralski JB and Mumbower S (2022) Jet-setting during COVID-19: Environmental implications of the pandemic induced private aviation boom. *Transportation Research Interdisciplinary Perspectives* 13: 100575.

Sorin G (2021) *Driving While Black: African American Travel and the Road to Civil Rights*. WW Norton.

Spinney J (2008) Cycling between the traffic: mobility, identity and space. Available at: https://justinspinney.wordpress.com/wp-content/uploads/2013/09/udj-2nd-draft-comp.pdf.

Stengers I (2015) *In Catastrophic Times: Resisting the Coming Barbarism*. Open Humanities Press. Available at: https://openhumanitiespress.org/books/download/Stengers_2015_In-Catastrophic-Times.pdf

Tretheway M and Andriulaitis R (2015) *What do we mean by a level playing field in international aviation?* International Transport Forum Discussion Papers 2015/6. Available at: https://www.itf-oecd.org/sites/default/files/docs/dp201506print_0.pdf

Tuvikene T (2018) Post-socialist (auto)mobilities: Modernity, freedom and citizenship. *Geography Compass* 12(3): e12362.

Urry J (2007) *Mobilities*. Polity.

Volti R (1996) A century of automobility. *Technology and Culture* 37(4): 663–685.

Walcott R (2021) *The Long Emancipation: Moving Towards Black Freedom*. Duke University Press.

Walks A (2015) Stopping the 'war on the car': Neoliberalism, Fordism, and the politics of automobility in Toronto. *Mobilities* 10(3): 402–422.

Walsh M (2008) Gendering mobility: women, work and automobility in the United States. *History* 93(311): 311–452.

Zheng J (2019) *Driving Toward Modernity: Cars and the Lives of the Middle Classes in Contemporary China*. Cornell University Press.