

JYX



This is a self-archived version of an original article. This version may differ from the original in pagination and typographic details.

Author(s): Silonsaari, J.E.

Title: Prefigurative politics in action research for just cycling futures

Year: 2024

Version: Published version

Copyright: © 2024 The Author(s). Published by Informa UK Limited, trading as Taylor & Francis

Rights: CC BY 4.0

Rights url: <https://creativecommons.org/licenses/by/4.0/>

Please cite the original version:

Silonsaari, J.E. (2024). Prefigurative politics in action research for just cycling futures. *Urban, Planning and Transport Research*, 12(2), Article 2318436.

<https://doi.org/10.1080/21650020.2024.2318436>



Prefigurative politics in action research for just cycling futures

J.E. Silonsaari

To cite this article: J.E. Silonsaari (2024) Prefigurative politics in action research for just cycling futures, Urban, Planning and Transport Research, 12:1, 2318436, DOI: 10.1080/21650020.2024.2318436

To link to this article: <https://doi.org/10.1080/21650020.2024.2318436>



© 2024 The Author(s). Published by Informa UK Limited, trading as Taylor & Francis Group.



Published online: 18 Feb 2024.



Submit your article to this journal [↗](#)



Article views: 89



View related articles [↗](#)



View Crossmark data [↗](#)



OPEN ACCESS



Prefigurative politics in action research for just cycling futures

J.E. Silonsaari^{a,b}

^aFaculty of Sport and Health Science, University of Jyväskylä, Finland; ^bAmsterdam Institute for Social Science Research, University of Amsterdam, Amsterdam, The Netherlands

ABSTRACT

The paper proposes that action research, not as a predefined set of methods but rather as a mode of research, should be considered a key asset in creating transformative knowledge on just cycling futures. I explain, firstly, why action-oriented, experimental, and participatory research should deploy the concept of prefigurative politics – the performing of not-yet cycling futures here and now – as a theoretical, methodological and practical resource to counter hegemonic, oppressive, essentialist and authoritarian mobility rationalities. Second, I argue why prefigurative action research is most applicable when involving diverse actors across cycling governance networks into a democratic social learning process. These arguments are developed by synthesising literatures from social movement studies and mobility and transport justice, and by providing examples of four social cycling innovations among a population often marginalised from transport policy and planning – children and young people. In conclusion, the paper proposes a model for conducting prefigurative action research on cycling.

ARTICLE HISTORY

Received 20 December 2023

Accepted 8 February 2024

KEYWORDS

Prefigurative politics; experiments; social learning; cycling; mobility; action research

Introduction

The future role of cycling in urban mobility is tracked through myriad theoretical-methodological frameworks. For example, scenario modelling (Hickman et al., 2012), utopianism (Fleming, 2017; Popan, 2019) and critical analyses of ‘smartification’ (Nikolaeva et al., 2019) can all make important contributions. Importantly, imagining and crafting potential pathways, in policy, academia or otherwise, produce differing narratives regarding the desirability, plausibility and possibility of different futures (Banister & Hickman, 2013). Research is always performative by defining what kinds of questions we need to answer and which people’s views are foregrounded. Neither cycling policy nor cycling research is never apolitical or innocent and these issues are reflected in two ways in current critical cycling scholarship.

First, imaginations of cycling futures are often forged under the shadow of capitalist and neoliberal urbanism and the system of automobility, meaning that they fail to break away from hegemonic social and political imaginaries and path-dependencies that the current regime has created to protect itself (Cox, 2023; Spinney, 2020). Studies seeking to

CONTACT J.E. Silonsaari  jonne.e.silonsaari@jyu.fi  Amsterdam Institute for Social Science Research, University of Amsterdam, Roetersstraat 11, Amsterdam 1018 WB, The Netherlands

© 2024 The Author(s). Published by Informa UK Limited, trading as Taylor & Francis Group.

This is an Open Access article distributed under the terms of the Creative Commons Attribution License (<http://creativecommons.org/licenses/by/4.0/>), which permits unrestricted use, distribution, and reproduction in any medium, provided the original work is properly cited. The terms on which this article has been published allow the posting of the Accepted Manuscript in a repository by the author(s) or with their consent.

explain ‘what works’ for cycling advocacy are often driven by ‘behaviour change’ schemes and ‘interventions’ for different populations, the effectiveness of which is often modest at best (e.g. Doğru et al., 2021). This body of work, despite its merits, analyses the effectiveness of various interventions without contextualising them in the wider socio-political landscape. If the focus of modal shift is on behaviour change and measuring the effectiveness of cycling lessons, awareness raising campaigns, incremental infrastructural changes and other individual initiatives, it neglects the power-laden governance frameworks, discourses and experiences that shape them in the first place (Cox, 2023). Incremental promotion of cycling on ‘some (privileged) journeys’ or ‘for some (privileged) people’ only augments the current techno-political social orders, without reframing the problem in political terms.

Second, cycling advocacy often fails to create socio-economically just mobilities, as explained by a large body of research on the social, cultural and political conditions of cycling. These literatures discuss explain marginalisation in terms of what kinds of subjectivities are sidelined through prevalent cycling policy across age, gender, ethnicity, class and other social markers. Terminologies like ‘unequal cyclescapes’ (Stehlin, 2019), ‘bike lanes as white lanes’ (Hoffmann, 2016) and cycling as ‘a mobility fix’ (Spinney, 2018) all draw attention to how cycling policy, governance, planning and advocacy are failing to challenge prevalent socio-spatial inequalities (also Lam, 2018; Psarikidou, 2020). Cycling promotion risks advocating ‘totalising tendencies which obscure social and cultural difference, ignore the embodied and affective dimensions of transport practices and fail in part to apprehend the heterogeneity of environmental responsibility’ (Cupples & Ridley, 2008, 254).

As ‘tinkering’ with the marginal scope that is allocated to radically different futures in the hegemonic socio-political landscape is not enough, frameworks of more *transformative* (rather than *reformist*) mobility research have started to emerge, paying close attention to social justice (Karner et al., 2020, 2023; Sheller, 2018; Verlinghieri & Schwanen, 2020). The lesson from these literatures is that research and policy need to account for more pluriversal definitions on what mobility is for and how it is performed, if they are to live up to their sustainable and egalitarian promises as a part of the ‘just transition’ discourse. In other words, *vélocity* should not be considered a universal solution, but be able to take diverse forms to avoid reproducing mobility injustices. A key condition of possibility for this plurality is that the new forms of autonomous human-scaled mobilities are grounded in self-reliance and autonomy, and actively dismantling existing and prospective path dependencies that serve to interlock *vélocity* with hegemonic principles as speed fetishism and capital accumulation (Cass & Manderscheid, 2018). More practically, this means turning from solutionist and technocratic research and policy to creative and value-driven methodologies that allow for marginalised and oppressed bike rationalities and local knowledge to emerge.

Mobilities research has been always concerned on the role of research in driving socially just transformation, especially by accumulating a wealth of insights on ‘mobile methods’ (Sheller, 2014). However, the critical transformative research agenda begs the question of how can individual research projects, confined in current realities, study the social change towards desired futures, especially as *desired* here encompasses a range of embodied, discursive, shared and experiential qualities of cycling conductive of intersectional, processual, context sensitive and

even extemporaneous mobility justice (Nixon & Schwanen, 2018; Sheller, 2018)? Can we suppose that research participants, whoever they are, are even able to express informed views on ‘the politics of what is not but what could be’ (Cox, 2023, 282)? How can cycling research, together with policymakers, planners, activists, advocates and local communities start building ‘the new in the shell of the old’ (Ince, 2012)?

This paper proposes the theoretical-methodological operationalisation of prefigurative politics in action-oriented cycling research to address these concerns and explain why (realist) action research is an appropriate way to study just cycling transformations.

Operationalising prefiguration for cycling research

The core ideas of prefigurative politics have a long history in activism and anarchism, even though the term as such was not always used (Raekstad & Gradin, 2020). For example, Gramsci (1971, cited in Davoudi, 2023) was interested in the capabilities of the civil society to build alternative social orders in the present, without explicitly referring to prefiguration. The classic definition by Boggs (1977, 100) is still widely used: ‘[t]he embodiment, within the ongoing political practice of a movement, of those forms of social relations, decision-making, culture and human experience that are the ultimate goal’. While the basic idea has largely remained unchanged, recent social movement research has tremendously advanced the applicability of the concept (Cooper, 2020; Ince, 2012; Ishkanian & Peña Saavedra, 2019; Jeffrey & Dyson, 2021; Maeckelbergh, 2011; Swain, 2019; Yates, 2015, 2021). Building on this work, prefigurative politics has recently also become the interest of planning, transformation, and urban scholarship (Davoudi, 2023; Thorpe, 2023; Törnberg, 2021). From the inclusive cycling perspective prefiguration is promising for action and research as it ‘nurtures a basic sensibility that, whatever the nature of the present, situations can change, and even the most marginalised might participate in effecting that transformation’ (Jeffrey & Dyson, 2021, 653). For the purposes of this paper, I focus on three interrelated ‘moments’ of prefigurative politics as outlined by Jeffrey and Dyson (*ibid.*): improvisation, institutionalisation and impact, and discuss them along with relevant planning and mobility research.

Firstly, the notion of improvisation highlights prefigurative politics’ focus on action alongside imagination (Jeffrey & Dyson, 2021; for broader use of the term see for example; Müller & Trubina, 2020). Prefigurative action reworks and appropriates material and spatial relations and meanings ascribed to them in creative ways in order to queer or renegotiate established structures (Maeckelbergh, 2011; Swain, 2019; Thorpe, 2023). Yet, this is a process of trial and error, and improvisation must be coupled with continuous scrutinization what actions are conducive of the movement’s aims.

Some actors and movements embrace highly proleptical forms of improvisation, meaning that individuals and collectives start acting ‘as if’ the new social relations and institutions were already a reality (Cooper, 2020). Prolepsis aims to challenge dominant notions about the ‘impossibility’ of alternatives and reshape people’s sense of what is ‘real’. For example, Thorpe (2023) describes the activism of so-called ‘transformation agencies’ in the US, that appropriate official looking materials and spatial tactics to create DIY experiments. The point is that these groups create concrete actual experiences of ‘as if’ official bodies were already committed to ensuring safe, equitable access to streets for

everyone, making it uncomfortable for these entities to normalise the disastrous repercussions of excessive car use.

Crucially, improvisation sets prefiguration apart from anticipatory imaginaries and politics that are based on a notion that we need concrete future images to work towards (or away from) (Jeffrey & Dyson, 2021). Indeed, future imaginaries of cycling often posit, implicitly or explicitly, that change necessitates a concrete blueprint for the future: a utopia, a model or designing smart technological fixes. In contrast, prefiguration does not mean pre-defining a postponed future but performing the *possibilities* of the not-yet (Swain, 2019). One of its central features is means-ends equivalence, which means that the organization of initiatives reflects their outspoken goals and demands to create a path towards radically different futures (Yates, 2015). For cycling advocacy, this could mean an active refusal of the system automobility or any other hegemonic regime with all the necessary social, cultural, political and economic relations they might demand (Cox, 2023). This way, emphasis on the process instead of the predefined outcomes demarcates prefiguration from utopianism and other future-oriented planning and design conceptualisations. It dilutes the preoccupation of planning to generate long-term strategies to guide short-term actions, that most often reproduces the status quo by projecting the present into the future (Davoudi, 2023).

I will argue through my case examples that this inherent openness and fluidness of prefigurative practice is a key asset in planning and enacting cycling futures that are attentive to the needs of marginalised and vulnerable groups and communities. Explorative improvisation nurtures a sensitivity towards the intersectional and locally contingent mobility injustices that are processual, emergent and even extemporaneous in nature (Nixon & Schwanen, 2018; Sheller, 2018). Essentialist and universalising cycling imaginaries are challenged by new experiences and shared meanings that might prove far more efficient triggers of change than anything that researchers or study participants might come to think when designing their studies (see Silonsaari et al., 2022). Indeed, despite its seemingly disorganised demeanour, studies have emphasised the strategic importance of improvised actions: ‘the goal of pursuing “(an)other world(s)” in an open and explicitly not predetermined way requires practice over time, and that is what makes prefiguration the most strategic approach’ (Maeckelbergh, 2011, 3). Hence, any sharp separation between strategy and action loses its meaning in prefigurative action because prefiguration itself ‘is an effective strategy that is fluid in nature’ (Dinerstein, 2015, 17).

Second, however, prefigurative action does not occur in a vacuum outside of existing power structures and hegemonic practices, and it needs to develop some sort of institutional forms. Because the political, social, material and spatial environment is often hostile towards counterhegemonic practices, prefigurative action needs safe spaces to nurture and empower itself. Thus, successful prefigurative politics is usually somehow institutionalised within organisations, networks, practices, discourses or structures of power (Jeffrey & Dyson, 2021). Social movement studies have explained in length how squatted houses, countercultural ‘scenes’ and other spatial, social and cultural spaces can nurture prefigurative actions. Yet, when actions start to assume institutional forms, this always brings in the internal politics of these ‘safe’ or ‘free’ spaces. Here, Ishkanian and Peña Saavedra (2019) have coined the term *intersectional prefiguration* to address how structural inequalities persist and are accounted for in prefigurative institutions.

Very similar strengths and weaknesses of ‘institutionalisation’ can be read from transitions and mobilities research. Törnberg (2021) has pointed to the similarity of these ‘free spaces’ with the concept of niches, as outlined in socio-technical transitions studies (Geels, 2012). They serve to protect prefigurative actions from the repression, top-down adjustment or co-option of the hegemonic regime – in the case of cycling for example the automobilist cultures and planning principles. However, as implied in the substantial body of critical cycling research cited above, cycling niches need to actively tackle their own internal inequalities and relations of exclusion to promote intersectional prefiguration (Ishkanian & Peña Saavedra, 2019). Sheller (2018) for example uses the untokening and slow roll movements to explain why mobility justice necessitates intersectional cycling advocacy.

Thirdly, there is the ‘moment’ of impact, which of course encompasses the sense of the whole concept of prefiguration for transformative research (Jeffrey & Dyson, 2021). Prefiguration has faced a lot of criticism for being unthreatening to the dominant social and political orders for example when the institutionalisation leads to social closures or introverted ‘fetishising’ (Argüelles et al., 2017). In other words, the actors might get so excited about the spaces they create, that the wider systemic change is left on the background. On the other hand, prefiguration has also been considered susceptible to co-option when even institutionalised forms cannot protect it from hegemonic powers and actors (Kulick, 2014). Still, despite these weaknesses, prefigurative movements have a solid track record of creating sustainable impact by scaling up and spreading initiatives; developing transferable skills and assets for the participants; triggering far reaching attitudinal changes beyond the activist groups; and creating a shared sense of association, purpose and hope for change (Jeffrey & Dyson, 2021; Raekstad & Gradin, 2020).

For the purposes of this paper, a key consideration from the impact perspective is how actual experiments are nurtured into being among diverse actors in action research processes. All types of counterhegemonic experimentation are evidently central to prefigurative politics and street experiments, tactical or DIY urbanism and other types of tentative changes in social, spatial and material relations have become celebrated urban governance methods to create change (Evans et al., 2016). Yet, experimentation can be conducted in myriad ways and the improvisation and institutionalisation it entails are, as brought up above, subject to external and internal politics.

Savini and Bertolini (2019) have critically discussed experiments as ‘politics of the niches’. They distinct three political acts in the creation of experiments – definition, direction and resource mobilisation – which regulate how alternative practices come into being and develop, and eventually die out, remain in the margins, become coopted, or change institutional orders. Especially if experiments are coordinated in prefigurative institutions or networks marred by undemocratic power positions (contrary to the principles of intersectional prefiguration), these spaces may not protect the radical ideas but do just the opposite. Savini and Bertolini’s account implies the interplay of improvisation and institutionalisation by thinking experimentation not from a depoliticised ‘managerial’ or ‘innovation’ viewpoint, but rather as political recognition of social innovation, the first being a ‘way to nurture or even create a niche for a particular predefined goal. The second instead leads to questioning the conditions (who, what and

why) that determine which niches are recognized and which are not, which ones are nurtured, or which ones are instead left to die’.

Next, I explain how the three moments of prefiguration should supplement and inform action-oriented and experimental cycling research.

Action research and learning

Generally, action research refers to interactive, counterhegemonic, and process-oriented methods that seek simultaneously to study and promote change in relevant organizations, communities and networks (Reason & Bradbury, 2001). The nuances of action research designs remain outside of the scope of this paper but, it is important to point that my work builds on realist action research, stemming from the philosophical branch of critical realism (Houston, 2010; Westhorp et al., 2016). Such realist approaches do not suggest rigid rules for methods but direct the logic of inference, especially the use of theory (such as prefigurative politics in this paper) to understand underlying social processes and tendencies that cannot be directly observed. In their seminal work Pawson and Tilley (1997) have explained in length how and why realist approaches seek to provide an alternative to the randomised control trial and other similar experimental principles assuming closed laboratory-like system and straight forward relationships between dependent and independent variables (often adopted by cycling research focusing on ‘behaviour change’ and ‘interventions’ discussed in the introduction).

Perhaps the most explicit connection between prefiguration and action research is the shared notion that transformations are fundamentally about ‘experimentation, learning, and doing something that has never been done before and constant scrutinization of what is being done’ (Bradbury et al., 2019, 8) – in other words iterative work along more or less improvised action and deliberate reflection. This type of social learning is often achieved through experimenting with so-called social innovations, meaning new ways of acting and organising that challenge existing social structures hegemonic orders and promote social justice by reconciling different ways of knowing and supporting their translation in new concrete practices (Bartels, 2023; Moulaert et al., 2013). For the prefiguration of inclusive velomobile futures, I want to highlight two crucial features of such learning in action research processes.

Firstly, these processes may concern very different organisational entities, and it can operate at any societal, political or administrative level. However, to look beyond ‘the elite- and expert-dependent paths to transformation’ and to understand ‘how might there be integrated social and environmental pathways broadly engaging and empowering people’ (Bradbury et al., 2019, 5), I argue that impactful cycling action research processes should bring together diverse actors from across policymaking, planning, design, activism and local communities as emphasised in mobility and transport justice literatures (Karner et al., 2020; Sheller, 2018). For example, Davoudi (2023) explains how prefigurative planning ‘can draw inspiration from and build on these civic energies and people’s creative impulses which, as Lefebvre insisted, make up the urban life’ (ibid. 2285). Crucially, action research as creation of horizontal, intersectional, safe and ‘free’ spaces sheltered from the dominant, essentialist and universalising narratives of cycling can allow for more democratic negotiation of the politics of the niches through iterative and improvised experimentation and reflection (Savini & Bertolini, 2019).

Second, learning in these types of settings is not a linear process but appreciates the learners relational, emotional, and embodied nature to develop their capacity for linking experience with sense making, reflection to action (Bartels, 2023; Bradbury et al., 2019). This sensitivity to pluralistic ways of knowing suggests that transformations cannot be achieved only by the instruments of the state and the market but it requires a new societal orientation and awareness by ‘ordinary people’, providing the possibility for people to take part in the regulation and administration of the ‘common affairs’ (Hansen et al., 2016, xvi). Translated to cycling research this would mean incorporating the multiple ways how people experience our collective lifestyles and mobility patterns and how the governing of mobility intersects with everyday mobile lives (Doughty & Murray, 2016). In the action research processes, this means continually monitoring how given experiments alter the target group’s everyday experiences, which in turn should regulate what is considered meaningful action.

Change through novel interactions and practices and the contingent social learning is what makes action research meaningful as social activity and research practice. In the field of urban mobility, such spaces of learning can be vital for new ideas to emerge and platforms for future sustainable mobility (Freudental-Pedersen et al., 2017). While social learning has myriad definitions and applications (Wals, 2007), Reed et al., (2010) have explained that such processes should always be able to demonstrate that change goes beyond the individuals and becomes situated within wider social units or communities and occurs through social interactions and processes between actors within a social network. To create a concrete analytical framework for prefigurative action research, I connect the three moments of prefiguration with three broadly defined aspects of social learning that Ballard (2005) has deemed crucial for change: awareness, agency and association.

Firstly, any learning driven change process concerns broadening the participants *awareness* on the phenomena at hand. This can concern general knowledge about the change agenda – what needs to change and how – or focus for example on the relevance of different actions and the structure of the issues (e.g. what are the meaningful actions to facilitate cycling for marginalised communities and groups). New awareness can also concern the urgency and the scale of change (e.g. what are the locally meaningful and context-specific societal costs and repercussions of the injustices reproduced by current urban transport systems). Awareness also includes new understandings of participants’ own potential role in change, meaning their *agency*. Indeed, new awareness is unlikely to stimulate change unless agency against hegemonic structures is developed in parallel. This can encompass a vast range of issues but for example in critical cycling research it is acknowledged that people in different roles and life situations need to find those aspects of cycling that resonate with their situated and context-specific goals (Cupples & Ridley, 2008). This often means that people need to acquire new skillsets and dispositions, appropriate new representations or discourses and become aware of the impact of their actions. These processes, in turn, are most influential when realised in *association* with others. Social leaning is very difficult to come by unless people recognise others that are struggling with similar issues and association can also introduce a variety of relevant perspectives to the issues at hand. Association, in turn, can again reinforce a sense of agency, by offering validating feedback on actions.

The exact operation of these broadly defined aspects varies between different research settings, but the key is that any change initiative is likely to be ineffective if only some of them are addressed. For instance, association and awareness without agency is likely to lead to little more than a talking shop; awareness and agency without association will likely lead to change agents becoming overburden and ignored; and association and agency without awareness might produce actions that focus on totally trivial issues (Ballard, 2005). Next, I provide concrete examples of how learning along these lines is intertwined with prefigurative politics in action research.

Experimenting with social cycling innovations

Empirically, I have observed and facilitated prefiguration and learning among three groups: local cycling advocates and civic organisations; planners, policy-makers, civil servants and other public authorities; and local communities whose cycling practices the projects have tried to facilitate, in this case children, young people and families. The two cases that provide the empirical examples for this paper are only briefly outlined as they are described elsewhere in detail (Silonsaari, *in press*; Silonsaari et al., 2022, 2023). They exemplify how action research processes can assume very different modalities, i.e. the differences between initiating and running experimental actions (Case study 1) and participating and supporting existing ones (Case study 2) (Ackroyd, 2009; Hansen et al., 2016). The studies were also conducted in very different socio-cultural and organisational contexts. The first study was focusing on a predefined group and specific journeys whereas the second study was wider in scope with a spatial focus.

Below, I use children and young people's accounts to reflect on four community-led initiatives: bike buses, DIY infrastructures, rideouts and bike kitchens. I combine the three moments of prefiguration with the three moments of social learning to explain how these initiatives succeeded or failed to incorporate young people's everyday experiences and instil learning among diverse actors.

Case study 1

The first study took place in the Finnish municipality of Jyväskylä during 2020–2021. While Finland is not a high cycling nation, children's autonomy of mobility by foot and bicycles is high (Goel et al., 2022; Shaw et al., 2015). Our research team brought together local cycling advocate NGOs, municipality representatives and a local youth sports club community and created an experimental project. The main focus of the initiative was on children's journeys to organised activities that are notoriously car-dependent (Hjorthol & Fyhri, 2009; Wheeler & Green, 2019). The target community consisted of middle-class native Finnish households and majority of the participating children were boys. The core group of children taking part in the experiments consisted of 35 children aged 10–12 subject to five focus group interviews (see Silonsaari et al., 2022).

Bike buses

Bike bus (or bicibús) is an organised children's group ride, typically from home to school (bicibús.eu; Simón i Mas, 2023). It can be led by adults or children and just like a bus, it has a predefined itinerary and schedule. The 'stops' are meeting points for the participants to join the group. Any bike bus should be tailored for the needs of the communities in question, but the global concept has become a celebrated social innovation to organise children's journeys and simultaneously question the urban order where children's right to the city is effectively suppressed (ibid.).

Bike bus was one of the experiments to promote children's cycling on their journeys to the sports club activities. Even though the concept was initially welcomed by children and parents, it quickly dissolved and metamorphosed into children's self-organised practices:

Jimi: It was nice to learn the route together at first, but it just took so much time to get organised and have everyone onboard. Its much better to organise by yourself. We would sometimes take a flight because it got boring. We could have taken a much better route with my friend but we were forced to participate in the bike bus.

Author: So how do you organise your journeys these days?

Jari: So basically, we have just agreed that we meet 30 minutes before our training session at a certain spot. And this would then mean that I would meet with Pietu about 5 minutes before that at his place.

Noah: Well yeah and then you have also always the choice of going by yourself. Depends on my feeling. Sometimes just listening to music or something is nicer than talking the whole journey.

Jari: You mean on those days when you don't want to listen to Jimi [everyone laughing]

Reflecting and acting on children's everyday experiences during the project was important to account for their **agency** as they were allowed to take over the bike bus initiative. The quote highlights how this agency allowed the emergence of a totally new social space and new forms of **association** as 'groups of cyclists'. These shared riding experiences also created newfound **awareness** among children and adults on what types of journeys are possible in children's everyday lives (see Silonsaari et al., 2023):

Aatos: First I thought that the journey is super long but then when we started doing it, I realised that it was not so far away and it was not at all heavy. And for me that is like 10 kilometres.

This case exemplifies how **improvisation** can facilitate the evolution of a broadly defined social innovation into a locally appropriated learning process, necessitating continuous dialogue between children's everyday experiences and the actors managing the project. Following through with a predefined, rigid and systematic implementation would not have been deemed appropriate by the children. The organic form also enabled the children to seek local potentials for playful and explorative riding, complicating the hegemonic notions of what cycling is for and how it should be performed (see Silonsaari et al., 2022, 2023).

Even though the bike bus as a strictly **institutionalised** form of organised collective riding practice dissolved, collective pedalling took different institutional forms in the

community. It was manifested for example as stickers and t-shirts stating that the club was now ‘a cycling community’. Yet in this particular setting arguably the most important aspect was the appropriation of children’s autonomous mobility in the local parenting culture – i.e. the parent’s collective recognition that allowing for children’s autonomous cycling can be a form of good and responsible parenting (Silonsaari et al., 2023). Also the children were highly sensitive towards the meaning of the initiative for parents:

Frans: My parents have really liked me going by bike. It’s quite heavy for them to chauffeur us back and forth and they have long working days.

Jaakko: It just saves everyone’s time. My parents like to take me by car sometimes but not constantly, they get so tired and uptight, and lose their nerves if something goes wrong.

Noa: For us also, we are three siblings and everyone is doing a lot of activities, so I’ve been glad to be able to help mom out by taking care of myself.

These improvised paths and institutional forms leading to desired **impact** – a major change in the community travel patterns – would have been difficult to achieve without an open-ended prefigurative approach. It points how changing the ‘politics of mobility’ in such local communities demands shared experiences and spaces for deliberate free reflection. The change from car-chauffeur to cycling in this case highlights how the care relations among children and adults are renegotiated when the community started acting proleptically ‘as if’ children cycling on highly car-dependent journeys was normal, leading to social learning.

DIY infrastructures

Another key experiment in case study 1 was a pop-up equipment storage that was set up at the sports venue where children’s activities took place. What became known in the community as ‘The Container’ served to store the participants sports equipment so that they would not need to carry loads that were normally transported by car. We worked together with the municipality, the local sports venue and the club volunteers to repurpose a large transport container equipped with light and heating and to address the myriad administrative and practical problems that occurred on the way. While this highly unusual and **improvised** infrastructure tackled a very ‘objective’ challenge (children’s inability to transport specialised sports equipment on a bike) it also served to nurture new ‘feelings’ among the children driving the change – affective ambiances **agency** and **association** in a free space for ‘hanging out’ (see Silonsaari et al., 2023):

Jake: When we sort out our stuff together right after our session in The Container, there is that cool vibe and feeling. You got your pals around you and you can talk and make jokes and it’s like ‘our place’. But that feeling is gone if you do all that at home by yourself.

Petri: . . . but the only downside is that it smells terrible in there [everyone laughing].

The Container also shows, as explained by Thorpe (2023), how ‘objective’ nature of experiments can carry a crucial importance for their prefigurative **impact**. The meaning of ‘The Container’ as a self-made **institutional** emblem of the whole project was not underpinned by suggestive persuasion of children to cycle but an objective and ‘impartial’ object signalling ‘as if’ cycling on these car-dependent journeys was a normal

practice. Importantly, the improvised and DIY nature of the project meant that a large group of participants – club officials, the venue and municipality representatives, local cycling NGOs, volunteers and children’s parents – had the opportunity to participate, adding another layer of **association** and shared **agency** in the overall scheme. The Container showed how quickly change – in both infrastructure and its governance – might be achieved through acting ‘as if’ non-car mobility was accounted for in everyday infrastructures that shape people’s everyday lives. Subsequently, children, parents and the project participants found new **awareness** on the complexity (or simplicity) of issues regarding their detachment from the system of automobility.

Case study 2

The second study was conducted in Amsterdam in 2022–2023. The social initiatives of the municipal bicycle program often seek to work in partnership with local bike advocates and other relevant civic entities. I got involved in a range of co-created projects aiming to apply innovative and participatory cycling promotion methods in the multi-cultural and marginalised housing estate in Amsterdam Southeast, where cycling rates are significantly lower than in the rest of the city and where the majority of children and young people are from non-white migrant backgrounds.

Here, the initial driver of inquiry was the fact that young people’s cycling is not equitably distributed in the city. Amsterdam is increasingly polarized as people with non-native backgrounds and lower-class positions are largely concentrated in the peripheries (Savini et al., 2016). The ethnic and class composition of neighborhoods appears to be more important than spatial characteristics in explaining cycling rates (Nello-Deakin & Harms, 2019) and it also shapes parenting norms and children and young people’s cultures of mobility, autonomy and play (Karsten, 1998). The study was not focused on a predefined group of youths, but as a part of the research process I conducted 12 interviews among 16–18-year-old youths that were in different ways involved in the initiatives (see Silonsaari, [in press](#)).

Rideouts

The ‘wheelie bike phenomenon’, most often labelled #bikelife is, not unlike the bike bus, a recent social cycling initiative (Maag, 2019). It is perhaps most vividly showcased on group ‘rideouts’ (sometimes involving more than two hundred riders in Amsterdam) where young riders take over the city streets doing wheelies and stunts. The ‘wheelie kid crews’ are known also for ‘swerving’ close to cars, objects and people with high speed, showing skilful control of their large-wheeled BMX style bikes. Since they often involve racialised, lower-class youths, Stehlin (2019) has argued that the rideout should be read as an implicitly political act questioning the unequal urban order where certain population are pushed to the city peripheries.

In case study 2, the Amsterdam cycling program was seeking ways to engage with the youths who organised different types of rideouts. The program made attempts to promote the movement through events, competitions and innovative forms of youth work. The city plays no role in organising the rideouts and the youths that I worked with

emphasised that all activities should be organised in a non-hierarchical manner, without formal organisation, allowing for **improvisation** and equal distribution of **agency**:

Tom: In every city there is a few key riders who often organise the activities. Sort of leaders but we don't want to call ourselves leaders. To make the point that everyone is the same. But you need to be skilful because that's how the younger kids get interested and come to you to ask how you do it.

The participants highlighted that the seemingly chaotic **improvisation** in the organisation and performance of the rideouts allowed them to build strong **association** among peers 'inside' the movement. Riding together and constantly building new relations on the streets and in social media through #bikelife also nurtured new **awareness** of cycling as a means to build community:

Jax: When I quit football and started riding, my friends were like oh, 'that's so boring, why would you do that'. But I've told them always that come with me one time and you will love it. Because they think it's just riding around Amsterdam, but it is not. It is more that you get new friends and stuff like that, so they don't understand the story of bikelife. And for me it's about bringing new young people in the community so there is a continuum when I quit.

Despite its efforts the Amsterdam cycling program was largely unable to tap onto these self-organised activities and turn them into formal cycling promotion projects. Thus, these rideouts are not 'experiments' in the sense that they would be organised in a consensus-seeking institutional space among predefined actors. But this politics of the niches is exactly what makes them interesting for critical research (Savini & Bertolini, 2019). In essence, they are one-day cycling experiments where predominantly racialised youths from the city peripheries act 'as if' the central areas of the city were accessible for their racialised bodies and deviant cycling practices. They appropriate the spaces of travel into playscapes, which conveys a strong political message and makes visible how the contemporary city streets are organised for optimal circulation rather than expression and play. The fact that official bodies are unable to find creative ways to support these types of self-organised activities (and rather try to undermine them as my interviewees referred to rideouts as 'illegal') means that prefigurative action must seek for other **institutional** forms: as in this case the social media narratives, established riding practices and materialities of the specialised wheelie bikes.

While mass riding is often a form of a deliberate demonstration with political claims and a direct attempt to influence the governments, my observations on the rideouts challenge this notion (also, Stehlin, 2019). Here the **impact** of rideouts derives from questioning prevalent political relations of the existing urban order between modes of transport or groups of people without any explicit political agenda (Castaneda, 2020). These actions make visible the policy urge to frame pedalling as an explicitly 'commuter' or 'utility' activity, that prioritises economically 'productive' practices and marginalises playful or otherwise 'deviant' ones (Aldred, 2015; Spinney, 2020). Thus, rideouts exemplify how more pluriversal biking rationalities can promote the **agency**, **awareness** and **association** of marginalised cyclists if they manage to organise **improvised**, but to some degree **institutional** performances as #bikelife in Amsterdam evidently does. Yet, based on my findings this learning process that has served to forge the community have not reached the city's cycling program.

Bike kitchens

Communities aiming to prefigure circular, post-growth, communitarian or otherwise counter-hegemonic velomobility cultures and ecosystems have since long organised themselves around community bike workshops and collectives, often best known as bike kitchens. This open concept is multiplying across the globe and a body of cycling research is dedicated to their operations, ideologies and contexts, and also analysing their social and political relations that could prefigure radically different mobility systems (Abord de Chatillon, 2022; Hult & Bradley, 2017; Valentini & Butler, 2023; Zapata Campos et al., 2020). Often the key idea is to promote participant **agency** and autonomy, or *velonomy* (Abord de Chatillon, 2022), in car-dominated urban settings by building **awareness** on bicycle repair and **association** with others.

In case study 2 I conducted participant observation in a local bike kitchen that was a joint venture between the city, the local district government, a local NGO and local bike advocates and volunteers (see Silonsaari, *in press*). This co-creation group also involved three young people, who explained why the bike kitchen concept was potential to tackle the everyday challenges of cycling among local youths. They explained that commercial bike shops were often too expensive, but purchasing second hand bikes and parts was deemed risky:

Joshua: I don't want to buy a bike from anyone [I don't know]. You can really get screwed over, even if you sort of know what you are buying, the parts are expensive and sometimes you don't know what to do if something breaks.

In addition to this precarity, the three of them emphasised that stealing bikes and parts was a problem in the area, but they saw that a local bike kitchen could potentially counter such illicit practice:

Jamal: If I need something for a bike, like parts, I'm going to steal it, I'm not going to lie to you, I will steal it. And anyone can do it, it is so easy. And I think many kids are like that but of course many would not do it if they could get recycled bikes and parts and be confident that they work or can be fixed for free.

The implementation of the bike kitchen was very much **improvised**: the NGO was operating in an old school building, where a room was furnished as a bike repair space. However, despite the promising conceptualisation and fact that the initiative gained distinct **institutional** form as 'The Bike Kitchen', it was unable to nurture radically democratic decision making or even the principles of sharing, learning and association. Especially the youth focus was lost in the process and there was little room for **improvisation** in terms of how the space should operate – i.e. by 'just' fixing bikes or teaching youths how to do it and building a community around the physical space. As I analyse elsewhere in detail this 'free space' was largely co-opted by hegemonic performance-managerial rationalities (Silonsaari, *in press*). Hence, while on the conceptual level bike kitchen is imagined as a free space where **agency**, **association** and **awareness** in the form of new skills and dispositions can prefigure radically different mobility systems, the **impact** was suppressed by the internal politics of the space and the learning process did not reach all actors involved.

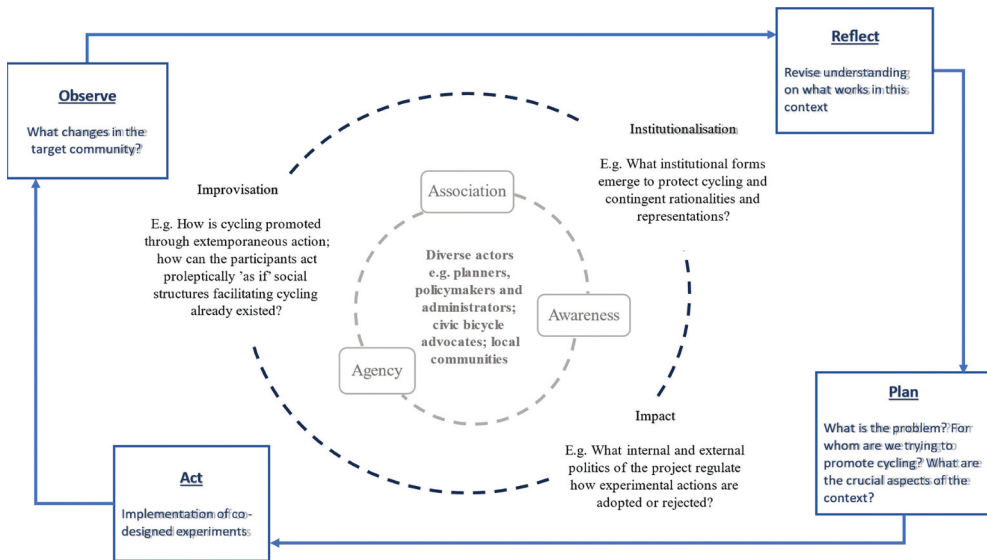


Figure 1. A model for (realist) action research process in prefigurative cycling studies (applied from Westhorp et al., 2016).

Conclusions

According to Cox (2023, 276) '[i]n the context of cycling research, the academic as actor/agent in late capitalism is in a position not just to observe what vélomobility looks like, but also to act and assist in determining its emergent forms'. This call for action and the transformative and inclusive research agenda of urban cycling demands guidelines for how to practically implement disruptive experiments and social innovations; determine and involve the relevant stakeholders and people; analyse different dimensions of social justice and, finally, direct the attention towards social mechanisms and phenomena that can trigger change. Action research provides a wide-spanning framework to accommodate these needs and promote change towards just cycling futures. A large body of methodological literature provides guidelines for action research and this applies also to the realist action research that this paper is based on (Houston, 2010; Westhorp et al., 2016). However, these literatures seldom discuss the theoretical and conceptual resources that such studies should mobilise. In the above, I have argued that prefigurative politics should be considered a resource to understand change and learning processes and to explain why differing civic and governance actors succeed or fail to find a common ground for innovative cycling promotion.

While the empirical examples are not intended as exhaustive analyses of the implementation of social cycling innovations in specific contexts, they serve to depict the intertwined nature of prefiguration and social learning in experimentation and action research processes. Their successes and failures highlight that learning needs to take place on the level of the everyday life of the target communities but also on the level of the co-creative spaces and *between* diverse actors. They show what kinds of struggles prefigurative learning processes are likely to entail when applied to cycling and mobility research

(see Cavé, 2023). To conclude, Figure 1 incorporates these insights with the cyclical (realist) action research process (Westhorp et al., 2016).

Ethical approval

The Human Sciences Ethics Committee of the University of Jyväskylä, approval number 492/13.00.04.00/2020.

Disclosure statement

No potential conflict of interest was reported by the author(s).

Funding

This work was supported by the Strategic Research Council [320403, 320400].

References

- Abord de Chatillon, M. (2022). *Velonomy and material mobilities: Practices of cycle repair and maintenance in Lyon, France, and Melbourne, Australia* (Doctoral dissertation, École nationale des travaux publics de l'État (ENTPE))
- Ackroyd, S. (2009). Research designs for realist research. In D. Buchanan, & A. Bryman (Eds.), *Handbook of organizational research methods* (pp. 532–548). SAGE Publications.
- Aldred, R. (2015). A matter of utility? Rationalising cycling, cycling rationalities. *Mobilities, 10*(5), 685–705. <https://doi.org/10.1080/17450101.2014.935149>
- Argüelles, L., Anguelovski, I., & Dinnie, E. (2017). Power and privilege in alternative civic practices: Examining imaginaries of change and embedded rationalities in community economies. *Geoforum; Journal of Physical, Human, and Regional Geosciences, 86*, 30–41. <https://doi.org/10.1016/j.geoforum.2017.08.013>
- Ballard, D. (2005). Using learning processes to promote change for sustainable development. *Action Research, 3*(2), 135–156. <https://doi.org/10.1177/1476750305052138>
- Banister, D., & Hickman, R. (2013). Transport futures: Thinking the unthinkable. *Transport Policy, 29*, 283–293. <https://doi.org/10.1016/j.tranpol.2012.07.005>
- Bartels, K. P. (2023). Experiential learning: A relational approach to sustaining community-led social innovation. *Innovation: The European Journal of Social Science Research, 36*(3), 434–452. <https://doi.org/10.1080/13511610.2022.2121268>
- Boggs, C. (1977). Marxism, prefigurative communism and the problem of workers' control. *Radical America, 6*(Winter), 99–122.
- Bradbury, H., Waddell, S., O'Brien, K., Apgar, M., Teehanke, B., & Fazey, I. (2019). A call to action research for transformations: The times demand it. *Action Research, 17*(1), 3–10. <https://doi.org/10.1177/1476750319829633>
- Cass, N., & Manderscheid, K. (2018). The autonomobility system: Mobility justice and freedom under sustainability. In N. Cook & D. Butz (Eds.), *Mobilities, mobility justice and social justice* (pp. 101–115). Taylor and Francis.
- Castañeda, P. (2020). From the right to mobility to the right to the mobile city: Playfulness and mobilities in Bogotá's cycling activism. *Antipode, 52*(1), 58–77.
- Cavé, D. (2023). *Connecting to Make a Difference: Social Learning and Radical Collective Change in Prefigurative Online Communities*. Doctoral dissertation, University of Cumbria.
- Cooper, D. (2020). Towards an adventurous institutional politics: The prefigurative 'as if' and the reposing of what's real. *The Sociological Review, 68*(5), 893–916. <https://doi.org/10.1177/0038026120915148>

- Cox, P. (2023). Vélomobility is to degrowth as automobility is to growth: Prefigurative cycling imaginaries. *Applied Mobilities*, 8(3), 265–285. <https://doi.org/10.1080/23800127.2022.2087134>
- Cupples, J., & Ridley, E. (2008). Towards a heterogeneous environmental responsibility: Sustainability and cycling fundamentalism. *Area*, 40(2), 254–264. <https://doi.org/10.1111/j.1475-4762.2008.00810.x>
- Davoudi, S. (2023). Prefigurative planning: Performing concrete utopias in the here and now. *European Planning Studies*, 1–14.
- Dinerstein, A. (2015). *The politics of autonomy in Latin America. The art of organizing hope*. Palgrave.
- Doğru, O. C., Webb, T. L., & Norman, P. (2021). What is the best way to promote cycling? A systematic review and meta-analysis. *Transportation Research Part F: Traffic Psychology and Behaviour*, 81, 144–157. <https://doi.org/10.1016/j.trf.2021.06.002>
- Doughty, K., & Murray, L. (2016). Discourses of mobility: Institutions, everyday lives and embodiment. *Mobilities*, 11(2), 303–322. <https://doi.org/10.1080/17450101.2014.941257>
- Evans, J., Karvonen, A., & Raven, R. (Eds.). (2016). *The experimental city*. Routledge.
- Fleming, S. (2017). *Velotopia: The production of cyclespace in our minds and our cities*. nai010.
- Freudental-Pedersen, M., Hartmann-Petersen, K., Kjærulff, A. A., & Nielsen, L. D. (2017). Interactive environmental planning: Creating utopias and storylines within a mobilities planning project. *Journal of Environmental Planning and Management*, 60(6), 941–958. <https://doi.org/10.1080/09640568.2016.1189817>
- Geels, F. W. (2012). A socio-technical analysis of low-carbon transitions: Introducing the multi-level perspective into transport studies. *Journal of Transport Geography*, 24, 471–482.
- Goel, R., Goodman, A., Aldred, R., Nakamura, R., Tatah, L., Garcia, L. M. T., Zapata-Diomedes, B., de Sa, T. H., Tiwari, G., de Nazelle, A., Tainio, M., Buehler, R., Götschi, T., & Woodcock, J. (2022). Cycling behaviour in 17 countries across 6 continents: Levels of cycling, who cycles, for what purpose, and how far? *Transport Reviews*, 42(1), 58–81. <https://doi.org/10.1080/01441647.2021.1915898>
- Gramsci, A. (1971). *Selections from the prison notebooks*. Q. Hoare & G. Nowell-Smith, Trans. Lawrence and Wishart.
- Hansen, H. P., Nielsen, B. S., Sriskandarajah, N., & Gunnarsson, E. (2016). *Commons, sustainability, democratization: Action research and the basic renewal of society*. Routledge.
- Hickman, R., Saxena, S., Banister, D., & Ashiru, O. (2012). Examining transport futures with scenario analysis and MCA. *Transportation Research Part A: Policy and Practice*, 46(3), 560–575. <https://doi.org/10.1016/j.tra.2011.11.006>
- Hjorthol, R., & Fyhri, A. (2009). Do organized leisure activities for children encourage car-use? *Transportation Research Part A: Policy and Practice*, 43(2), 209–218. <https://doi.org/10.1016/j.tra.2008.11.005>
- Hoffmann, M. L. (2016). *Bike lanes are white lanes: Bicycle advocacy and urban planning*. University of Nebraska Press.
- Houston, S. (2010). Prising open the black box: Critical realism, action research and social work. *Qualitative Social Work*, 9(1), 73–91. <https://doi.org/10.1177/1473325009355622>
- Hult, A., & Bradley, K. (2017). Planning for sharing—providing infrastructure for citizens to be makers and sharers. *Planning Theory & Practice*, 18(4), 597–615. <https://doi.org/10.1080/14649357.2017.1321776>
- Ince, A. (2012). In the shell of the old: Anarchist geographies of territorialisation. *Antipode*, 44(5), 1645–1666. <https://doi.org/10.1111/j.1467-8330.2012.01029.x>
- Ishkanian, A., & Peña Saavedra, A. (2019). The politics and practices of intersectional prefiguration in social movements: The case of sisters uncut. *The Sociological Review*, 67(5), 985–1001. <https://doi.org/10.1177/0038026118822974>
- Jeffrey, C., & Dyson, J. (2021). Geographies of the future: Prefigurative politics. *Progress in Human Geography*, 45(4), 641–658. <https://doi.org/10.1177/0309132520926569>
- Karner, A., Bills, T., & Golub, A. (2023). Emerging perspectives on transportation justice. *Transportation Research, Part D: Transport & Environment*, 116, 103618. <https://doi.org/10.1016/j.trd.2023.103618>

- Karner, A., London, J., Rowangould, D., & Manaugh, K. (2020). From transportation equity to transportation justice: Within, through, and beyond the state. *Journal of Planning Literature*, 35(4), 440–459. <https://doi.org/10.1177/0885412220927691>
- Karsten, L. (1998). Growing up in Amsterdam: Differentiation and segregation in children's daily lives. *Urban Studies*, 35(3), 565–581. <https://doi.org/10.1080/0042098984916>
- Kulick, R. (2014). Making media for themselves: Strategic dilemmas of prefigurative work in independent media outlets. *Social Movement Studies*, 13(3), 365–380. <https://doi.org/10.1080/14742837.2013.831754>
- Lam, T. (2018). Hackney: A cycling borough for whom? *Applied Mobilities*, 3(2), 115–132. <https://doi.org/10.1080/23800127.2017.1305151>
- Maag, C. (2019). The secret bike subculture of danger and fun. Retrieved November 30, 2023, from <https://www.christophermaag.com/bikelife>
- Maeckelbergh, M. (2011). Doing Is Believing: Prefiguration as Strategic Practice in the Alterglobalization Movement. *Social Movement Studies*, 10(1), 1–20. <https://doi.org/10.1080/14742837.2011.545223>
- Moulaert, F., MacCallum, D., Mehmood, A., & Hamdouch, A. (2013). *The international handbook on social innovation*. Collective Action, Social Learning and Transdisciplinary Research. Edward Elgar.
- Müller, M., & Trubina, E. (2020). Improvising urban spaces, inhabiting the in-between. *Environment and Planning D: Society and Space*, 38(4), 664–681. <https://doi.org/10.1177/0263775820922235>
- Nello-Deakin, S., & Harms, L. (2019). Assessing the relationship between neighbourhood characteristics and cycling: Findings from Amsterdam. *Transportation Research Procedia*, 41, 17–36. <https://doi.org/10.1016/j.trpro.2019.09.005>
- Nikolaeva, A., Te Brömmelstroet, M., Raven, R., & Ranson, J. (2019). Smart cycling futures: Charting a new terrain and moving towards a research agenda. *Journal of Transport Geography*, 79, 102486. <https://doi.org/10.1016/j.jtrangeo.2019.102486>
- Nixon, D. V., & Schwanen, T. (2018). Emergent and integrated justice: Lessons from community initiatives to improve infrastructures for walking and cycling. In N. Cook, & D. Butz (Eds.), *Mobilities, mobility justice and social justice* (pp. 129–141). Routledge.
- Pawson, R., & Tilley, N. (1997). *Realistic evaluation*. Sage.
- Popan, C. (2019). *Bicycle utopias: Imagining fast and slow cycling futures*. Routledge.
- Psarikidou, K. (2020). Em-‘powering’ niche innovations: Learning from cycling inequalities. *Applied Mobilities*, 5(3), 271–288. <https://doi.org/10.1080/23800127.2020.1723386>
- Raekstad, P., & Gradin, S. S. (2020). *Prefigurative politics: Building tomorrow today*. Polity Press.
- Reason, P., & Bradbury, H. (2001). *Handbook of action research: Participative inquiry and practice*. Sage.
- Reed, M. S., Evely, A. C., Cundill, G., Fazey, I., Glass, J., Laing, A., Newig, J., Parrish, B., Prell, C., Raymond, C., & Stringer, L. C. (2010). What is social learning? *Ecology and Society*, 15(4).
- Savini, F., & Bertolini, L. (2019). Urban experimentation as a politics of niches. *Environment & Planning A: Economy & Space*, 51(4), 831–848. <https://doi.org/10.1177/0308518X19826085>
- Savini, F., Boterman, W. R., Van Gent, W. P., & Majoor, S. (2016). Amsterdam in the 21st century: Geography, housing, spatial development and politics. *Cities*, 52, 103–113. <https://doi.org/10.1016/j.cities.2015.11.017>
- Shaw, B., Bicket, M., Elliott, B., Fagan-Watson, B., Mocca, E., & Hillman, M. (2015). *Children's independent mobility: an international comparison and recommendations for action*. Policy Studies Institute.
- Sheller, M. (2014). The new mobilities paradigm for a live sociology. *Current Sociology*, 62(6), 789–811. <https://doi.org/10.1177/0011392114533211>
- Sheller, M. (2018). *Mobility justice: The politics of movement in an age of extremes*. Verso Books.
- Silonsaari, J. (in press). Assembling velomobile commons for children and young people in a multicultural and marginalized part of Amsterdam.

- Silonsaari, J., Simula, M., & Te Brömmelstroet, M. (2023). From intensive car-parenting to enabling childhood velonomy? Explaining parents' representations of children's leisure mobilities. *Mobilities*, 19(1), 1–18. <https://doi.org/10.1080/17450101.2023.2200146>
- Silonsaari, J., Simula, M., Te Brömmelstroet, M., & Kokko, S. (2022). Unravelling the rationalities of childhood cycling promotion. *Transportation Research Interdisciplinary Perspectives*, 14, 100598. <https://doi.org/10.1016/j.trip.2022.100598>
- Simón i Mas, G. (2023). Results of the BICI Bus Survey. City Lab Barcelona. Retrieved December 11, 2023, from <https://citylabbcn.org/2023/06/28/results-of-the-bici-bus-survey>
- Spinney, J. (2018). Fixing mobility in the neoliberal city: Cycling policy and practice in London as a mode of political-economic and biopolitical governance. *Annals of the American Association of Geographers*, 106(2), 450–458.
- Spinney, J. (2020). *Understanding urban cycling: Exploring the relationship between mobility, sustainability and capital*. Routledge.
- Stehlin, J. G. (2019). *Cyclescapes of the unequal city: Bicycle infrastructure and uneven development*. University of Minnesota Press.
- Swain, D. (2019). Not not but not yet: Present and future in prefigurative politics. *Political Studies*, 67(1), 47–62. <https://doi.org/10.1177/0032321717741233>
- Thorpe, A. (2023). Prefigurative infrastructure: Mobility, citizenship, and the agency of objects. *International Journal of Urban and Regional Research*, 47(2), 183–199. <https://doi.org/10.1111/1468-2427.13141>
- Törnberg, A. (2021). Prefigurative politics and social change: A typology drawing on transition studies. *Distinktion: Journal of Social Theory*, 22(1), 83–107. <https://doi.org/10.1080/1600910X.2020.1856161>
- Valentini, D., & Butler, A. (2023). Bike kitchens and the sociomateriality of practice change: Exploring cycling-repair relations. *Urban, Planning and Transport Research*, 11(1), 2259235. <https://doi.org/10.1080/21650020.2023.2259235>
- Verlinghieri, E., & Schwanen, T. (2020). Transport and mobility justice: Evolving discussions. *Journal of Transport Geography*, 87, 102798. <https://doi.org/10.1016/j.jtrangeo.2020.102798>
- Wals, A. E. (2007). *Social learning towards a sustainable world: Principles, perspectives, and praxis*. Wageningen Academic Publishers.
- Westhorp, G., Stevens, K., & Rogers, P. J. (2016). Using realist action research for service redesign. *Evaluation*, 22(3), 361–379. <https://doi.org/10.1177/1356389016656514>
- Wheeler, S., & Green, K. (2019). 'The helping, the fixtures, the kits, the gear, the gum shields, the food, the snacks, the waiting, the rain, the car rides . . .': Social class, parenting and children's organised activities. *Sport, Education and Society*, 24(8), 788–800. <https://doi.org/10.1080/13573322.2018.1470087>
- Yates, L. (2015). Rethinking prefiguration: Alternatives, micropolitics and goals in social movements. *Social Movement Studies*, 14(1), 1–21. <https://doi.org/10.1080/14742837.2013.870883>
- Yates, L. (2021). Prefigurative politics and social movement strategy: The roles of prefiguration in the reproduction, mobilisation and coordination of movements. *Political Studies*, 69(4), 1033–1052. <https://doi.org/10.1177/0032321720936046>
- Zapata Campos, M. J., Zapata, P., & Ordoñez, I. (2020). Urban commoning practices in the repair movement: Frontstaging the backstage. *Environment & Planning A: Economy & Space*, 52(6), 1150–1170.