Towards eco-social politics: a case study of transformative strategies to overcome forms-of-life crises

Richard Bärnthaler

Published online: 19 Feb 2023.

Submit your article to this journal ⌖

Article views: 2826

View related articles ⌖

View Crossmark data ⌖

Citing articles: 11 View citing articles ⌖

Routledge
Taylor & Francis Group

Towards eco-social politics: a case study of transformative strategies to overcome forms-of-life crises

Richard Bärnthaler

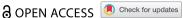Institute for Multi-Level Governance and Development, Vienna University of Economics and Business, Vienna, Austria

ABSTRACT
This article explores the structural conservatism of mainstream environmental politics, which systematically avoids problematising 'forms-of-life' (normative practices and routines), and develops a conceptual alternative: eco-social politics. This concept positions itself in a quest to change the grammar of environmental politics by embedding it in the lived materiality of everyday life, but differs from prefigurative movement-oriented strategies by prioritising the integration of majority populations and by acknowledging the role of political rule-setting, i.e. coercion. Building on a multi-level integral state project, eco-social politics resides in particular strategies, procedures, and institutions to collectively (re)negotiate common sense, with the aim to partially and pragmatically suture social relations to find transformative answers to contemporary eco-social crises. Here, I explore potentials for stronger dialectical links between deliberative and representative democratic institutions.

1. Introduction

Global heating, biodiversity loss, and associated eco-social crises are key challenges of the 21st century. Experts have been revising climate forecasts periodically, but in one direction only: towards a greater probability of threatening scenarios (IPCC 2021). While the SDGs and the Paris Agreement signify an international intention to enable a good life for all within planetary boundaries, actions taken by the signatories remain insufficient to achieve these aims.

I will argue that, despite the breadth of environmental politics – including new climate movements, prefigurative politics, radical environmentalism,

CONTACT Richard Bärnthaler richard.baernthaler@wu.ac.at

and eco-feminism – real-life environmental decision-making is driven by a narrow conception of environmental politics. Following Biermann (2021), I refer to this conception as the 'mainstream environmental policy paradigm' (henceforth: MEPP) and aim at problematising its ontology to understand and theorise the present inability to tackle eco-social crises. The MEPP is based on the belief 'that a definable "environment" exists outside the human sphere that needs to be protected by ... "environmental" institutions and policies ..., as entities distinct from economic, health, food or agricultural institutions' (Biermann 2021, p. 63). On that basis, I will claim that this paradigm's entrenchment in modernity's nature-society dualism serves to locate the environment 'out there', somehow detached from *common sense* (i.e. from established forms-of-life, a concept I borrow from Jaeggi (2018),[1] defined as normative practices and routines). As such, the MEPP avoids structural questions about the basic norms of everyday life and about lived society-nature relations, thereby perpetuating the status quo.

I thus investigate how the MEPP's dualist conception fails to actualise transformative potentials, and define thereby transformative eco-social action as action that is *desirable, effective*, and *feasible* (inspired by Novy *et al.* 2022). Desirability refers to collectively self-defined goals; be it in a neighbourhood or by the international community. Effectiveness implies that certain actions or means have the potential to achieve these desirable goals, while simultaneously contributing to more sustainable society-nature relations. Feasibility, finally, means that these potentials can be actualised here and now, in a concrete context and conjuncture, given social and political realities.

Based on this definition of eco-social transformative action, eco-social politics is advanced here as a conceptual alternative to the MEPP. Acknowledging *the political* as the absence of any pre-given principle on which a polity can be founded, i.e. as the sphere of radical heterogeneity, antagonism, and disagreement (Swyngedouw 2018), eco-social *politics* constitutes a particular mode of analysis as well as particular strategies, procedures, and institutions to collectively (re)negotiate common sense, with the aim to partially suture social relations to find transformative answers to contemporary eco-social crises. Analytically, it seeks to overcome nature-society dualism by embedding 'environmental' concerns within forms-of-life considerations (cf. Pellizzoni 2021), taking common-sense issues of everyday life as its point of departure. As such, this concept positions itself in a quest to change the grammar of environmental politics by embedding it in the lived materiality of everyday life, as strongly represented in this journal (e.g. Di Chiro 2008, Meyer 2015, MacGregor 2021). It differs, however, from pre-figurative movement-oriented strategies akin to 'sustainable materialism' (Schlosberg 2019, Schlosberg and Craven 2019), whose un-dialectical shift away from representative democracy towards bottom-up (sometimes anti-statist) movements underestimates the role of authority/sovereignty (and, for

that matter, coercion) and the need to integrate the common sense of majority populations in transformation processes, thus remaining entrapped in niches, cracks, and margins (see Eckersley 2020). In contrast, eco-social politics overcomes the 'resonance dilemma' (Meyer 2015) of environmental niche interventions by putting centre-stage efforts to build alliances between 'different cultural milieus and social groups that live according to other moral codes' (Novy *et al.* 2022, p. 601), thus transcending milieu-specific grassroots interventions such as eco-villages, eco-housing projects, food co-ops or repair cafés.

The article is structured as follows. Section 2 explores the conceptual limitations of the MEPP and proposes eco-social politics as an alternative. Subsequently, I concretise this abstract-simple conceptual alternative through a concrete-complex case-study analysis of a neighbourhood in Vienna, where I investigate its place-based conjuncture to explore opportunities for transformative actions. This case study is introduced in section 3 together with methodology. Section 4 presents the results. Based on this, section 5 explores collectively self-defined goals in the case-study area that reside in broad trans-milieu common-sense aspirations (re *desirability*) and entail potentials for more sustainable society-nature relations (section 5.1); but it also shows that, under given conditions, *feasibility* is limited, i.e. the desired can only be actualised in contradictory, deficient, and self-destructive ways, predicating crisis in dominant forms-of-life (section 5.2). To overcome this crisis and actualise desirable potentials, while simultaneously contributing to more sustainable society-nature relations, section 5.3 explores pathways to extend and transform appropriate problem-solving means, enabling *effective* eco-social action. Section 6 concludes.

2. The limitations of the mainstream environmental policy paradigm (MEPP): towards eco-social politics

After the 19th century, an 'ontological divide broke with the conception of connections between climate, environment and society ... and formed a cultural precondition for the swing into the Anthropocene, by constructing a great external nature, slow, immense and undaunted' (Bonneuil and Fressoz 2017, p. 29f). Actually, however, this 'ontological divide' has been epistemological, not ontological, for it did not annihilate humans' deep entanglement in and dependence on biophysical processes. On the contrary, the division between nature and society, accompanied by attempts to master the former, has not only brought social progress but also resulted in ever more profound new dependencies (Adorno and Horkheimer 1947). This paradigm of division has deeply structured scientific analysis, as is most obvious in the division between the natural and social sciences. Since the 1960s and 70s, this division has been increasingly challenged by new

scientific inter-disciplines such as eco-feminism (MacGregor 2021), everyday environmentalism (Meyer 2015), social and political ecology (Görg *et al.* 2017), and social-ecological economics (Spash 2020).

However, despite these advancements, mainstream environmental policymaking still rests upon mainstream scientific discourse (e.g. neoclassical environmental economics) and thus tends to construe environmental action as dealing with our biophysical *surroundings*, i.e. as something apparently external that encircles and affects, but is simultaneously separate from us (Biermann 2021). Hence, the largely technical focus on CO_2 emissions as 'out there', e.g. in IPCC assessments (Hammond 2021). This externalisation of the environment, which *ought* to be 'saved' for and by humans, is reflected in an analytical division between norms and practices. MEPP locates environmental norms (e.g. the norm of decarbonising the atmosphere) outside actual practices and pleads, mostly unsuccessfully, that innovative practices (largely construed in technical terms) must adjust to this external norm, e.g. via more efficient technologies that reduce fossil-fuel demand. Technological fixes (e.g. the electrification of the automobile industry), however, have failed to reduce material throughput and emissions in absolute terms (Wiedenhofer *et al.* 2018). Moreover, the promise of more efficient practices without the need to interfere in existing *normative* habits and routines stabilises the status quo and perpetuates unsustainable forms-of-life (Shove 2018). This implies a normative conventionalism and, by implication, a '*structural conservatism*', as it aims at conserving an existent state (Jaeggi 2018, p. 187).

Based on these initial reflections, an alternative conceptualisation – eco-social politics – dialectically sublates the dualism between nature and society, external norms and internal practices, 'out there' and 'here and now'. It shifts the focus towards concrete, lived everyday sociophysical configurations (as specific society-nature relations) that precede, produce, and are the result of normative everyday practices. Eco-social politics (a signifier) shifts the signified from an external environment towards everyday life as social-cum-ecological arrangements; these arrangements are 'social' because they regulate social interactions as well as the distribution of and access to certain infrastructures, goods, and services; and 'ecological' because they structure human practices in society-nature relations with particular socio-metabolic consequences. The core of eco-social politics is to politicise these arrangements, making them contestable. *Umwelt*-politics becomes *Mitwelt*-politics, linking ecological imperatives to 'non-environmental' issues (e.g. access to certain infrastructures, possibilities for social participation), i.e. to common-sense phenomena of everyday life. In what follows, I will introduce an empirical case study to concretise and develop this conceptual alternative.

3. Methodology of the case-study analysis

The case-study analysis scrutinises ongoing changes in Atzgersdorf, a neighbourhood located in the southwest of Vienna, Austria. It investigates its place-based conjuncture, i.e. the combination of certain events and changes in the neighbourhood, to explore opportunities for transformative eco-social actions.

3.1. Methodology and methods

The methodology centres on the interpretation of 25 semi-structured interviews with a representative quota sample of residents in the case-study area (henceforth referred to as I1-I25). Additionally, 89 questionnaires completed by residents,[2] seven expert interviews, and a one-day citizen forum help to contextualise the ongoing local changes. Whereas the interviews, questionnaires, and forum focused on everyday common-sense experiences, challenges, and aspirations in the neighbourhood, the expert interviews clarified underlying aspects.

The interviews with residents were analysed by means of a discourse analysis inspired by Hajer's (2006) coalition-focused approach. It emphasises that even though 'people do not really or do not fully understand each other', they nevertheless tend to share particular sets of storylines, which can be very functional for the formation of coalitions and the production of 'meaningful political interventions' (Hajer's 2006, p. 69). I reflect on these discursive coalition-formations in more detail elsewhere (Bärnthaler 2022). Here, two remarks suffice. First, Hajer's definition of discourse – 'an ensemble of ideas, concepts, and categories through which meaning is given to social and physical phenomena, and which is produced and reproduced through an identifiable set of practices' (Hajer 2006, p. 67) – is consistent with my analytical claim to overcome the dualism between norms and practices. Second, his focus on functional coalitions resonates with the proposition to root eco-social politics in ('non-environmental') common-sense phenomena, which is not only a consequence of its dialectical/non-dualistic ontology, but also a precondition to forge conjuncture-specific alliances beyond groups of like-minded (a necessary element for feasible action). Coding, operationalised via Atlas.ti, occurred deductively and inductively: I examined the interviews for passages expressing common-sense experiences, challenges, and aspirations, grouping them as 'discourses of everyday life', and subsequently developed the discourses' specificities inductively from the data set.

3.2. Atzgersdorf: a 'village in the city' in transformation

The case-study area, Atzgersdorf, is located in Vienna's periphery, in its 23rd district, known as Liesing. Liesing has around 110,000 inhabitants, is located

in the southwest of Vienna, and is one of its fastest-growing districts. It is composed of eight former villages, including Atzgersdorf. In terms of its socioeconomic and generational composition, Liesing is characterised by a high average age (continually increasing), low proportion of degree-level educated, high average income, and low unemployment; and it has the second highest car density in Vienna (City of Vienna 2021). These characteristics also apply to Atzgersdorf. Milieu studies – which cluster people into ideal-typical groups of like-minded based on comparable socio-economic conditions, normative attitudes, and generational socialisations – indicate an under-representation of ecologically-oriented milieus and an over-representation of milieus more sceptical about climate protection in the case-study area (see Umweltbundesamt 2019, Bärnthaler *et al.* 2023). This is characteristic of sub-urban regions (Dangschat 2020), further inten-sifying the need to root 'environmental' action in 'non-environmental' common-sense issues of everyday life to forge broad alliances and mitigate resistance.

In its recent past, Atzgersdorf has been confronted with two profound changes. First, in recent decades it has seen the retreat of businesses, particularly those in the area of non-essential local provisioning (e.g. restaurants, cafés, clothing stores, cinema, local crafts), inevitably leading to closed shops and half-empty buildings. The opening in the 1970s of one of Europe's biggest shopping centres on the edge of the district has further driven this decline, changing non-essential local provisioning structures and weakening those within walking distance. As a commercial expert in this area explains:

> There used to be a lively business life here, with local shops, from fashion stores to the grocer. Everything you can imagine actually. It has gone kind of downhill from there: SCS, Riverside [two shopping centres], and the turbo internet: Amazon and Co. Local retail lost this demand. . . . We can hardly stop this change. However, the housing construction in this area creates new opportunities: thousands of people are moving here and they all have income to spend. (Interview, commercial expert)

The second part of the above quotation refers to the second, more recent, profound change: Atzgersdorf and its surrounding area has become a target area for (late) post-industrial urban development. An urban development expert in this area summarises these changes as follows:

> In the two central development areas in Liesing – one of them in and around Atzgersdorf – almost 10,000 new apartments will be built over the next five to seven years, i.e. around 22,000 new people. . . . So almost a quarter of the current population, concentrated in these two areas, will move here, mainly in areas that used to be industrial. (Interview, urban development expert)

4. Results: what makes a good life in the neighbourhood and what hinders it?

In the context of such profound changes, discourse analysis investigates residents' common-sense experiences, challenges, and aspirations towards a good life in the neighbourhood. In so doing, I identified eight key discourses on everyday life in the case-study area, summarised in the following table:

Denotation	Exemplary quote	Grounded-ness; # of interviews
Strengthening non-essential local provisioning	The decay of local businesses is a problem. If it continues like that, [the street towards the centre] will become a lost place. (I25)	51; 23
Improving everyday mobility	The streets can't handle it anymore! (I4)	58; 19
Improving quality of public space	It is a concrete desert. (I8)	22; 14
Counteracting loss of green space	What really bothers me is that … they build on green spaces. (I4)	18; 13
Curbing housing construction	I think many people misjudged the extent of housing construction, which overwhelmed many. (I20)	17; 11
Appreciating essential local provisioning within walking distance	It's just great that we don't have to go far for many everyday items. Supermarkets and drugstores are just around the corner. That is luxury. (I11)	13; 11
Counteracting loss of village identity	We still have a village identity, where people know each other. But the enormous influx of people seems never-ending; they are still building, which means that the village identity might increasingly disappear. (I1)	12; 10
Counteracting business vacancies	What I wish for in the future is that these empty shops will be activated again, that those who buy buildings will be obliged to do something with them. (I5)	8; 5

Even though discursive dominance cannot be 'calculated', the indicators *groundedness*, indicating how often a code was used in the analysis of interviews, and *# of interviews*, indicating the number of interviews in which a certain view was expressed, point towards the predominance of certain discourses. Both the citizen forum and questionnaires further corroborate this ranking of discursive dominance; two particularly dominant discourses were strengthening non-essential local provisioning and improving everyday mobility. In what follows, I will look more deeply into each of these (selectively highlighting relations to other discourses) and present the relation between them.

4.1. A shared common sense: strengthening non-essential local provisioning and improving everyday mobility

The analysis reveals a shared common-sense aspiration to strengthen non-essential local provisioning and suggests, furthermore, that this aspiration

not only reflects an essential element in what constitutes a good life in the neighbourhood, but also entails a latent desire for communal experiences and sociality (something closely linked to village identity), as several quotes affirm, such as:

> I feel that people in this area have the need for the community that is growing here to be able to express itself; like: 'okay, there's a restaurant, a café, a wine tavern, there we meet, there we go, that's a place that we like to visit'. . . . For me, a good life in the neighbourhood means closeness, human closeness and a closeness of businesses – from the bakery to the coffee house. That's part of human closeness. (I16)

> The vacancies prevent community life from developing here. Somewhere where people can meet. The closed café in the centre used to be such a place; it was a real meeting point. (Interview, urban development expert)

Turning to the second discourse – improving everyday mobility – the analysis reveals a more chaotic and less consensual discursive field, characterised by diverse and sometimes contradictory mobility demands, for example:

> Traffic-calming is needed to make Atzgersdorf more liveable; it's very car-centred. But I am aware that many see it differently. (I11)

> Well, I don't want to give up my car. It offers me mobility. And those responsible have obviously not thought of a concept. For example, they cut down old chestnut trees to make a bus lane and a cycle lane. Very great, the cycle lane, I think it's used two or three times a week. (I2)

> We ride our bicycles a lot. However, there are hardly any cycle lanes. Now we have to let our child ride on the pavement, because he's just not ready for the road. (I6)

Despite this heterogeneity, however, discourses on everyday mobility and related practices in the case-study area indicate a dominance of individual motorised transport accompanied by major concerns for one's own parking lot. This relates to the dominant milieus: traditionals consider, despite their low mileage, a car as central to their mobility; the bourgeois mainstream even considers owning a car indispensable (Umweltbundesamt 2019, p. 75ff). Several quotes highlight this tendency, for example:

> This makes me break out in a cold sweat: There is only one parking lot for every 100 square metres of living space! Hello, but there are several 50 square metre apartments. What do they do? Do they have to strap their car to their backs? (I2)

> . . . and there is friction over every single parking lot. (I5)

> The parking situation is a disaster. Sometimes you come back from work in the evening and drive in circles for 45 minutes. (I9)

4.2. Non-essential local provisioning and the dominance of individual motorised transport: a necessary but contradictory relation

The analysis shows a close but contradictory relation between the latent desire for community and sociality (embodied in the shared common-sense aspiration to strengthen non-essential local provisioning) and the simultaneous dominance of individual motorised transport practices. Under given circumstances, this relation is necessary, i.e. *enabling* and not accidental, for participation in community life often requires individualised mobility practices:

> Restaurants have closed . . . Now there is almost no decent café or anything like that. Somewhere where you can meet comfortably, sit and chat. . . . Then you have to go somewhere by car. (I8)

> I am no longer spending my free time in the neighbourhood. I mean yes, you go to a restaurant, or not a restaurant really but more like a coffee house. But usually you have to drive a little further away for that. And let it be understood: drive, by car. (I2)

At the same time, however, the dominance of individual motorised transport tends to undermine the potential to strengthen non-essential local provisioning, making the relation deeply contradictory and *disabling*, for example:

> The traffic is too much. That's also why there are hardly any restaurants with a cosy garden where you can sit in peace and have a conversation without being badly affected by the noise. (I23)

> What's attractive for businesses here? Look around. . . . It's horrifying how many cars drive by. But everyone just thinks about parking lots. But it's about the neighbourhood. Of course we are also happy when people from outside come by. But we have the Carré [one of the central urban development projects] just around the corner. We want to address the neighbourhood. You really don't need a car to get here. When you go on vacation, you don't take the car to a café either, but you walk through the old town, perhaps strolling here and there along the way. Why not here too? We have to create attractiveness! The old village centre – and that's not just the church square – is desolate. . . . A lot of asphalt and concrete. Of course, that gets hot. Who wants to sit here? (Interview, business owner)

5. Discussion: desirable potentials, obstacles in actualising them, and pathways to develop the means for effective eco-social action

Based on the shared common-sense phenomena and lived contradictions in Atzgersdorf's current conjuncture, this section explores collectively self-defined *desirable* goals, including their potential for more sustainable society-nature relations (5.1), obstacles in actualising them (re *feasibility*, 5.2), and pathways to develop the means for *effective* action to do so (5.3).

5.1. Desirable eco-social potentials

The 'non-environmental' common-sense desire to strengthen non-essential local provisioning entails potentials for a neighbourhood of short distances, i.e. for a specific socio-physical configuration of everyday life, enacted by and co-producing everyday practices. In such a neighbourhood, diverse forms of existential provisioning (e.g. schools, kindergarten, care and health facilities), essential local provisioning (e.g. supermarkets, drugstores), and non-essential local provisioning of good quality are available within walking distance, thereby also resonating with other common-sense ambitions, such as fostering village identity, counteracting spatial vacancies, and improving the quality of public space. This constitutes a more sustainable society-nature relationship (Wiedenhofer *et al.* 2018) that can improve everyday mobility (albeit not in terms of the prevailing understanding of mobility) and enhance communal participation possibilities 'for all', i.e. including those without car access (Cohen 2021).

In fact, a neighbourhood of short distances has already been partially realised in Atzgersdorf regards existential and essential local provisioning – something highly appreciated among residents, as discourse 6 in the table above shows. Hence, extending this short-distance neighbourhood to non-essential local provisioning entails desirable eco-social potentials, able to draw upon a broad base of legitimacy among residents, because there is a trans-milieu agreement that strengthening non-essential local provisioning is a cornerstone of a good life. However, problematising and exposing structural obstacles that hinder feasibility is essential. In the case-study area, this particularly concerns the dependence on individual motorised transport practices and their taken-for-grantedness in everyday life.

5.2. Obstacles in actualising desirable potentials: exposing a form-of-life crisis

In contrast to the MEPP, eco-social politics insists that problematising unsustainable forms-of-life requires a normative benchmark of critique that lies *within* current forms-of-life practices. This presupposes demonstrating that a certain collectively shared common sense cannot be satisfied within existing forms-of-life, thereby implying an analysis of norms and practices as simultaneously articulated.

Drawing upon section 4.2, the relation between the desire for community/sociality and the dominance of individual motorised transport practices indicates the simultaneous articulation of a popular *norm of community* and of *individualised (mobility) practices*. Under given conditions, this relation is necessary/enabling, but implies an inner (disabling) contradiction, i.e. both the practice and the norm can only be actualised in deficient ways.

People want to be mobile, but they are inhibited, as many residents lament: 'The streets are getting narrower, the parking lots are getting fewer, and you are stuck in traffic jams!' (I20). Parents want their children to move freely and safely around the neighbourhood, but they cannot: 'It's difficult, especially for children. Adults can cycle on the road, just like all the cars, but I can't let my child go anywhere alone with the bicycle' (I3). At the same time, the communal norm itself, expressed in the common-sense aspiration to strengthen non-essential local provisioning, also becomes deficient because the dominance of individualised (and motorised) mobility practices undermine it in many respects, as section 4.2 demonstrated. This impedes communal experiences and thus not only 'the "ordinary" moments of social reproduction which play host to nostalgic ambivalences and persistent yearning' (Jarvis and Bonnett 2013, p. 2366), but also the desirable eco-social potentials of a short-distance neighbourhood.

Following Jaeggi (2018), this inner contradiction (i.e. that both dominant norms and practices can only be actualised in deficient ways) indicates forms-of-life crises. She defines forms-of-life as 'established practices and routines' forming 'a context that signifies the self-evident [i.e. a common sense] and defines our possibilities of action' (Jaeggi 2018, p. 84). They thus 'embody *problem-solving strategies*' (Jaeggi 2018, p. 30), whose success or failure can be evaluated by their ability to actually solve arising problems. A crisis emerges 'by the confrontation of existing social practices and arrangements with problems' – e.g. immobility, loss of communal experiences – 'that the corresponding forms-of-life cannot solve with the means at their disposal' (Jaeggi 2018, p. 237).

This immanent form of critique – which I consider an analytical cornerstone of eco-social politics – has advantages over the analytical dispositions of the MEPP: instead of reinstating external norms and criticising that they *are not* actualised in contemporary practices, this analysis shows that norms *are* actualised in practices in contradictory, deficient, and self-destructive ways. Eco-social politics therefore has the capacity to reveal 'the *crisis-proneness* of a particular social arrangement' (Jaeggi 2018, p. 201) and its practical obstacles and dysfunctionalities. This form of critique can expose 'structural issues that place the constellation itself in question ... and that therefore cannot be resolved within this constellation' (Jaeggi 2018, p. 202). In so doing, it overcomes the structural conservatism of the MEPP by engaging with, politicising, and contesting common sense and related normative practices of everyday life. Instead of pleading to adapt reality ('here and now') to a given norm ('out there'), it seeks to change, extend, transform or overcome both everyday norms and practices; for norms and practices not only underlie current problems, but also constitute essential means to deal with arising problems to effectively actualise desirable eco-social potentials.

5.3. Overcoming forms-of-life crises: towards a multi-level integral state project to develop problem-solving means

To actualise desirable eco-social potentials, the problem-solving means available (e.g. norms, practices, rules, resources) must expand and transform to strengthen existing problem-solving capacities and overcome forms-of-life deficiencies. This, I will argue, requires a multi-level integral state project that enables pragmatic civil alliances beyond groups of like-minded ('bottom-up' consent) as well as political decisions ('top-down' coercion). Whereas deliberative forms of democracy can provide *specific* platforms for bottom-up trans-milieu consensus building, representative democracy is the *most universal* form of coercion, i.e. of political rule-setting by elected decision-makers. The following theorisation of eco-political change owes much to Koch's (2022) work on Gramsci and Poulantzas.

5.3.1. Building civil alliances beyond groups of like-minded

As milieu studies have shown time and again, even though 'environmental' issues are considered important to people, they are barely par with other common-sense issues such as social cohesion, migration, social security, and jobs (Umweltbundesamt 2019, p. 73ff). Only a minority (around 18% of the population) ascribe priority to environmental protection (Umweltbundesamt 2019, p. 73ff). Similarly, Reckwitz (2017) observes an opposition between the cosmopolitan-oriented milieus of the new academic middle class, with a high affinity for climate protection, and the milieus of a traditional middle class and an underclass, both of which are sceptical about socio-cultural changes and climate protection. Hence, without neglecting the malleability of normative attitudes, *short-term* 'environmental' action that fails to link to the common sense of majorities, i.e. to 'non-environmental' issues, forgoes crucial potentials to forge alliances beyond like-minded communities, thus facing a 'resonance dilemma' (Meyer 2015). Therefore, 'continuing to frame the climate crisis as an "environmental" problem would harm rather than help to shape political and societal responses' (Biermann 2021, p. 70). Broad alliances are a precondition for feasible eco-social action, creating resonance, building legitimacy, and avoiding popular resistance. Moreover, such alliances are necessary, as political power in modern states not only resides in the potential or actual exercise of coercion and violence, but also on the constantly produced and reproduced consent of populations, i.e. on hegemony (Gramsci 2003).

For Gramsci, the hegemonic challenge consists in finding compromises that integrate the common sense of different sections of the population while simultaneously transforming it (Opratko 2022). This dialectical approach avoids the antagonistic and polarising dualism between conservative and progressive, thereby increasing the probability of successful alliance-building

between different milieus. In line with usage in this article, Gramsci understands common sense as a self- and world-view – the 'self-evident' – that not only includes consciousness, but also actual and aspired everyday practices, routines, and unconscious dispositions (Opratko 2022, p. 46). Any transformative endeavour must engage in the struggle for common sense, which is synonymous with 'a struggle of political "hegemonies"' (Gramsci 2003, p. 333). As such, and in line with immanent critique, common sense constitutes the starting point to criticise it from *its* own point of view, thereby 'renovating' it and making it 'critical' (Gramsci 2003, p. 331). The compromise-based struggle for common sense is a crucial moment in creating alliances. In Gramsci's understanding, this struggle must avoid two pitfalls (see Opratko 2022, p. 48). First, an elitist attitude that criticises the common sense of the masses 'from the outside'; second, populist strategies that take common sense at any given moment for granted, making it the yardstick for political positions. How can such an endeavour – non-elitist, seeking to integrate common sense, *and* non-populist, seeking to transform common sense – be pursued, and consent achieved?

Recent attempts to answer this question have increasingly turned to deliberative forms of democracy such as citizen forums (e.g. Gough 2022, Koch 2022); they enable processes of meaning-making, potentially re-orientating people's norms and outlooks (Hammond 2020) by bringing together citizens and experts (Gough 2022). In this sense, deliberative democratic procedures have the potential to be a specific hegemonic praxis (within a broader hegemonic project), because a successful hegemony has to build on common sense and offer actors modes of processing experienced contradictions to find a common language in a democratic process (Opratko 2022). I am well aware of the theoretical disputes over deliberative democratic procedures (e.g. Urbinati 2010), including legitimate criticisms of unequal participation and an often-perceived unrepresentativeness (Hodgson 2021). Fortunately, however, we can today draw upon a repertoire of real-life experiences, including the Austrian *Klimarat* and the French Convention *Citoyenne pour le Climat*. Comprising randomly selected citizens, representative of all major social, demographic and economic groups, advised by a series of experts, they met over several months. By the end, they had achieved a compromise-based consent on proposals that go far beyond current environmental policies. Whereas there is certainly no guarantee that all deliberative democratic processes will yield such outcomes, these recent experiences show their distinct potential to do so *if* they are organised along the lines of a 'dual strategy' (Gough 2017), combining input to consensual decision-making by experts and citizens. Crucially, the role of experts in such an eco-social political framework is not to simply preach/reinstate (external) 'environmental' norms (the elitist pitfall that Gramsci warned about), but to problematise common sense by signposting how common-

sense aspirations cannot – or only deficiently – be actualised in a given eco-social arrangement, thereby indicating pathways (to be deliberated) towards more sustainable society-nature relationships. This does not imply neglecting the setting of, e.g., emission goals – e.g. the French Convention was tasked to decide on policies to achieve a reduction of at least 40% of France's GHG emissions by 2030 – but to thoroughly embed them in common-sense and forms-of-life questions, linking 'environmental' and 'non-environmental' issues. Consider, for example, some of the leading questions of the Austrian *Klimarat*: How do we want to be mobile? Where do we get our everyday energy from? How can we nourish ourselves today and in the future? Recent real-life deliberative experiences thus highlight the potential of such formats to integrate the common sense of diverse sections of the population while transforming it through expert-advised deliberation, thereby forging new civil alliances.

Such *specific* forms of consensus building in the sphere of civil society are an essential element in an integral state project, whose proposed multi-level character indicates the need for deliberation on multiple levels. Whereas, like the climate assemblies above, Gramsci's thoughts on the re/production of consent were essentially national, deliberative possibilities exist on various levels, e.g. (macro-)regional and local. For example, in the case-study area, expert-advised deliberations, building on the shared desire to strengthen non-essential local provisioning, could enable local processes of meaning-making, raising questions such as: How to enable and strengthen shared experiences in the neighbourhood? What is the role of public space, and how to shape it? What role does mobility play in all of this? These deliberations entail potentials to transform common sense and foster compromise-based forms of consent among residents, thereby establishing a basis of legitimacy for respective changes with desirable eco-social potentials. An integral state project, however, also needs to acknowledge that consent 'is in the last instance guaranteed through the legal monopoly of physical violence embodied in the institutions of political society' (Koch 2022, p. 3).

5.3.2. Employing coercive political decisions to enable new forms-of-life

Gramsci (2003, p. 263) defines his notion of the integral state as: 'State = political society + civil society, in other words hegemony protected by the armour of coercion'. Elsewhere, he refers to this dialectical unity as 'the levels of force and of consent, authority and hegemony, violence and civilisation' (Gramsci 2003, p. 170). Hence, whereas a (multi-level) hegemonic project in the terrain of civil society is a precondition to challenge institutional arrangements (on multiple levels), fundamental changes thereof require a form of coercion, i.e. political rule-setting by political-society actors. Only political decisions can change contemporary practices' *conditions of possibility*. To make a new common sense possible, infrastructural

configurations, i.e. infrastructures and their respective regulations (Bärnthaler *et al.* 2023), must be altered – potentially in disruptive ways – for forms-of-life to change, since the latter 'are always *politically instituted* from the outset' (Jaeggi 2018, p. 16).

Here, the proposed multi-level character of an integral state project becomes again important, because territorial sovereignty and political-society actors' respective competences are actualised on different levels. For example: on a macro-regional level, like the EU, regionalisation strategies can shorten supply chains; on the national level, country-wide rail connections can be expanded and large road construction projects can be subjected to a mandatory climate check; on the regional and local level, political decision-makers can adapt zoning regulations, shape public space, and impose obligations for owners of vacant property to put the resource to use. Conflicts are unavoidable. However, as the case study shows, – and this is essential to acknowledge – the contemporary situation, *the political,* is *already* deeply adversarial and conflict-laden in many respects. In the case-study area, the field of mobility is not only characterised by conflicting goals regarding diverse mobility demands among residents, but also by conflicts with other collective aspirations (e.g. strengthening non-essential local provisioning, improving quality of public space, counteracting loss of village identity) as well as (explicit and implicit) conflicts with oneself, as the following quotes illustrate:

> When it comes to sustainability, I'm really bad. I don't even have a bicycle, because I think riding a bicycle in Vienna is terribly dangerous. Therefore, I'm definitely on the side of the motorists. . . . Quiet, restful sleep is very important to me . . . I never had that before really, because it was never quiet – all those idiots driving at full speed with their cars in front of my window. (I9)

> This must be a long-term project; a project against resistance, that's also clear to me. We all want to drive our car to our front door, and when you tell us that it is no longer possible, that this or that street is now a pedestrian zone, then there's immediate outcry. . . . Of course, that is like squaring the circle, but politics is the art of squaring it. (I16)

Only political decisions as a form of coercion, by eliminating options in a field of undecidability,[3] can navigate through conflict-laden and contradictory situations of incommensurability (Hausknost 2014). These decisions, as Hausknost (2014) argues, cannot be taken within a given norm, but decide on the exception to the norm, i.e. over the norm's validity. Since forms-of-life crises are characterised by structural contradictions that place the constellation itself in question and therefore 'cannot be resolved within this constellation' (Jaeggi 2018, p. 202), coercive political decisions are necessary to overcome this otherwise unresolvable constellation. He writes:

> In the moment of decision, the agent is *beyond* rules, as she is deciding *upon* rules. Hence, the *political* and *radical* character of the agentic operator decision: it eliminates the options not chosen, but it does not accept the guidance of an overarching rationality to make its choice; the moment of decision is the ultimate freedom to decide which rules to follow – it is thus the very essence of democracy as 'self-rule' and the marker of political autonomy. (Hausknost 2014, p. 361)

However, in contrast to Hausknost, whose philosophical embedding in Derridian radical-democratic thought comes, similarly to 'sustainable materialists', with more than a grain of distrust in representative democracy, I consider the possibility of political decisions (made by elected, and thus publicly legitimised, decision-makers and applicable to everyone) a key virtue of representative democracy.[4] It is the *most universal* form of coercion; and the Covid-19 pandemic has highlighted the potential of representative democracies to take disruptive decisions (Malm 2020), making some apparent 'glass ceilings' (Hausknost 2020) rather brittle, at least momentary. Moreover, from an integral-state perspective, the supposed 'ultimate freedom' of political society to decide upon rules is always co-produced with, and thus limited by, the consent of major sections of the population. Rules are always an expression of certain combinations of consent and coercion.

This interconnectedness between civil and political society highlights that neither terrain constitutes a privileged entry point for a 'fundamental transformation of society' (Brand and Heigl 2011, p. 246); political struggles in both terrains must be combined. This implies that the problématique of deliberative and representative democracy must not be an either-or question; even though their relation is notoriously controversial, they have the potential to be mutually enriching. The former can influence the concrete directions of 'state' action from the bottom-up, the latter armours compromise-based and never fully coherent consent with coercion, thereby resolving some remaining conflicts over sectional interests despite being a non-neutral instance. Importantly, strengthening the link between deliberative and representative institutions does not imply a *direct translation* of deliberated outcomes into general rules, but must acknowledge the dialectical tension between the particular and the universal. This is why Poulantzas (1978) favoured a 'double strategy' that also involves the struggle to occupy positions within the state apparatus, which are subject to more universal democratic procedures like voting. Hence, despite his critique of both communists and social democrats in their 'distrust' of 'mass initiatives' (Poulantzas 1978, p. 258), Poulantzas stressed the danger of 'underestimating the achievements of representative democracy and of reconstituting authoritarian political relations by way of introducing a political system supposedly based on grassroots democracy' (Brand and Heigl 2011, p. 247). In this vein, he encouraged new forms of deliberative-democratic elements to affect

institutional configurations (and become part of them) without shifting away from representative democracy.

To sum up, as a force of coercion – for example via infrastructural and regulatory decisions that apply to everyone – political decisions are not only influenced by political struggles and deliberations in civil society, but also have enabling, empowering, and emancipatory potential by (never neutrally) resolving irreconcilable conflicting goals between diverse sectional interests in a common polity. Therefore, despite the *analytical* distinction, hegemony can never be unilaterally equated with consent, since it necessarily involves coercive elements. Likewise, representative democracy 'remains a form of domination, albeit the least oppressive' (Bärnthaler *et al.* 2021, p. 10). Authority and democracy, as Kelsen (1925, p. 56) and Polanyi (2001/1944/1944, p. 266) stress, are not opposites, as the former is the precondition to pursue common objectives via political rule-making, which always implies constraining certain behaviours to enable others. Whereas the directionality of political decisions is certainly not *by necessity* eco-socially desirable, they are nevertheless without alternative to take on new societal directions. Whereas bottom-up deliberation can contribute to transforming people's (deficient) norms and outlooks, thereby enabling new civil alliances, coercive political decisions by elected decision-makers are an essential part of any democratic transformation process, as they create problem-solving capacities by adapting common rules to make a new (lived) common sense possible. Two prerequisites, however, must be finally noted: the confrontation of economic elites and vested interests in representative and deliberative democratic institutions; the rebuilding of administrative state capacities (on multiple levels) to plan, organise, and execute decisions, which has been undermined by decades of neoliberalism, leading to acute problems in particular for local states (FEC 2020).

6. Conclusion

This article has outlined key pillars of a new eco-social policy paradigm. Analytically, it rests upon an immanent form of critique that exposes structural obstacles and *inner* contradictions in the common sense of particular forms-of-life, thus problematising it from its own point of view and thereby making it critical. In terms of institutions, procedures, and strategies, the problematisation, politicisation, and transformation of common sense to overcome the status quo rests upon a multi-level integral state project that strengthens the link between deliberative and representative democracy. The former, especially if based on a 'dual strategy' (combining input by experts and citizens), has the potential to transform common sense from the bottom-up, thereby enabling specific trans-milieu civil alliances; the latter is the most universal form of coercion to resolve conflicts over sectional interests and to

change the conditions of possibility that make a new common sense possible.[5] Whereas my case study focused on the local level, the proposed multi-level character of an integral state project highlights its potential to be scaled up, possibly actualising much further-going eco-social changes. Based on the conceptual pillars outlined in this article, exploring the configuration of an eco-social policy paradigm on 'higher' levels seems to me an important future research programme for eco-social transformation research.

Having said this, I nevertheless deem it important, in conclusion, to reflect once more on the potentially radical implications of eco-social politics, even as regards the local case study. Although the specific case is necessarily constrained in its wider implications, it can serve as a means to abstract certain features that accentuate the distinctiveness of eco-social politics; this can facilitate future research. Two aspects are particularly important. First, in contrast to the MEPP, the case study highlighted potentials to overcome the mere technical adjustment of practices to an external 'environmental' norm, which largely fails to reduce material throughput and emissions in absolute terms: potentially transforming normative mobility practices (the common sense) differs radically from, e.g., electrifying given mobility practices. As such, the case-study results must not be reduced to 'lifeworld sustainability' (Hausknost 2020), seeking to create more pleasant locales while neglecting wider-reaching socio-metabolic processes, for they entail socio-metabolic implications beyond the local scale, including in those vulnerable places on earth that provide resources, be it oil or lithium, and sinks (e.g. European car scrap in Africa). Second, in contrast to prefigurative movement-oriented strategies akin to 'sustainable materialism', which tend not to attract people beyond 'green' milieus, the case study highlighted potentials to integrate large sections of the population (in a specific context and conjuncture) into eco-social transformation processes – even those that have not articulated any clear ecological concerns – by critically accommodating *dominant* common-sense concerns of everyday life. This is an indispensable contribution to an eco-social transformation.

Notes

1. For a discussion of the theoretical origins, specificities, and different uses of this concept, see Pellizzoni (2021).
2. 2000 questionnaires were sent via postal service to households in the case-study area, whereby particular attention was paid to reach a variety of different socio-economic and socio-cultural households. This was operationalised by directing the postings to different forms of housing, e.g. social-housing complexes, condos, single-family houses, and allot settlements, as well as to long-established and newly developed neighbourhood quarters. The 25 interviewees were selected out of the 89 respondents.

3. Undecidability, embodied in *the political*, 'refers to the fact that a choice between divergent rationalities, between different value systems or world views, cannot itself be guided by an overarching rationality' (Hausknost 2014, p. 361).

4. Although the institutions of representative democracy belong to the sphere of political society, they undoubtedly also fulfil consensus-building functions. This ambivalence refers to Gramsci's (2003, p. 159 f) remark that it would be a 'theoretical error' to make the distinction between political and civil society 'into an organic one, whereas in fact it is merely methodological'. The same can be said with regard to deliberative democracy, particular when considering the 'dual strategy', for although it belongs to the sphere of consent, the role of experts also entails a form of scientific *authority*.

5. This also accounts for the fact that progressive eco-social outlooks often fail to translate into less resource-intensive behaviours if framework conditions remain unaltered – e.g. despite their appreciation of environmental values, the highly educated new academic middle class often has a more resource-intensive lifestyle than lower economic classes (Oswald *et al.* 2020).

Disclosure statement

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

ORCID

Richard Bärnthaler [iD] http://orcid.org/0000-0003-3595-2127

References

Adorno, T.W. and Horkheimer, M., 1947. *Dialektik der Aufklärung*. Frankfurt am Main: Suhrkamp.

Bärnthaler, R., 2022. In search of articulation: a framework to empower transformative innovations. *European Journal of Spatial Development*, 19 (4), 1.24.

Bärnthaler, R., Novy, A., and Plank, L., 2021. The foundational economy as a cornerstone for a social–ecological transformation. *Sustainability*, 13 (18), 10460. doi:10.3390/su131810460

Bärnthaler, R., Novy, A., and Stadelmann, B., 2023. A Polanyi-inspired perspective on social-ecological transformations of cities. *Journal of Urban Affairs*, 45 (2), 117–141.

Biermann, F., 2021. The future of 'environmental' policy in the anthropocene: time for a paradigm shift. *Environmental Politics*, 30 (1–2), 61–80. doi:10.1080/09644016.2020.1846958

Bonneuil, C. and Fressoz, J.-B., 2017. *The shock of the anthropocene: the earth, history and us*. Translated by David Fernbach. London: Verso.

Brand, U. and Heigl, M., 2011. Inside" and 'outside': the state, movements and 'radical transformation' in the work of nicos poulantzas. In: A. Gallas, *et al.*, eds. *Reading Poulantzas*. Wales: Merlin Press, 246–260.

City of Vienna, 2021. *Liesing in Zahlen - Statistiken zum 23. Bezirk*. https://www.wien.gv.at/statistik/bezirke/liesing.html

Cohen, M. 2021. Revitalising local communities: UK feminist green new deal policy paper. *UK Feminist Green New Deal Policy Papers*, London, Women's Budget Group. https://wbg.org.uk/wp-content/uploads/2021/10/Revitalising-Local-Communities-FINAL.pdf

Dangschat, J., 2020. Verkehrsmittelnutzung, soziales Milieu und Raum. In: U. Reutter, *et al.*, eds. *Wechselwirkungen von Mobilität und Raumentwicklung im Kontext gesellschaftlichen Wandels*. Hannover: Verlag der ARL - Akademie für Raumentwicklung in der Leibniz- Gemeinschaft, 102–135.

Di Chiro, G., 2008. Living environmentalisms: coalition politics, social reproduction, and environmental justice. *Environmental Politics*, 17 (2), 276–298. doi:10.1080/09644010801936230

Eckersley, R., 2020. Ecological democracy and the rise and decline of liberal democracy: looking back, looking forward. *Environmental Politics*, 29 (2), 214–234. doi:10.1080/09644016.2019.1594536

Foundational Economy Collective, 2020. *What comes after the pandemic? A ten-point platform for foundational renewal*. Foundational Economy Collective. https://foundationaleconomycom.files.wordpress.com/2020/03/what-comes-after-the-pandemic-fe-manifesto-005.pdf

Görg, C., *et al.*, 2017. Challenges for social-ecological transformations: contributions from social and political ecology. *Sustainability*, 9 (7), 1045. doi:10.3390/su9071045

Gough, I., 2017. *Heat, greed and human need*. Cheltenham: Edward Elgar.

Gough, I., 2022. Two scenarios for sustainable welfare: a framework for an eco-social contract. *Social Policy and Society*, 21 (3), 460–472. doi:10.1017/S1474746421000701

Gramsci, A., 2003. *Selections from the prison notebooks*. Translated by Quintin Hoare and Geoffrey Nowell-Smith. London: Lawrence & Wishart.

Hajer, M.A., 2006. Doing discourse analysis: coalitions, practices, meaning. In: M. van den Brink and T. Metze, eds. *Words matter in policy and planning. Discourse theory and method in the social sciences*. Utrecht: Netherlands Graduate School of Urban and Regional Research, 65–76.

Hammond, M., 2020. Sustainability as a cultural transformation: the role of deliberative democracy. *Environmental Politics*, 29 (1), 173–192. doi:10.1080/09644016.2019.1684731

Hammond, M., 2021. Imagination and critique in environmental politics. *Environmental Politics*, 30 (1–2), 285–305. doi:10.1080/09644016.2021.1880062

Hausknost, D., 2014. Decision, choice, solution: 'agentic deadlock' in environmental politics. *Environmental Politics*, 23 (3), 357–375. doi:10.1080/09644016.2013.874138

Hausknost, D., 2020. The environmental state and the glass ceiling of transformation. *Environmental Politics*, 29 (1), 17–37. doi:10.1080/09644016.2019.1680062

Hodgson, G.M., 2021. *Liberal solidarity: the political economy of social democratic liberalism*. Cheltenham: Edward Elgar.

IPCC, 2021. *Climate change 2021: the physical science basis. Contribution of working group I to the sixth assessment report of the intergovernmental panel on climate change*. Cambridge, Cambridge University Press.

Jaeggi, R., 2018. *Critique of forms of life*. Translated by Ciaran Cronin. Cambridge: Belknap Press.

Jarvis, H. and Bonnett, A., 2013. Progressive nostalgia in novel living arrangements: a counterpoint to neo-traditional new urbanism? *Urban Studies*, 50 (11), 2349–2370. doi:10.1177/0042098013478235

Kelsen, H., 1925. *Allgemeine Staatslehre*. Stuttgart: Franz Steiner Verlag.

Koch, M., 2022. State-civil society relations in Gramsci, Poulantzas and Bourdieu: strategic implications for the degrowth movement. *Ecological Economics*, 193 (March), 107275. doi:10.1016/j.ecolecon.2021.107275

MacGregor, S., 2021. Making matter great again? ecofeminism, new materialism and the everyday turn in environmental politics. *Environmental Politics*, 30 (1–2), 41–60. doi:10.1080/09644016.2020.1846954

Malm, A., 2020. *Corona, climate, chronic emergency: war communism in the twenty-first century*. London, New York: Verso.

Meyer, J.M., 2015. *Engaging the everyday: environmental social criticism and the resonance dilemma*. Cambridge: MIT Press.

Novy, A., Barlow, N., and Fankhauser, J., 2022. Transformative innovation. In: L. Pellizzoni, E. Leonardi, and V. Asara, eds. *Handbook of critical environmental politics*. Northampton: Edward Elgar, 592–608.

Opratko, B., 2022. *Hegemonie: politische Theorie nach Antonio Gramsci*. Münster: Verlag Westfälisches Dampfboot.

Oswald, Y., Owen, A., and Steinberger, J.K., 2020. Large inequality in international and intranational energy footprints between income groups and across consumption categories. *Nature Energy*, 5 (3), 231–239. doi:10.1038/s41560-020-0579-8

Pellizzoni, L., 2021. Nature, limits and form-of-life. *Environmental Politics*, 30 (1–2), 81–99. doi:10.1080/09644016.2020.1868864

Polanyi, K., 2001/1944. *The great transformation: the political and economic origins of our time*. Boston: Beacon Press.

Poulantzas, N., 1978. *State, power, socialism*. London: NLB.

Reckwitz, A., 2017. *Die Gesellschaft der Singularitäten: Zum Strukturwandel der Moderne*. Berlin: Suhrkamp.

Schlosberg, D., 2019. From postmaterialism to sustainable materialism: the environmental politics of practice-based movements. *Environmental Politics*, 1–21. doi:10.1080/09644016.2019.1587215

Schlosberg, D. and Craven, L., 2019. *Sustainable materialism: environmental movements and the politics of everyday life*. Oxford: Oxford University Press.

Shove, E., 2018. What is wrong with energy efficiency? *Building Research & Information*, 46 (7), 779–789. doi:10.1080/09613218.2017.1361746

Spash, C., 2020. A tale of three paradigms: realising the revolutionary potential of ecological economics. *Ecological Economics*, 169, 106518. doi:10.1016/j.ecolecon.2019.106518

Swyngedouw, E., 2018. *Promises of the political: insurgent cities in a post-political environment*. Cambridge: MIT Press.

Umweltbundesamt, 2019. *Umweltbewusstsein in Deutschland 2018: Ergebnisse Einer Repräsentativen Bevölkerungsumfrage.* Berlin, Bundesministerium für Umwelt, Naturschutz und nukleare Sicherheit (BMU). https://www.umweltbundesamt.de/publikationen/umweltbewusstsein-in-deutschland-2018

Urbinati, N., 2010. Unpolitical democracy. *Political Theory*, 38 (1), 65–92. doi:10.1177/0090591709348188

Wiedenhofer, D., *et al.*, 2018. Household time use, carbon footprints, and urban form: a review of the potential contributions of everyday living to the 1.5°C climate target. *Current Opinion in Environmental Sustainability*, 30, 7–17. doi:10.1016/j.cosust.2018.02.007