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## **Conclusion: Tackling the 'missing scale' in environmental policy**

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## Conclusion: Tackling the 'missing scale' in environmental policy

### Abstract

The foregoing chapters have demonstrated that household sustainability is a complex issue that requires thoughtful discussion from multiple perspectives. Indeed throughout this collection we have encouraged a dialogical approach. On the one hand our aim has been to bring researchers from human geography and cultural studies into a productive dialogue around the material geographies of household sustainability. There has been enthusiastic cross-fertilisation of ideas and approaches shown through the chapters, which critically develop the interconnections between the material, socio-technical, cultural, embodied and political dimensions which make households function, with particular attention to how they (might) function in environmentally sustainable ways. On the other hand the actual format of the book also deployed a dialogical approach, with discussants providing commentary and reflection on the chapters in each of three sections. These discussion pieces draw out the connections between the chapters and are suggestive of possibilities for developing further work. This approach to the edited collection means that tentative conclusions have already been provided throughout the book. So in this brief 'wrap up' we want to return to the big themes and suggest key areas for advancing research on household sustainability from the perspectives of material geographies. Having encouraged dialogue, we do not want to close (it) off with a 'final' conclusion, but rather clear ground for further interrogation and debate.

### Keywords

environmental, policy, scale, tackling, missing, conclusion

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## Conclusion: Tackling the 'Missing Scale' in Environmental Policy

*Ruth Lane and Andrew Gorman-Murray*

The foregoing chapters have demonstrated that household sustainability is a complex issue that requires thoughtful discussion from multiple perspectives. Indeed throughout this collection we have encouraged a dialogical approach. On the one hand our aim has been to bring researchers from human geography and cultural studies into a productive dialogue around the material geographies of household sustainability. There has been enthusiastic cross-fertilisation of ideas and approaches shown through the chapters, which critically developed the interconnections between the material, socio-technical, cultural, embodied and political dimensions which make households function, with particular attention to how they (might) function in environmentally sustainable ways. On the other hand the actual format of the book also deployed a dialogical approach, with discussants providing commentary and reflection on the chapters in each of three sections. These discussion pieces draw out the connections between the chapters and are suggestive of possibilities for developing further work. This approach to the edited collection means that tentative conclusions have already been provided throughout the book. So in this brief 'wrap up' we want to return to the big themes and suggest key areas for advancing research on household sustainability from the perspectives of material geographies. Having encouraged dialogue, we do not want to close (it) off with a 'final' conclusion, but rather clear ground for further interrogation and debate.

This wrap up is arranged in three sections. Firstly, we return to the idea of material geographies advanced throughout the book, and further contemplate the value of this approach – or rather, this set of perspectives. We reintroduce the different approaches to materiality and stress how they together reconfigure normative ideas of 'the material world', disrupting a strict distinction between object and subject, the material and the immaterial, and instead assert that the material, cultural, objective and subjective are co-constituted. Secondly, we reflect on the importance of the often neglected household scale – the geographical focus of this collection – for activating conscious and habitual environmental sustainability. The household is a key spatial frame in relational politics around environmental action and governance, connecting national strategies and regional embeddedness with individual behaviours. Thirdly, we consider directions for further research

inspired by the authors in this collection and their varied perspectives on the material geographies of household sustainability.

### Material Geographies Approach(es)

The introductory chapter outlined our material geographies approach for understanding household sustainability. In conventional thought, the material – the objective, real, hard and tangible – is often opposed in a framework of binary logic with the immaterial – the subjective, ideal, soft and discursive. However ‘new’ approaches to materiality within human geography have moved against this dualistic understanding and have attempted to reconfigure these normative notions of ‘the material world’. We also seek to move beyond this binary framing. In its place we have iterated several approaches to material geographies that, in fact, urge the disruption of such constructed dualisms as those around subject/object, material/immaterial, nature/culture and mind/body. Instead these approaches contend that the material, the cultural, the natural, the objective, the subjective and the mind and body are all co-constituted and not so easily divisible into separate ontological categories of analysis. Our opening chapter introduced and discussed three particular clustered approaches to ‘new’ material geographies, following a recent review by Ben Anderson and John Wylie (2009). This was a handy foundation for our thinking, and we wanted to advance these three material geographies approaches by showing their applicability for understanding household sustainability in the contemporary world.

These three approaches can be identified and summarised as material cultures, hybrid geographies and embodied geographies. Material cultures identifies the cultural embeddedness, mediation and meaning of objects; hybrid geographies describes the co-constitution of nature and culture; embodied geographies identifies the intersection of emotions, corporeality and sociality in the idea of ‘the self’. While we distinguished these three reasonably distinct approaches, this framework was not picked up in such a neat manner by the authors in this collection. For instance, the hybrid geographies emerging within this collection highlight the interrelationships between householders, technology and infrastructure rather than a definite nature–culture relationship. Nature, for these authors, is primarily framed in terms of the environmental resources caught up in the water, energy and goods and materials consumed in the home. It is these that are construed as the ‘nature’ in need of conservation in the city, which echoes Maria Kaika’s (2004) argument about ‘domesticated nature’ entering the modern home as flows of commoditised resources. Aidan Davison’s chapter offers particular insights here in tracing the re-framing of environmental politics over time away from a focus on ‘wild’ nature and towards debates around eco-efficient technologies. In investing in eco-efficiency, householders are also engaged in a very localised form of resource security or ‘future-proofing’ that mirrors the discourse of ‘urban ecological security’ that is

increasingly used to promote sustainable development templates for world cities (Hodson and Marvin 2009).

Overall though, it is the myriad intersections between these three approaches to material geographies that stand out rather than any one of them. Perhaps this is inevitable in empirical research at the household scale. Research findings are contingent on the specific social, cultural and geographical contexts of the households explored. In a number of contexts the current imperatives around sustainable housing find little purchase as certain types of living space are considered more desirable. For example Robyn Dowling and Emma Power highlight the importance of expansive living spaces to the cultural value of ‘homeyness’ among families living in large houses in the outer suburbs of Sydney – in direct contravention of the current emphasis on reducing resource consumption. Willem Paling and Tim Winter highlight the different circumstances of the emerging professional classes in the rapidly modernising city of Phnom Penh that are moving housing aspirations away from the more sustainable traditional architecture that incorporated passive cooling approaches towards ‘modern’ styles reliant on air-conditioning.

The various chapters demonstrate the ‘messiness’ that John Law (2004) argued is central to materially grounded social research, where stated values and attitudes often diverge from observable practice, and generalisations are not always appropriate. This poses specific challenges for ‘scaling up’ research findings to inform policy approaches. Kersty Hobson, in her chapter contribution, suggests a metaphor of ‘creative grammar’ to help understand the interconnections between discourse and practice around household sustainability. While existing and evolving norms and conventions can be observed, there is also much variation or ‘slippage’ around these, and innovation within households can both interrupt conventional practice and be acknowledged by others. This volatility highlights the potential for research around household practices to inform new policy approaches, as well as to evaluate their effectiveness.

One area of innovation is in tenure and property arrangements affecting both the built environment and moveable goods. Louise Crabtree’s documentation of cooperative housing models highlights some of the differences between community-driven initiatives and more formally constituted housing cooperatives in incorporating various forms of sustainable resource use in housing design, noting that community-driven initiatives are more likely to include a wider range of sustainability principles in their design. In arguing the significance of informal channels for the reuse of second-hand goods, Matt Watson and Ruth Lane contrast the multiple interpretations of property in used goods associated with the diverse rationales and motivations around community-based initiatives, compared with the more singular assumptions about property implicit in government waste management initiatives. Related to these issues of property is the slippage between the categorisation of particular environmental resources as either products or services, as in Gay Hawkins and Kane Race’s analysis of bottled water versus tap water in Bangkok. These categorisations draw attention to the role of the material form, in this case water bottles, in defining environmental resources as marketable

products, rather than regulated services, and in doing so highlight the limitations of market models relying on 'citizen-consumers' for promoting real efficiencies in resource use.

### The Politics of the Household Scale

In this collection we have introduced and advanced a material geographies approach with a specific purpose: to provide new insights into household sustainability. In terms of environmental policy, action and governance, as well as scholarly debates about environmental decision making, what is critical here is the spatial focus of our material analysis on the household. As Louise Reid, Philip Sutton and Colin Hunter (2010) have recently and cogently argued, the household is a 'crucible' for pro-environmental behaviours that has not been adequately conceptualised and analysed in sustainability research across a range of disciplines, including human geography. Governmental policies about sustainability are increasingly focused on the household, for instance through programs for the collection and recycling of household waste, and through price mechanisms to encourage reduced household energy and water usage. But this approach treats the household as if it was an individual unit of behavioural decision making rather than a collective of separate individuals with their own environmental behaviours and their own connections both within and beyond the household. Instead Reid and colleagues (2010) characterise the household as a unit within the *meso* scale, and contend that it is an important relational site that articulates between the *macro* scale (policy change and societal attitudes) and the *micro* scale (individual behaviour). Just as material geographies approaches disrupt binary understandings of the material and the immaterial, the household, as a meso scale unit, challenges dichotomous thinking about pro-environmental practices by drawing together macro and micro level processes. Louise Reid and colleagues (2010) thus call for this multi-scalar reach and inter-scalar potency of the household to be better identified and incorporated into research.

We argue that our application of a material geographies approach to research into household sustainability further develops this call to recognise and conceptualise the household as a crucible of pro-environmental behaviour. A material geographies lens interprets the household as both a social and material entity simultaneously, and provides a useful hook for uncovering the 'missing scale' in contemporary environmental policy debates around urban sustainability. For instance some contributors to this volume have drawn on the insights of embodied geographies and demonstrated that households are (often) social collectives, with different individual members exhibiting and enacting diverse sets of relationships to both the human and non-human networks comprising their dwellings. But perhaps the key example is the way in which various authors have drawn on the idea of hybrid geographies and socio-technical networks as means of moving beyond the assumptions of an atomised decision-making household unit, widening the

analysis of sustainable consumption to include broader socio-cultural factors and more complex, materially grounded understandings of agency. By drawing out the context of the household as a domestic unit that operates within broader social networks, the frame of analysis is expanded to consider these networks as sources of influence on household consumption practices. Similarly, rather than treat the individual dwelling as the locus for consumption of material resources, this too must be situated within broader networks of infrastructure and services that support and maintain existing consumption practices. A material geographies approach can thus augment our understanding of how the household mediates between and collates different scales of environmental action.

At the same time this should not be read as a rejection or glossing over of individual agency or the political responsibility that inheres within human-environment interactions. Indeed recognising the household as a hybrid social and material entity draws attention to the importance of human agency in navigating a sustainable way through the complex networks of consumption and disposal that both converge on households and extend well beyond individual dwellings. Collectively, the theorisations articulated in this volume provide a critique of the tendency of Actor Network Theory to flatten out understandings of agency in a manner that can, at times, obscure the hierarchical relationships among the actants (Hughes and Reimer 2004). Instead various authors have developed political analyses that highlight the power relations operating at and between different geographical scales, and the critical role of households in mediating these power relations in ways that advance pro-environmental behaviour. Environmental policies which converse between the national agenda and the individual citizen must normally do so through households. For this reason Reid and colleagues (2010: 323) argue that households are sites of propagation where 'society-wide values are grounded and made practical within the real-world', and thus 'operationalized and shaped, giving rise to and legitimizing new actions'. Through this mediating and propagating function, households draw together multiple networks and multiple scales of action, and become the nexus where processes of environmental governance are transformed into practices of household sustainability, as Aidan Davison surmises in his discussion of the chapters addressing issues of governance and citizenship.

Could this be taken further? Is there a potential for households and householders to be more invested in policies for pro-environmental action? In relation to policies developed by governments at local, state and national levels, householders are constructed not just as rational decision makers, but construed, as Andy Scerri points out, as 'stakeholder citizens'. In this framework households contribute to the social good of 'sustainability' through exercising consumer sovereignty via a privatised ethics of rational choice (Scerri 2006). But given their mediating and propagating function, might households be able to play more of a role in promoting environmental sustainability? Instead of just exercising responsibility by consuming choices, is there scope for households to contribute to the development and management of environmental policies? For instance there

might be potential for a co-management approach to policy on environmental sustainability, incorporating communities and governments in decision making. This could be transformative, giving households more power to address policies and processes which affect their consumption patterns. Of course, we are not naive enough to suggest this would necessarily be effective. There are inherent tensions in co-management teams, with different governing actors – community and state – bringing different rationales and motivations.

### Key Areas for Further Research

The above paragraph begins to describe some of the potentially productive areas for further research into household sustainability inspired by material geographies. One immediate avenue, then, would be to explore ways to constructively engage stakeholder citizens in environmental decision making at the household scale. This could perhaps entail participatory action research on adaptive co-management between government agencies and community organisations. Since the household is a mediating scale between societal values and individual behaviour, a parallel research direction inspired by the multi-scalar purchase of the household would be to investigate how local actions and initiatives in households could be scaled up to national or regional environmental policies and protocols. Similarly, further research is needed on relational networks both within households and between locally proximate households. Such suggestions are also prompted by Reid and colleagues (2010). Who performs gate-keeping and management roles in terms of learning and propagating sustainable behaviours? How is pro-environmental knowledge disseminated within households and, similarly, how is such knowledge shared between households, such as the practices of sustainable home renovation discussed in the chapter by Ralph Horne, Cecily Maller and Ruth Lane?

The other point to recognise, and which needs to be taken up in future research, is that households are not uniform. They are diverse, differing demographically, geographically and culturally. So while the household scale connects societal attitudes and national policies to individual behaviours, this link is not at all homogenous, and consequently both further complicates the research directions described above and offers another set of research agendas. Demographically there are many household types – not only nuclear families, but couple-only, multi-generational, multi-family, group, single-parent and, the fastest growing household type across much of the West, single-occupancy households. If the household, as a meso scale unit, is an articulation between regional/national change and individual action, then a good next step in understanding and promoting sustainable practices might be to unpack how relational processes inherent in different household compositions vary. And of course households, as we have argued, are also deeply embedded in wider social networks, so understanding household variation around particular practices also means analysing households in different neighbourhood contexts. Comparative work at different scales would be useful here: inner city/

outer suburban, urban/rural and national comparisons, for instance, could yield quite different perspectives on the uptake and applications of pro-environmental behaviours and eco-efficient technologies.

And amid all of this future research we need to keep issues of political economy to the fore. One of the key themes of household sustainability – again demonstrated throughout this volume – is the question of consumption. This in turn raises concerns about the complex interplay of sustainability goals, economic viability and political efficacy. It now seems clear from a range of critiques, including those presented here by Chris Gibson, Gordon Waitt, Lesley Head and Nick Gill, and by Aidan Davison, that environmentally conscious consumption has been co-opted by the market as another means of deriving profit from the circulation of resources and commodities. In short, 'green consumption' remains capitalist consumption, with all the inherent problems associated with growth imperatives. Further useful research, then, could investigate the potential for viable large-scale non-market alternatives for sustainable consumption – alternatives that actually entail less consumption through practices of reuse, and reduce the volume of resources and commodities in market circulation. A number of contributing authors offer such possibilities, for example Horne, Maller and Lane; Watson and Lane; and Dowling and Power. Given the market links between capital accumulation and property ownership, key to this move would be a sophisticated analysis of property relations that extended beyond the formal, tightly bounded property rights associated with markets and offered careful analysis of innovative property arrangements for goods and services. Louise Crabtree's chapter in this volume on up-scaling co-housing begins to develop this agenda, as does work elsewhere on car sharing (Simpson 2009) and alternative food networks (Kneafsey et al. 2007). Our hope is that the material geographies approach we have offered here will inspire and impel new and innovative research into the relational practices and governance of household sustainability.

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