

Focus article

Whose energy use matters? Reflections on energy poverty and decolonisation

Gordon Walker*

Lancaster University

Calls for decolonisation have over recent years spread across academic institutions, disciplines and fields of research. Taking up a decolonisation agenda involves not only making clear the colonial foundation of contemporary patterns of inequality, injustice and discrimination, but also asking searching questions about how contemporary knowledge that is routinely produced, shared and made use of is embedded in colonial histories and worldviews. Much that is implicit in assumptions about how things are known, what matters and how change is to be pursued is potentially opened up to critique; with links to longer standing calls for the valuing of indigenous/local knowledge and for challenging universal (western) claims of truth and meaning (Jansen, 2019). Decolonisation implies institutional critique, but also challenging our own assumptions and practice, reflecting on how these have been shaped by the history of ideas that have come to dominate particular fields of inquiry.

For those interested in energy and climate, some excellent analysis has made clear the colonial roots of much that underpins contemporary carbon-based energy systems and the (racial) injustice of the climate crisis (Newell, 2021; Brand and Wissen, 2021). As Lennon (2017: 19) has incisively argued '*the colonial apparatus transformed energy – the ability to change matter – into a commoditized form that made certain lives not matter*'. My reflections here, however, are on how calls for decolonisation are relevant to how we understand and approach problems of inequalities in energy use, including assumptions that are made as to how, and why, having access to affordable energy matters. In considering these questions, which refract through and beyond race, I reflect on my own history of ideas, embedded in a western European context, as well as those that have been at play in at least parts of the wider field of mainstream energy and fuel poverty research, and now in transition and decarbonisation problem framings.

Air conditioning as a luxury technology

I first began engaging with fuel poverty as a student in the 1980s. Through being taught about, and later teaching others about fuel poverty, the parameters of what mattered in people's inability to pay their energy bills were clear – cold homes, lack of affordable warmth, damp and energy inefficient buildings, ill health, excess winter deaths – with the figure of the fuel poor person being stereotypically old and frail. Roll forward to 2014 and I was then working on a project focused on definitions of the need for energy in UK fuel poverty policy, and on broader conceptions of the right to energy as part of energy justice. As part of a trip to Taiwan to promote academic cross-cultural exchange, I gave a presentation focused on affordable heating in the wider context of the right to energy. However, it became clear that something basic was failing to resonate with my audience, namely the concern so exclusively with warmth and the threat of the cold. In Taiwan, with a hot and humid climate, it was access to air conditioning, and the challenges of keeping people (and material things) cool and in a healthy condition, that mattered as a basic form of necessary energy use. Energy and poverty were evidently in interaction, but particularly in terms of cooling not heating, and with some quite distinct dynamics involved.

During the rest of this trip and over subsequent discussions, I had cause to reflect on some of the embedded assumptions I was carrying, as a white European from a once very active colonial power. Fuel poverty as a distinctly named object of research and policy attention, had first emerged in the climatic and cultural context of the UK, before gradually being taken up in other parts of Europe. In such circles, the implicit and sometimes explicit assumption was that air conditioning was a luxury technology, associated with wealth and excess, rather than something to be considered as part of needs and rights thinking. It was heating that mattered to health and well-being and that defined the core substance of affordability concerns and rights claims. Across the body of fuel poverty research there was very little at the time that engaged with inequalities in access to cooling technology, or with why being able to stay cool might matter fundamentally to well-being. And I can remember moments when the wider diffusion of air conditioning was seen as a clear threat to be unequivocally resisted and jokes were made about pictures of air conditioners attached to run down buildings or informal dwellings in 'third world' cities. Looking back, such moments feel painfully judgemental and colonial in mind-set. For it isn't difficult to trace lines of connection in a history of ideas about heat, bodies and thermal conditions that extends back to determinist thinking about climate and race (Lavery, 2016; Carey, 2012; Oppermann *et al.*, 2017), indigenous dark bodies having being represented by the climate scientists of imperial institutions as naturally acclimatised to high temperatures and genetically limited in their capacities and potential by being from distant tropical places. Such ideas can linger and endure even when apparently long dismissed, and just maybe there were traces left in our shared expectations that living with hot temperatures in 'other' parts of the world was just normal (by implication for black and brown bodies), unproblematic and part of cultural traditions. Not something endured, struggled with or doing harm to well-being; not like living with the winter cold.

Judgement and capability

I learnt, therefore, to be much more careful about making judgements about why using energy for different purposes mattered to well-being - and therefore also *whose* energy use mattered - including through working with colleagues on applying the capability

approach to understanding the foundations of energy vulnerability (Day *et al.*, 2016; Willand *et al.*, 2021). This demands that analysis focuses centrally on peoples' capability to do, and be, things that are fundamental to their well-being and that enable them to pursue a flourishing life. Social justice it follows should be understood in these terms. From this starting point, there is then a process of working out (i) why using energy to power technologies might be significant in people being able to achieve particular fundamental capabilities; and (ii) what serves to constrain this in terms of problems of energy access, efficiency, cost, infrastructure, gender roles and other dimensions, including racially structured ones. And crucially this process of analysis has to be contextualised, concerned with 'what matters' and with differences in circumstances within situated social, cultural and environmental settings, rather than based on general assumptions carried from elsewhere. It is still necessary for judgements to be made about what constitutes a fundamental capability and thereby a matter of justice, and to distinguish this from more trivial or superficial wants or expectations, but making this explicit as a process is important, and helps guard against lingering traces of colonial thinking. There is now a growing body of energy-oriented work deploying the capability approach, which is significant not least because of its potential for conceptual alignment with de-colonisation objectives. Similarly in writing and talking about the right to energy (Walker, 2015), I endeavoured to make clear the necessary complexities that stemmed from both energy resources, and necessary energy services, being to some degree inconsistent things, variable in their relevance to a rights agenda from setting to setting, and potentially subject to all sorts of constraints in their realisation.

The travelling 10 per cent

I also learnt to look out for other ways in which the presumptions of early fuel poverty thinking were being carried problematically out of their place of origin. One example repeatedly encountered in reviewing papers and listening to academic and policy talks, was the international travelling of the UK's established '10 per cent of income' definition of what constituted a fuel poor household. This was developed with a quite specific formulation, which related spending more than 10 per cent of income to what households were required to spend to achieve an adequate level of warmth and other energy services. The 'required to' element of the definition was crucial, recognising that households may be underspending on energy, using less than they needed to achieve minimum standards as defined through room temperature thresholds and criteria for other energy services (Simcock *et al.*, 2016). When the 10 per cent definition was taken into other national or regional contexts and applied as a way of enumerating the significance of fuel or energy poverty, it proved easy for this particular normativity embedded in the UK definition to be lost or overlooked. The 10 per cent of income was either being related to what people were actually spending, not what they needed to spend, or the hard work was not being done in situ to make sense of what 'required energy' should mean when applied not in the UK, but in another place (although see Sánchez-Guevara Sánchez *et al.*, 2017); and also, indeed, to decide if the neat 10 per cent was the right threshold to apply. There is a lesson here not only in paying attention to the detail of definitions, but also to the expectation that apparently authoritative knowledge can be rolled out from a 'lead nation' and applied in others. Authoritative knowledge about energy in physics might have legitimate claims to a universal truth, but as soon as we enter into social worlds, far more attention to situation and to normative judgement, and to who is making these judgements, is needed.

Taking cooling and inequality seriously

Looking across the contemporary field of research, this has now moved on considerably, less dominated by its earlier traditions, more engaged with internationally and more open to different voices and perspectives. There has been a productive coming together of lines of research focused on energy poverty in the Global South, traditionally within a development framing, with those of the Global North, which has helped in challenging entrenched ways of thinking and promoted an openness to the value of situated knowledge and understanding the diversity of lived experience. Specifically on cooling, there is now an increasing number of studies taking inequalities in access to and affordability of air conditioning seriously, through different approaches and in a range of different settings around the world (for example, Robles-Bonilla and Cedano, 2021; Sánchez-Guevara Sánchez *et al.*, 2017; Thomson *et al.*, 2019; Goldsworthy and Poruschi, 2019; Huang, 2021; Mastrucci *et al.*, 2019; Tabata and Tsai, 2020). This work recognises in particular how inadequate building design can constrain people's ability to stay cool without air conditioning (just as poor building design is central to problematically cold homes), but also the role of other important vectors of differentiation, for example, connected to informal housing, tenure, split incentives, technical inefficiency, safety, access to cooling in public spaces, disability, gender roles and, not least, how the dynamics of climate change are playing into existing patterns of vulnerability and inequality.

In relation to climate change, there are clear dilemmas in how to evaluate the ongoing diffusion of air conditioning for cooling into all sorts of indoor (and sometimes semi-outdoor) settings around the world. With rising average outdoor temperatures in many places and a greater frequency of extreme heat waves due to climate change, we should expect air conditioning to be seen as a protective response, contributing to saving lives and keeping hot weather excess mortality figures in check (just as heating technology is a way of keeping winter excess mortality figures in check). On the other hand, a rising trajectory of demand for energy for cooling is often seen in critical and problematic terms, as further driving up energy demand and carbon emissions, with superior alternatives such as returning to vernacular building designs, retrofitting of shading, insulation and ventilation systems, changing clothing conventions and the provision of public green space routinely advocated as better ways forward. These alternatives are certainly important, as is recognising that (as with heating) cooling expectations are socially constructed (Mazzone and Khosla, 2021; Hitchings, 2011), and that (as with heating) trajectories of air conditioning diffusion are certainly not *only* about the need to protect health and well-being. And we should be rightly critical about the extravagant use of air conditioning as part of elite displays of wealth and prestige within escalating globalised standards of luxury and comfort. But on the other hand, we cannot ignore that (as with heating), being able to use mechanical cooling can - depending on who and where we are considering - have a fundamental role in sustaining well-being and minimum living standards, given that in practical reality 'better' ways of keeping cool can either be not available, not realisable, or not reasonable to expect as a form of routine practice. To a priori assume otherwise is, as argued earlier, to risk falling into distinctions with problematic foundations. And it logically follows that energy and social welfare policies concerned with addressing poverty and inequality should, in such settings, be oriented towards supporting the affordability of cool homes for all.

De-energising and decolonising in the UK

So does this reasoning extend as far as meaning in a UK energy-climate context - the one that I have reasonable grounds for knowing better than others - that we have got to

the point where cooling should be soon considered as part of the 'required energy' calculation involved in defining households in fuel poverty? (the '10 per cent definition' has now diversified across the constituent nations of the UK, but the required energy element is still integral). That is doubtful in the near term. As summer temperatures do push incrementally higher, and as more heavily insulated and sealed buildings are being constructed, attention to over-heating problems is increasing, but at a scale and of a cause that can at the moment reasonably demand solutions other than installing air conditioning. And deploying 'emergency' air conditioners during heat waves into particularly vulnerable settings, such as care and nursing homes for older people, is very different from arguing that energy use for air conditioning should now become a general requirement for sustaining a healthy indoor temperature regime. Moreover, given the UK's historic and contemporary scale of responsibility for carbon emissions we should be doing everything possible to de-energise everyday living, establishing ways to live better with the rhythms of energetic flows already in the environment, rather than further decoupling indoor climates from outdoor ones through techno-energy dependent responses (Walker, 2021). Decolonising in this sense is about acting on global climate justice responsibilities and making space for a necessary rebalancing of whose energy use needs to be curtailed, and, at the same time, whose needs to expand in order to have access to the fundamental capabilities of a flourishing life.

Such calls aspire to hopeful and progressive directions of change. More pessimistically though we could well imagine a future in the UK in which, with ever increasing summer temperatures and extremes, rich bodies are kept cool through high quality new builds and retrofits that do function to keep indoor temperatures under control; whilst poor bodies have to make do with battered old air conditioning units (as they do with battered old heaters) and are at the same time criticised for contributing to climate change. Or a future in which 'The Campaign for Cool Homes' make the case for affordable cooling for the vulnerable poor in the UK, whilst neglecting poor and far more severely at risk bodies in other parts of the world. Whose bodies and lives matter in such scenarios are full of contradictions and tensions that a decolonising perspective has a key role in drawing out.

Calls for decolonisation interface closely with how diversity and inclusion are promoted and enacted (Bell, 2021), including specifically in anti-racism strategies. As many have argued in taking forward decarbonisation (and de-energisation) it is crucial that difference and inequality and resistance to discrimination are integral. It is encouraging, therefore, to see some examples in the UK of reports (Chard *et al.*, 2021), and practical initiatives that seek to really work through how the lives of diverse groups in society are caught up in energy poverty, and potentially harmed by and/or excluded from processes of innovation and socially, culturally and racially-blind socio-technical change. Crucial here is to foreground from the start that vulnerabilities and needs are heterogeneous, to always integrate diverse voices into research, design and innovation processes, to properly seek inclusive and meaningful participation in decision-making and to always ask 'are we making assumptions here that fit with lives we imagine, not for lives as actually led'. In such action lies the opportunity to transcend old ways of thinking about why and whose energy use matters, and to properly bring the realities of diverse lives, knowledges and structural inequalities into play.

*Correspondence address: Gordon Walker, Lancaster Environment Centre, Lancaster University, Lancaster, LA1 4YQ. Email: g.p.walker@lancaster.ac.uk

References

- Bell, K. (2021) *Diversity and Inclusion in Environmentalism*. Abingdon: Routledge.
- Brand, U. and Wissen, M. (2021) *The Imperial Mode of Living: Everyday Life and the Ecological Crisis of Capitalism*. London: Verso.
- Carey, M. (2012) Climate and history: a critical review of historical climatology and climate change historiography. *WIREs Climate Change*, 3, 233-249.
- Chard, R., Lipson, M. and Fleck, R. (2021) *How can innovation deliver a smart energy system that works for low income and vulnerable consumers?* London: Department for Business, Energy and Industrial Strategy, UK Government.
- Day, R., Walker, G. and Simcock, N. (2016) Conceptualising energy use and energy poverty using a capabilities framework. *Energy Policy*, 93, 255-264.
- Goldsworthy, M. and Poruschi, L. (2019) Air-conditioning in low income households; a comparison of ownership, use, energy consumption and indoor comfort in Australia. *Energy and Buildings*, 203.
- Hitchings, R. (2011) Coping with the immediate experience of climate: regional variations and indoor trajectories. *WIREs Climate Change*, 2, 170-184.
- Huang, W.H. (2021) Sources of inequality in household electricity consumption: evidence from Taiwan. *Energy Sources Part B-Economics Planning and Policy*.
- Jansen, J. (2019) *Decolonisation in universities: The politics of knowledge*. Wits University Press.
- Lavery, C. (2016) Situating eugenics: Robert DeCourcy Ward and the Immigration Restriction League of Boston. *Journal of Historical Geography*, 53, 54-62.
- Lennon, M. (2017) Decolonizing energy: Black Lives Matter and technoscientific expertise amid solar transitions. *Energy Research & Social Science*, 30, 18-27.
- Mastrucci, A., Byers, E., Pachauri, S. and Rao, N.D. (2019) Improving the SDG energy poverty targets: Residential cooling needs in the Global South. *Energy and Buildings*, 186, 405-415.
- Mazzone, A. and Khosla, R. (2021) Socially constructed or physiologically informed? Placing humans at the core of understanding cooling needs. *Energy Research & Social Science*, 77, 102088.
- Newell, P. (2021) Race and the politics of energy transitions. *Energy Research & Social Science*, 71, 101839.
- Oppermann, E., Brearley, M., Law, L., Smith, J.A., Clough, A. and Zander, K. (2017) Heat, health, and humidity in Australia's monsoon tropics: a critical review of the problematization of 'heat' in a changing climate. *WIREs Climate Change*, 8, 4, e468.
- Robles-Bonilla, T. and Cedano, K.G. (2021) Addressing Thermal Comfort in Regional Energy Poverty Assessment with Nussbaumer's MEPI. *Sustainability*, 13, 1, 352.
- Sánchez-Guevara Sánchez, C., Mavrogianni, A. and Neila González, F.J. (2017) On the minimal thermal habitability conditions in low income dwellings in Spain for a new definition of fuel poverty. *Building and Environment*, 114, 344-356.
- Simcock, N., Walker, G. and Day, R. (2016) Fuel poverty in the UK: beyond heating? *People, Place and Policy*, 10, 1, 25-41.
- Tabata, T. and Tsai, P.I. (2020) Fuel poverty in Summer: An empirical analysis using microdata for Japan. *Science of the Total Environment*, 703.
- Thomson, H., Simcock, N., Bouzarovski, S. and Petrova, S. (2019) Energy poverty and indoor cooling: An overlooked issue in Europe. *Energy and Buildings*, 196, 21-29.
- Walker, G. (2015) The right to energy: meaning, specification and the politics of definition. *L'Europe en Formation*, 337, 26-38.
- Walker, G. (2021) *Energy and Rhythm: Rhythmanalysis for a Low Carbon Future*. London: Rowman and Littlefield.

p. 12. Whose energy use matters? Reflections on energy poverty and decolonisation

Willand, N., Middha, B. and Walker, G. (2021) Using the capability approach to evaluate energy vulnerability policies and initiatives in Victoria, Australia. *Local Environment*, 26, 1109-1127.