



Perspective

Problematising energy justice: Towards conceptual and normative alignment[☆]

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ABSTRACT

Over the past decade, notions of energy justice have been subject to significant uptake within energy studies. One conception, often referred to as a “three-tenet approach”, has quickly become the predominant definition of energy justice, being cited and applied in a range of publications. Yet, dominant versions of this approach are subject to a recurring set of issues which risk concealing the meaning and use of justice in approaching the ethics of energy systems. The rapid uptake of this approach combined with its on-going integration with other framings, including the recent JUST framework, risks further entrenching these issues within a range of energy studies trajectories. Key to understanding these issues are the activist-based accounts of environmental justice that informed an earlier understanding of justice as distribution, recognition, and procedure. This perspective illustrates that relative to this understanding, this approach to energy justice 1) omits the explanatory interconnections between these three dimensions and 2) conceals the depth and debate underpinning each separate dimension. Revealing the origins, depth, and purpose of this earlier understanding illustrates how the dominant approach to energy justice creates a normative-ethical foundation that does not always support its overarching goals nor adequately produces a conceptual space in which to understand and respond to energy related injustice. Compounding this, some advocates of these approaches often fail to incorporate the values embodied in this framework when rationalising its use. I conclude with a call to energy researchers to engage more critically with energy justice frameworks.

1. Introduction

Stemming from calls in the last decade to increase engagement with social sciences and humanities in energy research [1,2], concepts from moral and political philosophy were imported into scholarly energy discourse to produce ‘energy justice frameworks’. These frameworks revolved around the notion that certain conceptions of justice could be used to analyse case studies and produce policy guidance by framing an array of energy-related issues – or energy dilemmas – in reference to select dimensions of social justice [3–6]. These frameworks were subject to rapid uptake within energy studies and a conception, known as the “three-tenet approach” quickly became the predominant understanding of energy justice [4,7,8].

Initially set out in McCauley et al. [4], this three-tenet approach (TTA) centres on three broad dimensions of justice: distributive,

procedural, and recognition-based, which McCauley et al. [4] termed a “triumvirate of tenets”.

This approach has had substantial uptake within broader energy justice discourse and has been reiterated multiple times in what I refer to here as the “core TTA literature” (see for example [7,9–13]). These outputs have received substantial engagement and the approach has since been adapted and integrated with other conceptual framings [14–17]. I discuss a specific descendant of the core TTA literature, the *JUST framework*, in more detail later (see [16–18]).

The uptake and engagement of this approach is mirrored by a broad set of accompanying claims regarding the efficacy and outcomes the approach can produce. Heffron et al. [13, pp. 168–169] claim the approach can “identify when and where injustices in the energy sector occur and how best law and policy can respond to them” and that “energy justice can achieve a just and equitable balance between the three

Abbreviations: TTA, Three tenet approach.

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dimensions of the energy trilemma [policy, economics and environment]”. Whilst, Jenkins and Martiskainen [19, p. 43] claim that the approach can “be used as a means to guide ethically sound decision making”.

The language of justice is certainly compelling, as evidenced by the readiness at which energy scholars have incorporated notions of energy justice into their work (see [20]). Yet, claims to be able to identify and respond to injustice are only as useful as the concepts on which they are based. If these concepts are not drawn on carefully, they can quickly lose their normative meaning and analytic power. In turn, these concepts are only useful if they inform our own practice and research.

In this perspective, I illustrate a series of issues stemming from how the three-part understanding of justice as distribution, procedure and recognition has been interpreted in the core TTA literature. I illustrate the origin of these issues and the way they manifest in the formation, rationalisation, and use of the dominant version of the TTA and the more recent JUST framework. I focus on three interconnected issues within the core TTA literature to illustrate this:

- The core TTA literature narrowly interprets and at times misconstrues the activist-based notion of environmental justice that preceded it. In doing so, it omits a deeper, more descriptive, understanding of justice vital to explaining the means through which injustice is created and sustained [21,22].
- The rationalisation of the TTA and its overarching strategies have often conflicted with its own justice framings. In essence, some advocates of the TTA have historically rationalised the framework’s use in ways that disregard its normative underpinnings. This raises problematic questions as to why the TTA’s justice framework has not always been used to inform its broader strategy. I point to numerous examples where these tenets of justice have not been heeded.
- These issues have been carried over into newer iterations of the approach, namely the “JUST” framework, and are further compounded in the ways which the use of this approach has been justified.

Section 1.1 begins by setting out some clarification regarding the scope of this perspective, as well as the specific literatures and approaches it draws on and critiques. Section 2 outlines an earlier three-part notion of justice found in the work of David Schlosberg [21–23], and details the ways in which the core TTA literature diverges from this in theory, as well as how these divergences curtail the analytic and explanatory capability of the core TTA literature. Section 3 outlines a series of problematic normative tensions within the core TTA literature which stem from the ways in which the approach is rationalised and advocated for. Section 4 shifts focus to the more recent JUST framework and illustrates how many of the issues in Sections 2 and 3 have persisted in the rationalisation of this new framework. Section 5 offers a series of recommendations for energy scholars looking to incorporate notions of justice into their work, before finally concluding with a call for scholars to engage more critically with energy justice frameworks.

1.1. Some clarifications

Given the ongoing and rapid rise of broader energy justice discourse it is useful to emphasise some points before I begin. Firstly, I am specifically focusing on the “three-tenet approach” to energy justice initially outlined in McCauley et al. [4] which has been advocated for in subsequent TTA literature – I refer to this as the “core TTA literature” [7–13]. This perspective is not levelled at broader energy justice discourse. There are distinct and pressing normative issues surrounding energy – both access to energy and the systems that deliver it – that require novel concepts, and discussion to address (see for example [3,6,24]).

Although I engage critically with a selection of work sighted above, it has been instrumental in stimulating broader scholarly engagement with

the ethical issues surrounding energy systems [14,20,25] and there has been some reflection and divergences of these issues within core and broader energy justice literature (see [14]). When relevant, I attempt to chart certain instances where the core literature has evolved or splintered. But my aim here is to respond to this core literature, clarifying and responding to a set of issues which would still benefit from further explication – this is particularly pertinent given that articles in which these reflections occur are not necessarily drawn on as frequently as the foundational literature within energy justice. Of course, there are certainly pieces of energy justice scholarship which utilize the three-tenet approach and go on to produce novel findings by incorporating new data and conceptual framings [25–27], just as there are many works on energy justice that do not subscribe to the TTA, for example the *principled approach* of Sovacool and Dworkin [3] and the *affirmative and prohibitive approach* of Jones et al. [6] (see also [28,29–36]).

The arguments I present here focus on how the three-part justice framing has been interpreted and applied within the core TTA literature. I argue that an earlier interpretation of the three-part conception found in environmental justice scholarship – specifically the framing discussed in the work of David Schlosberg – more effectively captures the purpose and explanatory power of this three-part framing. I illustrate how this initial three-part framing offers a more robust starting point for scholars seeking to explore the grievances of those who are impacted by energy systems. In contrast, I argue that in diverging from this interpretation, the core TTA literature and the more recent JUST framework conflicts with and conceals the usefulness of these fundamental aspects of (in) justice [21,22].

With this in mind, this comparison should certainly not be read as a debate between environmental and energy justice. In the context of this perspective, that Schlosberg’s work stems from observations of environmental justice movements is in a sense only circumstantial; it is the discussion and interpretation of these notions of justice which is important. Schlosberg’s account is pivotal in illustrating how notions of distribution, recognition-based, and procedural justice can be drawn on to understand a diversity of grievances. Although some energy and environmental justice issues may manifest in different ways, the core philosophical notions of distribution, recognition, and procedure we might use to describe them do not necessarily change (I explore this further in Section 2.1.2).

However, I do not want to leave readers with the impression that environmental justice is limited to the work of David Schlosberg – the value of diversity becomes a central point later in this article. Environmental justice represents a diverse and well-established trajectory consisting of a range of notions and contributions, many of which will overlap with issues surrounding energy systems (see for example [37,38–48]).

Finally, this three-part notion of justice has been embedded in the recent “JUST” transition framework alongside other concepts, primarily cosmopolitan and restorative justice [16,18]. The addition of these concepts does little to ameliorate the issues I outline here regarding the interpretation of distributive, recognition-based, and procedural justice within the core TTA literature. In fact, as I argue later, these issues have seemingly been carried across to these newer iterations (see [16,49,50]).

2. Understanding trivalent environmental justice

This section outlines what might be described as the “root” of the issues I explore regarding the three-tenet approach to energy justice. The following issues I discuss can be seen as stemming from this understanding.

On first reading of the “three-tenet” approach to energy justice, some readers of this journal may have been reminded of earlier works on environmental justice, particularly the work of David Schlosberg, from which this initial three-part framing of distribution, recognition, and procedure stems [21–23]. That said, on reading core TTA literature proceeding McCauley et al. [4], it can be difficult to decipher the origins

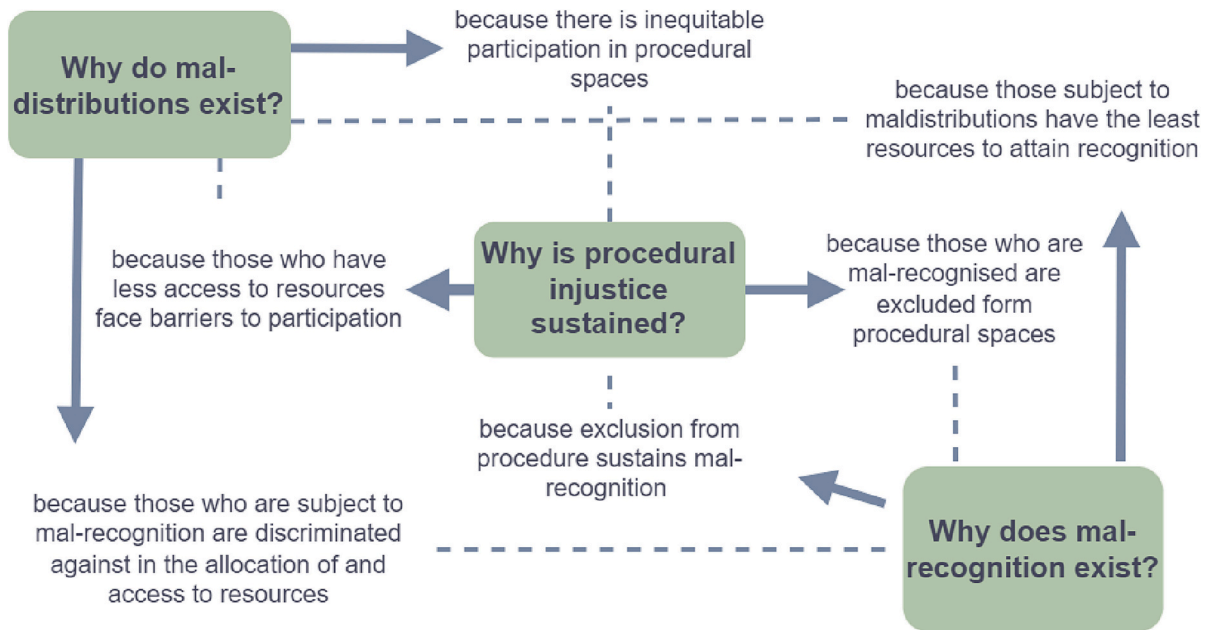


Fig. 1. An illustration of the causal and explanatory interconnections between distribution, recognition and procedural injustice. Recreated and adapted from Walker [43] p. 65. Thanks to Gordon Walker for feedback on this recreation.

of this tripartite of understanding of justice.

Initially articulated by Schlosberg [23], this definition of environmental justice sought to create a theoretically broad and plural space that reflected the diverse demands of global environmental justice and activist-led movements. Up until this point, Schlosberg argues, scholarly understandings of environmental justice were primarily tied to distributive notions of justice (see [38,42,51]) and were ill-equipped to convey the complexity and nuanced demands of these movements, which often centred on a complex interplay of recognition-based, participatory, and distributive concerns. Hence, Schlosberg [23] theorised a trivalent notion of environmental justice which brought distributive, recognition-based, and participatory understandings into the fold (the latter of which is often synonymised with procedural justice) (see also [21]).

Building on this initial understanding, Schlosberg [22] added substantial depth to this definition of environmental justice. This text surveyed the broad and on-going debates surrounding distributive, recognition-based, and procedural justice – each of which could be classified as a field in themselves – and sought to illustrate how different understandings of these concepts could be used to create a conceptual space in which to better hear and understand the grievances and demands of environmental justice movements. In doing so, Schlosberg set out a substantial component of how scholars would go on to normatively engage with both environmental and energy discourses [4,34,43,44,52,53]. Importantly, and a point which I will continually emphasise throughout this piece, Schlosberg’s account closely mirrored the language and demands of the social movements on which it was based.

A decade after Schlosberg initially coined this three-part notion of environmental justice, McCauley et al. [4] set out the three-tenet approach to energy justice. This approach centred on the same three dimensions of justice; distribution, recognition, and procedure. McCauley et al. [4] briefly acknowledges that the TTA is “founded in literature on environmental justice” and “carries the same basic philosophy” simultaneously citing Schlosberg [22] and Schlosberg [53]. However, references explaining the centrality of Schlosberg’s work in the TTA appear to have declined since McCauley et al. [4], and as I go on to illustrate, the TTA’s interpretation of the trivalent space is radically different in both detail and function to Schlosberg’s earlier account of

environmental justice. The following section outlines the two fundamental issues which stem from the core TTA literature’s divergence from Schlosberg’s understanding of justice as distribution, recognition, and procedure.

2.1. Misinterpreting the three-part environmental justice

In order to describe these issues within the dominant understanding of the TTA, we need to understand the logic which underpinned Schlosberg’s earlier notion of environmental justice and the characterisations of injustice that activist-led environmental movements were making – which resonated with ideas of distribution, recognition, and procedure.¹

Throughout Schlosberg’s work, he outlines a broad academic landscape in which the definitions, connections, and relationships between these conceptions of justice are articulated and continually contested. Understanding this trajectory is central to understanding the impacts of two connected foundational issues within the core TTA literature:

- The interconnections between distributive, recognition-based and procedure, which are central to explain the emergence and perpetuation of injustice, are under-conceptualised in much of the core TTA literature.
- The core TTA literature often narrowly interprets or misinterprets notions of distributive, recognition-based and procedural justice.

I go on to illustrate that when combined, these issues substantially impede the TTA’s analytical and explanatory power.

2.1.1. Understanding interconnection and the three-part space

An important dynamic throughout Schlosberg’s account is that distributive, procedural, and recognition-based justice are highly interdependent, each affecting the other (see Fig. 1 or Walker [43] p. 65 for an insightful illustration of these relationships). A clear example of

¹ See Galvin [31] for an account of the activist origins of environmental justice in North America.

this interdependency is found when Schlosberg [54, p. 96] describes how indigenous led environmental movements were articulating claims to procedural and recognition-based justice, but did not discuss procedural calls separately, because he “simply could not find such calls that were distinct from the demands for recognition”.

Since its inception, the core TTA literature frequently proposes the isolated application of these dimensions of justice. The interconnections of the trivalent space have been scarcely discussed in the core TTA literature since its inception in McCauley et al. [4]. Whilst they note that “these three pillars of energy justice are interlinked and there are many overlapping issues”, they do not offer further explanation. Yet these interconnections are central to understanding the complexity of injustice and it’s underlying causes.²

Initially, this may seem like a trivial issue or a point only a pedantic philosopher might stress, but it is significant. As I illustrate below, these interconnections are an indispensable component in understanding the function and explanatory power of the trivalent space, and so, their omission significantly reduces the usefulness of bringing these three notions of justice together.

2.1.1.1. Interconnection in-depth. Explaining the relationship between these dimensions is fairly simple. If you are excluded from procedures, you lose the chance to engage in processes which otherwise might lead to a fair distribution of resources. If you are misrecognised, you can be excluded from or have your testimony unfairly dismissed in procedural spaces, or you might be rendered invisible in policies intended to correct maldistributions [see 36]. If you are subject to a maldistribution you may lack the resources to engage in procedural spaces and may also become vulnerable to forms of misrecognition which can stem from how those enduring inequities are perceived. We see this particular dynamic arise in relation to many forms of poverty, particularly around notions of “the undeserving poor” [56–58].

Nancy Fraser’s work on recognition is particularly useful in illustrating one instance of these interconnections [59,60].³ Fraser’s contribution, however, was not just to introduce a particular notion of recognition but rather, to provide a critique on the limitations of social justice viewed solely as a matter of distributive justice. Fraser argues that recognition offers explanations as to why such maldistributions come to be sustained [54,59,60,62]. Fraser [63 p. 35] also notes that procedure does not necessarily follow recognition but often facilitates it, stating “an adequate account of the justification of recognition claims needs to incorporate a procedural dimension”.

In later work, Fraser [63] outlines the complex interdependencies between recognition and distribution, using the example of welfare reform, a redistributive policy which can stigmatize recipients of welfare as “deviants and scroungers”. Fraser argues that such redistributive policies “have misrecognition effects when background patterns of cultural value skew the meaning of economic reforms”. She discusses this with reference to an example of the devaluation of single female caregivers who, through receiving support, are cast as “getting something for nothing”. Fraser argues that redistributive policy cannot succeed unless it is in conjunction with a push for recognition, concluding “in short, no redistribution without recognition” [63 p. 85].

Within the core TTA literature this deeper understanding of Fraser’s

² There is some brief discussion regarding the connections between these dimensions and restorative justice (a more recent addition to the framework) in Hazrati et al. [55, p. 4, Section 2.3], however the core purpose of these interconnections remains largely undertheorised. Droubi et al. [50, p. 2] also offer a similarly brief explanation regarding these connections “We need to emphasise that all these justice dimensions are interconnected, and they mutually complement and strengthen each other”.

³ Fraser, often arises as a reference within the TTA literature during summaries of recognition-based justice but the understanding of recognition presented here remains omitted [4,9, also see 61].

work is largely absent and this is a key point in explaining why the TTA’s use of the trivalent space as a means of analysing energy dilemmas is limited (see [61]). The TTA’s tendency to isolate each justice dimension, without connecting these tenets, limits the TTA’s ability to capture the connections between recognition, procedure, and distribution. This is both the case for the more general approach in the core TTA literature of categorising certain issues as either distributive, recognition-based, or procedural, as well as the “what, who and how” approach of Jenkins et al. [9] which arranges these dimensions into a meta-procedure of distributive, recognition-based, and procedural justice.

“if injustice is to be tackled, one must (a) identify the concern – distribution, (b) identify who it affects – recognition, and only then (c) identify strategies for remediation – procedure. In essence, addressing ‘what, who and how’”

Jenkins et al. [9 p. 177]

4

Based on this ordering, identifying a concern can only result in a distributive issue and recognition is confined to who this issue affects (as opposed to mal-recognition being seen as an issue in itself, see Section 2.1.2). Subsequently, procedure is only utilized as a term for remediation, which is the correction of maldistributions – as opposed to a space for facilitating recognition, understanding a group’s experience of an issue, or solely acknowledging the intrinsic worth engaging in procedural spaces may have for some groups or people. In a more recent addition Jenkins et al. [15], specify that although the TTA appears “step-wise” both procedure and recognition are prerequisites for distributional justice. Although this framing shifts the TTA towards capturing some of the beneficial interconnections between these dimensions, this approach still seems limited – misrecognition and procedural issues are still emphasised as explanatory factors of maldistributions as opposed to products of them. For example, stigma and invisibility both explain and result from energy poverty, but this approach would only recognise the former role of recognition in explaining distributive issues [61].

Without examining the casual interaction of these dimensions of justice, it becomes difficult to fully capture the complex situations which energy dilemmas create. Energy dilemmas do not produce separate distributive, recognition, and procedural issues. Rather, they produce complex sets of circumstances which impact people’s lives, certain components of which might be described as having distributive, procedural and recognition-based elements – but overall are an amalgamation of the three, with each dimension sustaining the other. The fact that these notions of justice are so instrumental in explaining one another points to an additional foundational issue within the core TTA literature – the dimensions of justice are often themselves misinterpreted.

2.1.2. Understanding individual dimensions and the role of moral and political philosophy

Many iterations of the TTA within the core literature do not reflect the disciplines from which theoretical notions of justice originate – the field of moral and political philosophy. As a result of this the core TTA literature is not underpinned by the methods and argumentation that give these notions of justice their analytical rigour and explanatory power. In particular, the core TTA literature rarely specifies the specific understandings of distribution, procedure or recognition on which it draws. Indeed, recent work by Van Uffelen et al. [67] and Van Uffelen [61] appears to systematically verify this.

Within moral and political philosophy, each dimension of justice represents a substantial field of debate. Take, for instance, distributive justice: separate distributive theories can often advocate for drastically

⁴ A slight variation of this list is presented in Jenkins et al. [14] but a similar linearity can be observed.

different outcomes when assessing the same scenario.⁵

From a normative perspective, labelling something a “distributive” injustice does little to explain why something is unjust – such labelling can point to any range of vastly conflicting means of understanding why something is unjust (see [31,67]). For example, a libertarian distributive theory might suggest so long as we do not impede another’s freedom, we have limited obligations to help one another, whilst a utilitarian theory of justice might advocate for the redistribution of goods to maximise aggregate societal happiness – even if this violates the rights and well-being of individual people [68]. Framing an energy related issue such as fuel poverty with either of these theories would lead to wildly different conclusions. A libertarian theory might suggest that those in fuel poverty have little claim to the resources of those who are better off, whilst a utilitarian theory might suggest that only those who will gain the most utility from a warm home should receive help. ‘Who gets what’ is an important part of understanding distributive justice, but it requires careful debate and argumentation to effectively draw on, theorise, and apply these notions of justice (see [34] for further detail).

Similarly, recognition and procedure also represent diverse and ongoing debates. The work of Axel Honneth assesses justice through recognition, but not just to explain how maldistributions come to exist [65,69]. Rather, Honneth suggests that the value of recognition is in the attainment of self-worth. For Honneth, disrespect manifests in violations of the body, the denial of rights, and the denigration of ways of life [22,65]. Fraser, on the other hand, argues that mal-recognition manifests through institutional practices – cultural domination, non-recognition (or invisibility), and disrespect. Fraser suggests it is these practices that can explain maldistributions. With this in mind, Fraser argues we cannot assume that recognition can be distributed by the state like resources are, but rather, recognition must occur through some other process beyond the state [60,63]. In some cases then, recognition must be attained before maldistributions can be ameliorated. Interestingly, this ambiguity surrounding recognition and its application appears to have proliferated within the broader energy justice literature. Van Uffelen [61] recently performed an in-depth exploration of these notions of recognition within energy justice discourse and found notions of recognition are often mischaracterised or under-theorised throughout the field.

An initial objection some readers might have regarding the above discussion on interpreting these dimensions is that the context in which the core TTA literature was developed explains these divergences.⁶ Context will affect the ways in which distribution, recognition or procedural issues manifest. For example, the disproportionate processing of hazardous waste in low-income neighbourhoods might be conventionally described as a distributive environmental justice issue, whilst inadequate access to energy services might initially be described as a distributive energy justice issue.⁷ Yet despite these contextual differences, the notion of distributive justice (or any other dimension) – resources, opportunity, capability, freedom, utility (or whatever we take the metric of distribution to be) – used to frame and understand these issues would not necessarily change.⁸ In this sense, the idea of context does not to explain the misinterpretations I describe above.

The following section builds on this critique, moving beyond issues with the dominant interpretation of the TTA’s ethical foundations to

⁵ Occasionally human rights arise within the core TTA literature but in such cases human rights are not integrated into the framing as a means of understanding a specific notion of justice (see [66]).

⁶ Thank you to the anonymous reviewer who prompted me on this point.

⁷ For the sake of example I limit these to distributive issues, they would likely have recognition-based and procedural elements too.

⁸ It is worth noting here that notions of justice, like other philosophical concepts, are contested and do develop over time. But this entails quite a different, arduous process of debate, argumentation, application and refinement through the process of reflective equilibrium see Bufacchi [70, p. 43].

focus on the ways in which the rationalisation of the approach and its own agenda conflict with this three-part understanding of justice.

3. Ethical conflicts and normative misalignment

This section details how the normative foundations of the core TTA literature conflict with its overarching goals and strategies. When using the term *normative* in this section, I am referring to notions or concepts that suggest how the world *ought* to be. With regards to the TTA, its tripartite base of distribution, recognition and procedure form its *normative foundations* – these concepts give some indications of the things we should care about or aim for.

Here I outline how despite placing significant emphasis on these three dimensions of justice, the overarching strategies of this approach to the TTA, have often been antithetical to these normative foundations. In other words, the three-tenet approach to energy justice makes recommendations that are contrary to and, at times, risk reinforcing, the issues which underpin and perpetuate injustice. They are *normatively misaligned*. It is worth noting that certain points I discuss below have evolved as work surrounding the TTA and broader energy justice discourse has developed and branched out (see for example Jenkins et al. [15] who make a series of positive recommendations surrounding practice in broader energy justice discourse). However, my aim here is to chart key points in the emergence and rationalisation of the TTA to illustrate the implications of the disconnect between the TTA and its earlier normative foundations (and this involves responding to predominant contributions that are still widely cited today). In latter sections I illustrate how these evolutions have not necessarily occurred in a newer branch of the TTA, the JUST framework.

3.1. Normative misalignment in the rationalisations of the TTA

Having been established almost a decade earlier, it is no surprise that scholars already familiar with Schlosberg’s notion of environmental justice could be confused by the introduction of an approach that *prima facie* resembles preceding accounts of environmental justice. And within the academic community, there appears to have been some confusion over the differences between the two works. This appears to have been a key motivation for Jenkins [71] which responds to a range of queries regarding the energy justice:

“...key questions continue to emerge within the academic conference circuit: how is the debate on energy justice substantively different from environmental and climate justice? Is it the same thing labelled in a different way? Is the ‘energy only’ focus reductionary? And what can it deliver that environmental and climate justice failed to?”

Jenkins [71, p. 117]

Responding to these questions Jenkins [71] argues the TTA possesses a unique set of advantages.⁹ These advantages rest in part on a critique of environmental and climate justice trajectories. In particular, Jenkins [71] argues that ‘one of the challenges and therefore potential failings of the environmental and climate justice movement is their breadth and lack of clearly defined content.’ Jenkins [71] solution to this is to position this version of the TTA as “bounding out” energy dilemmas from wider issues addressed by environmental and climate justice trajectories. This approach is subsequently facilitated by a “top-down methodology” which is enabled by energy justice’s lack of an “anti-

⁹ Jenkins [71] could be read as also making a more general and strategic case for a distinct discourse surrounding energy justice and offers strategic reasons why we might need a distinct energy justice approach, but this is still framed in the vein of McCauley et al.’s [4] initial energy justice framing that became the “three-pronged approach”. This in itself points to the issue of conflating a single approach to energy justice with broader energy justice discourse which can itself conceal the diversity of ongoing debates in energy justice discourse.

establishment past” that “opens the door for significant contributions to mainstream policy-making”. Additionally, Jenkins echoes a critique from Heffron et al. [13] and Heffron and McCauley [49]:

“Energy justice does so by overcoming what may be identified as the ‘naïve’ approaches of environmental and climate justice – the presumption that society would support their ideals – focusing instead on embedding justice in policy. This ‘top-down’ methodology offers the potential for a refined ‘practice’”.

Jenkins [71, p. 120]

Many of the conceptual papers within the core TTA literature unfold within a similar vein (see for example [13,49]). Rationalising the TTA in this way presents a fundamental disconnect between the TTA’s normative foundation and its over-arching agenda.

As I hope is now clear, Schlosberg’s three-part notion of environmental justice was not primarily formulated as a tool to directly frame case studies and embed justice in policy, rather it was constructed to reflect the breadth of grievances voiced by a diversity of environmental and social justice movements. Many of these grievances stemmed from the misrecognition or exclusion of certain communities from decision and policy-making processes – hence the inclusion of recognition and procedure in Schlosberg’s original conception of environmental justice. Here I am not arguing that an awareness of different notions of justice in policy circles is not beneficial but rather, that it is hard to see how the trio of distributive, recognition-based and procedural justice that stems from environmental justice movements would lead to such consequentialist methods.¹⁰ The crux of the issue is that through labelling these prior discourses naïve and advocating for a top-down approach, the core TTA literature is at risk of advocating for strategies which appear antithetical to the values this three-part structure is supposed to embody, veering in particular towards creating its own instances of misrecognition (see [34]).

The environmental and social movements on which Schlosberg based his understanding were making acute calls for greater participatory and democratic decision-making, contesting their own disenfranchisement from decision-making processes, and making calls for processes more akin to “bottom-up” decision making [22, pp. 65, -, 71]. This disenfranchisement and the grievances of these movements were – and in many cases still are – sustained by a series of institutional and recognition-based issues surrounding race, class, gender and many other socio-political and material factors [73]. However briefly, to label these movements as naïve and to suggest they assumed society would share their ideals, mischaracterises their grievances and misrecognises these groups. That their demands are often centred on greater democracy and participation indicates they certainly did not assume society shared their ideals. Of course, this is not likely what the authors of the core TTA literature intend to insinuate. But it is nonetheless symptomatic of the interpretation of, and disconnect between, the approaches ethical foundations and the way the use of this approach has been rationalised.

There is sadly often an asymmetry between conceptualising justice and, in a non-ideal world, the potential avenues to remedy these injustices. For example, it has been observed that local energy groups strategize how they articulate their grievances (see [72]) but that does not mean such ideals should be disregarded in practice. Within broader energy justice discourse there has been some reflection on these issues. Jenkins et al. [14] outline a means to reshape the impact of energy justice scholarship, which if applied within the core TTA literature, would help ameliorate some of the divergences between theory and practice it currently embodies. For example, an acknowledgement of the value of bottom-up processes as well as a pluralistic understanding of justice capable of accommodating and reflecting a diversity of

¹⁰ There has been work done regarding how certain energy activists strategically frame their grievances but this has not clearly fed back into the core TTA literature (see [72] for a good example).

grievances, would go some way to reconciling this understanding of the TTA with something akin to the earlier notion of environmental justice I discuss in this perspective (although they would not address the more specific foundational issues I outline in prior sections).

However, as I outline in the following section, the reflections of Jenkins et al. [14] have not necessarily been embraced in a more recent iteration of the TTA, the JUST framework [16–18].

4. From the TTA to the JUST framework: new framework, same issues

As previously mentioned, additions to the dominant understanding of the TTA which now make up the “JUST” framework do not subtract from the issues I have outlined above [16,17,50]. On the contrary, these issues have seemingly carried over to this newer iteration, if only in slightly different forms.

The JUST framework can be read as a project to integrate the dominant understanding of the TTA with climate and environmental justice concerns. This has led to a framework including the justice dimensions of the TTA plus cosmopolitan and restorative justice (as well as geographical frames of space and time) [16–18].¹¹ In this sense the JUST framework can be seen as stemming from the core TTA literature. This is something the authors acknowledge:

“the JUST Framework remains true to the methodological rigour of energy justice at the same time as it incorporates the concerns of climate and environmental justice”

Droubi et al. [50, p. 6]

Claiming to now have incorporated the concerns of both environmental and climate justice discourses,¹² the JUST framework should not be susceptible to the critiques that I have raised above regarding the misinterpretation and misalignment of key justice framings which stemmed from environmental justice movements. Yet the JUST framework and its recent applications still appear to miss core messages stemming from theorisations of these debates - specifically, the value of a space in which multiple voices can participate, be heard, and understood in a plurality of ways. Such omissions might not be so problematic if they were not coupled with concerted efforts to encourage scholars to draw on this framework over others. As I have argued, notions of participation and recognition need not be reserved for analysis but should underpin our practice and strategy. Failing to embody these values in practice risks entrenching these issues elsewhere.

A recent example of the issues above is found in Droubi et al. [50] which recently took issue with scholars using the term “energy democracy”. Droubi et al. [50, p. 2] argues that energy democracy scholars are “inadvertently engaging in a language war with energy justice” which they claim, “blurs the waters of policymaking and may lead to the adoption of policies that jeopardise, rather than promote, energy justice”. The critique Droubi et al. [50] presents rests on outlining key concepts the notion of energy democracy omits that the JUST framework incorporates.

I do not want to wade into a debate as to whether energy democracy “fails to deliver real justice” (whatever we take that to mean) [50, p. 1]. But I do want to note that Droubi et al. [50] embodies patterns familiar with the core TTA literature. The first is the disconnect between the arguments rationalising the JUST framework and the actual concepts reflected in the JUST framework is still present.

It might be the case, as Droubi et al. [50] argue, that the notion of

¹¹ Thank you to an anonymous reviewer who noted cosmopolitan justice is not conception of justice but rather the notion that conceptions of justice should be extended globally beyond the confines of the nation state [74] (see also [67]).

¹² This is also methodologically questionable as both climate and environmental justice discourses are diverse and wide-ranging possessing their own internal debates and conflicts.

energy democracy does not account for the interests of indigenous peoples, or for imbalances and dynamics between the Global North and South, but it is not clear that the JUST framework is the only and best way to conceptualise and respond to these issues either. We certainly can understand many of these issues through a distributive, recognition-based and procedural lens, as Schlosberg did almost two decades ago, but we must remember that this understanding of environmental justice was intended to help theorise a particular set of grievances, it was not intended to be a replicable framework to be reapplied to every possible instance of injustice. Even if the core TTA literature and JUST framework was to interpret this three-part space as Schlosberg outlined, these frameworks would still have omitted almost two decades of developments in environmental and climate justice discourses (even with the inclusion of restorative and cosmopolitan justice).

For all the mentions of indigenous communities and imbalances between the Global North and Global South, why are pluriversal-decolonial ethics and epistemology not core components of the JUST framework? For claiming to incorporate climate and environmental justice, where is the mention of multi-species justice which has been so pervasive in recent climate and environmental justice debates? For all the discussion on vulnerable groups, why is inequity and intersectionality omitted from the JUST framework? And why, despite discussing the benefits and burdens of energy systems are capabilities¹³ and human-needs – concepts which have been invaluable in conceptualising the ethical impacts of energy systems on people's lives – excluded from the JUST framework? [46,73,75–81].

My point is not that all these concepts should be included in some grand all-encompassing justice framework, but rather that there is no clear reason why in this case the JUST framework offers a better mode of critiquing energy democracy than any other justice framework. And, given these omissions, there is no clear reason why the JUST framework in its current form is the most effective way to conceptualise a “just” transition.¹⁴

A final and perhaps most important point I will add here, is that rationalisations of the JUST framework, as with the dominant understanding of the TTA, often appear positioned as replacing other approaches or discourses. This is at times an explicit message of JUST framework literature:

“Within the separate energy, environment and climate change scholar communities, there is too much distortion of what the ‘transition’ means and what ‘justice’ means, and they all should be understood within the just transition concept” Heffron and McCauley [17, p. 74].

Many claims in Droubi et al. [50] follow in a similar vein when outlining their motivation for critiquing the notion of energy democracy:

“energy democracy literature attempts to address issues which have been addressed by the energy justice literature, and which are better addressed within a justice, rather than democracy, framework, it inadvertently engages in a language war with energy justice”

Droubi et al. [50, p. 2]

and,

“These scholars should engage in energy justice and just transition scholarship. The tools are already there. There is no need to invent a ‘new language’”¹⁵

Droubi et al. [50, p. 7]

¹³ It is interesting to note here that capability and ecological justice also formed core components of Schlosberg [22] definition of environmental justice.

¹⁴ This a recurring incident in both core TTA and JUST framework literature, whereby many pertinent issues are discussed alongside these frameworks, without it being made clear how the specific interpretations of justice relate to such issues.

¹⁵ It is also worth noting that energy justice seemingly faced the same questions during its emergence, as illustrated by Jenkins [71].

The problem with many of these claims is that they do not just push for a broader integration of notions of justice into debates around energy but rather push for a very specific framework. When the authors talk of a “language war with energy justice”, argue that energy democracy “fails to contribute to the field because it has not freed itself from the original confusion with energy justice”, suggest “[energy democracy] scholars should engage in energy justice and just transition scholarship” and that there is “is no need to invent a ‘new language’”, they do not seem to be speaking about energy justice broadly construed but specifically the JUST framework.

The JUST framework is only one of many approaches to energy justice and this is something scholars and practitioners should be careful not to overlook. Neither the JUST framework, nor the TTA, should be synonymised with broader energy justice discourse. To conflate the two risks concealing the diversity of ongoing debates and approaches.

If we extend the logic of the “language war”, any notion of energy justice that does not revolve around the JUST framework, of which there are many, is an attempt to engage in a “language war” with the JUST framework. And yet, many of these alternate approaches incorporate concepts and issues which the JUST framework does not specifically address or explain the omission of (see for example [3,6,27,28,30–34,82,83]). Of course, you could argue that many of these contributions fall within the remit of distributive, procedural, or recognition-based justice, but this simply points to another issue with these frameworks. As I have argued, the dimensions of justice they include are so broadly defined they could be used to argue for any range of conflicting actions (to address this point fully would require a separate research paper, but see [34,67]).

Like the claims within the core TTA literature regarding the “naivety” of environmental and climate movements and advocacy for top-down policy making, the push for a specific, discrete understanding of energy justice or transitions is in itself in tension with earlier the environmental justice framing from which it stemmed. In fact, to go full circle, Schlosberg's conception of environmental justice saw conflict and the accompanying dialogues it demands as “a valuable and indispensable part of social and political life” [22, p. 182]. Avoiding such conflicts to seek uniformity can be counter-productive to broader movements:

“An insistence on uniformity behind that banner, to an identity, critique, or singular program, is not only counter to the movement itself, but also a violation of justice as based in recognition and democratic process.”

Schlosberg [22, p. 197]

A push for uniformity or common ground in a movement can push out the most marginalised and vulnerable voices with whom the least oppressed groups do not share common grievances [84]. Pushing for a discrete understanding of a “just” transition risks overlooking the many dimensions of justice that might help reflect the grievances of those most vulnerable.

5. Conclusion

More than anything, when applying these types of frameworks, it is important that these concepts do not lose their meanings and analytic power. If we really seek to ameliorate injustice (whatever we take that to mean), we must pay careful attention to work which conceptualises injustice and the special relationships between the testimonies of those who live through and endure injustice and the formation of our conceptual understandings of injustice. If we want to develop and proliferate concise justice framings, and there may be good reason to do so, this must be done with substantial caveats regarding the origins, complexity, and contested nature of these concepts.

All said, I feel I should offer some avenues through which to ameliorate these issues. I do not outline an alternate framework here because I am not convinced that we need an overarching consolidated approach to energy justice. But perhaps the first steps in this debate

would be to work out the plausible contribution that concepts from moral and political philosophy can make to energy studies – which the field of normative energy ethics has recently begun to explore [24,32,61,85,86]. In closing then, I have compiled a list of recommendations which might help scholars seeking to reflect on the normative aspects of their work:

- If you use the three-tenet approach, consider linking it back to earlier conceptions of environmental justice, integrating these deeper understandings into your analysis.
- Pay attention to how the conceptions of justice you draw on interact and impact one another, this is a key way to bring further resolution to your analysis (if you draw on a three-part framing to analyse a case study you might also explore how the components you separately identify as distributive, procedural and recognition-based interact to compound one another).
- Be wary of defining the entire field of energy justice with a single framework as this risks excluding more marginalised topics and debates.
- Draw more deeply on literature regarding each particular dimension of justice – each dimension represents a rich on-going conversation that is less often elaborated on in much of the literature I have cited here.
- Be aware that frameworks which receive the most attention are not always going to offer the most effective conceptual framing for your work.¹⁶
- If you feel there is a dynamic which your framing does not adequately capture or draw out, explore additional concepts through which to broaden your analysis.
- If you feel compelled to reflect on the normativity of your work, expand your search to include contributions from energy ethics and normative energy ethics communities (see Frigo and Hillerbrand [24] on understanding the distinction between these communities).

To conclude, I have outlined the origins of this three-part understanding of justice. I have illustrated how in deviating from this, the core TTA literature, has lost valuable analytical and explanatory power. I have further illustrated that this understanding of justice has not been drawn on in developing and rationalising the use of the TTA and the more recent JUST framework and that this has led to a practice and approach that at times is antithetical to the justice framing they draw on.

We have a rare chance to reflect on the normativity of a global shift in the complex systems which are so intimately woven with our lives and planet. Frameworks which claim to conceptualise a *fair* or *just* transition before it has unfolded should be engaged with critically.

Declaration of competing interest

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

Data availability

No data was used for the research described in the article.

References

- [1] B.K. Sovacool, What are we doing here? Analyzing fifteen years of energy scholarship and proposing a social science research agenda, *Energy Res. Soc. Sci.* 1 (2014) 1–29.
- [2] B.K. Sovacool, et al., Integrating social science in energy research, *Energy Res. Soc. Sci.* 6 (2015) 95–99.
- [3] B.K. Sovacool, M.H. Dworkin, *Global Energy Justice*, Cambridge University Press, 2014.
- [4] D.A. McCauley, et al., Advancing energy justice: the triumvirate of tenets, *Int. Energy Law Rev.* 32 (3) (2013) 107–110.
- [5] B.K. Sovacool, M.H. Dworkin, Energy justice: conceptual insights and practical applications, *Appl. Energy* 142 (2015) 435–444.
- [6] B.R. Jones, B.K. Sovacool, R.V. Sidortsov, Making the ethical and philosophical case for “energy justice”, *Environ. Ethics* 37 (2) (2015) 145–168.
- [7] K. Jenkins, D. McCauley, A. Forman, Energy justice: a policy approach, *Energy Policy* 105 (2017) 631–634.
- [8] K. Jenkins, et al., Energy justice, a whole systems approach, *Queen’s Polit. Rev.* 2 (2) (2014) 74–87.
- [9] K. Jenkins, et al., Energy justice: a conceptual review, *Energy Res. Soc. Sci.* 11 (2016) 174–182.
- [10] D. McCauley, *Energy Justice: Re-balancing the Trilemma of Security, Poverty and Climate Change*, Springer, 2017.
- [11] D. McCauley, et al., Energy justice in the Arctic: implications for energy infrastructural development in the Arctic, *Energy Res. Soc. Sci.* 16 (2016) 141–146.
- [12] R.J. Heffron, D. McCauley, Achieving sustainable supply chains through energy justice, *Appl. Energy* 123 (2014) 435–437.
- [13] R.J. Heffron, D. McCauley, B.K. Sovacool, Resolving society’s energy trilemma through the energy justice metric, *Energy Policy* 87 (2015) 168–176.
- [14] K.E. Jenkins, et al., Towards impactful energy justice research: transforming the power of academic engagement, *Energy Res. Soc. Sci.* 67 (2020), 101510.
- [15] K.E. Jenkins, et al., Synthesizing value sensitive design, responsible research and innovation, and energy justice: a conceptual review, *Energy Res. Soc. Sci.* 69 (2020), 101727.
- [16] D. McCauley, R. Heffron, Just transition: integrating climate, energy and environmental justice, *Energy Policy* 119 (2018) 1–7.
- [17] R.J. Heffron, D. McCauley, What is the ‘Just Transition’? *Geoforum* 88 (2018) 74–77.
- [18] R.J. Heffron, The role of justice in developing critical minerals, *Extr. Ind. Soc.* 7 (3) (2020) 855–863.
- [19] K.E. Jenkins, M. Martiskainen, A Normative Approach to Transitions in Energy Demand: An Energy Justice and Fuel Poverty Case Study, 2018.
- [20] K. Iwińska, in: *From Framework to Boundary Object? Reviewing Gaps and Critical Trends in Global Energy Justice Research* 79, 2021, p. 102191.
- [21] D. Schlosberg, Reconceiving environmental justice: global movements and political theories, *Environ. Polit.* 13 (3) (2004) 517–540.
- [22] D. Schlosberg, *Defining Environmental Justice: Theories, Movements, and Nature*, OUP Oxford, 2007.
- [23] D. Schlosberg, The justice of environmental justice: reconciling equity, recognition, and participation in a political movement, in: *Moral and Political Reasoning in Environmental Practice* 77, 2003, p. 106.
- [24] G. Frigo, R. Hillerbrand, *Energy Ethics, Justice and SDG7*, 2021.
- [25] M. Feenstra, G. Özerol, Energy justice as a search light for gender-energy nexus: towards a conceptual framework, *Renew. Sust. Energy Rev.* 138 (2021), 110668.
- [26] P. Roddis, et al., The role of community acceptance in planning outcomes for onshore wind and solar farms: an energy justice analysis, *Appl. Energy* 226 (2018) 353–364.
- [27] P. Velasco Herrejon, T. Bauwens, *Energy Justice from the Bottom Up: A Capability Approach to Community Acceptance of Wind Energy in Mexico*, 2020.
- [28] K. Bickerstaff, G. Walker, H. Bulkeley, *Energy Justice in a Changing Climate: Social Equity and Low-carbon Energy*, Zed Books Ltd, 2013.
- [29] S.M. Hall, Energy justice and ethical consumption: comparison, synthesis and lesson drawing, *Local Environ.* 18 (4) (2013) 422–437.
- [30] N. Wood, K. Roelich, Tensions, capabilities, and justice in climate change mitigation of fossil fuels, *Energy Res. Soc. Sci.* 52 (2019) 114–122.
- [31] R. Galvin, What does it mean to make a moral claim? A Wittgensteinian approach to energy justice, *Energy Res. Soc. Sci.* 54 (2019) 176–184.
- [32] R. Hillerbrand, C. Milchram, J. Schippl, Using the capability approach as a normative perspective on energy justice: insights from two case studies on digitalisation in the energy sector, *J. Hum. Dev. Capabilities* (2021) 1–24.
- [33] R. Sidortsov, B. Sovacool, Left out in the cold: energy justice and Arctic energy research, *J. Environ. Stud. Sci.* 5 (3) (2015) 302–307.
- [34] N. Wood, K. Roelich, Substantiating energy justice: creating a space to understand energy dilemmas, *Sustainability* 12 (5) (2020) 1917.
- [35] M.C. LaBelle, R. Bucată, A. Stojilovska, Radical energy justice: a green deal for Romanian coal miners? *J. Environ. Policy Plan.* (2021) 1–13.
- [36] N. Simcock, J. Frankowski, S. Bouzarovski, Rendered invisible: institutional misrecognition and the reproduction of energy poverty, *Geoforum* 124 (2021) 1–9.
- [37] A. Dobson, *Justice and the Environment: Conceptions of Environmental Sustainability and Theories of Distributive Justice*, Clarendon Press, 1998.
- [38] D. Miller, *Social Justice and Environmental Goods*, 1999.
- [39] R.D. Bullard, G.S. Johnson, Environmental justice: grassroots activism and its impact on public policy decision making, *J. Soc. Issues* 56 (3) (2000) 555–578.
- [40] W.N. Adger, Scales of governance and environmental justice for adaptation and mitigation of climate change, *J. Int. Dev.* 13 (7) (2001) 921–931.
- [41] J. Ikeme, Equity, environmental justice and sustainability: incomplete approaches in climate change politics, *Glob. Environ. Chang.* 13 (3) (2003) 195–206.
- [42] M. Hillman, The importance of environmental justice in stream rehabilitation, *Ethics Place Environ.* 7 (1–2) (2004) 19–43.
- [43] G. Walker, *Environmental Justice: Concepts, Evidence and Politics*, Routledge, 2012.
- [44] B. Holland, Procedural justice in local climate adaptation: political capabilities and transformational change, *Environ. Polit.* 26 (3) (2017) 391–412.

¹⁶ With thanks to Giovanni Frigo for their insightful discussion on this point.

- [45] S. Vermeulen, *Environmental Justice and Epistemic Violence*, Taylor & Francis, 2019.
- [46] D. Celermajer, et al., Multispecies justice: theories, challenges, and a research agenda for environmental politics, *Environ. Polit.* 30 (1–2) (2021) 119–140.
- [47] J. Byrne, L. Glover, C. Martinez, *Environmental Justice: International Discourses in Political Economy*, Transaction Publishers, Piscataway, NJ, USA, 2002.
- [48] J. Sze, J.K. London, Environmental justice at the crossroads, *Sociol. Compass* 2 (4) (2008) 1331–1354.
- [49] R.J. Heffron, D. McCauley, The concept of energy justice across the disciplines, *Energy Policy* 105 (2017) 658–667.
- [50] S. Droubi, R.J. Heffron, D. McCauley, A critical review of energy democracy: a failure to deliver justice? *Energy Res. Soc. Sci.* 86 (2022), 102444.
- [51] D. Bell, Environmental justice and Rawls' difference principle, *Environ. Ethics* 26 (3) (2004) 287–306.
- [52] G. Walker, R. Day, Fuel poverty as injustice: integrating distribution, recognition and procedure in the struggle for affordable warmth, *Energy Policy* 49 (2012) 69–75.
- [53] D. Schlosberg, Theorising environmental justice: the expanding sphere of a discourse, *Environ. Polit.* 22 (1) (2013) 37–55.
- [54] D. Schlosberg, *Defining Environmental Justice: Theories, Movements, and Nature*, Oxford University Press, 2009.
- [55] M. Hazrati, R.J.E.R. Heffron, S. Science, in: *Conceptualising Restorative Justice in the Energy Transition: Changing the Perspectives of Fossil Fuels* 78, 2021, p. 102115.
- [56] S.K. Hards, Status, stigma and energy practices in the home, *Local Environ.* 18 (4) (2013) 438–454.
- [57] R. Day, R. Hitchings, 'Only old ladies would do that': age stigma and older people's strategies for dealing with winter cold, *Health Place* 17 (4) (2011) 885–894.
- [58] T. Shildrick, R. MacDonald, *Poverty and Insecurity: Life in Low-pay, No-pay Britain*, Policy Press, 2012.
- [59] N. Fraser, *Justice Interruptus: Critical Reflections on the "Postsocialist" Condition*, Routledge, 1997.
- [60] N. Fraser, From redistribution to recognition? Dilemmas of justice in a 'post-socialist' age, *New Left Rev* (1995), 68–68.
- [61] N. Van Uffelen, Revisiting recognition in energy justice, *Energy Res. Soc. Sci.* 92 (2022), 102764.
- [62] N. Fraser, Rethinking recognition, *New Left Rev* 3 (2000) 107.
- [63] N. Fraser, in: *Social Justice in the Age of Identity Politics. Geographic Thought: A Praxis Perspective*, 2009, pp. 72–91.
- [64] A. Honneth, *The Struggle for Recognition: The Moral Grammar of Social Conflicts*, Mit Press, 1996.
- [65] R.J. Heffron, Applying energy justice into the energy transition, *Renew. Sust. Energ. Rev.* 156 (2022), 111936.
- [66] N. Van Uffelen, B. Taebi, U. Pesch, Revisiting the energy justice framework: doing justice to normative uncertainties, in: *Currently in Submission at Renewable and Sustainable Energy Reviews*, 2022.
- [67] M.J. Sandel, *Justice: What's the Right Thing to do?* Macmillan, 2010.
- [68] A. Honneth, Integrity and disrespect: principles of a conception of morality based on the theory of recognition, *Political Theory* 20 (2) (1992) 187–201.
- [69] V. Bufacchi, *Social Injustice: Essays in Political Philosophy*, Springer, 2011.
- [70] K. Jenkins, Setting energy justice apart from the crowd: lessons from environmental and climate justice, *Energy Res. Soc. Sci.* 39 (2018) 117–121.
- [71] S. Fuller, D. McCauley, Framing energy justice: perspectives from activism and advocacy, *Energy Res. Soc. Sci.* 11 (2016) 1–8.
- [72] W. San Martín, N. Wood, Pluralising planetary justice beyond the north-south divide: recentring procedural, epistemic, and recognition-based justice in earth-systems governance, *Environ. Sci. Pol.* 128 (2022) 256–263.
- [73] K.-C. Tan, The need for cosmopolitan justice, in: K.-C. Tan (Ed.), *Justice Without Borders: Cosmopolitanism, Nationalism, and Patriotism*, Cambridge University Press, Cambridge, 2004, pp. 19–39.
- [74] P. Tschakert, et al., Multispecies justice: climate-just futures with, for and beyond humans, *Wiley Interdiscip. Rev. Clim. Chang.* 12 (2) (2021), e699.
- [75] A.J.D. Escobar, in: *Sustainability: Design for the Pluriverse* 54(2), 2011, pp. 137–140.
- [76] K. Hutchings, Decolonizing global ethics: thinking with the pluriverse, *Ethics Int. Aff.* 33 (2) (2019) 115–125.
- [77] S. Baker, N.L.J.M.P. Constant, in: *Epistemic Justice and the Integration of Local Ecological Knowledge for Marine Conservation: Lessons From the Seychelles* 117, 2020, p. 103921.
- [78] G.J.E.J. Di Chiro, in: *Mobilizing 'Intersectionality' in Environmental Justice Research and Action in a Time of Crisis*, 2020, pp. 316–333.
- [79] B. Holland, Justice and the environment in Nussbaum's "Capabilities approach" why sustainable ecological capacity is a meta-capability, *Polit. Res. Q.* 61 (2) (2008) 319–332.
- [80] C. Tornel, Decolonizing energy justice from the ground up: political ecology, ontology, and energy landscapes, *Prog. Hum. Geogr.* 47 (1) (2022).
- [81] J. Lee, H. Kim, J. Byrne, Operationalising capability thinking in the assessment of energy poverty relief policies: moving from compensation-based to empowerment-focused policy strategies, *J. Hum. Dev. Capabilities* (2021) 1–24.
- [82] G. Pellegrini-Masini, A. Pigni, S. Maran, Energy justice revisited: a critical review on the philosophical and political origins of equality, *Energy Res. Soc. Sci.* 59 (2020), 101310.
- [83] A.J.P.C. Carastathis, in: *The Concept of Intersectionality in Feminist Theory* 9(5), 2014, pp. 304–314.
- [84] G.J.R.B.A. Frigo, in: *Energy Ethics: Emerging Perspectives in a Time of Transition*, HeinOnline, 2018, p. 7.
- [85] N.A. Wood, *Energy, Capability, and Justice: A Foundation for a Normative Account of Energy Systems*, University of Leeds, 2020.
- [86]