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Structuring values and normative frameworks using Schwartz's value theory to map the three tenets of energy justice

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ABSTRACT

Recent energy justice studies have explicitly introduced different normative frameworks. However, an elaboration of how these newly introduced normative frameworks relate to each other is missing in the energy justice literature. This could lead to false expectations that a specific normative framework could solve the normative challenges of energy justice. We indicate that normative frameworks embrace specific values and priority rules, but still lack an attempt to map out a general overall value structure of human and societal values in general. We introduce Shalom Schwartz's core value theory to propose a structure that allows us to map key values and their relation to energy justice. We illustrate that the three-tenets framework as such lacks normative guidance and show how Schwartz theory can be used to scaffold the three-tenets framework in dealing with underlying value disputes. The study concludes that Schwartz's theory proves useful in addressing the lack of a normative framework structure. The study indicates the individual approach as a key limitation and proposes further analyses towards a more collective approach.

1. Introduction

The three-tenet framework of distributional, procedural and recognitional justice [1–7] is widely used in the energy justice literature [8]. The strength of the three-tenet framework is that it provides a sound structure to perform empirical research in the field of energy justice to answer the urgent challenges of climate change [9–11] and to conceptually elucidate energy justice terminologies [12] with the aim of supporting the practical and efficient implementation of energy policy.

The energy justice literature also describes a self-reported weakness. When referring to distributional, procedural and recognitional justice, Sovacool and Dworkin conclude that the core of assessing energy justice is about “asking what this energy is for, what values and moral frameworks ought to guide us, and who benefits” [13] (p441). A frequently reported challenge of the three-tenets framework is that it struggles to deal with the tension of underlying guiding values. The role of different values of social actors in different positions (e.g. indigenous people and multinational firms) has been broadly illustrated in the three tenets literature, but also the different perceptions of justice of individual actors within social groups has been stressed as a core reason for the persistence of justice conflicts [14–19]. In this discussion, Heffron and

McCauley [6] have stressed the importance of understanding the justifications of all relevant actors and dominant influences in energy policy, like economy and industry [20–22].

A recent body of research takes this challenge a step further and addresses the absence of normative frameworks as one of the most fundamental gaps in the energy justice literature in general and in the three-tenets framework in particular [8,23,24]. What remains lacking, though, is a conceptualisation of how these normative frameworks interact. This absence of a mapping of the normative frameworks could lead to the false expectations that a particular normative framework in isolation could solve all normative challenges of energy justice. However, most of these frameworks have next to their own strengths also their own blind spots. For example, a normative capability approach will emphasise human welfare in relation to the capability of persons instead, as opposed to normative approaches that are based on conceptions of rights or individual freedom [25].

In Section 2, we illustrate that recent studies introduced normative frameworks in the energy justice literature, but that an elaboration of how these newly introduced normative frameworks relate to (or should interact with) each other is currently missing. We also sketch the methods that we will use in the remainder of the article. In Section 3, we

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start from the three-tenets framework. We show that the three-tenets framework is a normative framework that could benefit from the addition of other normative frameworks and from a better understanding of the structural relation of these normative frameworks. In [Section 4](#), we illustrate how Schwartz's theory describes different core values as a basis for normative frameworks and elaborates how these core values relate to each other in a specific structure. We stress that this is mainly a descriptive theory that describes the psychological structure of individual values and related normative frameworks. We also refer to different normative ethical theories that all give validated justifications for the values listed in Schwartz's core value theory. In [Section 5](#), we illustrate how Schwartz's core value theory helps to analyse and structure different interpretations of the three energy justice tenets. Furthermore, we refer to different normative ethical theories that give validated justifications for a particular core value in the core value theory. In [Section 6](#), we discuss Schwartz's theory as one theory that can further guide the discussion of normative research into the energy justice literature. Its strength is that it can start from the descriptive root of the three-tenets framework. At the same time, the value structure of the framework provides a first step to address the lack of a normative underpinning of the three-tenets framework. We conclude in [Section 7](#) that the three-tenets framework needs additional normative guidance to deal with underlying value disputes. We discuss the fact that normative frameworks are currently introduced and developed in the energy justice literature, but that they still lack a reflection of their relative place in an overarching value structure. We suggest that Schwartz's core value theory provides such a value structure, and that this structure allows the mapping and evaluation of core values and normative frameworks.

2. Structuring normative frameworks

2.1. Normative frameworks

A first step to tackling the challenge of normativity within energy justice literature, is specifying what we mean with normativity. The concept of normativity can relate to different aspects of dealing with norms, such as (1) relating to, or determining norms or standards, (2) conforming to or based on norms; and (3) prescribing or dictating norms (see for example [\[26\]](#)).

A normative framework then provides guidance when it positions certain norms in relation to each other and gives a justification why these norms should be followed, for example because of deontological reasons that norms are unconditionally valid and should be accepted for what they are as norms, or because the consequences of adhering to these norms are favourable [\[23\]](#). A normative framework often combines several core values, e.g. flourishing or self-direction in virtue ethics approaches; hedonistic happiness in utilitarianism; freedom, competition and emphasis on achievement in neoliberalism. The three tenets of the energy justice framework in itself fulfils this normative purpose (see for example [\[2,27,28\]](#)). It positions justice as a key ground for evaluating decisions that should be made. However, it lacks an internal rule how to cope with potentially different decision outcomes between tenets. If more than one value is central in a normative framework, there should be a rule on how to prioritise the different values. A classic example is John Rawls' second priority rule that justice should have priority over efficiency and welfare [\[29\]\(§46\)](#).

Recently, several approaches to normative issues have been developed and discussed in the energy justice literature. These include the plea for considering underlying or complementary norms that support the three tenets because energy justice as a norm does not by itself identify the structural causes of injustice [\[30\]](#) nor does it satisfactorily create a conceptual space to understand energy injustice [\[31\]](#). Energy democracy [\[32–34\]](#), equality [\[35–37\]](#) and power [\[37–39\]](#) are complementary normative concepts that already received substantial attention in the energy justice debate. Less frequently mentioned are normative concepts such as dignity [\[40\]](#), decency [\[41\]](#) and wellbeing [\[42\]](#), non-

western normative frameworks [\[43–46\]](#), epistemic concepts [\[47\]](#) and the use of gender in combination with normative frameworks [\[48\]](#), all of which are said to offer complementary concepts to further develop the normative framework of energy justice. Recently, the capability approach gained a lot of traction as a normative framework for energy justice. This approach unites different values such as freedom of expression, security and control, living with others, and the stimulation one receives from creative activities [\[49–54\]](#). Sovacool and Dworkin [\[55\]](#) build on the capability approach, and adds several other normative frameworks such as Kantianism, contractarianism and utilitarianism in its principled approach [\[54\]](#).

This list of normative concepts used in the energy justice literature is exhaustive. However, it makes clear that Heffron and McCauley's plea to understand the tensions of the underlying values of all relevant stakeholders [\[6\]](#) requires normative frameworks to relate to different and potentially conflicting values [\[18,56–62\]](#). Energy justice scholars certainly have pointed at the existence of underlying tensions in normative debates when studying value trade-offs [\[62–66\]](#). However, mapping out how these newly introduced normative frameworks relate to or should interact with each other is missing in the energy justice literature.

2.2. Research methods

In [Section 3](#), we use a philosophical standard method of genealogy as a method of inquiry that begins with a question about how something functions now, by understanding its history [\[67,68\]](#). We will use this to trace back the concept of distributional, procedural and recognitional justice via publications. The aim is not to do an in-depth literature review that provides an exhaustive view on how the three concepts of distributional, procedural and recognitional justice were developed over a particular period. We aim to illustrate this with two foundational articles (McCauley et al. [\[1\]](#) and Jenkins et al. [\[2\]](#)) and how these used previous sources to build a specific discourse [\[69,70\]](#) that gives meaning to the concepts of distributional, procedural and recognitional justice in the energy justice literature [\[8\]](#). We will use this genealogy to show that the three tenet framework alone cannot offer guidance on how to solve conflicts between values or normative frameworks.

In [Section 4](#), we explain Schwartz's theory of core values by building on his central publications. To stress that each distinct core value represents a justification that is considered worth striving for, we exploratory provide examples of philosophers or writers and two energy justice publications using the particular value (underlined in [table 1](#)). Due to space constraints, we will not be able to further elaborate the philosophical theories and energy justice cases.

In [Section 5](#), we use the elaboration of [Section 4](#) and explore what the relevance of the Schwartz framework could be. We provide a first step by describing what this could mean for the three tenets and the ten core values from Schwartz's theory. We do this by referring to the two previously mentioned articles per core value in the overview of Schwartz theory and by mentioning our own first reflections and hypotheses. By doing this, we know we do not give yet a solid empirical basis, rather we aim to support the claim that Schwartz's framework is relevant and helpful to structure values and normative frameworks and understand their relations.

3. Three-Tenets and core value conflicts

In this section, we show that the three-tenets framework needs extra normative guidance to deal with underlying value disputes and that it could benefit from the structured addition of other normative frameworks.

The three tenets of the energy justice framework that links distributional, procedural and recognitional justice made an important start about a decade ago [\[71\]](#). Since then, the three tenets have been broadly applied as triumvirate, or further supplemented to address challenges of

global or cosmopolitan justice [72], restorative justice [73], and inter-generational justice [74].

3.1. Distributional justice

[1,2] describe distributional justice, themselves building on [75–77], as an identification of

“both the physically unequal allocation of environmental benefits and ills, and the uneven distribution of their associated responsibilities [75], for example exposure to risk. Thus, energy justice can appear as a situation where “questions about the desirability of technologies in principle become entangled with issues that relate to specific localities” [76] (p4414), and represents a call for the even distribution of benefits and ills on all members of society regardless of income, race, etc.” [1](p2), [2] (p176)

Walker [75] sees these distributional interpretations of justice linked to the unequal distribution of impacts. These definitions stress the relevance of questions of distribution as an important tenet of justice. However, as a concept, they do not elaborate how substantive values should be treated, what the difference is between distributing goods or rights, which ones should be taken into account, or what should be distributed how. The statement of Sovacool and Dworkin [13](p437) refers to the distribution of what John Rawls calls primary goods of rights and liberties, income and wealth, and opportunities and powers. Following the trace to Rawls, his notion of justice puts a strong emphasis on principles of a just distribution of these goods. Rawls sees the primary subject of justice as the basic structure of society, that is the way in which the principal social institutions distribute essential rights and duties and regulate the separation of advantages from social cooperation [29](§2). Similarly, Rawls states that each person should have equal rights to the most elaborate system of equal basic liberties in line with a system of liberty for all [29](§302). Rawls lists the primary goods as freedom of thought, politics, association and the right of physical and psychological integrity of the person (§44).

Above, we analyse the origins of the definitions of distributional justice. As shown, these early definitions that are referred to by energy justice scholars do not provide us the value guidance we are looking for in how to solve conflicts. The tension between primary goods as mentioned by Rawls, such as the freedom of thought and the integrity of the person is one example. The potential conflict between the individual autonomy of a member of an energy community versus the conformity to collective systems, such as data sharing for community based smart systems, is another example. Distributive justice thus can function as a normative element, but a further specification of underlying or complementary normative frameworks could (and should) guide and enrich what should be distributed or what is considered substantive.

3.2. Procedural justice

[1,2] describe procedural justice as justice that manifests itself.

“as a call for equitable procedures that engage all stakeholders in a non-discriminatory way [75,80]. It states that all groups should be able to participate in decision making, and that their decisions should be taken seriously throughout.” [1](p2), [2](p178)

The authors refer to Bullard’s quote that “procedural equity refers to the “fairness” question: the extent that governing rules, regulations, evaluation criteria, and enforcement are applied uniformly across the board and in a non-discriminatory way” [80] and Walker’s [75] “justice as participation and procedure in terms of how geography plays into the inclusions and exclusions of environmental decision making”. Walker in turn refers to Young’s elaboration [81,82] of justice as participation and procedure. Young’s theory itself is a reaction to Rawls’ emphasis on individual rights and his principle of inequality. If social and economic

inequalities remain, Rawls states, they “are to be arranged so that they are ... to the greatest benefit of the least advantaged, consistent with the just savings principle” [29](§46).

Again, very little guiding values are found in the above elaborations. Others have made attempts to mention values that are important in participation and procedural justice. Habermas [83] mentions transparency, non-discrimination, power-free dialogue and consent as necessary conditions for the legitimization of policy. Tyler’s [84,85] due consideration hypotheses mentions voice (control/representation), consistency, impartiality, decision quality/accuracy (complaints), correctability, and ethicality as crucial aspects. Still, how are these specifications judged in energy justice debates? How are minimum levels determined? Are these minimal levels determined globally or per nation? How is the fairness perception of these specifications influenced by other justice elements? Less liberty in an energy policy measure, for example, can be seen as fair insofar as it leads to a sufficient increase of wealth [86]. Procedural justice as a normative framework can stress the importance of procedural justice, but cannot by itself address the trade-off between liberty and wealth. The above does not provide us with guidance on how to solve the value conflicts. There is a clear need to specify/guide which procedures are required when for whom.

3.3. Recognition justice

McCauley et al. [1] and Jenkins et al. [2], referring to Walker [75], state that.

“recognition justice is more than (mere) tolerance and states that individuals must be fairly represented, that they must be free from physical threats and that they must be offered complete and equal political rights [87]. A lack of recognition can occur as various forms of cultural and political domination, insults, degradation and devaluation. It may manifest itself not only as a failure to recognise, but also as misrecognising — a distortion of people’s views that may appear demeaning or contemptible [87].” [1](p2), [2](p177).

Walker himself thoroughly discusses recognition justice in terms of the processes of disrespect, insult and degradation that devalue some people and their local identities in comparison to others [75]. Recognition justice refers to Axel Honneth’s analysis of psychological self-esteem in the political realm [88,89] and Charles Taylor’s view of equal dignity and the politics of difference [90](p38). Nancy Fraser [91] points at the general practice of cultural domination, the pattern of non-recognition, which is the equivalent of being rendered invisible, or disrespected, or being routinely maligned or disparaged in stereotypic public and cultural representations. Young [81] and Bullard [80] also refer to these underlying causes of maldistribution. “Social Equity assesses the role of sociological factors (race, ethnicity, class, culture, lifestyles, political power, etc.) on environmental decision making. Poor people and people of colour often work in the most dangerous jobs, live in the most polluted neighbourhoods, and their children are exposed to all kinds of environmental toxins on the playgrounds and in their homes.” [80].

As with the other two tenets of distributional and procedural justice, the literature on recognition justice points to important issues, but does not provide us the value guidance on how to solve conflicts of recognition [92]. It requires other values or normative frameworks to know how to react e.g. when deprived citizens, who should receive recognition, themselves go on to discriminate against ethnic minorities, who also deserve recognition. Complementary normative frameworks could be helpful to specify who should be recognised by whom and how. We are aware the above analysis does not provide an in-depth literature review that provides an exhaustive on the genesis of the three tenets of energy justice, but still is an important illustration hereof.

The proliferation of three-tenets framework shows that the classification is very useful to analyse energy justice debates. But it is also clear

that the concepts of distributional, procedural and recognitional justice can (and probably even should) use underlying normative frameworks [31]. In particular, as mentioned earlier, what is lacking in the current debate, is a conceptualisation of how these normative frameworks interact. It may surprise that, for explaining this, we use a framework of Shalom Schwartz that is in the first place a descriptive theory of values. But as we will show, it will enable us to analyse how normative frameworks interact; we will then go on to elaborate the underlying normative assumptions of such a usage of the Schwartz core value framework.

4. Shalom Schwartz's core values framework

In this section, we introduce Shalom Schwartz's core value theory as a basis for a structure for normative frameworks. We show that it can scaffold the three-tenets framework in dealing with underlying value disputes.

Research into value typologies started at the beginning of the 20th century with Emile Durkheim, Max Weber and Max Scheler. These scholars analysed which values people mention in justifications, what core values emerge from all these values and how these core values are related to each other. Since then, many typologies have been developed, like Gordon Allport, Charles Morris, Florence Kluckhohn, Abraham Maslow, William Scott, Robin Williams and Milton Rokeach (see [93] for an overview). A particularly powerful conceptualisation of values is the work of Shalom Schwartz and colleagues, as it has strong empirical support, and can be a useful tool, since it provides a broad variety of

values structured in two dimensions, and energy cases have already been analysed with this framework by Steg and colleagues [94,95].

Schwartz and colleagues define values with five formal features as “(1) concepts or beliefs, (2) pertain to desirable end states or behaviours, [that] (3) transcend specific situations, (4) guide selection or evaluation of behaviour or events, and (5) are ordered by relative importance” and propose that “the primary content aspect of a value is the type or goal or motivational concern that it expresses” [96](p4). Based on the fifty-six values used in the value literature and assessing how respondents see these values as guiding principles in their lives, eleven significantly distinct factors emerge from the broad empirical statistical research. As such, Schwarz and colleagues propose eleven primary motivational types or core values. They explicitly claim the results refer to individual values, which they therefore regard as more important than normatively approved ideals of the respondents' group or culture. They justify this emphasis on the individual because of low in-group consensus [96](p50) among respondents from the same group or cultural background.

In Table 1, for each motivational type we describe the defining goal of the core value type, we provide examples of values of the value type, we give an illustration of energy communities that are linked to this value, and we reference two empirical cases in the literature. It is important to stress that this theory is descriptive and does not normatively prioritise certain views. Each distinct value represents a justification that is considered worth striving for. To stress this point, we provide examples of philosophers or writers, without further elaborating them in the limited space of this article, that do make normative pleas in which Schwartz core value orientations play a central role. This list is

Table 1

Schwartz eleven individual core value types and per motivational type: the defining goal of the value type, examples of values of the value type, example philosophers or writers, and examples of energy communities.

Core value type	Defining goal of the value type (p7–12)	Examples of values	Example Philosophers or Writers	Energy community [examples]
Self-direction	“Independent thought and action, choosing, exploring, creating”	Creativity, freedom, choosing own goals, curious, independent	Jean-Paul Sartre (existentialist)	<u>Autonomy</u> community to national grid; autonomy of individual members towards the goals of the energy community [97,98]
Stimulation	“variety to maintain an optimal level of activation”	Excitement, novelty, challenge in life	Michel Foucault, Oscar Wilde	Smart grid and energy community as cutting edge <u>innovation</u> [99,100]
Hedonism	“pleasure or sensuous gratification for oneself”	Pleasure, enjoying life	Aristippus of Cyrene (Hedonists); Epicurus, Jeremy Bentham (utilitarianism); Michel Onfray	Affordable energy to keep standard of living high or increase standard; introduction of smart systems to increase <u>comfort</u> [101,102]
Achievement	“personal success through demonstrating competence according to social standards”	Ambitious, successful, capable, influential, competitive	Aristotle, Robert Nozick	Energy community as <u>competitive</u> and realising better energy supply conditions than the national grid [103,104]
Power, authority	“attainment or preservation of a dominant position within the more general system”	Authority, wealth, social power, social recognition, preserving public image	Niccolò Machiavelli, Thomas Malthus, Friedrich Nietzsche	Energy communities as counter- <u>power</u> to neoliberal energy governance [18,105]
Security	“Safety, harmony, stability of society, of relationships and of self”	Healthy, sense of belonging, family security, social order, clean, national security	Thomas Hobbes, Carl Schmitt, Georg W.F. Hegel	Energy community takes the role of distribution systems operator to <u>secure</u> energy supply [106,107]
Conformity	“Restraint of actions, inclinations, impulses likely to upset or harm others and violate social expectations or norms”	Self-discipline, politeness, honouring of elders, obedient	Seneca, Theodore Dalrymple, Bénigne Bossuet	Energy communities expected to follow rules; participants in communities expected to be <u>self-disciplined</u> [108,109]
Tradition	“respect, commitment and acceptance of the customs and ideas that one's culture or religion impose on the individual”	Respect for tradition, humble, devout, accepting portion in life, moderate	Confucius, Alisdair MacIntyre, Jacques- Edmund Burke	Adapting the rules of decision making in the energy community to local <u>traditions</u> [110,111]
Spirituality	“life with meaning and coherence in the face of seeming meaninglessness of everyday existence”	Spiritual life, meaning in life, inner harmony, detachment, unity with nature,	William James, Emmanuel Levinas, Paul Tillich, Muhammad Khan, Kitarō Nishida, religious traditions	Energy communities as a platform to realise more symbiosis with <u>spiritual</u> and <u>religious</u> harmony [112,113]
Benevolence	“concern for the welfare of close others of everyday interaction”	Helpful, loyal, forgiving, honest, responsible, true friendship, mature love	Augustine, Ronald Dworkin, Arthur Schopenhauer	Energy communities to create support, <u>responsible</u> and <u>love</u> [114,115]
Universalism	“understanding, appreciation, tolerance and protection for the welfare of all people and for nature”	Broad-minded, equality, world at peace, world of beauty, unity with nature, wisdom, protecting the environment	Immanuel Kant, Arne Naess	“Think <u>globally</u> , act locally” [116,117]

indicative and illustrative and only serves the purpose to point readers to relevant literature to further explore these ideas.

Building on their statistical results, Schwarz and colleagues continued with non-metric multidimensional scaling to represent values as points in a multi-dimensional space such that the distances between the points reflect the empirical relations among values as measured by the correlations between their importance in the rating of the participants. The greater the similarity between two values, the more empirically related they should be, and hence the closer their locations should be in the multidimensional space (see Fig. 1).

A two-dimensional space with ten distinct value types provides a good fit in the analysis of forty samples taken across the globe. Schwartz and Boenke specify that this illustrates the universality in the structure of values, not the global application of their relative position [118] (p47). The so-called ‘spiritual life’ did not match this multi-dimensional scaling analysis. This does not mean spirituality is not important, but it is not well operationalised to fit in the overall scheme and is therefore left out in the graphic overview. Conformity and tradition have a particular place in the value structure, as both values share the same broader motivational goal of the reduction of the self in favour of socially enforced expectations [118]. Yet, they are empirically distinguishable as the objects to which one subordinates the self may account for their distinctness. Conformity values entail subordination to persons with whom one is in frequent interaction – parents, teachers, bosses. Tradition values entail subordination to more abstract objects - religious and cultural customs and ideas. [118].

Schwartz and Boehnke [118] later analysed if the distinction between 10 separate value types is statistically optimal. The confirmatory factor analysis (CFA) approach confirmed the 10 basic values, a modified quasi-circumplex and the claim that values form a motivational

continuum. The graph (figure1) shows a motivational continuum. The value dots should not be considered as discrete categories, but as a continuum. The lines in the graph should then be considered as denoting convenient decisions about where one type of motivation ends and another starts. [96](p45) On the one hand, the closer to each other they are, the more supportive values are of each other. Energy to enjoy life (hedonism) and to have a varied life (stimulation) support each other; the same is true for e.g. grid stability (security) and respecting the rules (conformity); or protecting the environment (universalism) and supporting energy-poor neighbours (benevolence). On the other hand, the more distant values are in the continuum, the more conflicting they are. Schwartz sees two basic dimensions. The first dimension opposes openness to change versus conservation. We find this conflict exemplified in the energy domain for example in the tension between relatively progressive energy communities and established centralised or technocratic systems: Energy communities creatively want to choose their own goals (self-direction), whereas distribution system operators emphasise more national security issues and respect for the rules (security).

The second dimension that Schwartz identified is the tension between self-enhancement versus self-transcendence. Energy communities e.g. might be trying to optimise the profit for their members and focus thus on success, influence and ambition (achievement). Other more decentralised energy communities might strive more for self-transcending values, such as equality (universalism) or even true friendship (benevolence). As these values are more distant from each other in the graph, the conflicts can be expected to be severe. Compromises are still possible, but harder to attain.

A weakness of Schwartz's theory for the three-tenets framework is that it only focusses on individual values, due to its origin in psychological research. It cannot sufficiently explain how we can move from

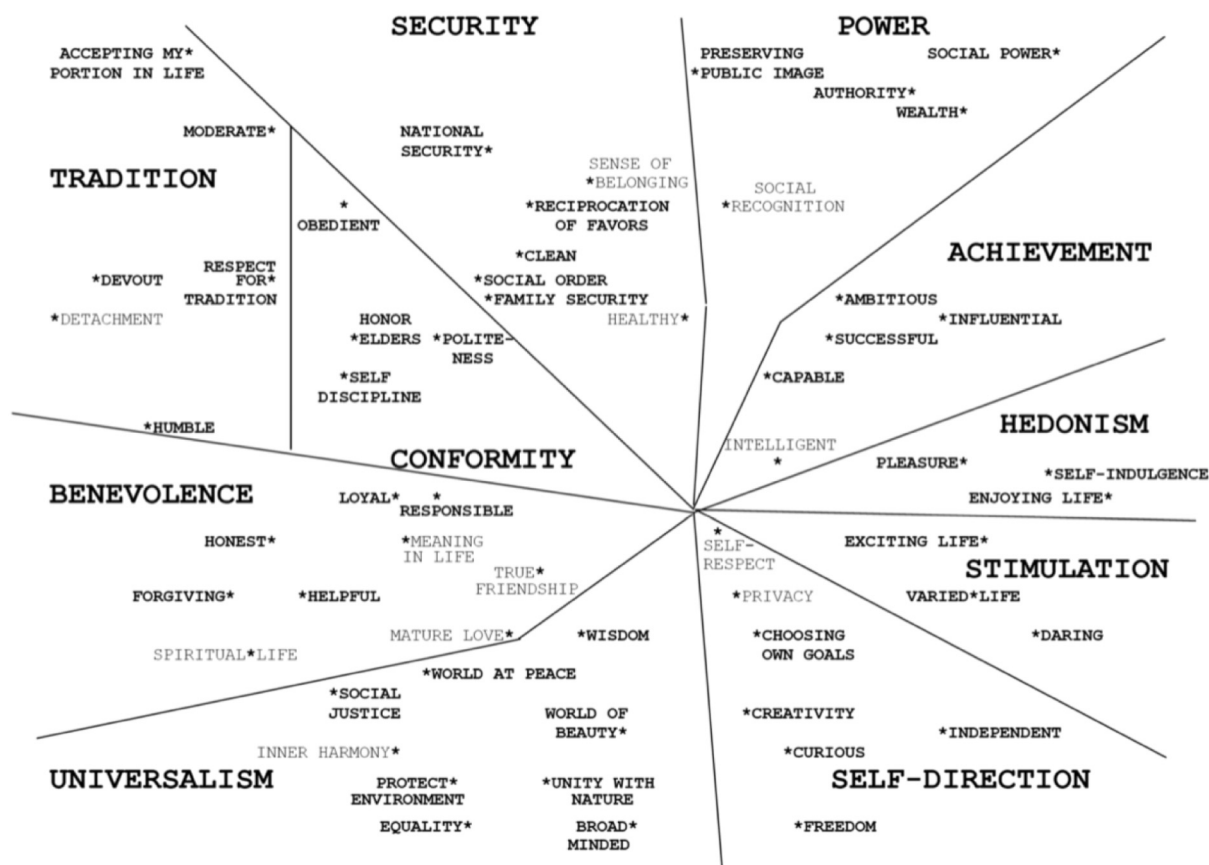


Figure 2. 2-Dimensional Smallest Space Analysis: Individual Level Value Structure Averaged Across 68 Countries

Fig. 1. 10 distinct value types and two dimensions according to Schwartz (taken from [96] (fig. 2.2)).

individual values to shared collective values that can guide broader group and societal decisions. Schwartz has in his later work developed a theory of cultural values that is distinct from his work on individual value orientation [119]. He is critical of the idea to understand cultural values as a mere aggregate of individual value preferences and argues that we should not regard individuals as the carrier of cultural values [120]. We follow Schwartz main intuition about the importance of a separate elaboration of collective or global [121] values and indicate in the discussion section of the paper, how future research can add a collective dimension to Schwartz and sketch the next steps that are needed to further elaborate how the three-tenets framework can be better equipped to conceptually address normativity in collective practices. Different attempts to develop theories of collective values exist within psychological literature, next to Schwartz own later work [119,120]. Steg and colleagues have developed a model to account for individual and group values [122]. They show that the perception of group values is important for pro-environmental behaviour [123,124]. Further, they show that pro-environmental engagement becomes stronger when individuals perceive that the group they are in prioritizes what they call biospheric values [125].

The above elaboration provides an indication that the descriptive core values theory with its value structure is useful to understand key value relations and conflicts and could therefore enrich the analysis of ethical issues and normativity in the three-tenets framework.

5. Using Schwartz' theory to map normative frameworks

In this section, we illustrate how Schwartz's core value theory might help to analyse and structure different interpretations of the three energy justice tenets. The core value theory can be used as an analytical tool to analyse differences in energy justice discussions. Based on the above information, we can illustrate that the application and interpretation of distributional, procedural and recognitional justice might strongly differ depending on which basic values or normative frameworks are into play (refer to Table 2). For example, someone who strongly values universalism will tend to support an extended view on who deserves recognition, whereas someone who has achievement as a core value might state that recognition is conditional to the merits, ambitions or capabilities people have. People that value self-direction are likely to opt for procedures that maximise individual freedom and minimise collective control, whereas people with tradition as a core value will be more likely to support energy security and top-down control. As it often will be the case, the most challenging energy justice disputes do not concern difference within one tenet, but conflicts that cross both tenets and core values. For example, someone can claim that "energy community procedures should not harm personal freedom (self-direction and procedural)", and someone else might react that "the distribution should serve the collective such that it can realise individual protection (security, distributional)."

The examples given above referring to Table 2 illustrate that the three tenets can provide a very relevant skeleton, but lack supportive strength without understanding the underlying value structure. The structure of the core value framework allows researchers to better understand tensions between underlying values or normative frameworks. The more distant values are in Schwartz's theory, the more in conflict these values are. Schwartz's value theory therefore elegantly maps people's different core values and how these values relate or oppose each other. These values also allow researchers to understand how individuals arrive at different preferences and interpretations of what should count as 'justice' in a society (consult Table 2 for an illustration of the relation between the three tenets and the core values in Schwartz).

6. Discussion

In light of the plea for a stronger position of normative frameworks in energy justice research [6,8,23], we stressed that Schwartz's theory is a

Table 2

Distributional, procedural and recognitional energy justice tenets elaborated for the different core values and examples.

Tenet→ Core value↓	Distributional	Procedural	Recognitional
Self-direction [97,98]	Rights and goods in the electricity market that guarantee everyone's self-realisation	Energy community procedures should not harm but maximise personal freedom and actions	Individual members of energy communities should not be restricted, everyone should have the possibility of self-realisation in the community
Stimulation [99,100]	Rights and goods that support an individually exciting life	Procedures should maximise opportunities in life. Risks for individual members are acceptable	Members of energy communities should be recognised when striving for optimal level of activation
Hedonism	Everyone is entitled to have their own joy and pleasure	Procedures are good if they support pleasure and joy	Individual members of energy communities should not be restricted, everyone should be able to have pleasure or sensuous gratification for oneself
Achievement [101,102]	Merits (often in a specific field) entitle differences in distribution	Free market and only minimum state interventions to support the most ambitious and influential	Members of energy communities should be recognised for their ambitions and capabilities
Power [18,105]	Distributions should follow the existing power structures, if people want to change this, they have to take more power	Procedures should be embedded in existing power structures	Those in power should be recognised for their efforts and contributions to society, recognition of those gaining power
Security [106,107]	The distribution should serve the collective such that it can realise individual protection	Procedures should be functional to improve the security in the group	Energy policies should provide security to all, also the marginalised
Conformity [108,109]	Distribution should follow the structure of the group, for example the most important people in the community get priority via respect.	Procedures follow from group cultures that instantiate self-discipline and respecting group decisions.	Members of energy communities that show discipline to follow the norms and expectations, deserve recognition.
Tradition [110,111]	The distribution is as the tradition prescribes it.	Procedures follow from interpretation of tradition and accepting what elderly/wise people say.	Traditions of indigenous people are important and should be recognised by energy policy
Benevolence [114,115]	The distribution follows from the everyday careful interaction with vulnerable groups.	Formal and external procedure maximise helpfulness (e.g. taxes are seen as	Everyone in the energy community deserves recognition to

(continued on next page)

Table 2 (continued)

Tenets→ Core values↓	Distributional	Procedural	Recognitional
Universalism [116,117]	Understanding, appreciation, tolerance should be distributed equally and universally.	benevolence mechanisms). Procedures should promote universal equality.	maximise their welfare Everyone, including future generation and potentially nature itself deserve recognition for intrinsic reasons

descriptive theory of core values. Based on psychological quantitative empirical research, it describes how people's individual values can be grouped in core value clusters and how these different clusters have a certain distance and relation to each other. The example in Section 3 that less liberty can be accepted if a sufficient increase in wealth is provided [86], now becomes understandable if seen as a tension of relatively close values of self-direction and hedonism. A compromise between liberty and accepting one's own portion in life is less likely as self-direction and tradition are opposing core values. The same goes for increasing personal wealth and restorative justice as hedonism and benevolence are opposed to each other as well.

These value distances and the structure that the theory describes allows one to understand and identify value tensions and it enables further exploration of the meaning of normativity. The further away values are from each other, the more likely these values will clash in energy justice disputes and the more severely people will claim that energy policy ought to change. We see this as the strength of Schwartz's theory. Being applied to energy policy already [126] and being descriptive, it can complement the three-tenets framework. The value structure that the theory describes can provide a foundation to address the underlying normative frameworks of the three-tenets framework.

We can apply this to other normative frameworks. The capability normative framework, for example, stresses freedom of expression, security and control, living with others, and stimulation from creative activities [49–54]. As we can see in figure 1, this is a broad framework, touching upon several values as contained within Schwartz' framework. In this respect, the capability framework would benefit from internal priority rules regarding how to solve internal value conflicts. It would need internal priority rules relating to navigating values that are not within its own normative framework. Egoism, for example, is defended by scholars as Henry Sidgwick [127], Ayn Rand [128], or Max Stirner [129], as something that is (within limits and specific interpretations) worth developing and striving for. The strength of applying Schwartz's theory to the three-tenets of energy justice, both for research and policy-making, is that it gives a very broad view on different underlying and potentially conflicting values. As such, Schwartz theory also enables us to evaluate frameworks relating to research and policy-making. If one value is central in a normative framework (such as equality [35–37] or power [37–39]), it gives an important intuition where in Schwartz's value structure it is situated and how it might relate to other values. When a normative framework encompasses a multitude of Schwartz's core values, Schwartz's theory helps to explore the coherence of these values and other previously concealed dynamics.

Our elaboration of Schwartz's theory for the three-tenets of energy justice also has its limitations. The internal priority rules are crucial, but remain very difficult to conceptualize with the core value theory. As Schwartz's theory is descriptive, our approach does not provide priority rules that solve value disputes. One reason why this is difficult for theories as Schwartz's is that it is a theory on individual value convictions. A weakness of Schwartz's theory for the three-tenets framework is that it only focusses on individual values, due to its origin in psychological research. It cannot sufficiently explain how we can move from individual values to shared collective values that can guide broader group and

societal decisions [130,131]. As mentioned above Schwartz has therefore in his later work developed a theory of cultural values [119]. Future research therefore needs to investigate how a combination of the Schwartz framework, including the later cultural approaches, and the three-tenets can address normativity in collective practice. These psychological approaches lack a collective elaboration on how conflicting values are treated in groups. Justice, however, clearly is a collective concept. Rawls stresses that it might seem that the justice and fairness concepts are very similar and that it is therefore not useful to differentiate them. For Rawls, fairness is the quintessential idea for his conceptualisation of justice. He goes on to stress that he regards justice only as a "virtue of social institutions", particularly relevant for "practices" [79](p164). Justice, for Rawls, is thus related to collective practices, meaning different activities that are determined by a system of rules which defines "offices, roles, moves, penalties, defences, and so on, and which gives the activity its structure". Rawls refers to games and rituals, trials and parliaments, markets and systems of property as examples [79](p164,n2). It is therefore an open question whether a framework with a strong focus on individual values can adequately account for environmental and energy justice. Other scholars such as Luhmann [132], Walzer [133] or Boltanski and Thévenot [134,136] can add to the collective elaboration of justice as well. People that are engaged together in public disputes and critiques refer to different systems [132], spheres [133], ecologies [135] or worlds of justification [134], each with their own criteria of validity and internal consistency. It would be pertinent for future research to inquire how the different worlds of justification add to the three-tenets by approaching the question from a collective perspective.

7. Conclusion

This study concludes that

- the three-tenets framework needs additional normative guidance to deal with underlying value disputes.
- Normative frameworks, which position core values and priority rules, are currently introduced and developed in the energy justice literature. We illustrated that this could lead to false expectations that a particular normative framework could solve the normative challenges of energy justice.
- We introduced Schwartz's core value theory that provides a value structure which analyses the relation of individual core values and normative frameworks that are related to these values.
- As such, the three-tenets energy justice framework can have the necessary normative scaffolding.

We believe our work can contribute to the challenge within the energy justice literature of "asking what this energy is for, what values and moral frameworks ought to guide us, and who benefits" [13](p441). As such, we have illustrated in how a combination of Schwartz's value theory and the three tenet framework can help to understand how different participants arrive at varying normative interpretations of the three tenets and how this shapes their evaluation of energy policies [12], without being trapped in the belief that a specific normative framework could solve the normative challenges of energy justice. This deeper understanding can support the practical and efficient implementation of energy policy. We hope to have added to the strength of the three-tenets framework by providing a sound structure to perform empirical energy justice research to address urgent climate change challenges.

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Declaration of competing interest

N.A.

Data availability

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

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