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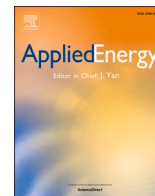
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# Categorizing experiences of misrecognition in energy contexts: A recognition justice typology

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## HIGHLIGHTS

- Recognition can be refined through Critical Theory and human need taxonomies.
- Recognition through love, law, and status order is relevant in energy contexts.
- Recognition justice has potential for more-than-human applications.
- The proposed typology can help understand experiences of misrecognition.

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## ABSTRACT

Within energy justice, distinct categories or “tenets” of justice are distinguished, such as procedural, distributive, and recognition justice. However, many tensions still surround the concept of recognition justice. By going back to the philosophical roots of the concept, Van Uffelen distinguishes between three modes of recognition: love, law, and status order (Van Uffelen, 2022). Although this is a valuable analytical tool for understanding grievances of misrecognition, its categories are wide-ranging and, at first sight, abstract and distant from the energy space. Because of this, it remains difficult to analyse qualitative data in energy contexts from a recognition lens. In this paper, we pose the following research question: how can experiences of misrecognition in the energy context be categorised? This paper proposes a more granular typology of recognition justice, building on literature on recognition justice in critical theory and taxonomies of human needs. We test the typology to see (1) whether it is sufficiently comprehensive and (2) whether its subcategories are relevant in energy contexts. To do so, we analyse a small sample of interviews in which participants express various experiences of misrecognition in relation to energy policies or infrastructure. In this, we adopt methodological triangulation, as Researcher One coded the interviews deductively through the framework, while Researcher Two conducted an inductive, thematic analysis of the same data. The resulting typology for recognition justice can support researchers and decision-makers in identifying and analysing experiences of misrecognition in energy contexts.

## 1. Introduction

Within the energy justice scholarship, distinct categories or “tenets” of justice are distinguished, such as procedural, distributive, and recognition justice [1]. Each tenet points towards a different question of justice: are the procedures just? Is there a just distribution of burdens and benefits? Are actors recognised appropriately through formal and informal societal institutions? This energy justice framework has been used as a conceptual, analytical, and decision-making tool [2]. The value of this framework has been robustly explored through case study work

worldwide, enhancing our understanding of the justice dimensions of energy technologies, projects, policies, and vulnerabilities ([3–5], [6,7]).

Many questions still surround the concept of recognition justice, indicating that this tenet seems the least tangible to grasp. The concept seems to have an analytical and moral appeal, as many energy conflicts cannot be explained in purely distributive and procedural terms [8,9]. The variety of uses, interpretations and operationalisations of the concept highlights a key tension in energy justice scholarship which was relatively undiscussed until van Uffelen [10]. This signals tension and

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risk of gridlock in energy transitions, more generally, if we cannot harness the analytical power of recognition justice effectively to understand misrecognition in practice as we undergo the energy transition.

Therefore, it is important to scrutinize and identify different ways of (mis)recognition in energy contexts. By going back to the philosophical roots of the concept, Van Uffelen distinguishes between three modes of recognition, namely love, law, and status order [10]. We consider this typology a valuable analytical tool to analyse and understand grievances of misrecognition. Moreover, due to its relational understanding of the self and autonomy [11], the categorisation could be relevant across countries and cultures. Yet, we do not claim its universality, as it mostly builds on philosophers from the Western world, while work on recognising more-than-humans is still lacking [9].

Recognition justice can benefit from a more fine-grained categorisation for two main reasons. First, the categories of love, law, and status order remain wide-ranging classifications, in other words, they are insufficiently granular categories. For instance, recognition through love seems to relate to romantic relationships and friendship, but also to the structural conditions that are necessary for developing intimate relationships. Second, the categories of love, law, and status order seem abstract and distant from the empirical world. The link with energy technologies, policies and systems may appear far-fetched. For instance, it is unclear what it means to be “recognised through love” in energy contexts, or what “misrecognition through law” might entail in relation to energy infrastructures.

These two problems add to difficulties in understanding experiences of misrecognition in energy contexts. To detect misrecognition, qualitative research is vital, as misrecognition often has harmful, experiential effects on individuals, in other words, it hurts. Yet, analysing such experiences can be extremely difficult without appropriate conceptual tools. Therefore, we pose the following research question: how can experiences of misrecognition in the energy context be categorised?

In this paper, we propose several subcategories within law, love, and status order that describe various ways actors can be (mis)recognised in energy contexts. We construct such a typology through two phases. First, we study the understanding of recognition justice in critical theory and various taxonomies of human needs. Second, we conduct a dual coding experiment on a small sample of interviews in which participants express various experiences of misrecognition. This triangulation coding approach has a dual purpose, namely (1) testing whether the typology works by comparing deductive coding through the typology with an inductive coding effort and (2) investigating how the typology of recognition connects to energy contexts. Building on our results, we propose a typology of (mis)recognition to support researchers and decision-makers in identifying and analysing experiences of misrecognition in energy contexts.

## 2. Identifying subcategories: Inspiration from theory

The existing typology of recognition in energy justice distinguishes between three modes, namely love, law, and status order [10]. This distinction goes back to Hegel’s distinction between three spheres in society, namely the family, the market, and the state; Honneth’s interpretation thereof as recognition through love, esteem (or solidarity), and law; and Fraser’s conceptualisation of recognition as status injury. The three modes of recognition refer to different aspects of one’s identity, namely specific individual traits (love); the value of one’s group-level identity features, such as gender, race, and profession (status order); and the general and impersonal features of one’s identity, such as ‘being human’ (law). Generally speaking, humans desire recognition in all three modes, that is, to be loved by others for who we are, for others to value our identities and our contributions to society, and for the law to treat us equally and with respect.

To further develop each category, creating subcategories would be beneficial. These subcategories are ideally formulated as such: recognition (through love/status order/law) *as something*. The reason for this

is that given the colloquial use of the term, people are usually recognised as something, in other words, regarding a certain feature. It is often meaningless to say, “I recognise you”; nevertheless, it is meaningful to say, “I recognise you as a contributor of valuable knowledge in this conversation”, to give an example. Merely categorizing recognition through love, law, and status order remains too vague.

To sketch out potential subcategories, we consult two bodies of literature, namely (1) the works of Axel Honneth, who developed the initial subcategories of love, law, and esteem, and related works from critical theory, and (2) psychological theories on human needs. The latter body of literature is not too far-fetched because it is often argued that recognition is a vital human need [12,13]. We want to stress that we do not take the theories of human needs to be universally true. Instead, we treat the theories as inspiration to identify different aspects of (mis) recognition.

We focus on three psychological theories of human needs. The first theory is Maslow’s theory of human motivation, which distinguishes between physiological needs and needs for self-actualisation, esteem, love, and safety [14]. A second theory is Fiske’s relational model theory, which distinguishes five core social needs: belonging, understanding, controlling, enhancing self, and trusting others [15]. The third theory synthesises various theories of fundamental psychological needs for value-sensitive design or, more specifically, design for well-being [16]. The authors decided upon thirteen fundamental needs, namely autonomy, beauty, comfort, community, competence, fitness, impact, morality, purpose, recognition, relatedness, security, and stimulation. The parallels between value-sensitive design and energy justice frameworks, with the potential for their combined use, have been made in past works [17]. For a more detailed explanation of the core needs, see Table 1. In the remainder of this section, we specify subcategories for recognition through love (Section 2.1), status order (Section 2.2), and law (Section 3.2), based on critical theory and human needs literature.

### 2.1. Recognition through love

*Recognition through love* contains a broad range of phenomena. Based on Honneth’s works and the three theories of human needs, three subcategories of recognition through love can be distinguished: (1) as directly loving, and being loved by, others, (2) as having physical integrity, and (3) as deserving structural-institutional conditions necessary to develop relations of love.

First, recognition through love refers to relationships “constituted by strong emotional attachments among a small number of people”, such as relations between family members, friends, and romantic partners [18], p. 95. According to Axel Honneth, being recognised through love in this ‘narrow’ sense is crucial for developing a fundamental sense of self-confidence, or the ability to be alone [18], p. 107. In relations of love, both parties recognise each other as needy creatures, as both are, in a way, dependent on each other while also being independent [19], p. 161, p. 182. This balance between dependence and independence is learnt in early childhood: at first, both baby and caretaker are dependent on each other; but after a while, the caretaker might leave the room for longer periods of time [20]. The child’s capacity to be alone can only be developed if the child can rely on the caretaker’s love: “In becoming sure of the ‘mother’s’ love, young children come to trust themselves, which makes it possible for them to be alone without anxiety” [18], p. 104. Later in life, the need for love expands beyond caretakers towards other family members, friends, and potentially romantic partners. Although Honneth relies on psychoanalysis, the importance of the human need for love is generally accepted by psychologists. Maslow, for example, describes the human need for love, affection, and belongingness, and Desmet and Fokkinga mention the need for relatedness. Thus, the first subcategory of ‘recognition through love’ refers to the human need to love and be loved, which constitutes one’s basic self-confidence and ability to be alone.

Second, *recognition through love* has a bodily component. Honneth’s

**Table 1**

The core concepts in three theories of human needs and their definitions.

<b>Maslow</b>	
self-actualisation	Doing what an individual is fitted for
esteem	Need or desire for a stable, firmly based, (usually) high evaluation of themselves, for self-respect, or self-esteem, and for the esteem of others, soundly based upon real capacity, achievement and respect from others. This includes (1) the desire for strength, for achievement, for adequacy, for confidence in the face of the world, and for independence and freedom, and (2) the desire for reputation or prestige (defining it as respect or esteem from other people), recognition, attention, importance or appreciation.
love	Need for love, affection, and belongingness, including family, love relations friends, and affectionate relations with people in general
Safety	Safety from danger (including wild animals, extremes of temperature, criminals, assault and murder, tyranny, but also from instabilities and insecurities in jobs, finance, and risks)
<b>Desmet &amp; Fokkinga</b>	
autonomy	Being the cause of your actions and feeling that you can do things your own way, rather than feeling as though external conditions and other people determine your actions
beauty	Feeling that the world is a place of elegance, coherence and harmony, rather than feeling that the world is disharmonious, unappealing or ugly.
comfort	Having an easy, simple, relaxing life, rather than experiencing strain, difficulty or overstimulation
community	Being part of and accepted by a social group or entity that is important to you, rather than feeling you do not belong anywhere and have no social structure to rely on
competence	Having control over your environment and being able to exercise your skills to master challenges, rather than feeling that you are incompetent or ineffective
fitness	Having and using a body that is strong, healthy, and full of energy, rather than having a body that feels ill, weak, or listless
impact	Seeing that your actions or ideas have an impact on the world and contribute to something, rather than seeing that you have no influence and do not contribute to anything.
morality	Feeling that the world is a moral place and being able to act in line with your personal values, rather than feeling that the world is immoral and your actions conflict with your values.
purpose	Having a clear sense of what makes your life meaningful and valuable, instead of lacking direction, significance or meaning in your life
recognition	Getting appreciation for what you do and respect for who you are, instead of being disrespected, underappreciated or ignored.
relatedness	Having warm, mutual, trusting relationships with people who you care about, rather than feeling isolated or unable to make personal connections
security	Feeling that your conditions and environment keep you safe from harm and threats, rather than feeling that the world is dangerous, risky or a place of uncertainty.
stimulation	Being Being mentally and physically stimulated by novel, varied, and relevant impulses and stimuli, rather than feeling bored, indifferent or apathetic
<b>Fiske</b>	
belonging	Affiliating and bonding with others in social groups
understanding	Understanding the world (e.g., gaining knowledge about the world), to navigate it
controlling	To feel competent and effective in dealing with the animate and inanimate environment; wanting to experience contingency between one's actions and one's outcomes
enhancing self	Having self-esteem; positive illusions of the self; having positive self-worth
trusting others	Having generalised trust; generally expecting positive outcomes from most others; viewing the world as benevolent

writings on misrecognition through love include abuse and rape: “Physical abuse represents a type of disrespect that does lasting damage to one’s basic confidence (learned through love) that one can autonomously coordinate one’s own body” [18], p. 132. Abuse and rape threaten a person’s physical integrity, leading to a “breakdown in one’s

trust in the reliability of the social world and hence by a collapse in one’s own basic self-confidence” [18,21], p. 133.<sup>1</sup> The bodily component of recognition through love correlates with Fiske’s notion of “controlling” (e.g., “experiencing contingency between one’s actions and one’s outcomes”, something that is most likely to be harmed when someone is assaulted), Desmet & Fokkinga’s notion of security (in the sense of bodily security), and Maslow’s notions of safety and security. So, besides loving relationships with family, friends and partners, recognition through love also implies recognising one’s physical integrity. Schlosberg’s interpretation of Honneth’s writings on this topic leads to the statement that “individuals must be fully free of physical threats”, a formulation that was paraphrased in the often-cited paper of McCauley et al. [1]. Schlosberg also sees potential in extending this element to the natural world, including animals and ecosystems [9]. Recognition through love would then also imply protecting the physical integrity of more-than-humans.

The third subcategory of recognition through love refers to deserving structural-institutional conditions necessary to develop relations of love. This view can be found in Honneth’s later writings. Rebutting his former opinion that experiences of misrecognition through love are the same throughout history, Honneth argues that struggles for recognition about “the socio-moral implications of love” are possible [19,22]. He gives the example of the cultural and legal recognition of gay marriage and relationships and argues that “moral progress in the sphere of love might then mean a step-by-step elimination of the role-clichés, stereotypes, and cultural ascriptions that structurally impede adaptation to others’ needs” [19], p. 188, [22], pp.142–154. In other words, there might be structural phenomena in society that impede the development of love relations, or that fail to protect one’s bodily integrity, such as laws and policies, cultural stereotypes, or distributive obstacles such as money, goods, and resources. Maslow mentions physiological needs, which might form preconditions or structural requirements for recognition through love; access to energy, mobility and fresh water can certainly be placed in this category since a lack thereof can impede the development of stress-free love relations. So, even though relations of love cannot be forced upon people top-down, realising them partly depends on societal structures and institutions [23], p. 38. This subcategory, we contend, also encapsulates deep empathy towards anonymous others as enabled or limited by structural-institutional conditions. This contrasts with the first subcategory, which is deliberately narrow and restricted to intimate relationships between a few people.

## 2.2. Recognition through status order

In Van Uffelen’s definition, recognition through status order refers both to Nancy Fraser’s understanding of recognition justice and Axel Honneth’s notion of recognition through solidarity or esteem [10]. Both authors agree that it is related to intersubjectively shared value systems or patterns of cultural value, which Fraser calls the *status order* [19]. Value systems assign worth to groups, traits, skills, and contributions that actors make to society. A status order posits a hierarchy, as some skills are valued more than others, some jobs are seen as contributing more value to society, and so on. Although there may be a plurality of value systems in society, a dominant status order is institutionalised, in both formal and informal institutions such as education, the economy, laws, and technologies. When the institutionalised status order structurally undervalues a certain trait or activity, actors may experience

<sup>1</sup> This aspect of recognition through love is very related to recognition through law. Protection of one’s bodily integrity is a crucial part of dignity, and a precondition for one’s personal and political freedoms. We have categorised it under recognition through love to do justice to Honneth’s theory of recognition and preserve its original intent, however, we acknowledge that one could also reasonably categorize this under recognition through law, or at least that this category belongs to both relations of recognition.

misrecognition through status order. According to Honneth, this experience is, in essence, a loss of self-esteem [18]. Ensuing struggles for recognition aim to revalue devalued traits, in other words, to fight *status subordination* [19]. This can take the form of cultural judgements of value (such as praise or prestige), or it can translate into higher wages, for instance.

Honneth distinguishes two practical domains in which recognition through esteem plays a role, namely (1) the market and (2) social groups. The writings of Fricker add a third category of recognition through status order, namely (3) the epistemic realm.

First, people can recognise each other as contributors of value to the world. People's contributions to society, for example, through jobs, are subject to valuation. A musician is underpaid compared to an architect, even though the required years of studies and difficulty level might be comparable. Maslow argues that esteem is a core human need, indicating that people crave prestige and feelings of accomplishment and achievement. Moreover, Fiske describes the need for "enhancing self", which he defines as self-esteem. Desmet and Fokkinga describe the human needs for impact ("seeing that your actions or ideas have an impact on the world and contribute to something"), competence ("having control over your environment and being able to exercise your skills to master challenges, rather than feeling that you are incompetent or ineffective"), and recognition ("getting appreciation for what you do and respect for who you are") [16]. In other words, people want to be recognised as contributors of value to the world.

Second, Fiske describes that humans have a need for 'belonging'; Maslow identifies the need for love that includes belongingness; and Desmet and Fokkinga argue that people need 'community'. Social groups are also subject to valuation. This has less to do with achievements and more with valuing cultural and socio-economic aspects of identity, such as race, religion, or language. The Black Lives Matter movement, for example, represents the struggle against the devaluation of black people, identities and cultures. Another example of misrecognition in this category is aporophobia, or "fear of the poor" [24]. This social phenomenon devalues people in poverty.

Prejudices about social groups often trickle down to the third aspect of recognition through status order, namely the epistemic realm. The epistemic contributions of actors can also be subject to (de)valuation. Since 2017, the notion of epistemic injustice has gained traction, referring to injustices within the sphere of epistemic activity [25,26]. Epistemic injustice implies the misrecognition of actors in their capacity as knowers or epistemic agents [25].<sup>2</sup> Although the relation between epistemic injustice and recognition is a topic of discussion [27,28],<sup>3</sup> in any conception of recognition through status order, an epistemic dimension is indispensable. Fiske argues that understanding and being understood is a human need, motivating people to gain information about the world. If people are misrecognised as epistemic agents, this need is not met.

### 2.3. Recognition through law

A third mode of recognition is through the law. While Honneth's interpretation of law focuses explicitly on legislation, we acknowledge the need to broaden this perspective in the energy context. The energy arena is bound by legislation, such as the Energy Act (2023) in the

United Kingdom,<sup>4</sup> and other relevant legislative pieces, such as the UK Health and Safety at Work Act (1974).<sup>5</sup> However, there are many other norms, regulations and standards that bind energy activities which are not necessarily enshrined in legislation. So, we maintain a broad definition of 'law', including constitutions, standards, regulations, guidance documents, international agreements and best practice precedents. Now, three subcategories of recognition through law can be distinguished, referring to three general and impersonal features of identity, namely (1) as a member of a legal community, (2) as having equal intrinsic value, and (3) as a moral agent.

First, through law, we can recognise others as members of a legal community [18], p. 109. No matter how unjust or thin the laws might be, if they apply to a person, that person is recognised as a member of a social collective – for example, as a state citizen.

Second, people can recognise each other through laws as actors with equal and intrinsic value, in other words, as persons [18], pp. 109–111. Here, a liberal perspective implies that all citizens deserve the same set of rights and duties [19], p. 115, 143, 163. When actors are recognised through law as having equal intrinsic value, they gain self-respect. For instance, a law that enables slavery fails to recognise that all people have equal intrinsic value, merely because they are humans.

Recognition through law as having equal and intrinsic value can be extended to more-than-humans.<sup>6</sup> In the past few years, there have been struggles to recognise the intrinsic value of more-than-humans through law. Examples include the recent granting of 'personhood' to the threatened Komi Memem River in the Amazon, or the work undertaken by institutions like the *Embassy of the North Sea*. Despite the acknowledged challenges with these types of actions (e.g., [29]), these examples show the potential of extending recognition through law beyond a mere anthropocentric perspective.

Third, broadly speaking, in a democratic society, laws, rules and regulations are created by all citizens. When the constitution assigns to all citizens the right to vote, people implicitly recognise each other as capable of "rational will-formation" and of "autonomously making reasonable decisions about moral norms" [18], p. 110, 114 in liberal societies. In other words, through instating democracies, we recognise our fellow citizens as morally responsible, accountable, and capable of moral judgements [18], p.108–114, in other words, as moral agents. Moreover, through democracies, citizens recognise each other as autonomous, because they submit themselves under laws that they made themselves. According to Markell, "Democracy, on such a view, is always a matter of recognition: citizens must be able to understand the rules and decisions to which they are subject as in some sense expressions of their own wills" [30], p. 3. According to Desmet and Fokkinga, autonomy ("being the cause of your actions and feelings that you can do things your own way") and morality ("feeling that the world is a moral place and being able to act in line with your personal values") are fundamental human needs.

Table 2 represents the typology of recognition grounded in literature on critical theory and psychological theories of human needs. The typology distinguishes between the *medium* of misrecognition (e.g., through love, law, or status order), and in what way (*as what*) one is (mis)recognised.

<sup>2</sup> Fricker discerned two kinds of epistemic injustice, namely testimonial injustice and hermeneutical injustice. The former occurs when a "prejudice causes a hearer to give a deflated level of credibility to a speaker word", for example an identity prejudice; the latter presents itself when a "gap in collective interpretative resources puts someone at an unfair disadvantage when it comes to making sense of their social experiences" ([25], p. 1). Specifically, testimonial injustices seem to be part of misrecognition through status order.

<sup>3</sup> In the page on "justice" in the Stanford Encyclopaedia of Philosophy, epistemic injustice is framed as a subcategory of recognition justice.

<sup>4</sup> <https://www.legislation.gov.uk/ukpga/2023/52/contents/enacted>

<sup>5</sup> <https://www.legislation.gov.uk/ukpga/1974/37/contents>

<sup>6</sup> In the debate on the recognition of the intrinsic value of nature, the border between recognition through law and status order becomes blurred. Although recognition through law pertains to the respect one is owed due to simply 'being human', in other words, one's general and impersonal features, the debate about recognition of the intrinsic value of more-than-humans touches upon a value hierarchy *between species*. As such, the debate can also be framed in terms of a status order injury.



**Table 2**

A typology of recognition justice, linked to theories of human needs.

Medium: recognition through...	Subcategories: as...	Maslow	Desmet & Fokkinga	Fiske
Love	directly loving, and being loved by, others	Love (partly)	Community (partly), relatedness	Trusting others, belonging (partly)
	having physical integrity being provided with the structural-institutional (material, legal, social, political, economic, cultural) conditions necessary to developing recognition-relations of love	Safety	Security	Controlling
Status order	contributing value	Esteem	Impact, competence, recognition	Enhancing self
	having a valuable social group or identity (valuable) epistemic agent	Love (partly)	Community (partly)	Belonging (partly) Understanding
Law	member of a legal community (e.g. as citizens)		Community (partly)	Belonging (partly)
	having equal intrinsic value (e.g., as equal bearers of rights and duties) a moral agent (as having free will, autonomy, the capacity for moral decision-making, and moral responsibility)		Morality, autonomy	

### 3. Methods

#### 3.1. Comparative qualitative analysis

Methodological triangulation of two qualitative coding methods was used to analyse experiences of misrecognition in energy contexts for two purposes: (a) to test whether the typology sufficiently captures experiences of misrecognition, in other words, whether it is not too narrow and thus misses experiences of misrecognition that other analytical coding approaches could capture and (b) to investigate the relevance of the categories in the framework in energy contexts.

To test the usability and the merit of the typology, we developed a comparative qualitative coding triangulation methodology, consisting of three rounds. First, both researchers independently coded the same dataset, using different approaches. Researcher One, who developed the typology, coded the interviews deductively, using the aforementioned (sub)categories as codes. Researcher Two coded the interviews inductively through inductive thematic analysis. Neither researcher accessed the other's coding process of the interviews, as the interviews were duplicated and set up as individual projects in atlas.ti. Both researchers coded for experiences of misrecognition articulated by the interviewees, which includes instances where the interviewee feels misrecognised, or

where participants notice that other actors are misrecognised. Secondly, the researchers reflected on whether they would have coded statements that the other coded, resulting in changes to the coded quotations. Third, the researchers analysed the reasons for the remaining differences and considered each other's arguments for not coding certain statements, which again led to changes in the coded quotations. The second and third rounds were necessary to account for mistakes and misunderstandings of the data, and to minimise coder bias. From the results of the comparative analysis, we can derive awareness on the proposed typology's ability to detect experiences of misrecognition. Moreover, from the results of the deductive analysis, we can see how the (sub) categories of misrecognition manifest in energy contexts.

To make sure that the data was not gathered with the typology in mind, as this could bias the perceived value of the typology, interviews were selected from the interviews that each researcher had already conducted independently in the context of various energy and justice research projects. In all interviews, participants discussed experiences of injustice in relation to energy technologies, projects, or processes. To identify diverse ways in which people experienced misrecognition, we did not select interviews based on demographics or protected characteristics. Moreover, to engage with a variety of different experiences of misrecognition, we selected interviews that were conducted in different contexts. Nonetheless, all interviews were conducted in the Global North. Seven interviews were analysed in total. Two interviews were conducted in a rural context in the Netherlands; two interviews were conducted in an urban context in the Netherlands; and three interviews were conducted with charity organizations in the UK, including one focused on energy poverty and two on nature conservation (for an overview, see [Table 3](#)).

#### 3.2. Limitations

This experimental dual comparative coding method has certain limitations. First, although the interviews display a variety of energy contexts, technologies, and focus, the seven interviews do not represent all possible types of misrecognition. As such, we do not claim that our typology is exhaustive of all types of misrecognition. Rather, this study should be seen as a starting point.

Second, the inductive analysis conducted by Researcher Two could have been subconsciously biased by background knowledge, because this researcher had read initial drafts of the subcategorization and had engaged with Van Uffelen [10] on the three modes of recognition. This

**Table 3**

An overview of the analysed interviews.

Interview	Topic	Geographical context
1	The participant is a dissatisfied citizen involved in a controversy over gas storage in the North of the Netherlands.	Rural area in the Netherlands
2	The participant is an activist citizen in the province of Groningen in the context of natural gas extraction.	Rural area in the Netherlands
3	These participants lived for a maximum period of two years in a 'living lab'. In this context, several energy technologies were tested in and around their homes.	Urban area in the Netherlands
4	The participant is a local representative of a regional wildlife charity. They are based in a rural environment with large scale renewable energy potential.	Urban area in the Netherlands
5	The participant is a local representative of a local fuel poverty charity, in the context of large-scale renewable energy potential and high levels of local energy poverty.	Charity organization in the UK
6	The participant coordinates a marine citizen science programme in regions with large scale offshore renewable energy plans.	Charity organization in the UK
7		

risk was minimised by Researcher Two's minimal awareness of the granular typology of recognition, alongside previous experience with inductive thematic coding, and self-reflection during the coding rounds. Researcher Two reviewed, streamlined and grouped identified themes under overarching thematic categories, adding further robustness to the thematic approach and moving away from the pre-defined typology proposed by this work.

Finally, some experiences of misrecognition are hard to categorize, because they can be interpreted in various ways. To mitigate this, it is vital that the interviewer asks for clarity about what the participant means by certain statements. However, as we selected interviews that had already been conducted, some ambiguities in the data might remain that cannot be resolved without a follow-up interview.

### 3.3. The interconnectedness of tenets

In all energy justice work, and in particular given the proliferation in energy justice approaches and the tensions emerging within these, it is important to explicitly highlight our awareness of the overlaps between recognition justice and the other core tenets of energy justice. Given the objective of the paper, we have adopted the recognition justice lens when coding. Yet, the tenets of justice are intimately related to each other. Injustices often result in expressed grievances such as anger, stress, despair, and frustration, and the source of such grievances often – but not always – includes maldistribution or exclusionary participation procedures. Two remarks should be made in this respect.

On the one hand, the connectedness between the tenets does not mean that recognition of justice should be eliminated as a standalone tenet. We stand with Young, Fraser and Schlosberg in that it deserves unique focus and that it adds distinct explanatory power as opposed to merely focusing on distributive or procedural justice, as the literature in the last decade has robustly demonstrated [9,19,31].

On the other hand, the inherent connectedness between the tenets does not limit the value of our contribution. The tenet framework allows researchers to adopt multiple lenses to study one (experience of) injustice, increasing the depth and nuance of understanding a particular reality. This paper focuses on constructing and testing a typology for one of these lenses, namely, recognition justice. It is likely that many of the experiences of misrecognition within interviews analysed contain elements of distributive and procedural grievances. We do not claim that the results presented grasp the whole complexity of the interviewees' experiences of injustice, as this was not the aim of the method, nor of this paper.

Relatedly, there is a distinction between an *injustice* and an *experience of injustice*. Experiences of misrecognition are insufficient grounds for determining that there is a recognition injustice [32]. After all, people's moral intuitions are fallible [33]. As such, in this article, we refrain from claiming that there is misrecognition; instead, we focus on analysing and understanding *experienced* misrecognition. Stating that there is injustice requires additional normative reasoning which lies beyond the scope of this paper.

## 4. Results

### 4.1. The merit of the typology

The merit of the typology was tested through a comparative coding experiment. Researcher One used the typology to code experiences of misrecognition. In tandem, Researcher Two adopted an inductive thematic analysis to code the same data. There were three coding rounds in total. Coding rounds two and three involved discussion between the two Researchers. The result of this first coding round can be found in Table 4.

In a second coding round, we (Researcher One and Researcher Two) discussed the differences and reflected on whether we would have coded something that the other did or did not code. In response to these differences, both researchers added and removed codes to quotations

**Table 4**

The results of coding round one.

Amount of coded quotes $N = 238$	Coded deductively	Not coded deductively
Coded inductively	85 (35,7 %)	57 (23,95 %)
Not coded inductively	96 (40,33 %)	X

where necessary, because of the following reasons:

- **Incidental differences ( $N = 61$ ):** Three types of differences were resolved. First, when a researcher missed a clear expression of misrecognition due to simple mistakes; second, when the injustice was interpreted primarily as maldistribution, yet upon further clarification, there was also a clear experience of misrecognition involved; third, when a sentence was not coded because the researcher chose to code a similar sentence in the transcript that expressed the same experience of misrecognition.
- **Misinterpretation due to a lack of context ( $N = 17$ ):** When the interview data gathered by the other researcher was misinterpreted, due to lack of background knowledge regarding the interview, the tone and body language that the interviewee used or erroneous translation.
- Five quotations were uncoded altogether because they were mistakenly coded, for example because they contained experiences of recognition instead of misrecognition.

This second coding round resulted in an overlap in coded quotations of 71,24 % (see Table 5).

In a third and final coding round, the reasons for the remaining differences between inductive and deductive coding were analysed. The reasons why Researcher One (deductive coding) did not code the 27 statements that Researcher Two (inductive coding) did code were:

- The statement itself is purely descriptive and needs something more to substantiate that there is an experience of misrecognition through something as something ( $N = 18$ );
- The sentence itself is descriptive, and a few sentences later the participant expressed misrecognition in relation to said description ( $N = 5$ );
- The sentence pertains to an experience of maldistribution, not misrecognition ( $N = 4$ );

The reasons why Researcher Two (inductive coding) did not code the 38 statements that researcher one (deductive coding) did code were:

- The statement does not seem to refer to misrecognition ( $N = 30$ );
- The sentence pertains to an experience of maldistribution ( $N = 4$ ) or procedural injustice ( $N = 1$ ), not misrecognition;
- The statement itself is purely descriptive and needs something more to substantiate that there is an experience of misrecognition through something as something ( $N = 3$ ).

In this coding round, each researcher considered the arguments of the other for coding or not coding said statements. Researcher Two agreed with 16 arguments made by Researcher One for not coding the 27 statements, and uncoded 16 quotations from their inductive code. Therefore, the total number of statements coded only by Researcher Two

**Table 5**

The results of coding round two.

Amount of coded quotes $N = 233$	Coded deductively	Not coded deductively
Coded inductively	168 (72,1 %)	27 (11,59 %)
Not coded inductively	38 (16,31 %)	X

was reduced to 11. Alternatively, Researcher One agreed with 5 arguments made by Researcher Two for not coding the 38 statements, and uncoded 5 quotations from their deductive code. Hence, reducing the number of statements only coded by Researcher One to 33.

In the end, 168 statements were coded through both the deductive and inductive approaches (see Table 6). 11 statements were only coded by Researcher Two (inductive), and not by Researcher One (deductive, using the typology), while 33 statements were only coded deductively, and not inductively. The 11 statements that were only coded through the inductive method and thus were ‘missed’ by coding through the typology may point towards problems with the narrowness of the typology, and as such it is crucial to consider the reasons for these differences. After discussion, we concluded that the differences can be attributed to researcher’s interpretations:

- Differences in interpreting whether the statements were merely descriptive or whether they contained an element of misrecognition ( $N = 8$ ), such as: “*I think a copper pipe must have burst or something. But there was nothing there. And so later, you find out that was a quake. That storage on the southwest side, you find that out even much later because you’re searching for views.*”
- Specific implicit or contextual information that only the researcher who conducted the interview was aware of.

The results of the comparative analysis show that the typology adds value in two important ways. First, the typology can identify instances of misrecognition that might otherwise remain undetected. This is because the typology urges the researcher to be aware of a wide range of experiences of misrecognition. A total of 33 statements were coded using the typology as experiences of misrecognition, which were not identified as misrecognition through the inductive approach. Of these statements, 18 were coded as experiences of misrecognition through love, four were misrecognition through law, and 11 were through status order. We thus conclude that the explicit articulation of subcategories makes the researcher alert to articulations related to less familiar aspects of misrecognition, particularly in the case of love.

Second, the typology forces the researcher to be more nuanced about what is at stake for the participant. In general, inductive approaches provide little guidance to the researcher in formulating questions before and during the interview, and as such the typology can enable more depth during both the interview and the following analysis. The typology can help researchers in formulating their interview guides, as well as follow-up questions while conducting interviews.

As a last remark, the purpose of analysing the results through this dual coding experiment was to test the typology’s usability and contribution. We chose inductive thematic analysis as a method for this purpose due to its bottom-up nature which frees its findings from pre-determined approaches. However, we do not undermine the value of inductive thematic analysis – instead, we selected this method to test, learn about and further improve the proposed typology. What is more, we would recommend the combination of methods such as this typology and inductive analysis to fully comprehend participant grievances and the nuances of their context. To conclude that most participants experience misrecognition through “status order as not contributing value to society”, for example, cannot be the endpoint of the analysis. It is crucial to understand not only the type of misrecognition but also its content in context, and inductive coding can offer additional insights.

To sum up, the proposed recognition typology offers guidance in the

interview and analysis phase, minimizing the risk of missing experiences of misrecognition. Therefore, the recognition typology is a useful heuristic in detecting experiences of misrecognition.

#### 4.2. Experiences of misrecognition in energy contexts

The dual coding comparison demonstrated how the typology can identify experiences of misrecognition in energy contexts. In this section, we explore the second aim of the dual coding method, namely discussing how the abstract categories in the typology are relevant for energy contexts. As such, we now move away from a quantitative analysis of the results towards a qualitative understanding of the experiences of misrecognition in the identified energy contexts. All subcategories, except one, were found in the data, in different contexts. To illustrate how energy experiences relate to the subcategories, example quotations per (sub)category are featured in Table 7.

All subcategories of *misrecognition through love* were found in the data. First, participants claimed that they lacked a sense of community or connection with others (in the context of a living lab in which energy innovations were tested), that they were treated with detachment and that energy actors were careless towards them. Second, people argued that they felt physically unsafe, in other words, their bodily integrity was threatened by energy infrastructure, to the extent of extreme stress and suicide. Third, participants argued they did not have a safe and stress-free place to live due to energy infrastructure, highlighting how the socio-technical context can interfere with relations within and between households. As such, they testified to misrecognition through love, as they were deprived of important structural institutional conditions.

*Misrecognition through status order* was also frequently expressed in the interviews. The first subcategory applies, as interviewees argued that they felt their contributions to the world were not valued (enough). For example, a participant stated that their efforts to work and pay off their house for most of their lives were now almost worthless because of damage done by energy infrastructure to their house: “*I also always tell the politicians, you must not forget one thing. It’s not a house, it’s my house. I paid for that for years, that’s where I had hoped to have a nice retirement. All that has been demolished under our feet*”. Moreover, one participant expressed wanting to contribute to sustainability by choosing to live in a living lab but felt as if their contribution was in vain. Another participant found it unfair that they contributed value by acting sustainably while others did not, and they deserved to be valued (more) for their contributions. The second subcategory was also found, because participants from rural areas in the Netherlands affected by gas infrastructure argued that their social group identity was structurally devalued, insulted, forgotten, or toyed with, and thus that their interests were sacrificed in the face of national energy security and financial gain. Concerning the third subcategory, many participants claimed epistemic injustices, including being ignored, silenced, lied to, devalued, mansplained, spoken to in a demeaning way, misrepresented, understudied, or deprived of information, when they tried to voice their concerns about energy infrastructures.

In the *recognition through law* category, the first subcategory (being a member of a legal community) was absent in the interviews. This does not necessarily mean the subcategory is irrelevant in relation to energy – it simply was not expressed within the scope of our interviews. Participants did express being misrecognised as not having equal and intrinsic value, which is the second subcategory. In the context of gas production for the sake of national energy security, some participants claimed to be sacrificed for the majority and being treated as instrumental, and that their fundamental human rights have been violated. As for the third subcategory, in some interviews, people argued that their agency and possibility of making moral choices was taken away through all-inclusive energy schemes, bribes, or legislation, or that they had no voice in certain energy decisions, which implies misrecognition through law as a moral actor. In both instances, misrecognition was experienced because laws that acknowledge actors as equal and morally responsible

**Table 6**  
The results of coding round three.

Amount of coded quotes $N = 212$	Coded deductively	Not coded deductively
Coded inductively	168 (79,25 %)	11 (5,19 %)
Not coded inductively	33 (15,57 %)	X



**Table 7**  
Some highlighted quotations per (sub)category of misrecognition.

(Mis) recognition through...	Subcategories: as...	Examples from the data	Explanations
<b>Love</b>	<b>Direct loving, and being loved by, others</b>	“And then you ask about it again, and then yes, and the school and this and that... but no feedback. And that’s maybe partly because those resident meetings weren’t there anymore, then you could have asked those questions directly. But I just find that careless.”	The inhabitant of the living lab in which energy innovations are being tested expressed being treated with a lack of care by the project staff in direct interactions with them. The participant feels neglected and expected to be treated with more care.
	<b>Having physical integrity</b>	“It [the house] is so damaged in the foundations and walls that it is a danger to us.”	Gas infrastructure has caused damage to the house of the participant, and the participant no longer feels safe in their own home; in other words, the participant feels that their physical integrity is being threatened or at least risked.
	<b>Being provided with the structural-institutional conditions</b>	“We have people we know that the grandchildren are no longer coming. Grandpas and grandmas who say, I don’t want the grandkids here anymore because it’s too dangerous for me.”	The participant whose house was damaged by gas infrastructure describes how the situation obstructs love relations with their grandchildren.
<b>Status order</b>	<b>Contributing value</b>	“I am just a housewife I call myself, even though I am very busy.”	The participant in the living lab expresses being <i>just</i> a housewife, in which there is an implicit value judgement, and the participant feels the need to defend herself by saying that she is very busy. This is relevant, because they lack of financial means was one of the reason why she chose to live in the energy living lab, as the rent was affordable, which is ethically questionable.
	<b>Having a valuable social/cultural identity</b>	“We say that very often, basically it is becoming a big hole, bulldozers in front of it, everything Groningen, sand over it. Just turn it into an amusement	The citizen testifies how the gas infrastructure represents an implicit value judgements about the people in Groningen, which is devalued in the

**Table 7 (continued)**

(Mis) recognition through...	Subcategories: as...	Examples from the data	Explanations
	<b>(Valuable) epistemic agent</b>	park with some nuclear power plants. The well-being of the people of Groningen has been put aside.” “Just to give an example, there’s a consultation at the moment around highly protected marine areas, and I was on a consultation call. And it was just like a chat and an opportunity for people to ask questions. And one of the questions was, “Well, are you going to use citizen science data? Because that shouldn’t be trusted.”	trade-off between their safety and national financial gain and energy security.  The participant expressed an experienced prejudice against citizen science data from institutions. Energy planning processes (in this case, marine planning) look at a lot of ‘environmental data’ to make decisions. This participant’s experience is that citizen science data is epistemically devalued as useful or ‘serious’ data to inform marine planning processes.
	<b>Member of a legal community</b>	N.A. “Even though we can talk about blue carbon and we can talk about ecosystem services and we can talk about nursery areas for fish and all these things that marine habitats give us as humans. Yeah, there is just that intrinsic value to them. They’re valuable in their own right.”	N.A.  The participant expresses that we usually see nature as instrumentally valuable, but nature has an intrinsic value as well that generally goes unrecognised in energy and climate policies or energy project processes.
	<b>Having equal and intrinsic value</b>		
<b>Law</b>			
	<b>A moral agent</b>	“There were some discussions around, you know, developments that have happened where, the people who are the most immediately affected, as in, say, they’re a small island community. They’re the ones that are closest to the development. They’re actually the last people to be asked..., it’s like, really?”	The participant describes how in energy project development processes local communities and peoples most affected by an energy development are the last ones to be told about it. This results in decisions being already made, which means they are left out of important decisions regarding energy infrastructure that affects their lives.

decision-makers were absent or improperly enforced, or because institutional actors failed to fulfil their public purpose.

#### 4.3. Multispecies recognition justice

In the introduction, we highlight the Western and anthropocentric philosophical roots underpinning this typology, which exclude more-than-humans from considerations of recognition justice. Exploring the potential of recognition justice beyond the anthropocentric resonates with recent critiques in energy justice scholarship to include a plurality of perspectives when normatively evaluating energy systems and policies [34–36]. Due to the multispecies justice awareness of both coders, we have also found quotations on misrecognition of more-than-humans for most (sub)categories. As such, this paper demonstrates a promising applicability of recognition justice to more-than-humans, such as animals, ecosystems, and nature.

Misrecognition through love can pertain to more-than-humans. One participant stressed the importance of being connected to or loving and caring for the sea, which was categorised as recognition through love as deserving my love and care. Moreover, various participants were concerned with the bodily integrity of nature that may be harmed due to energy infrastructure and the harmful effects of energy consumption and production, which pertains to the second subcategory of love. Lastly, the flourishing of nature depends on socio-technical systems that protect or enable it, such as the ocean suffering mass destruction from climate change.

The same goes for recognition through status order. Some participants argued that we structurally devalue what nature can do for us and the value of nature to humans and the planet (although perceiving nature as *only* of instrumental value can also be perceived as misrecognition). Moreover, based on various participants, it can be said that the group ‘more-than-humans’ is structurally devalued and that this devaluation is built in many socio-technical energy systems that prioritise human well-being over the flourishing of more-than-humans. Arguably, the misrecognition of more-than-human value contributions encompasses the misrecognition of their knowledge, skill and overall value to the earth’s well-being.

Lastly, several quotations illustrate how misrecognition through law can apply to more-than-humans. Some participants argued that nature and ecosystems are often seen through laws and regulations as instrumentally valuable, as a mere resource, while they should be recognised as intrinsically valuable. Instances of misrecognising nature as a moral agent were not coded.

So far, multispecies justice has been implemented in practice through assigning legal rights to animals and nature, or through the notion of bodily integrity [9].<sup>7</sup> These exploratory findings show that recognition justice could empower us to engage with more-than-humans in more ways than scholars initially suspected. The ongoing application and refining of recognition justice and what different instances of (mis)recognition entail for more-than-humans is beyond the scope of this paper, yet these are important and exciting topics for further research.

#### 4.4. Systematic and incidental misrecognition

Much energy justice literature is committed to identifying energy injustices and understanding their causes. Many authors state that recognition justice ‘underlies’ distributive and procedural injustices,<sup>8</sup> or that misrecognition is at least as a significant causal factor constituting energy injustices. Our typology allows for a more nuanced stance on this

matter because we found that experiences of misrecognition often relate to more than one subcategory, with “misrecognition through status order as having a valuable social/cultural identity” as a common denominator. For example, the experience of misrecognition through law as a moral agent (“you’re not involved in the decisions, you’re not involved in any of the actual stuff that’s happening”), is strongly connected to the participant’s experience of their regional identity being undervalued.

This finding relates to a distinction between *incidental* and *systematic* injustice, as introduced by Miranda Fricker [25]. On the one hand, *incidental injustices* are characterised by their localised and incidental nature. For example, the credibility of a subject is deflated because she works for a company that the judge dislikes. The subject, however, is not structurally “vulnerable to any other kinds of injustice (legal, economic, political)” ([25], p. 27). *Systematic injustices*, on the other hand, are characterised by their link to social identities. In this case, credibility deflation is caused by prejudices towards the subject’s social identity, such as race, gender, socioeconomic status, or religion. Because of a social identity, this person also has disadvantages in other aspects of social life, such as the economy, or politics.

The conceptual distinction between incidental and systematic injustice explains why three statements were coded as experiences of misrecognition seemingly unrelated to energy, even though the interviews were conducted in energy contexts. Misrecognition through status order as having a valuable social/cultural identity plays a huge role in energy contexts, as these permeate and cause many experiences of energy injustices and (dis)trust in energy actors and infrastructures. Examples include statements such as “I am just a housewife”, indicating low self-esteem, or devalued regional identities that deeply structure experiences about gas infrastructure in the Netherlands.

## 5. Conclusion

In energy justice, the tenet of recognition justice is indispensable, undertheorized and to date is still applied inconsistently [10]. To ensure a just energy transition, elucidating and smoothing the incongruences and tensions within the conceptual tools that can help us get there – energy justice being one of many – is crucial. In this paper, we further Van Uffelen’s original typology of love, law and status order (2022) and propose a more granular typology for analysing experiences of misrecognition in energy contexts, building on literature from critical theory and theories of human needs. We distinguish between the *medium* of misrecognition (through love, law, or status order), *what* is being misrecognised (individual features, general features, or group-specific features), the *effect* misrecognition has on individuals (lack of self-confidence, self-respect, or self-esteem), and *as what* actors are misrecognised.

The comprehensibility of the typology was tested through methodological triangulation of two qualitative methodologies, comparing the results from a deductive coding and inductive thematic coding effort on the same dataset. From this, we conclude that the typology offers value to researchers and decision-makers who aim to understand experiences of misrecognition. Ultimately, the typology can guide research design and analysis, creating alertness to experiences of misrecognition that could otherwise go unnoticed. Thus, the typology operationalises recognition justice in a clear, structured way, to better understand the nature of misrecognition experiences and thus guide effective policy interventions that directly address the problem. In addition, this paper has demonstrated the relevance of the typology’s categories in contexts of energy infrastructures, systems, and policies.

Although we do not claim that the typology is exhaustive, we consider it a useful heuristic to help understand the nature of experiences of misrecognition. Moreover, it provides a robust starting point for future research, including on the nature of grievances in different geographical and political contexts; on the interaction between experiences of misrecognition and structural injustice; and the opportunities and limitations of intersecting (mis)recognition with multispecies

<sup>7</sup> The ethics and actual impact of these practices are contested. Despite this, they illustrate attempts to operationalize multispecies justice in different ways.

<sup>8</sup> This statement is fiercely contested by Fraser, who argued that it ought to be studied case-by-case whether injustices are predominantly caused by status order injuries or economic structures.

justice. Finally, the distinction between incidental and structural injustice enables further research on the connections between different tenets of justice, in combination with intersectional analyses.

### CRedit authorship contribution statement

**Nynke van Uffelen:** Writing – review & editing, Writing – original draft, Visualization, Validation, Resources, Project administration, Methodology, Investigation, Funding acquisition, Formal analysis, Conceptualization. **Lara M. Santos Ayllón:** Writing – review & editing, Validation, Resources, Methodology, Investigation, Formal analysis, Conceptualization.

### 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.

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### Data availability

The data that has been used is confidential.

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