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Human Rights Pathways to Just Sustainabilities

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Abstract: Ecosystem disruptions pose a threat to us all, but are most acutely felt by the vulnerable: climate refugees, those experiencing water and food insecurity, or those displaced by pollution and ecosystem degradation. We struggle to find "solutions," but they often pale in comparison to the risks we face. Collaborative approaches to sustainability that strive for balance between humans and nature are necessary but insufficient for addressing destabilizing trends. This paper argues that shifting the focus to destructive social relations and imbalances *among* humans unveils critical insights into to our destructive relationship with nature. A sociological view of human rights—in particular where they meet sustainability challenges—can sharpen this focus, providing guardrails within which to conceptualize, measure, and address systemic sociopolitical dimensions of sustainability challenges. The relative clarity of human rights (compared to the more amorphous "justice"), their increasing institutionalization in law and policy, and their broad legitimacy provides a structure to give "teeth" to transformational efforts stymied by inertia or unyielding power dynamics. Examples from original research and secondary literature demonstrate the utility of human rights as mechanisms of social transformation, setting boundaries for accountability and conflict resolution and laying the ground for building more just and sustainable futures.

Keywords: human rights; justice; MAPs framework; social transformation; social pillar; conflict

1. Introduction

Anthropogenic changes to Earth's natural systems are happening at an alarming rate, and certainly "more rapidly than we are understanding" them [1] (p. 498). As the Sixth "Global Environmental Outlook" report baldly states, "the world is not on track to achieve the environmental dimension of the 2030 Agenda for Sustainable Development and internationally agreed environmental goals by 2050. Urgent action is now needed to reverse those trends and restore both environmental and human health to the planet" [2] (p. 19). Ecosystem disruptions threaten us all but are most acutely felt by those who are already vulnerable. The consequences for social justice become clearer by the day: climate refugees, water and food insecurity, displacement caused by pollution and ecosystem degradation, and a host of other urgent concerns. We struggle to find "solutions," but they often pale in comparison to the challenges at hand. It is not for lack of effort that problems persist. Sustainability scholarship has blossomed in the last two decades, evolving from its primary concern for recovering and preserving natural environments and species in decline, to a stronger emphasis on human creations—technology and infrastructure—as key elements of sustainability, and more recently to human beings themselves as essential fibers within integrated socioenvironmental systems.

Nevertheless, environmental threats and injustices show few signs of abating. This paper asks why, arguing that the root of the sustainability crisis lies not only in rifts between humans and the planet, but also in systemic, systematically reproduced rifts with each other. A sociological view of human rights is presented to illuminate how these rifts are ontologically bound by a shared instrumental logic of domination and exploitation of both nature and other people [3], a logic that took on new

and ruinous forms in the industrial era but that can be traced to other systems such as colonialism and patriarchy. Epistemologies and methods that arise within the field of sustainability that do not incorporate conflictual social relations are, at best, superficial, and are apt to reproduce unsustainable socioenvironmental dynamics.

The paper further argues that the spaces in which human rights meet sustainability challenges are potent for interrogating assumptions regarding the nature of our predicament. Evidence from research on law and human rights in multiple countries, as well as from secondary literature, demonstrates the utility of human rights—civil, political, economic, social, and cultural rights; "solidarity rights;" intergenerational rights; and collective and "diffuse" rights—for sharpening our awareness of destructive social relations that mirror our destructive relationship with nature. Though human rights discourses and practices can be potentially conservative, as "mechanisms of social transformation" [4,5] they provide a range of critical possibilities for conceptualizing, measuring, and addressing systemic sociopolitical dimensions of sustainability. When mobilized and applied to ask penetrating questions about the ontology of social and environmental injustice, they can lay the groundwork for challenging exploitative systems and power imbalances and championing transformative scientific and socioecological priorities.

2. Sustainability Challenges as Imbalances

Sustainability science, particularly in the fields of engineering, ecology, and geoscience, frames the essence of sustainability challenges as imbalances between what the planet can sustain and what we as humans demand of it. The goal of sustainability research is thus to understand the dynamics and drivers of these imbalances within complex socioecological systems. The methods used to ascertain and develop pathways toward more viable futures may include scenario development, forecasting, and sociotechnical and economic modeling. Human objectives such as food, energy, water, and other kinds of environmental security are conceived as practical problems to be solved with new technological knowledge, "science-based safety standards," and eco-conscious analysis of tradeoffs [6] (p. 278).

The task before us in this ontological and epistemological framing is to become better stewards of our shared planetary resources through evolving expertise, as well as to assist others in navigating their way through a disrupted/disruptive environment—for example, through learning, support, capacity building, and adaptation. Notions of the Anthropocene reinforce these views by highlighting the world-historic impact of human activity on planetary destabilization and positing the need for a fundamental rebalancing of human–nature relations to preserve ecosystems, promote sustainable resource use, and decrease human vulnerability. Much mainstream sustainability work shares an underlying ontological orientation that foregrounds imbalance as the problem [7] and "management, science-based intervention, and capital" as a solution for saving "Earth, people, and the economy as we know it" [8] (p. 6).

Though it is certainly evident that something is out of balance and that knowledge, support, and good governance are important, an uncritical focus on "solutions" may mask a messy and terrible record of socioenvironmental conflict that is deeply implicated in producing disequilibrium [8]. World history is rife with examples of violent expropriation of land and displacement of peasants and indigenous peoples, "conversion of various forms of property rights—common, collective, state, etc.—into exclusive private property rights; suppression of rights to the commons; . . . suppression of alternative, indigenous, forms of production and consumption; colonial, neo-colonial and imperial processes of appropriation of assets, including natural resources" [9] (p. 74) and other forms of "primitive accumulation" [10].

In modern times, new mechanisms for "accumulation by dispossession" have materialized: trade-related intellectual property rights that allow "protection" of natural resources "against whole populations whose environmental management practices" nurtured those resources in the first place, as well as "biopiracy, . . . depletion of the global environmental commons (land, air, water) . . . habitat degradations that preclude anything but capital-intensive modes of agricultural production,

[and] privatization of water and other public utilities" [9] (p. 75). Resistance to the destructive activities of *some* humans by others—in particular those directly harmed by those activities—has always been part of the story.

Framing sustainability crises as closing the gap between human wants/needs and ecological capacity/stability thus begs a very important question: whose wants and needs are being sustained? A critical analysis of the sociopolitical relations that gave rise to and continue to fuel unsustainable practices foregrounds an aspect of our standoff with the future that requires urgent examination. In our effort to preserve life "as we know it," we may be doubling-down on the very world views and technologies that threaten us. Foregrounding "adaptation," "resilience," and "emergence" without paying heed to capitalism, power, and politics can inadvertently lead to the preservation of key elements of an unsustainable status quo. The crises we face are rooted in human-created and sustained, conflictual socioenvironmental conditions of domination and exploitation, with winners and losers. It is not simply that we live in a world of competing interests; it is a world where *certain interests are the problem*.

3. Sustainability Challenges as Antagonisms

Sustainability scholarship has come a long way in the last decade in incorporating social realities into analyses of environmental challenges. The "three pillars" framework brings together environment, economy, and society, but is discussed on ostensibly equal ground, and provides guidance for understanding, studying, and addressing sustainability challenges. A possible "fourth pillar," culture, is less widely engaged (see [11] for an overview) but is potentially useful for reframing issues of sustainability, as I discuss below. The social pillar pushes the boundaries of sustainability science toward more critical, normative, reflexive, and interdisciplinary orientations, and incorporates a thicker understanding of socioeconomic and political drivers of unsustainable practices. The integration of complexity and systems-based thinking [12] across the broad and diverse field of sustainability offers additional analytic leverage by untangling the linkages among processes at multiple spatial and temporal scales and providing insight into "how global and local processes are linked, and how present conditions and processes are shaped by the past and may guide the future" [13] (p. 4). Vulnerability science and resilience studies bring this analysis to bear on questions of human and ecological wellbeing, and increasingly environmental justice [14–17].

The social pillar, as many of these studies suggest, "needs to be framed, filled with content, and interpreted from time to time and place to place," lest it become "merely an empty conceptual space" [18] (p. 11). In an effort to specify this content, Murphy [19] highlights "four preeminent concepts of the social pillar" emerging from a review of eight different sustainable development literatures. *Equity* draws our attention to cleavages among classes, nations, and generations, and the ways in which differently situated populations benefit or are harmed by the status quo. *Awareness* means changing our understanding of human behavior as it impacts sustainability, including interrogating the uneven consequences of growth and consumption. *Participation* seeks to remedy exclusion of groups (present or future) from decisions that impact their lives, with an explicit acknowledgement of power and the detrimental impact certain interests may have on sustainability outcomes. *Social cohesion* gets at issues of infrastructure and community building that help sustain communities. The framework of Eizenberg and Jabareen [20] offers a set of concepts that overlaps significantly with those proposed by Murphy, but that emphasize risk as a driving force behind the search for more sustainable practices.

The strength of analyses that foreground the social pillar lies in their acknowledgement of the rifts, power dynamics, hegemonic assumptions, and inherently unsustainable interests that can undermine alternative sustainable futures. However, there are potential limitations in applying this approach, associated with a lack of clear and consistent guardrails for social justice. Though this is not the place for a thorough review of work on the social pillar, a few points can be raised about potential lacunae. The issue of *equity*, for example, is sometimes presented as if the benefits and burdens that "fall" on groups differentially are unfortunate accidents, rather than the result of systematic and

identifiable relations of conflict; accidents do happen, of course, but it is no accident that some people are systematically harmed [21]. Further, discussing assemblages of people (e.g., communities, nations) in categories like "rich/ developed" and "poor/developing" masks internal social cleavages that may drive unsustainable practices [22].

In order for *awareness* to be truly transformational, there must be space for alternative framings of problems, as well as for difficult conversations about whose behavior is harming whom, and alternatives available for newly aware people to act differently. For example, demonstrating how consuming certain products causes environmental degradation will not lead to changes in behavior unless consumers who buy those products are aware of the effects, change their views and perceived interests, *and* choose less harmful options [5]. Moreover, the driving force behind capitalist production is not use value to consumers; it is profit to be had through the sale of commodities, driven by marketing. Putting high stakes on consumer awareness and behavior change while sidelining the role of investment, the "motor force of the capitalist economy," misperceives a crucial economic driver of natural resources use and waste [23] (p. 382).

Issue framing also has an impact on awareness. Sustainability discourses rarely incorporate direct challenges to powerful actors whose interests are served by damaging activities, while phrases like "economic growth" and "job creation" direct our focus toward many of the same pathways that have already failed us by sustainability standards [24]. This is not to imply that livelihoods are not important; they are obviously crucial. However, the underlying imperative of accumulation means that it is, "easier for the system to grow by producing depleted uranium shells to be used in imperialist wars or by expanding agribusiness devoted to producing luxury crops to be consumed by the relatively well-to-do in the rich countries than it is to protect the integrity of the environment or to provide food for those actually in need" [23] (p. 204). Challenges to the traditional growth model will fall flat unless it is safe to question assumptions and decisions that propel that model (see Eizenberg and Jabareen [20] for examples of how "eco-prosumption" opens space for the consideration of new, more sustainable forms of economic organization).

Similarly, the language of "tradeoffs" can mask core features of sustainability challenges. Though it is certainly true that tradeoffs are real, positing the acceptability of certain choices over others in a cost-benefit analysis misses the point that it may be unacceptable in a civilized or sustainable world to allow certain choices to be made. Trying to find "balance" in the context of "the short-term orientation and the mixtures of commercial, military and other preoccupations that motivate much of the science-based technology development" can undermine "a sustainability perspective based on peace, justice, and environmentally sound development" [6].

Participation and "equitable governance" [25] are vital, but they must transcend approved spaces, topics, and participants. "Stakeholders" is a neutral concept, evoking images of equally situated interest groups coming together to work on win–win situations, or at least negotiating the rules of shared governance. However, this downplays unequal relations of power that may scuttle outcomes that are sustainable or more appropriate for the communities in question [20,26,27]. Counter-hegemonic forces can effect change by questioning "business as usual," drawing public attention to harms and contradictions, and fostering the elaboration of visions and paradigms not considered in conventional spaces. Yet issues presented in "official" forums by "thought leaders," or as *fait accompli*, may lead ordinary participants to shift their position to match the views of powerful actors [28] or lose faith in the process altogether [29]. Voices also risk being co-opted, for example when they are invited to formal venues, but the views that they articulate are excluded from final documents or legally binding agreements [30,31].

Social cohesion or "sustainability of community" [32] is challenging to define, operationalize, and apply across multiple scales and diverse communities. Nevertheless, its infrastructural and conflictual dimensions [19] provide rich opportunities to gain traction on root causes of sustainability issues. On the infrastructure side, the importance of public goods in promoting equity and building social solidarity cannot be overstated [33,34]. Democratic control over resources themselves is also

crucial. Over the last few decades, land grabs, privatization, and marketization—contracts, property rights, and profit imperatives—have shifted the logic governing resources in ways that do not respond to the reproductive needs of nature or disempowered communities [27,33]. No wonder, then, that "much of the emphasis within the anti-globalization movement in recent times has been focused on the theme of reclaiming the commons and attacking the joint role of the state and capital in their appropriation" [9] (p. 75).

On the conflict side, the threats posed to social cohesion by environmental upheaval provide a powerful justification for identifying the true costs of unsustainable activities, clarifying who bears the burden of those costs, seeking accountability from those who benefit, and adopting measures to uncover causal factors obscured by relations of power. Rather than speaking of climate change and fossil fuel dependence in energy and agriculture in the passive voice, for example, it is becoming urgent to name the people behind the drives to continue emitting greenhouse gasses and compel them/us to share the burden that currently falls on climate refugees and the world's poor [35,36].

4. Human Rights—Palliative or Disruptive?

Human rights are fundamental to the concept of sustainable development and span a broad range of human experience, including civil, political, economic, social, and cultural rights; "solidarity rights" (such as peace, development, and a healthy environment); intergenerational rights (based on the precautionary principle); and collective and "diffuse" rights. Despite the strong tendency in the US to give precedence to civil and political rights, economic and social rights have steadily grown in importance around the world [37,38]. Human rights comprise both entitlements "to basic components of lives commensurate with human dignity" [39], and duties, (of the state, but also of everyone), to protect, respect, and/or fulfill those rights. They are not just nice to have, like a car or swimming pool; they are fundamental to the basic dignity of every person.

Human rights, and in particular economic and social rights, have been identified as key mechanisms for achieving the Sustainable Development Goals (SDGs). Yet the path from the SDGs to social transformation is somewhat dimly lit. With 17 goals and 169 targets, as well as ambiguous language regarding the linkages between rights, obligations, and outcomes, the 2030 Agenda for Sustainable Development [40] that makes the SGDs actionable is, like the social pillar, at risk of becoming an "empty conceptual space" [18]. For example, the language of "we" is used liberally, as if all people share the same aspirations, risks, and destiny. "Business" (the sector) is brought in as part of the solution, while corporations (the legal entities) are hardly mentioned. Accountability is mentioned vaguely in terms of government promises articulated in the Agenda. The "10 Year Framework of Programmes on Sustainable Consumption and Production Patterns," is lauded, though it is hardly radical. Its focus is on fixes (decoupling, efficiency, and "sustainable production") that to date have had little effect on actual resource use [23], and production is never mentioned without consumption. Nor does it offer mechanisms for holding polluters or those who squander resources accountable.

Overall, the framing of the 2030 Agenda mirrors the relatively weak "balance" approach that has kept us moving at a snail's pace toward sustainability. However, the SDG framework based in human rights has potential, considering its broad political legitimacy, for "nudging [development] pathways into the equitable sustainability space" [12]. Human rights, after all, are never realized simply by passing lofty declarations [4,5]. Just like the "social pillar," high-minded human rights discourses need teeth to bite. By bringing the critical lens of social theory to human rights, we can see more clearly how and why human rights offer particular advantages in breaking the logjam of our current unsustainable pathways and reshaping the terms of debate and action.

4.1. Human Rights Augmented by Social Theory

The language of risk, vulnerability, and resilience that is applied to complex socioecological systems [20] is also used in sociology to explain the emergence of human rights [41–43]. Human rights arise from vulnerability, in particular the frailty of the human body, which we all ultimately share.

Of course, humans are not *only* vulnerable; we have many internal resources for resilience of body, mind, and spirit. We also develop social institutions—families, economies, governments—to protect and nurture us, and to ameliorate risks that arise from our basic human condition. However, while social institutions are essential for human flourishing, they are also precarious [41]. To be effective, they must be strong, but that same strength can cause harm.

Human rights also emerge, therefore, as a counter-balance to the precariousness of social institutions that are supposed to shelter our vulnerability. Economic and social rights provide recourse for the grip of a capitalist economy where unemployment is structural but where the very necessities of life depend on wage or salaried labor—inevitably resulting in some degree of homelessness, malnourishment, and poverty. Civil and political rights safeguard against the grip of nation-states, which have a monopoly on the means of violence and become dangerous indeed when accountability mechanisms are absent or fail. Women's and children's rights provide alternative narratives to patriarchal relations of domination and submission beyond and within families, institutions vital to collective wellbeing that can become prisons for women and children and thwart their ability to thrive.

Solidified relations of power within social institutions can squeeze out empathy and robust relations of interdependence in favor of narrow, hegemonic conceptions of wellbeing based on the interests of a few, who begin to believe in their natural entitlement. This is reinforced by dominant cultural epistemologies—in media, economic discourses, and even education—that valorize self-interest [24,44] materialism [45,46], masculinity [47], supremacy [48], and domination [49,50]. Those in positions of privilege mistake the signals of their own power and prestige as personal, rather than as socially and relationally constructed, and develop a sense of justice and justification vis-à-vis inequality, exploitation, discrimination, and harm. These kinds of institutional failures put our ability to adapt and flourish at risk, and they do so unevenly, straining the resilience of differently situated individuals and groups differently. Thus, we need guardrails vis-à-vis colonial legacies, capitalism, patriarchy, racism, and the state.

4.2. Human Rights and Sustainability

The failure of our social institutions to protect human vulnerability, and in fact their ability to increase it exponentially, has parallels in the relationship between humans and the natural world. Ecosystems, like human bodies, are both fragile and resilient. Human communities were sensitive to this for millennia (and some still are), paying attention to natural rhythms and subtle feedback, and living in relative harmony with their surroundings. However, capitalist production contributed conclusively to rupturing this connection [51] and was accompanied by a new set of social relations, where exploitation of both labor and the environment were justified in the name of capital accumulation [23]. The damage done to our planet is now giving rise to calls for protection of the "rights of nature" [52].

The worrying rift between human activity and the natural world has always been met with resistance [53], and many people continue to be deeply pained by the violence inflicted on the planet. The challenge is how to confront the logic of domination that sustains a global economic system of such destructive capacity [54], and that, incidentally, also characterizes patriarchy [55,56] and colonialism [26,50,57]. A political ontology that recognizes resistance to the harmful elements of capitalism (as in Marxist theory), patriarchy (as in feminist theory), racism (as in critical theory), and colonialism (as in decolonial theory) leads us to different conclusions than a depoliticized political ontology that understands the world as a place where we ALL are harming the planet and asks us ALL now to heal this rift [58]. The deeper crises we face are not about seeking win–win situations among stakeholders in order to manage resources more sustainably. They are about recognizing that *threats to human rights share causal roots with planetary threats*.

If we consider social sustainability as a strategy to protect against environmentally based risk and insecurity [20], environmental conflicts that threaten the basic dignity and rights of human beings can be seen as fundamental portals of inquiry for sustainability scholars. At the interface of human rights and sustainability, the ruptures are dramatic. This is where we see people who are attacked by private

security dogs for resisting pipelines under nearby rivers [59,60], who are killed for opposing mining operations or dams in their backyard [61,62], who want someone in jail for poisoning their children's water supply [63]. People whose human rights are under threat are not simply one stakeholder with interests equivalent to others that may need to be "traded off" for the greater good. They have much more to lose and much less power to protect themselves. It is not a "political" act for us to consider the ethical root of these ruptures [34,53,64] or the wisdom driving resistance. It is a choice to attend to all available data and engage with a more expansive, socially grounded understanding of "meaningful limits or boundaries" that "provide effective warning of conditions beyond which the nature–society systems incur a significantly increased risk of serious degradation" [65]; see also [12].

In essence, to remedy what is left out of sustainability, we have to go looking for trouble. Where there is trouble, chances are good that a deeper disjuncture is present. A sober framing of the problem is crucial, as it shapes the research and policy discourse both normatively and analytically [6]. Making conflicts explicit forces people—in particular duty bearers, but in fact everyone—to reckon with potentially systemic drivers of social and environmental injustice. A transformative sustainability must be informed by political choices of consequence—land use and property relations, the treadmill of consumption/production, wanton resource extraction, and militarized policing of communities who resist damaging practices [58]. Those who disrupt the narrative at personal risk, refusing to go along with actions that threaten their rights and wellbeing, provide us with an opportunity to identify systemic problems and place boundaries around what are acceptable solutions.

5. Methodology

In order to demonstrate the utility of human rights for understanding and addressing sustainability challenges, I combine original research on the human right to water and sanitation in Brazil, India, and South Africa with empirical cases at similar intersections between human rights and sustainability found in the secondary literature. Examples from secondary literature were collected over eight years of teaching graduate and undergraduate courses on "human rights and sustainability." The original research employs comparative-historical analysis of laws, court rulings, human rights instruments, and rights-based citizen action; interviews with judges, advocates, and community activists; and participant observation in spaces where rights are at stake and discussed.

Court cases and policy documents were collected electronically, through in-country archives, and through secondary sources, and coded and categorized following thematic codes related to human rights and environmental protection. Semi-structured *"key informant" interviews* [66] lasting approximately 45 minutes with approximately 30 lawyers, litigants, judges, service providers, and other key informants per site were also conducted. The recruitment process involved contacting respondents directly and through already-established networks of collaborators and interlocutors, as well as using snowball techniques with current respondents to recruit new ones. Interview subjects were selected based on their familiarity with law and environmental governance, with special attention to selecting interviewees with a full range of perspectives to ensure completeness and saturation [67], and to provide a holistic view of the overall process of rights realization [68]. Participant observation data was collected at various workshops sponsored by human rights experts and special rapporteurs, as well as public meetings on topics of environmental governance. These meetings provided insights into how decisions are made; how conflicts are understood and mediated; how human rights affect discourses and practices around sustainability issues.

The theoretical contribution is to leverage human rights as sociological lenses for viewing systemic disruptions to human wellbeing and ecological health, as well as to examine how rights interact with other mechanisms for transforming society toward greater sustainability and human security. Comparative analysis allows for systematic, contextualized comparisons that create a dialogue between theory and evidence, illuminating how causal effects vary (or not) by context [69]. Use of multiple data sources permits triangulation of information and the identification of coherent patterns [70]

and pathways [4,71] by which rights are realized. This is not a hypothesis-testing methodology, but a comparative search for meaningful patterns [72].

6. Human Rights as Transformational Mechanisms

In what ways can human rights strengthen sustainability praxis? Given that some of the most intransigent and chronic human rights violations have an environmental dimension, and that environmental degradation always has a human dimension—and in serious cases, is a human rights violation—human rights are a promising choice for articulating "the systems of rules, procedures and expectations that guide social interactions" in sustainable development [73] (p. 10). Human rights as "soft law" [74] become institutionalized in constitutions, law, and policy, and are subsequently available for public advocates, policymakers, scholars, activists, and communities to frame issues, set boundaries for acceptable solutions, and act as protections against strong actors and questionable practices [34]. However, law can also be contradictory, rigid, sluggish, and fragmented, and thus must be accompanied by other kinds of mechanisms to have a transformational effect.

The "MAPs (mechanisms, actors and pathways) framework" [4,5] provides a means for situating human rights within the broader pursuit of transformational change (see Figure 1). In this model, change is constituted through three "moments of social transformation"—the *first* "in which extant social structures and macro-level processes shape actors' desires or beliefs and constrain or enable their actions;" the *second*, comprising "translation of desires and beliefs into action," and the *third*, where "actions and interactions . . . generate (or not) broader social change" [5] (p. 9). The mechanisms through which such change occurs are categorized as *informational*, *symbolic*, *power-based*, *legal*, and *cooperative*, and can be expected to operate at each of the analytic "moments" [75].
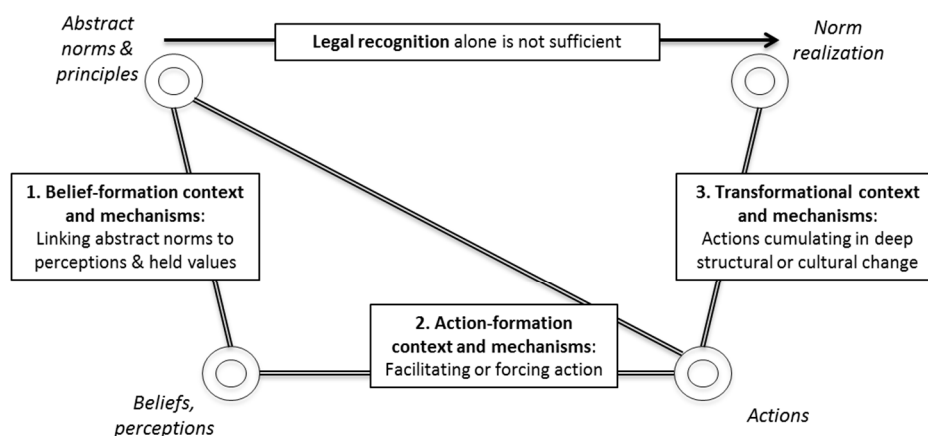
Figure 1. "Moments" of social transformation [4,5].

In the first analytic "moment," human rights provide a powerful perspective through which to understand the ontology of sustainability challenges. Cognitive, emotional, moral, and spiritual reorientations all counter the strongly material basis of our collective trajectory. Transformative approaches to sustainability can contribute here by not only raising awareness, but also providing new imaginaries for human–environmental relationships [76]. In the second moment, human rights motivate people both positively (to protect rights) and negatively (to avoid penalties). Dialogic, participatory, and inclusionary governance allow greater empowerment to protect rights, while governments and social movements both have the capacity to "penalize"—the former through law and policy, the latter through naming and shaming, protests, boycotts, and other actions that force behavior change. In the third moment, a broad acceptance of different logics and checks on power can open spaces for

alternatives to emerge organically, as people discuss, strategize, and reimagine futures—clearing the way for deeper social transformation. In the sections to follow, I provide empirical examples of how human rights have been and can be used in conjunction with other mechanisms for shifting social values and institutional dynamics away from unsustainable practices.

6.1. Human Rights Metrics

One way human rights can support transformative change is by mitigating the perceived difficulty of evaluating social sustainability [18] with vetted human rights measurement indicators and methods [77–79]. This is not a new idea; in fact, "state or nonstate initiated sustainability projects often refer to well-established principles such as the United Nations Declaration of Human Rights or the International Labour Organization's conventions" making the social pillar "more visual, measurable (also through qualitative means), and hence more legitimate" [18] (p. 8). Evaluation measures can be absolute (how close do efforts to achieve human rights and sustainability goals come to benchmarks) [80,81] and relative (how well do efforts to achieve human rights and sustainability goals compare to similarly-situated efforts elsewhere) [78]. In places where there are resource constraints, interventions can be tracked following the standard of "progressive realization," where state obligations can be realized over time, in line with available resources but not postponed indefinitely [82].

Studies on the impact of human rights in areas relevant to sustainability include food [83–85], water and sanitation [86–88], environmental protection [89,90], climate change [91] indigenous rights [92,93], business [79,93], and livelihoods [94]. Human rights offer a meaningful way to link indicators of sustainability *across* the social and environmental pillars, as suggested by Murphy [19]. Similarly, their widespread discursive, legal, and practical use provides a baseline for consistency across geographic and cultural locales [95], governance domains [96], and disciplines [97], all areas where greater coordination would better serve sustainability ends.

However, human rights are good not *only* for measurement. I will next turn to specific empirical examples of how a human rights perspective can give other kinds of "teeth" to the four aspects of the social pillar discussed above: *equity*, *awareness*, *participation*, and *social cohesion* [19]. The point of these examples is not to evaluate the sustainability of all outcomes, but to demonstrate the role that human rights play in shifting the understanding of the origins of problems, what is at stake, and what is to be done, as well as focusing attention on less traveled but potentially more transformative pathways.

6.2. Equity with Accountability

Environmental justice movements grew from the recognition that places wracked by pollution tended to be inhabited by people of color and the poor [98]. These movements sought to link the experiences of their communities with broader systematic processes driving these outcomes. They mobilized a range of strategies to support their causes, including consciousness raising, lobbying and protest, legal action where environmental laws had been violated, and naming and shaming. Human rights, as we see in the examples to follow, can be mobilized to strengthen the discursive, legal, symbolic, and political leverage of these struggles for equity.

In 2013, the city of Flint, Michigan (USA) appointed an emergency manager to help them cope with a financial crisis caused in part by a weak economy that undercut the tax base and made it difficult for residents to pay utility fees. This official did not consider these structural causes nor consider citizen input. Instead, using a standard cost–benefit analysis, he recommended that the city shift from the high-quality water supplied by Detroit Water to a cheaper source, the contaminated Flint River. The water corroded the network of pipes, ultimately killing 12 and poisoning thousands more with lead, mostly in poor areas and communities of color. United Nations experts on poverty, water and sanitation, and housing all concluded that failure to recognize the human right to water and systemic discrimination set the stage for such fatal policies. Michigan legislators subsequently sought to pass a law recognizing a human right to clean water. Though an uphill battle in the United States, proponents called for a human rights framing to create a bulwark against future socioenvironmental

tragedies. In addition, environmental justice movements invoked the symbolism of the civil rights movement to mobilize "bodies and conscience" in support of human rights in Flint [99].

In South Africa, human rights have fundamentally shaped the post-apartheid constitution. In cities like Johannesburg, where acid mine drainage is a persistent threat, constitutional protections are increasingly utilized to hold mining companies legally accountable for pollution that in previous times they perpetuated with impunity. Without the threat of litigation, neither the government nor the mining companies tended to act: "We write letters, we call for meetings, we offer suggestions and proposals. Most of the time we are ignored, so we end up in court . . . litigation has proved to be the most successful strategy" [100]. Though advocacy organizations representing both rich and poor communities have invoked human rights in their legal struggles, poor, largely black communities have found previously unknown leverage with constitutional human rights protections. Organizations like the Vaal Environmental Justice Alliance (VEJA) have been able to challenge the power of corporations in ways that would be difficult "without legal muscle" [101]. In a recent ruling, VEJA was successful in getting the court to acknowledge the right of environmental justice organizations "to monitor, protect and . . . exercise a watch-dog role in the preservation and rehabilitation of our national resources" [102]. Even when legal mechanisms have fallen short, social movements have become "rights-savvy" at invoking human rights when they seemed apt to strengthen their cause [103].

Inequality in São Paulo, Brazil, as in Johannesburg, also manifests in unequal access to environmental justice. Human rights have helped to infuse environmental policies and practices with "new norms, mechanisms, and points of intervention on behalf of vulnerable populations," which "create the potential for shining light on previously shadowy arrangements, exposing winners and losers, and providing leverage for social movements to challenge the logic of public policy" [86] (p. 86). Though this has not "solved" the problems facing this mega-metropolis, it has helped direct environmental governance toward more equitable approaches to such challenges.

It is important to note that there can also be conflicts *among* human rights, for example the right to housing vs. the right to water for cities, which may include (as in São Paulo) protecting watersheds where informal settlements have been constructed [104]. Human rights are by definition anthropocentric, and thus do not automatically consider non-human nature. This has been the impetus for recent efforts to strengthen environmental human rights at the United Nations [105,106]. Working within the three-pillar model also remains salient, incorporating strategies such as the use of counterfactuals regarding what future humans and non-humans/nature might need [107]. Even now, however, "non-anthropocentric values are hardly implemented . . . in national, let alone international, frameworks. Linking sustainable development to the human rights framework thus gives it a solid anchoring in broadly accepted international principles" [107] (p. 5). It is also important to consider that poverty does not provide adequate conditions for people to become acquainted with the needs of the environment. For those whose own basic needs for survival are in question, long-term thinking and intergenerational justice are luxuries. This makes basic economic and social rights even more salient for sustainability.

6.3. Awareness and Discursive Framing

The cases above illustrate the potential for human rights—if they are not circumscribed and depoliticized—to provide a firm boundary for environmental justice and a means of accountability. As we will see in the next examples, they also provide particular discursive framings and symbolic value that can draw "attention (maybe even special, corrective attention) to the usually neglected factors" [108] (p. 267).

In Costa Rica, Ballestero [109] describes the use of a human rights framing by a national water regulator to remind people, "that a humanitarian ethics could, and should, affect numeric forms that otherwise remain tied to financial and regulatory theory" (p. 265). In this case, human rights acted as "instruments that sharpen people's ethical awareness of their own decisions" (p. 265), in effect infusing quotidian bureaucratic decision-making with an ethics of care. Though this combined

humanitarian–financial approach did not produce prices that represented "safe humanitarian victories over the excesses of capitalism" (p. 275), human rights did change the calculus by which those prices might otherwise have been created.

In another water-related example drawing on the *Mazibuko* case in South Africa [110], Larson [111] underscores the "rhetorical and political value" (p. 2254) of the human right to water, which in this case provided substantive content to what might otherwise have been merely a procedural action. In both of these cases, human rights placed ethical guardrails around what could be considered viable for public administration of this essential service.

In another high-profile case, the Inuit people of Alaska filed a claim with the Inter-American Commission on Human Rights stating that new risks and vulnerabilities brought on by climate change threatened their way of life. There was little chance of winning such a case from a purely legal standpoint, (though the chances may be improving, even in the United States; see [112]). Regardless, the implications of invoking human rights in this way extended "well beyond issues of legal responsibility to the impact of including new voices, institutions, and expertise in the climate debate," and "a re-prioritization of policy responses to climate change away from one focused solely on carbon accounting and toward one that considers more fully principles of equity, fairness, and the impact on the most vulnerable" [113] (p. 334–335).

The use of human rights in environmental films can also serve to raise awareness in striking ways. *River Blue*, as one of many examples, vividly draws connections between production (in this case, of denim) and extreme labor and environmental rights violations [114]. The consumer (and not the producer) is the target for this particular intervention, but the narrative unfolds in such a way to provide alternatives for consumers and is provocative, evoking difficult conversations as well as cognitive dissonance. If leveraged strategically, the cognitive dissonance emerging from witnessing human rights violations can evoke moral and collective sympathy [41], bringing social trauma to the personal level. Justice for others and the planet are evoked symbolically to shape one's moral orientation and personal sense of wellbeing.

6.4. Participation and Consent

The Johannesburg mining cases discussed above suggest that claims regarding the right to an environment free from pollution have legal purchase, and that litigation is a crucial last resort for communities demanding accountability. These cases also have an important participatory element in that they call for inclusion in decision-making, access to information, and community consultation. Historically, mining companies in South Africa have been adept at selecting negotiating partners within communities and government who are most likely to go along with their plans. This "very fraught process" [115] has resulted in sometimes-violent protest, as well as rights-based demands for inclusion. Municipalities have also tried to sidestep community involvement, aided by the South African Water Tribunal's dismissal on questionable administrative grounds of several cases involving state accountability. However, the High Court, invoking constitutional participatory rights, has judged these kinds of exclusionary rulings invalid (see [116] for one example) [117].

The practical, legal, economic, and ecological advantages of participation rights may exceed even those of demands for minimum core provisions, at least in the water sector. As Larson [111] argues, participatory processes can "build a 'normative community' within which values of equity and sustainability develop organically, ultimately leading to equitable and sustainable water policy and provision of sufficient and affordable clean water" (p. 2260–2261). They can also open the door for "inspection of attitudes and values" underpinning sustainable development practices [53].

Indigenous rights, and the spaces in which they are considered, are creating even more unexpected breathing room to interrogate long-standing discourses and power relations, as well as mechanisms to shift power away from the historical dominance of extractive industries and growth-obsessed states. UN mechanisms are giving non-hegemonic ways of being a public hearing, as was evident during an invitational dialogue with mining executives, indigenous leaders, and academics hosted

by the Special Rapporteur on the Rights of Indigenous Peoples [118]. One tribal leader expressed the orientation of his community toward responsibility to the land and its creatures: "Take care of the land and it will take care of you." He spoke of the threat extractive processes pose to their way of life: "We see the land being transformed, over millennia. We don't just plunk down a mine. We live with the long-term impacts, which are cumulative. For example, shale in British Columbia requires a lot of resources, including water. What happens to our water resources? What is the price tag on that?" [119]

Indigenous populations in many places still retain linkages to, and memories of traditions based in harmony with, the land [120], and their wellbeing and rights remain deeply connected to the land that sustains them [60]. It should be noted that states and multinational corporations have influenced who can legitimately claim indigenous rights and what are viable community goals [121]. Rather than eliminating potential conflict within communities, recognition of indigenous rights simply "recalibrates the arena of struggle" (p. 3). Without romanticizing, however, it remains evident that many indigenous communities hold a very different view from that of states or corporations, and even some conservationists who are suspicious of human societies in general. Here is where an elaboration of a fourth "cultural pillar" of sustainability could directly challenge practices and worldviews at the root of our sustainability crisis.

The principle of "free, prior, and informed consent" (FPIC), recognized in the United Nations Declaration on the Rights of Indigenous Peoples (DRIP), gives further meaning to the term "participation," and is the antithesis of the historical experience of indigenous groups with extractive industry. At the same meeting mentioned above, the Special Rapporteur explained, "Before we start calling for indigenous communities to give something up," it is necessary to acknowledge structural and historical injustices and recognize basic human rights as "the lifeblood" [122] Companies have been fixated on "getting to *yes*" (when they have asked at all), rather than responding to the rights and needs of local populations, but now must re-think how business is done. New arrangements that involve active participation in project design and development become the standard, so that agreement is truly consensual—even the agreement *not* to pursue resource extraction.

The language of human rights and new mechanisms for promoting them, including the mere existence of a Special Rapporteur for indigenous issues, are thus shifting power relations away from unquestioned corporate power toward more dispersed forms of control and decision-making. Mining companies are finding that the expectations created by FPIC raise a range of questions that they never before had to consider [123]. Autonomy for indigenous groups also means that sovereign decisions of states are no longer enough to ram through unpopular projects. Even though indigenous groups do not have veto power over many government decisions, companies are put into a tough position if a community rejects an approved project. Human rights have meant that indigenous groups now *expect* consultation as part of customary law [124].

6.5. Community Control over Resources

The "fundamental human rights" framing that emphasizes self-determination of indigenous groups to decide how their land and resources are managed and what priorities foster community wellbeing may hold the key to broader societal alternatives to the "treadmill of accumulation" [23,125]. This includes the option for others, including non-indigenous communities, to choose not to support endless extraction for ever-increasing consumption, and to regain control over public goods. Explicit acknowledgement that communities have a *right* to say no is something new: "no" you cannot mine indiscriminately; "no" you cannot allow "externalities" to accumulate in communities. This raises the costs for polluting activities (internalizes them) or puts a stop to them, forcing corporations and states to look elsewhere to achieve their goals and potentially change their goals altogether. At least at this basic level, human rights can provide new "rules of the game" that present "fundamental challenges to elite dominance" [12].

Human rights also draw attention to the ways that inadequate public goods, services, infrastructure, and other "physical aspects of human spaces" that "are crucial for achieving social sustainability" [20],

can undermine resilience and social cohesion [126]. On one hand, human rights struggles have emerged in opposition to neoliberal policies demanding fiscal austerity, restrictions on state investment, and privatization [33]. On the other hand, private sector control has increased "risk of undersupplying public goods essential to sustainable development when focused on delivering private value" [6] (p. 285). Regaining public control over the technologies that have dramatically altered our ecosystems is also essential for viable futures. To the extent that we "remain subject to a social system we do not know how to control, our technology will inevitably fail us. The solution thus is ... to establish democratic mechanisms of social decision-making based on rational discourse about norms" [127] (p. 381). Strengthening environmental human rights to include broader control over resources and technology would be a healthy step in this direction [128].

7. Mechanisms, Actors, and Pathways to Social Transformation

In the examples above, human rights played critical roles as mechanisms of social transformation (see Figure 1). As *informational* mechanisms, they served to raise public awareness and evoke moral and collective sympathy (the Flint and Inuit/Alaska cases, as well as in human rights and sustainability films); sharpen ethical awareness (Costa Rica); reframe acceptable policy choices to be more public-minded (Costa Rica, São Paulo, and Alaska); redefine expertise (the Inuit); challenge the hegemony of particular world views (Inuit and other indigenous struggles); and offer alternatives to the dominant production–consumption paradigm. *Symbolic* approaches designed to inspire people to support particular values and aspirations were seen in Flint ("bodies and conscience"), Costa Rica ("humanitarian" ethics), and in various social movements asking, "what kind of society would we like to be?"

Legal mechanisms, where available (Johannesburg, São Paulo, and the Inter-American Commission on Human Rights), were mobilized to reverse impunity and hold powerful actors to account for respecting, protecting, or fulfilling rights. Where these mechanisms were not available (Flint) or were limited (São Paulo), people worked to put new mechanisms into place in order to strengthen legal accountability. *Power-based* strategies such as protest (Flint and Johannesburg) and claims to sovereignty and self-determination (indigenous communities) have been utilized to hold state and corporate actors to account for their rights obligations, as well as gain control over resources. *Cooperative* approaches are evident in mainstream efforts such as the 2030 Agenda and corollary activities. However, as the accounts above show, communities often must demand inclusion, information, consultation, and democratic accountability in order for participation to be meaningful. Participatory and other human rights have been and will likely continue to be crucial mechanisms in such struggles.

It is important to note that none of these mechanisms of social transformation are proprietary for progressive actors; they have also been used by powerful groups to retain their advantages, silence or co-opt opposition, and push forward interests that are damaging to the environment. Political shifts can be particularly dangerous when not confronted with strong legal boundaries, in that they can quickly undo years of work to protect fragile ecosystems (See for example [129]). Nevertheless, human rights place tall hurdles on unsustainable pathways and could effectively be strengthened [85], as well as extended to include the rights of nature itself [128,130]. Sustainability scientists can play a vital role by calling for stronger human rights protections where they pertain to socioecological systems.

8. Conclusions

Collaborative approaches to sustainability that strive to achieve balance between humans and the natural world are important and necessary. However, we must directly acknowledge and soberly address the ever-present reality of conflict and injustice if we are to reverse destabilizing trends. Human rights—in particular where they meet sustainability challenges—can sharpen the focus on destructive social relations and imbalances among humans, mitigate risk, and help define the boundaries of conflict resolution, thereby laying the ground for justice and accountability so that sustainable futures have a better chance of emerging. Their relative clarity (compared to the more amorphous

"justice"), institutionalization in law and policy, and "broad support within the community of political philosophy and ethics" [107] (p. 5) provides a structure that can give "teeth" to transformational efforts stymied by inertia or unyielding power dynamics.

Sustainability scientists and scholars conduct their research at a unique nexus where engaging with questions raised by sociological theory can contribute substantially to "just sustainabilities" [131]. Bringing human rights and sustainability praxis together can clarify the objectives of both fields, widen their shared bases of support, lay the groundwork for trans-disciplinary and trans-border collaboration, further concretize potentially abstract environmental issues in human contexts, and strengthen efforts to change more fundamental dynamics at the root of our sustainability challenges. Research that explores the strengths and limitations of human rights for exposing and challenging unsustainable social relations is especially needed. Embracing the full scope of human rights—including their economic, social, and environmental dimensions—may seem like a bold step for scientists, but there are good scholarly reasons for doing so. This is not a time for timidity, given the precarious state of our world.

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