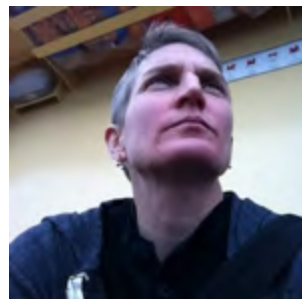


The background of the entire page is a complex, abstract pattern. It features a dense network of teal-colored lines and dots of varying sizes, creating a textured, almost organic feel. The teal lines are somewhat chaotic and scribbled, while the dots are more organized, often appearing in small clusters or along the lines. The overall color palette is a mix of teal and black on a white background.

Doing Justice! Doing Just This!

Practicing justice in transdisciplinary
and transformative research

Compiled with
love by the
Doing Justice
Collective



IMPRINT

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About this collection

Hi there! We, the Doing Justice Collective, are a group of researchers and activists who engage with transdisciplinary and transformative research (TTR). Transformative research pushes the boundaries of science with a strong focus on engaging with societal problems. Transdisciplinary research provides us with the knowledge and tools to work together with a set of diverse societal actors in addressing these societal problems. But, how just are these practices? We came together in a summer school organised by the Leibniz Research Network "Knowledge for Sustainable Development" and the Leibniz Institute of Ecological Urban and Regional Development in June, 2023 to discuss this question. Over the course of two days we tried to understand the layered concept of justice and its application in our everyday research practice. We ended up keeping the conversation active for over a year with periodic exchanges and cross-pollination of ideas, experiences and reflections. This **collection of ideas and reflections** was a mode of organising some of these thoughts and for establishing exchange.

We started by asking a set of basic questions: **why does practising justice matter to us in our role of transformative and transdisciplinary scholars?** How do we understand the concept of justice? How do we begin to put this into practice? What methods can help guide us? What experiences and lessons can we share from these attempts of putting justice into practice? We have learnt that there are plural ways of understanding and motivations for engaging with justice. In this collection, we have attempted to remain open to these multiple understandings of justice and tried to bring them in conversation with one another. We have also realised that there are many challenges at institutional and social levels that we are just learning to identify. We invite you to have a read and help us take this conversation further. We extend this invitation to scholars who are engaged in TTR and are teaching concepts, methods and approaches of TTR, practitioners who join processes of knowledge co-creation in transdisciplinary research settings, and facilitators and artists who co-design and co-create transformations. We have divided the document into the following sections:

1. <i>Why does doing justice matter to us?</i>	<i>p. 4</i>
2. <i>How do we understand justice?</i>	<i>p. 8</i>
3. <i>How to reflect upon justice?</i>	<i>p. 16</i>
4. <i>How to do justice?</i>	<i>p. 22</i>
5. <i>How to put justice into practice?</i>	<i>p.30</i>
6. <i>Encouraging others</i>	<i>p.44</i>

The background features several overlapping organic shapes in shades of red and orange. These shapes contain various patterns: a dense stippled texture, a plaid or checkered pattern, a complex web of intersecting lines, and a pattern of small circles or dots. The overall aesthetic is modern and artistic.

1. Why does doing justice matter to us?

Transformations research pushes us to acknowledge and address systemic/ root causes of injustices (race, class, gender, ability) that are driving the multiple crises (climate, biodiversity, social etc.). This requires us to re-think how we conduct our research, what questions we ask, who we include or exclude, how we understand participation, and what we do with the findings, insights and products of our research. Bringing justice to the heart of this transdisciplinary and transformative research (TTR) deepens the normative orientation of our work.

Transformative research (TR) is part of a broader movement towards **a more transformative research paradigm** (Mertens, 2007), building on clusters of different related approaches from different disciplinary and cultural backgrounds, such as participatory action research, knowledge co-production, engaged scholarship, democratising knowledge, production or mode2 knowledge production (Norström et al., 2020). TR is inherently normative in taking a critical standpoint vis-à-vis dominant practices, structures and cultures which are evidently unjust or unsustainable. It takes a systems perspective and aims at understanding and analysing persistent problems and is inherently prefigurative in the sense of aiming at generating alternative ways of doing, thinking and organising social life to contribute to the transformation of practices, structures and cultures (Wittmayer et al., 2020). It tries not only to develop socially robust and scientifically valid knowledge but also to overcome the separation between knowledge and action. TR is not new, but **many different ways of and approaches to doing research by engaging with society** are in line with this paradigm. These approaches, summarized under the term transformative research as a boundary object, gain increasing momentum in different disciplines and fields, such as sustainability transitions (Köhler et al., 2019), environmental justice (EJ) (Malin and Ryder, 2018) and critical political theory. TR requires reflexive, iterative collaboration, co-learning and co-creation of knowledge and action from different knowledge bases and different knowers. Transformation scholars therefore call to “**embrace the concept of transdisciplinarity**” (ISC, 2021, p. 3) as it offers a way **to coproduce knowledge in settings of epistemic plurality**. The normative perspective of TR is thus combined with a transdisciplinary research mode, which we conceive of as **transdisciplinary and transformative research (TTR)**.

In the light of **justice considerations**, TTR has to engage with two main challenging topics, namely (i) the justice-sensitive theory-building and operationalization of TTR in practice and, in close interaction with this, (ii) the (self-)critical reflection on the past and future of theory-building and practices, structures and cultures of TTR as embedded in broader knowledge systems and practices. Concerning (i), **the justice-sensitive operationalization of TTR in practice**, discussions have to dive deeper into theories, logics, principles, methods

and approaches that are justice- and power-sensitive, democratically legitimate and ethical (Kenis et al., 2016), meaningful and truly participatory (Ghosh et al., 2021), as well as into normative tensions and contradictions (Caniglia et al., 2023) in navigating these processes. As Marc Swilling describes “the existing literature on TDR has not as yet generated an adequate set of context-relevant guiding logics and principles. Without this there is no methodology that can be used for navigating transformative TDR processes in and under fluid social conditions” (van Breda and Swilling, 2019, p. 826). Hence, it requires deeper engagement with how TTR processes can be just and ethical, and how researchers and other academic actors can navigate tensions and contradictions in these situations.

Closely related to this, but more on a broader level and explicitly accounting for questions of (global) politics and power (Norström et al., 2020), is (ii), **the need for critical reflection on the past and future of theories, practices, structures and cultures of TTR as embedded in broader knowledge systems and practices**. Debates in this context have to problematise the hegemony of Western knowledge systems and practices (Ghosh et al., 2021), the hegemony of the “neoliberal economic discourses that currently govern the production of nature and knowledge” (Burke and Heynen, 2014, p. 18), or established systems of (de)valuation of knowledges and knowers which hinder more democratic and transformative socioecological praxis (Burke and Heynen, 2014). It has to be critically evaluated how they translate into TTR theories and practices, and address questions of epistemic injustice and violence (Dutta et al., 2022; Wijsman and Feagan, 2019), and the still extractive way of creating knowledge (Ghosh et al., 2021) when working with indigenous groups, e.g. in the Global South, which is building on colonial heritage. Especially when explicitly trying to address questions of justice in TTR, we have to understand and challenge existing power structures and decolonise “both discursive theories and research practices.” (Ghosh et al., 2021, p. 108).

This requires also a **self-reflective attitude**, which has to recognize that “as researchers we are located within networks of power and participate in the (re)configuration of power relations. Reflecting on what and how we know, and on the political presuppositions weaved through our research, means acknowledging the implications of our work in enabling or dismantling socio-economic and socio-political structures of inequality” (Wijsman and Feagan, 2019, p. 74). TTR, in its prefigurative attitude, has to pay attention to not inadvertently perpetuate dominant social orders, structures, power dynamics and injustices (Wijsman and Feagan, 2019) and to acknowledge that historical, social and political contexts cannot be overcome by simply offering a seat at the table, especially if the table is “warped, uneven, and set to play into established systemic biases” (Wijsman and Feagan, 2019, p. 72). In this context, TTR must pay attention to not be an extractive process without benefiting the communities but only the Western dominant knowledge systems.

Practices within the TTR paradigm have the aspiration to explicitly contribute to more sustainable transformative processes, actions and outcomes. For this, they consider (to differing degrees) **questions of distributive, recognition or procedural justice**. Questions of justice, such as the question of whose knowledge, embodied experiences, or realities are valued and considered, who is the expert and interpreter of knowledge, as well as who is

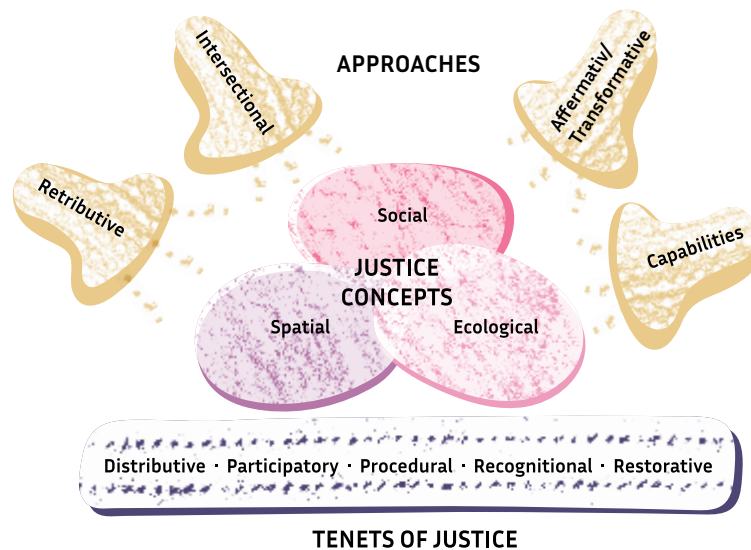
benefitting from or harmed by the knowledge (production process), are conditioning why and how scholars engage in transformative research. As Donna Mertens (2007, p. 212) formulates: “The transformative paradigm with its associated philosophical assumptions provides a framework for addressing inequality and injustice in society using culturally competent, mixed methods strategies. The recognition that realities are constructed and shaped by social, political, cultural, economic, and racial/ethnic values indicates that power and privilege are important determinants of which reality will be privileged in a research context.” In this context, the transformative research paradigm explicitly tries to account for multiple, socially constructed realities that are shaped by privilege and influenced by intersectionality, for power relations between researchers and the “object” of investigation, and for the many ethical questions related to engaging with society, such as respect or beneficence (Mertens, 2007). When thinking about (in)justices and their relation to TTR, **we have to think about both, the research processes and outcomes themselves** (i.e. in terms of particular research projects, and relationships), but also **about the broader institutions** (academic system, funding schemes, and – in general – the ontological and epistemological foundations of dominant Western knowledge systems) in which these are embedded. TTR approaches do seldomly simultaneously address all justice dimensions, and some approaches explicitly focus on the representation of circles of niche actors (such as in transition management (Kenis et al., 2016)). What is more, when thinking about questions of justice, **TTR approaches often focus on the research process**, with a rather narrow scope of justice linked to the involved stakeholders (recognition or procedural justice), often not directly considering e.g. other communities, actors in the Global South, the environment or non-human animals, and thereby not accounting for the fact that certain groups are excluded due to their positionality or questioning the hegemony of the Western system and the scientist as the expert in general (Burke and Heynen, 2014; Wijsman and Feagan, 2019). On a meta level, **this relates to valuing and devaluing certain kinds of knowing and knowers** (Burke and Heynen, 2014), which is directly linked to valuing and devaluing certain understandings of nature, including who and what we as humans are. This is why TTR scholars have pointed to a variety of aspects in which this type of scholarship does not do justice to justice and even perpetuates and replicates injustices (Burke and Heynen, 2014), e.g. when using participants in co-production as data suppliers, not inviting them and their expertise in the analyses and interpretation, reinforcing the idea of scientific superiority.

This is why more recent **critical engagements with transformative research approaches** focus increasingly on critically discussing the democratic legitimacy of TTR practices (Kenis et al., 2016), ethical questions of conducting TTR (Fazey et al., 2020), and valuing and devaluing certain knowledges and knowers and related knowledge hierarchies (Burke and Heynen, 2014), legitimizing knowledge, knowers and modes of knowledge production beyond the dominant Western ones, criticising the hegemony of Western knowledge systems and practices (Dutta et al., 2022). It is in this direction that we would like to move, using justice as a normative guide.



2. How do we understand justice?

Tenets, approaches and concepts How do we begin to understand the multifaceted and slippery ideas of justice? This section serves as an overview over the tenets, approaches and concepts of justice that we engage in our work. Each concept provides a lens through which we try to see the broader idea of justice. We are aware that there are significant **overlaps** between the tenets, approaches and concepts that we present. For example, ecological and environmental justice often embed distributive, participatory, and recognitional matters and other concepts, like epistemic justice, relate to different dimensions of recognition or participation. With this in mind, we have created broad categories for ease of understanding. We acknowledge that complementarities and contradictions exist between these categories and none of them is water tight. We adopt the following categories of tenets, approaches and concepts with the hope that these provide a navigational tool for you as a reader.



Tenets, approaches and concepts of justice (Source: Joshi, Ehnert and Novikova 2024)

TENETS OF JUSTICE

Distributive Justice Accounts of distributive justice assume that justice is a matter of allocation of costs and benefits. As a result, theories of distributive justice ask two core questions: “what is to be distributed?” and “how shall we distribute it?”. The first question leads to different metrics for distributive accounts of justice. The second question leads to different rules for distributive justice (Lamont and Favor, 2017; Mathiesen, 2015).

In terms of metrics, most concepts can be grouped in three significantly distinct categories:

1. The first kind of metric is resources. Resources are very diverse, going from concrete goods to services. This includes, but is not limited to, money, education, infrastructure, information, etc.
2. The second category of metrics is capabilities. Capabilities are those substantial freedoms that people possess to do and be whatever they have reason to value.
3. Finally, a third category is preference satisfaction. This metric focuses on the utility that people gain under given configurations.

In terms of rules, there are four main categories:

1. The first one is maximization and it tends to be paired with the metric of preference satisfaction. This rule leads to ethical problems that the following three rules attempt to overcome. These rules are generally referred to as egalitarian.
2. The first egalitarian rule is strict egalitarianism. It prescribes that the metric should be strictly equally distributed across the population.
3. The second egalitarian rule is prioritarianism. It prescribes that the metric should be equally distributed across the population, but it admits difference principles directed to the worst off in society. That is, priority in terms of distribution should be given to those in worst conditions.
4. The third egalitarian rule is sufficientarianism. It prescribes that the metric should be equally distributed up to a certain threshold. Above that threshold, differences are regarded as just. Much discussion has been directed to the nature of the threshold, its components, and contextual character.

••••• **Procedural Justice** Procedural justice focuses on the fairness of procedures, practices, and institutions, including judicial processes. Procedural justice ensures, among other things, inclusive and respectful participation, clear and unbiased procedures, prevention of corruption, and trustworthy operations within existing legal and institutional frameworks (The Justice Collaboratory, 2024).

••••• **Participatory Justice** Participatory or participative justice is strongly related to procedural justice as it specifically focuses on aspects of participation in decision-making. It aims at “remov[ing] the unjust constraints that some people have over other people's lives and actions” (Shrader-Frechette, 2002). Young (1990) points out that beyond distributive justice issues, citizens should have the right to participate in decision-making and procedures in order to overcome domination and oppression.

••••• **Recognitional justice** Recognitional justice amounts to an adequate representation of social actors, their relations and conflicts, emphasising historical injustices perpetrated to them. An adequate representation is attained by means of an ethics of care that pays attention to the actors' values, identities, and culture. Recognitional justice comprehends both individual and collective actors (Honneth, 2004).



Restorative justice By recognizing past injustices and how they shape present conditions and aims, restorative justice aims at delivering resolutions (Forsyth et al., 2022; McCauley and Heffron, 2018). In sustainability transitions, restorative justice centres on processes compensating for past harm to humans and other species and ecosystems. Restorative justice processes focus on harms and victims and those individuals, groups and institutions that are responsible for these harms and how they can be held accountable. Examples for restorative justice can be financial compensation for losses or restoration of degraded ecosystems.

APPROACHES TOWARDS JUSTICE



Retributive Justice Retributive justice is concerned with legal punishments for crimes and offences. It is committed to the following principles: i) that those who commit certain kinds of wrongful acts, paradigmatically serious crimes, morally deserve to suffer a proportionate punishment; ii) that the existence of a legitimate punisher is morally desirable; and iii) that it is morally impermissible intentionally to punish the innocent or to inflict disproportionately large punishments on wrongdoers (Walen, 2023). Several features of retributive justice, such as the notions of desert and proportionality, the normative status of suffering, and the ultimate justification for retribution, remain contested and problematic.



Affirmative vs. transformational justice When addressing injustices, Fraser, (1995) distinguishes between 'affirmative' and 'transformative' strategies. Affirmative justice and actions focus on correcting injustices within established systems, but without changing the underlying causes. Transformative justice and actions aim at correcting the underlying causes of established systems generating the injustices.



Intersectionality An intersectional approach to justice aims to address inequalities and promote justice by considering how different social categories like race, gender, class, sexuality, disability, and others intersect to shape people's lived experiences (Crenshaw, 2019). Within environmental justice scholarship, intersectional solidarity in research and activism identifies and holds accountable powerful actors, organizations, structures, and processes (Malin and Ryder, 2018).



Capabilities approach The capability approach focuses on individuals' capabilities to function in society. According to Sen (2010), justice should be concerned with enhancing people's capabilities and freedoms, allowing them to lead lives they have reason to value. In this view, the goal is not merely equal distribution of resources (distributive justice) but ensuring that individuals have the real opportunity to achieve their goals and pursue a fulfilling life. For TTR, this would translate to:

- a.) Enhancing Capabilities: Sen's approach would go beyond the mere distribution of resources. It would focus on enhancing the capabilities of researchers from diverse dis-

ciplines. This could involve providing training, mentorship, and support to ensure that researchers have the ability to function effectively in a transdisciplinary environment. Similarly, efforts should be directed towards enhancing the capabilities of the people involved in and affected by TTR.

- b.) Participatory Freedom: Sen's perspective values the freedom of individuals to participate in decisions that affect their lives. In the context of transdisciplinary research, this would mean promoting inclusive decision-making processes where researchers from different disciplines as well as societal actors have the freedom to voice their perspectives and contribute to the shaping of research agendas.

JUSTICE CONCEPTS



JUSTICE CONCEPTS WITH A FOCUS ON SOCIETY

This sub-section elaborates upon concepts of justice that have a strong focus on societal aspects.

Epistemic (In)Justice Epistemic injustice concerns the harming of a person in their capacity as a knower. Fricker (2007) defines two types of epistemic injustice:

- a.) Hermeneutic Epistemic Injustice: one's knowledge viewed as less significant due to misfit with dominant understandings (e.g. language, concepts)
- b.) Testimonial Epistemic Injustice: one's knowledge viewed as less significant due to aspects of identity (e.g. gender, occupation, qualification)

According to Dotson(2012), the exclusion of certain knowledge caused by epistemic injustice and epistemic oppression, not only harms the epistemic agency of individuals, but also knowledge production in general since certain understandings of the world are missing from our collective understanding of reality.

Transdisciplinarity promotes epistemic justice in knowledge production through equally valuing different bodies of knowledges (Lieu et al, 2023). Since TTR aims at centering the practical knowledge of social actors affected by problems, epistemic justice can be a guiding principle for TTR because it (van Breda, n.d.): 1) asks how knowledge is co-produced in situations of unequal knowledge / power relations; 2) addresses the unfairness built into systems of knowledge production (representation = power); and 3) helps us practise redressing knowledge-power imbalances.

Gender Justice Embedded in the framework of the Agenda 2030 and the Sustainable Development Goals, UNDP refers that it is impossible to achieve the ambition to “leave no one behind” without gender equality (UNDP, 2024). UNDP applies a holistic approach to gender justice as a tool for realising women and girls’ rights and achieving gender equality, in line with the new UNDP Gender Equality Strategy 2022–2025 (UNDP, 2023). The Justice Futures CoLab continuously supports UNDP in adjusting its agenda. However, we note that people's

gender and sexual identities and expressions can be complex, nuanced, intersectional, and fluid. Deconstructing the gender binary and revolutionising the way gender exists in our world are essential to moving the gender equity movement forward (TIN, 2023).

Health Justice Health justice recognizes the strong connection between poverty and public health, as those in poverty often face greater disease burdens. It involves understanding how persistent poverty impacts health, intertwined with analyses of income and wealth inequalities. By addressing systemic disparities, health justice seeks to ensure everyone has fair access to essential resources for well-being, striving for a healthcare system that prioritises equity and tackles underlying social determinants of health (Labonté et al., 2015). Yet, health justice is not only a scholarly framework; it also entails standing together as a community to ensure everyone can live their healthiest life. It's about tearing down the obstacles that stop people in low-income households, Black and minority groups, women, those with disabilities, newcomers, and LGBTQIA+ individuals from accessing the care, jobs, and homes they need.



JUSTICE CONCEPTS WITH A FOCUS ON SPACE (AND TIME)

This sub-section expands upon concepts of justice that have a strong spatial (and scalar) focus as well as those that deal with time (past, present and future).

Spatial justice Spatial justice is a concept advanced by geographers, such as David Harvey and Edward W. Soja, aligns social equity with physical environments (Harvey, 2009; Soja, 2010). It delves into how decisions surrounding city and regional planning impact individuals' everyday experiences. This perspective is rooted in critical geography, a scholarly movement originating in the 1970s. Adding to this discourse, Fainstein emphasises justice as a central metric for evaluating urban development initiatives (Fainstein, 2010).

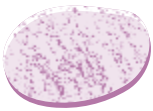
Thus, spatial justice refers to the integration of social fairness with the physical landscape (Madanipour et al., 2022). It examines the intricate relationship between societal equity and the spatial configuration of communities, infrastructure, and resources. Through the lens of critical geography, spatial justice analyses how decisions in urban and regional planning contribute to or mitigate social inequalities. It also entails actively shaping physical spaces to ensure equitable access to resources and opportunities, thereby fostering inclusive environments where justice is both upheld and expressed tangibly. Spatial justice is a concept closely related to environmental and climate justice.

Global Justice and Cosmopolitan Justice According to (Tan, 2004) cosmopolitan justice is based on the idea that distributive principles are not limited to nation state boundaries. It is therefore concerned with global distributive justice issues that go beyond humanitarian aid and address the root systemic causes of global poverty. Global and cosmopolitan justice is concerned with questions on globally unequal distribution of wealth, payback obligations of highly indebted countries, the moral basis of international law or intervening in other sovereign nation states (Moellendorf, 2001). Furthermore, cosmopolitan and global justice is con-

cerned with questions of who should carry the financial burden to pay for climate change (Caney, 2005).

International Justice International justice relates to global justice but focuses on international courts and laws. It comprehends a series of mechanisms (e.g. international law and universal jurisdiction) and institutions (e.g., international courts) that intend to advance justice at a global level, ensuring accountability for serious crimes (e.g. genocides, war crimes, and torture, among others) (Amnesty International, 2024).

Temporal and Intergenerational Justice Intergenerational justice and temporal justice are concerned with justice issues over time, such as the responsibilities and duties between different generations, e.g. the current generation repairing the damage done by previous generations and considering the needs of future generations (Grosser, 2023). The concept of intergenerational justice is strongly related to climate justice and sustainable development (Vasconcellos Oliveira, 2018).



JUSTICE CONCEPTS WITH A FOCUS ON ECOLOGY

This sub-section foregrounds concepts of justice that focus on environmental aspects and nature, both human and more than human.

Environmental Justice The environmental justice movement emerged in the United States in the 1970s and 1980s. The movement can be seen as a convergence of diverse social, economic, and environmental groups concerned about environmental and social injustices that particularly affected marginalized communities. The initial focus of environmental justice was on the inequitable distribution of environmental risks and government protection, but it also addresses power relations and disenfranchisement. Thus, the conceptualization of justice includes not only a distributive notion but also procedural and recognitional dimensions (Schlosberg and Collins, 2014). In general, the environmental justice movement seeks to rethink and restructure current human/nature-relationships in ways that "ensure a better quality of life for all, now and in the future, in a just and equitable manner, while living within the limits of supporting ecosystems" (Gottschlich and Bellina, 2017).

Climate Justice The concept of environmental justice has been taken up in the context of the global climate change negotiations by NGOs, grassroots movements and several nation-states of the Global South to challenge market-based and technological approaches to solving the climate crisis, which largely ignore social aspects and power asymmetries. In this context, climate justice movements acknowledge the historical ecological debt of the global North and therefore its responsibility to provide financial resources to the South. The movement also demands the abandonment of fossil fuels and leaving them in the ground, ensuring food and land sovereignty, reducing overconsumption and production, especially in the Global North, and designing inclusive, participatory approaches, particularly for climate change adaptation (Bedall and Görg, 2013). The concept of climate justice therefore address-

es multiple dimensions of justice such as procedural, reparative, distributive and recognitional.

Ecological Justice Kaljonen et al., (2024) present “ecological integrity and justice to animals” as an explicit additional justice dimension. In this sense, ecological justice could be understood as a component of environmental justice that considers ecosystems and species as explicit stakeholders. Ecological justice is therefore more concerned with justice for nature, ecosystems and animals themselves.

Multispecies Justice Multispecies justice builds on conceptualizations of environmental and ecological justice as well as posthumanist and decolonial approaches. It moves away from anthropocentric and individualistic notions of justice toward the recognition of all beings and the integrity and functioning of the material relationships in which they are embedded and through which life on the planet is sustained. Therefore, “human and non-human animals, species, microbiomes, ecosystems, oceans, and rivers – and the relations among and across them – are all subjects of justice” (Celermajor et al., 2021).

Biocultural Justice Biocultural justice builds on the UNESCO declaration on Biocultural Diversity, acknowledging the interdependence between biological and cultural diversity and their vital role in building resilient and sustainable societies (World Rainforest Movement, 2010). Biocultural Justice links ecology and society. It recognizes the contribution of biological and cultural diversity to the health and well-being of communities, as well as acknowledging the critical role of biocultural diversity in achieving sustainable development, aligning with the 2030 Agenda for Sustainable Development and its goals. The Annex of the declaration provides specific recommendations for actions at different levels to strengthen the links between biological and cultural diversity for a sustainable future living in harmony with nature. These recommendations cover areas, such as education, traditional knowledge, belief systems, economy, governance, partnerships, and land use/management. Thus, Biocultural justice builds heavily on the knowledge of traditional communities and adds their role as custodians of biodiversity and cultural diversity (5% of inhabitants, 4000 of the 7000 spoken languages on earth, living in habitats with 80% of worlds’ biodiversity).

This section provided an overview of tenets, approaches and concepts of justice, however, is not exhaustive, as the research and practice are continuously evolving. The diverse perspectives across different cultures, disciplines, and contexts add layers of complexity that cannot be fully captured in a single list. As such, it is essential to remain open to new ideas and flexible in applying existing ones, recognising that knowledge is dynamic and always subject to refinement and expansion.



3. How to reflect upon justice?

Guiding questions To put the theoretical and conceptual ideas of justice into practice in TTR, we propose starting with a set of guiding questions. By starting with these questions, one can critically reflect on the potential impacts of their work, move towards inclusivity and equity in their methodologies, and engage with stakeholders in meaningful ways. The guiding questions introduced below are but a snippet of our suggestions, rooted in our research interests and realities. As a collective, we are fully aware that these questions stem from various fields but suggest they can be extrapolated and applied elsewhere as well.

But how does one begin to do that? Kristina suggests starting with **five key questions** posed by Wijsman and Berbés-Blázquez (2022):

QUESTION 1

Do we consider justice deductively or inductively?

Before starting a project on justice, researchers adopt two main approaches: deductive and inductive. The deductive approach formulates universal principles of fairness and applies them to real-world situations, such as Rawls' theory of justice (Rawls, 1999). In contrast, the inductive approach examines how different individuals or groups perceive and articulate justice based on their experiences and needs. While the deductive approach helps to compare and understand broad inequalities, it may overlook diverse interpretations of fairness and lead to conflicts with community preferences. Therefore, carefully choosing between deductive and inductive approaches is crucial for studying justice effectively and ethically.

Veronica suggests an inductive transdisciplinary approach that enables and shapes a deliberation process on the meaning of justice. For this, one should start one step earlier and ask stakeholders what is important to them i.e. explore their values & visions for a desirable future.

QUESTION 2

How do we conceptualize the basic structure of justice?

Understanding justice revolves around three key pairs to describe justice theories' characteristics. First, theories based on substantiveness define 'the good' and propose rules to advance it, while impartial theories avoid prescribing a specific notion of 'the good' due to moral pluralism, advocating for mediation between conflicting ideas. Second, proceduralists focus on just processes, while consequentialists assess outcomes against standards to determine justice. Third, universalists propose universally valid principles, while particularists consider cultural traditions in determining justice principles. These distinctions help clarify theoretical preferences and societal frictions regarding justice, aiding in analysis and intervention.

QUESTION 3

Why does justice matter to us?

This is an individual question and varies between researchers. Some reasons identified by the authors include: human dignity, human wellbeing, membership, and rectifying past wrongs. Some view justice as safeguarding human dignity, ensuring equal access to resources and protecting individual autonomy, while others prioritize human wellbeing, aiming for the greatest good and least harm for the greatest number of people. Additionally, justice is seen in the context of community membership, emphasizing responsibilities and duties within specific communities. Lastly, justice involves rectifying past faults, holding accountable those who cause harm and compensating victims. Understanding why justice matters is crucial as it shapes project goals and methods. It helps in anticipating conflicts and friction by recognizing differing interpretations of justice's importance and goals. Clarifying goals fosters accountability between advocates and communities, ensuring transparency in project aims and commitments.

QUESTION 4

What are the principles of justice?

Justice principles are foundational beliefs guiding fair actions. Dobson (1998) outlines seven principles including *need, deservingness, entitlement, market value, prioritarianism, utility*, and *equality*. These principles inform fair distribution and procedural justice. Fair procedure involves participation and accuracy, consistency, social sensitivity, and accountability. Recognition justice entails acknowledgment through love, respect, and esteem. It is important for the researchers to be aware that multiple principles guide the idea of justice and to be reflective on what these are and how they can be brought into communication with one another.

QUESTION 5

Justice for whom?

When considering the practice of justice, it is crucial to identify whose justice matters. This involves a debate between individual and community perspectives. Besides, justice considerations extend to spatial, temporal, and species boundaries. Spatially, debates range from national to international levels, addressing inclusivity concerns. Temporally, questions regarding intergenerational equity and historical injustices arise. Moreover, expanding justice to include non-human entities challenges human-centric perspectives and raises moral, ontological, and instrumental questions. Ultimately, defining the community of justice is a complex process that involves power dynamics and philosophical considerations that researchers need to be aware of.

These five questions are intended for researchers to become aware of the multiple notions of justice existing and how to nudge them when working in this pluralistic setting.

Alex shares an example of how this can be put to practice in TTR by using a framework that can support a systematic reflection around justice issues by combining the work on Core Design Principles (CDP) by Elinor Ostrom (e.g. see Ostrom, 1993) with the guiding questions for justice work in nature-based solutions by Wijsman and Berbés-Blázquez (2022), and the justice-sustainability tensions identified by Ciplet and Harrison (2020). The following table shows a small excerpt of a preliminary version of this framework.

Core Design Principle 1: Clear group identity and shared sense of purpose	
Key assessment question: ■ To what extent do group members feel a sense of belonging and shared purpose with the group?	Key planning questions: ■ What do we most care about? And how can we create a sense of care, belonging and safety in the group?
Key sustainability questions: ■ Which aspects of sustainability do we most care about? And how do we translate this into substantial actions toward sustainability? ■ Is there additional expertise on sustainability that could be brought in to help us to foster even more substantial sustainability actions?	Key justice questions: ■ Which aspects of justice do we most care about? And how do we translate this into just collective action? ■ Whose values, voices, and worldviews may not currently be adequately recognized in our group but may be affected by our actions?
Key tensions: ■ Marketization vs. Recognition: How do we trade-off between marketization of resources and other resource management paradigms? ■ Verification vs. Recognition: How do we trade-off between making things measurable or verifiable and other value systems?	

Source: Herwix et al., 2023

For those who scope their work to the three tenets of **distribution, recognition and procedural justice** (see section 2 for elaboration), Marina points to the work of Eräranta (2023). This work offers some guiding questions to be asked while considering the three dimensions of justice while also pointing out the intersectionality of the two overarching themes of global justice and perspective(s) of universal human rights.

Eräranta (2023) offers some guiding questions based on three dimensions of justice, as well as offering some specific questions for the four themes of justice for planetary planning, namely structural justice, multispecies justice, intergenerational justice and spatial justice.

Questions for assessing distributive justice:

- Does the action/inaction significantly reduce the livelihood and living conditions of some actors now or in the future?

- Does the action/inaction reduce the opportunities of some actors to, for example, work or conduct business?
- Does the action/inaction reduce the well-being and health benefits or disadvantages of some actors now or in the future?

Questions for assessing procedural justice:

- Has the preparation taken into account the differences between different actors, different positions and special needs and, vulnerabilities arising from differences?
- Has the impact assessment considered those who are expected to be directly and indirectly affected?
- Have the process and decisions been prepared in a data-driven manner? Have the impact assessments had an impact on the proposed measures?

Questions for assessing recognitional justice:

- Are actors in a different position in relation to the impacts because of, for example, their background, culture, wealth, age, place of residence, education or profession?
- How has the background of the preparing officials or assessors influenced the formulation and evaluation of the actions?
- Has it been ensured that the actions do not discriminate against anyone due to factors such as nationality, age, gender or illness?

Finally, Stefanie suggests looking at the work of Mabon et al. (2022) to engage with questions for **assessing epistemic justice**:

- What kinds of knowledge and evidence are prioritised in understanding the issue at hand?
- Whose identities and expertise are recognized as valid sources of evidence for informing planning and governance decisions? Who is excluded?
- What processes are there for integrating different knowledges and experiences for planning and governance? Are they viewed as being fair?

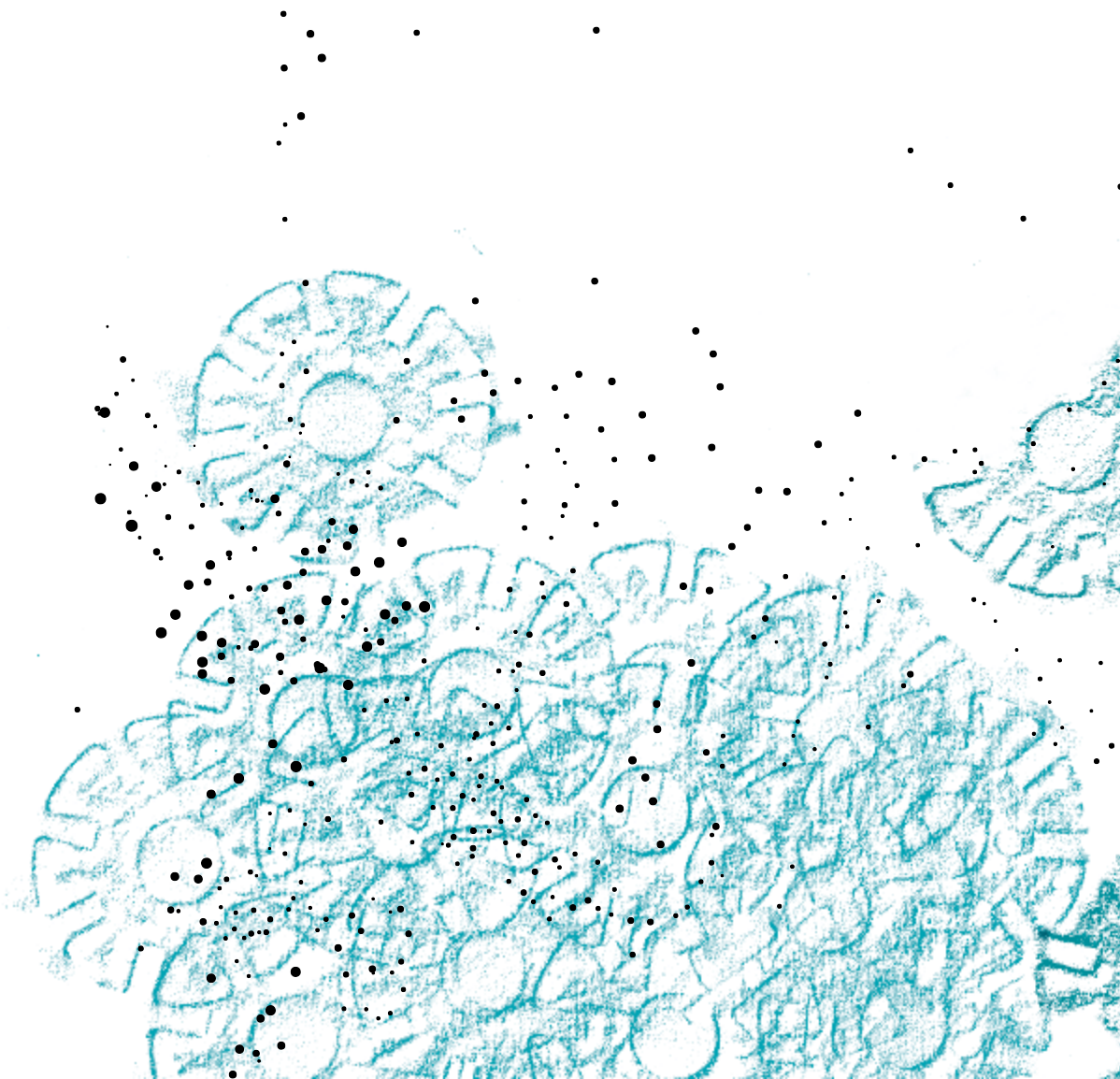
Questions for addressing equitable knowledge production and considering recognition and epistemic justice (Lieu et al, 2023):

- Why: What is the purpose of knowledge co-production in the project, exhibited by its intended outputs?
- What: Which disciplines or areas of knowledge are relevant to the project?
- Who: Which researchers are involved in the project?
- Who with: Which stakeholder groups are involved in the project?
- Whose funds: What is the funding source of the project?
- How: What are the practices, tools and methods used for knowledge co-production?

Hernan points out that in quantitative traditions, it might be important to establish measuring criteria to assess justice and to effectively manage institutional action, both in space

and time, and afford political accountability. Jules suggested the World Justice Project as an example of what this might look like (<https://worldjusticeproject.org/rule-of-law-index/>).

Given that justice is understood and practised in diverse ways within the research community as well as by research partners, we note that it is hard to prescribe a set of guiding questions to bridge the theory and practice of justice. Instead, this section shares some ways on how contributing authors have attempted to do this in their respective research practice. Overall, it is helpful to start with meta questions as a starting point, followed by more context specific questions. We do, however, notice that there is a dominantly anthropocentric framing of questions in this section. How are more-than-human participants included/excluded in the research? This is particularly critical for those engaging in biodiversity justice stated in section 2. This needs further exploration.



4. How to do justice?

Approaches and research methods Addressing justice and rectifying injustices are central to the mission of transformative and transdisciplinary research (TTR). This section delves into practical applications and research methods that enable scholars to operationalize justice within their work. We explore strategies for integrating equitable practices, fostering inclusivity, and addressing power imbalances. By leveraging diverse methodological approaches and engaging with affected communities, researchers can ensure their work contributes to a more just and equitable society.



Participatory and Collaborative Approaches Engaging participants as co-researchers can democratize the research process and ensure that the voices of those most affected by the research are prioritized. This participatory approach helps in co-constructing knowledge and solutions that are relevant and beneficial to the community.

Asad, M., Dombrowski, L. S., Costanza-Chock, S., Erete, S., & Harrington, C. N. (2019). Academic Accomplices: Practical Strategies for Research Justice. *Proceedings of the 2019 CHI Conference on Human Factors in Computing Systems*. <https://dx.doi.org/10.1145/3301019.3320001>



Inclusivity and Participation Research justice promotes the active participation of marginalized communities in all stages of the research process. This includes designing the research, collecting data, analyzing results, and disseminating findings. Community members are recognized as experts with valuable knowledge and perspectives. For example, homegrown research methodologies respond directly to community needs, centering community members as experts.

Bay, J. (2019). Research Justice as Reciprocity: Homegrown Research Methodologies. *Community Literacy Journal*, 13(1), 19-31. <https://digitalcommons.fiu.edu/cgi/viewcontent.cgi?article=1021&context=communityliteracy>



Critical Qualitative Methodologies Critical qualitative research practices focus on justice, difference, ethics, and equity. These practices challenge oppressive structures and strive to make research processes more inclusive and reflective of diverse perspectives. Such methodologies were highlighted in a panel session at the International Congress of Qualitative Inquiry.

Denzin, N., Lincoln, Y., MacLure, M., Otterstad, A. M., Torrance, H., Cannella, G. S., Koro-Ljungberg, M., & McTier, T. S. (2017). Critical Qualitative Methodologies. *International Review of Qualitative Research*, 10(4), 482-497. <https://dx.doi.org/10.1525/IRQR.2017.10.4.482>





Reflexivity Reflexivity involves researchers critically reflecting on their own positionality, biases, and impact on the research process. This self-awareness helps to mitigate power imbalances between researchers and participants and ensures ethical integrity in the research.

Stanfield, J. (2006). The possible restorative justice functions of qualitative research. *International Journal of Qualitative Studies in Education*, 19(6), 723-727. <https://dx.doi.org/10.1080/09518390600975925>

Pillow, W. S. (2003). "Confession, Catharsis, or Cure? Rethinking the Uses of Reflexivity as Methodological Power in Qualitative Research." *International Journal of Qualitative Studies in Education*, 16(2), 175-196. <https://doi.org/10.1080/0951839032000060635>

Berger, R. (2015). "Now I See It, Now I Don't: Researcher's Position and Reflexivity in Qualitative Research." *Qualitative Research*, 15(2), 219-234. <https://doi.org/10.1177/1468794112468475>



Become Academic Accomplices Scholars committed to leveraging their resources and power to support the justice work of community collaborators are known as academic accomplices. They aim to challenge oppressive structures and practices in academic research, promoting research justice.

Asad, M., Dombrowski, L. S., Costanza-Chock, S., Erete, S., & Harrington, C. N. (2019). Academic Accomplices: Practical Strategies for Research Justice. *Proceedings of the 2019 CHI Conference on Human Factors in Computing Systems*. <https://dx.doi.org/10.1145/3301019.3320001>



Engaging with Social Movements Scholar activists within research teams can bridge networks of scholars with social movement networks to build strongly engaged and relational transdisciplinary research. This approach enhances the social impact of research and fosters solidarity.

Pereira, T., & Erwin, K. (2023). Surfacing solidarity praxis in transdisciplinary research for blue justice. *Environmental Sociology*, 9(3), 1-15. <https://dx.doi.org/10.1080/26395916.2023.2260502>



Transformative, and Reparative Justice Transformative, reparative transitional justice involves material, symbolic, and pedagogical actions to redress past wrongs. This is particularly relevant for addressing colonial, imperial, and capitalist injustices in academic research.

Paulson, J., Espinal, S., Karki, M., Kormakech, D., Kurawa, G., & Ranabhat, S. (2021). Exploring transitional justice in educational research. *Zenodo*. <https://dx.doi.org/10.5281/ZENODO.5533918>

Grounding Justice: Toward Reparative Spatial Futures in Land and Housing <https://www.policylink.org/sites/default/files/grounding-justice-010524-d-PL.pdf>



Critical Theoretical Frameworks Employing critical theoretical frameworks, such as critical race theory, feminist theory, and postcolonial theory, can guide the analysis and interpretation of data. These frameworks help uncover hidden power dynamics and provide a lens through which to view social injustices.

Denzin, N., Lincoln, Y., MacLure, M., Otterstad, A. M., Torrance, H., Cannella, G. S., Koro-Ljungberg, M., & McTier, T. S. (2017). Critical Qualitative Methodologies. *International Review of Qualitative Research*, 10(4), 482-497. <https://dx.doi.org/10.1525/IRQR.2017.10.4.482>



Critical Information Literacy (CIL) Critical Information Literacy (CIL) can play a significant role in decolonial work by addressing issues of positionality, relationality, and transitionality. CIL encourages researchers to critically engage with how information is produced, shared, and valued, promoting a more inclusive and just academic environment.

Marsh, F. (2022). Unsettling information literacy: Exploring critical approaches with academic researchers for decolonising the university. <https://dx.doi.org/10.11645/161.3136>



Structural Approaches to Data Justice A structural approach should be the foundation for understanding data justice in a development context. This involves analyzing how data practices can perpetuate or mitigate existing inequalities and ensuring that data governance frameworks promote social justice.

Heeks, R., & Renken, J. (2018). Data justice for development. *Information Development*, 34(1), 90-105. <https://dx.doi.org/10.1177/0266666916678282>



Broadening Understanding of Data Governance Data justice can broaden the understanding of equitable, freedom-promoting, and rights-sustaining data collection, governance, and use. This approach helps create data ecosystems that support social justice and protect against misuse.

Leslie, D., Katell, M., Aitken, M., Singh, J., Briggs, M., Powell, R., Rinc'on, C., Chengega, T., Birhane, A., Perini, A., Jayadeva, S., & Mazumder, A. (2022). Advancing Data Justice Research and Practice: An Integrated Literature Review. *Zenodo*. <https://dx.doi.org/10.5281/zenodo.6408304>



Data Justice The CODE[^]SHIFT Model is a data justice framework that emphasizes community-led initiatives for collective impact and social transformation. This model focuses on transforming interpretive data framings, challenging hegemonic knowledge production, and addressing structures of capitalism and colonialism.

Ramasubramanian, S., & Dutta, M. J. (2023). The CODE[^]SHIFT model: a data justice framework for collective impact and social transformation. *Health Communication*. <https://dx.doi.org/10.1093/hcr/hqad050>



Responsible Data Usage Critical data literacy involves not only the technical handling of data but also the responsible and ethical use of data. This includes being aware of the potential biases in data and the implications of data-driven decisions

Leahey, A., & Giesbrecht, W. (2013). DL, or data literacy: the (sometimes) forgotten stepsister of IL. *Journal of Information Literacy*. <https://dx.doi.org/10.15353/JOCI.V12I3.3288>



Reflexive Evaluation in Community-Engaged Research

Involves critical reflection on the positionality of participants and the incorporation of community voices in research processes. This method strengthens community-first engaged research by ensuring that evaluation practices are inclusive and responsive

Goemans, M., Levkoe, C. Z., André, P., Changfoot, N., & Christopherson-Cote, C. (2019). Learning to "Walk the Talk": Reflexive Evaluation in Community-First Engaged Research. <https://dx.doi.org/10.15402/ESJ.V4I2.61748>



Holistic Understanding of Social Issues Intersectionality enables researchers to capture the complexity of social issues by considering multiple overlapping identities. This approach reveals how different forms of discrimination and privilege are interconnected and cannot be understood in isolation.

Crenshaw, K. (1991). "Mapping the Margins: Intersectionality, Identity Politics, and Violence against Women of Color." *Stanford Law Review*, 43(6), 1241-1299. <https://www.jstor.org/stable/1229039>



Addressing Power and Cultural Imbalances Engaging with local knowledge and lived experiences helps to address and mitigate power imbalances in the research process. It recognizes the expertise and authority of local communities, challenging the dominance of external, often Western-centric, perspectives. By prioritizing lived experiences and local knowledge, researchers can ensure that the voices of marginalized and underrepresented communities are heard and valued. This approach helps to democratize knowledge production and make research more inclusive.

Chilisa, B. (2012). *Indigenous Research Methodologies*. SAGE Publications. <https://us.sagepub.com/en-us/nam/indigenous-research-methodologies/book241776>

Tuhiwai Smith, L. (1999). *Decolonizing Methodologies: Research and Indigenous Peoples*. <https://nyc-standswithstandingrock.wordpress.com/wp-content/uploads/2016/10/linda-tuhiwai-smith-decolonizing-methodologies-research-and-indigenous-peoples.pdf>



Designing Justice Principles Design mediates so much of our realities and has tremendous impact on our lives, yet very few of us participate in design processes. In particular, the people who are most adversely affected by design decisions — about visual culture, new technologies, the planning of our communities, or the structure of our political and economic systems — tend to have the least influence on those decisions and how they are made. Design justice rethinks design processes, centers people who are normally marginalized by design, and uses collaborative, creative practices to address the deepest challenges our communities face.

<https://designjustice.org/read-the-principles>



Reparative Spatial Justice/Spatial Futures Initiative This document acts as a resource for collaboration and dialogue, acknowledging the importance of engaging with the complexities and collective progress inherent in this journey towards reparative spatial justice. The publication emphasises the urgent necessity for a framework centred on reparative spatial justice within land and housing policies. It elevates essential concepts, research discoveries, and insights from various sources, highlighting the intricate aspects of reparative spatial justice. The publication also incorporates discussions with advocates, frontline professionals, and leading voices in spatial justice, reparations, housing, and land justice. By blending these contributions, the report presents a comprehensive set of actionable recommendations, guiding those involved in this critical and transformative effort.

Hoang, T., Rasheedah, P. & Rangel, J. (2024). Grounding Justice: Reparative Spatial Justice and Its Implementation. Chicago: Institute for Spatial and Social Justice, pp. 3-37
<https://www.policylink.org/sites/default/files/grounding-justice-010524-d-PL.pdf>



Shaping a deliberation process Shaping a deliberation process in TTR involves integrating diverse perspectives from various disciplines and stakeholders to address complex societal challenges comprehensively. It requires creating an inclusive, equitable environment that encourages collaborative dialogue and innovative solutions beyond traditional academic boundaries.

Caniglia, G., Freeth, R., Luederitz, C., Leventon, J., West, S. P., John, B., ... & Vogel, C. (2023). Practical wisdom and virtue ethics for knowledge co-production in sustainability science. *Nature sustainability*, 6(5), 493-501. <https://doi.org/10.1038/s41893-022-01040-1>



Engage in visioning exercises Engaging in visioning exercises for justice in TTR implies collaboratively imagining and articulating equitable futures that address systemic inequalities and injustices. These exercises foster shared understanding and commitment among diverse stakeholders, driving collective action toward inclusive and just outcomes.

BrightSpots: Toward Sustainable Farming and Food Systems <https://brightspotsproject.com/>



Engage in discussions on injustices (values could be a starting point) The concept of justice in transformative processes is inherently normative, encompassing conflicting worldviews, contested pathways, and diverse interests. Transformation involves altering structures, cultures, and practices, with a culture of transformation being shaped by values that provide meaning and direction to actions. Hence, reflecting on one's values can be a starting point in the discussion on injustices in TTR settings.

Vogel, J., Porras, F., Schlaile, M. P., Hector, V., Plesner Volkdal, C., & Xu, Z. (2023, Dezember 12). The Normative Dimension of Transdisciplinary Cooperation. Debating Development Research. <http://www.developmentresearch.eu/?p=1721>



Artistic Activism Artistic Activism is a dynamic practice combining the creative power of the arts to move us emotionally with the strategic planning of activism necessary to bring about social change; accordingly, activist art is a term used to describe art that is grounded in the act of 'doing' and addresses political or social issues.

Why Artistic Activism? <https://c4aa.org/2018/04/why-artistic-activism>

Duncombe, S. & Lambert, S. (2021). The Art of Activism: Your All-Purpose Guide to Making the Impossible Possible. Online at: <https://artofactivismbook.com/#about>



Changes in the relationship between academia and practice (non-extractive, reciprocal) Non-extractive research methodologies

Gardner, P. (2023). Non-extractive participatory design: feminist, anti-colonial, and disability-centred approaches. Online at: <https://www.youtube.com/watch?v=S7L1q8G66xc>



Unlearning, undoing, unmaking injustices or unjust power relations The unlearning perspective in sustainability transitions, according to van Oer et al. (2023), adds value by:

1. **Emphasizing intentional discarding:** It focuses on the de-liberate effort to let go of established routines and knowledge.
2. **Highlighting specific actions:** It draws attention to actions like confrontation, disengagement, and rejection, which are not typically central in learning studies.
3. **Integrating pedagogical insights:** By combining pedagogical and organisational unlearning, it identifies motivations (ethical and political) and views unlearning as a practice of empowerment and liberation, often missed in purely organisational approaches.

van Oers, L., Feola, G., Runhaar, H., & Moors, E. (2023). Unlearning in sustainability transitions: Insight from two Dutch community-supported agriculture farms. *Environmental Innovation and Societal Transitions*, 46, 100693. <https://doi.org/10.1016/j.eist.2023.100693>



5. How to put justice into practice?



Experiences and insights This section focuses on the actual process of doing justice in TTR projects, on real world challenges that can come up in these processes and on possible strategies to address these challenges. This implies that this section does not provide universal principles or a profound scientific analysis of these issues.

In the following, we report on our own experiences with doing justice in TTR projects. We reflect on these experiences, building on the idea of autoethnography and following the considerations and concepts presented above, and show which aims we pursued, which challenges we faced, which strategies we followed, which solutions we developed, which successes we achieved and which failures we faced. With these reports, we want to contribute to an exchange of experiences and knowledge among different kinds of actors that are involved in TTR projects in one way or the other, as researchers, practitioners, artists or in other roles.

Building on this basis, we provide a list of challenges that, according to our practical experience, can come up in the different phases of or throughout the whole research process. The list of challenges is complemented with thoughts on strategies that can be applied to address these challenges. Lessons can be learned from successful projects and good practice examples on the one hand, but also, and sometimes even more, from failures. The catalogue of challenges related to doing justice in TTR projects and the listed associated possible solution options are drawn from our own practical experience and from further discussions and reflections in the group.

The catalogue of challenges and possible solutions can serve as a guideline and as a reference work for future TTR research projects. It summarises our collective learnings from practising and reflecting upon TTR research, it shows what conclusions can be drawn from practical TTR experience, and it makes this knowledge available for further work on justice in TTR. By this endeavour, we aim at giving impulses for an intensified and more targeted exchange on practical challenges of doing justice in TTR projects and on possible strategies to address these challenges.

OUR EXPERIENCES WITH DOING JUSTICE IN TTR

PROJECT “Dresden – City of the Future 2030+”

Transition experiment “Week of the Good Life”

Franziska Ehnert

DATE & PLACE August 2019 – June 2021, Dresden, Germany

GROUP Civil society actors (Regionalgruppe Dresden des BUND Sachsen e. V.), research partners from the Leibniz Institute of Ecological Urban and Regional Development and the TUD Dresden University of Technology

FIELD REPORT & REFLECTION The transition experiment (TE) “Week of the Good Life” of the re-search project “Dresden – City of the Future 2030+” has revealed the challenges of ethical research in TTR. The negotiations with the local authorities and the authorisation procedure for a mobility experiment were delayed by around a year, as there was no legal basis for conducting such an experiment. This was only created by an amendment to the federal road traffic regulations and the extension of the experimentation clause for mobility experiments. This caused much frustration and uncertainty among the TE team, which raised questions about the ethics and responsibilities of research: Can TEs be initiated when their feasibility is still highly uncertain and legal provisions still need to be developed? Should citizens who are promoting a TE with a great deal of voluntary commitment be exposed to such uncertainties for the purpose of research? How can voluntary engagement in TTR be acknowledged and protected?

When experimenting in real-world settings, researchers are confronted with multiple dilemmas. On the one hand, you intend to develop innovations to transform society. On the other hand, in some instances these innovations – and per definitionem they should – go beyond the existing legal frameworks because sustainable practices may not be compatible with the current legal system. This is exemplified by the rules on public procurement, which focus solely on economic efficiency, yet disregard social and ecological criteria. In order to be able to experiment with sustainable innovations, legal provisions for experimentation must be created, e.g. by extending experimentation clauses.

In particular, their feasibility must be critically examined during the co-design of TE. To this end, experimental clauses might need to be assessed and expanded. If in doubt, legal experts should be consulted. It is equally important to conduct a joint dialogue with the TE team during the co-design phase in order to discuss the following questions: Which legal uncertainties are acceptable as part of experimentation and which are not? Where can failure be part of experimentation and where not? Which legal foundations must be secured in advance of TE

implementation in order to ensure feasibility? The question “What is ethical research?” should also be discussed in reflection workshops so that possible conflicts can be recognised and redressed.

Despite all the hurdles: experiments are experiments. They are per definitionem characterised by uncertainty and novelty. It is simply not possible – and also not the intention of TEs – to know from the outset whether everything can be realised. Ultimately, experimentation is about breaking new ground. The balancing act between being considerate of feasibility and preserving the openness of experimentation is a great challenge and requires a lot of communication and perseverance on all sides.

LINKS <https://www.zukunftsstadt-dresden.de/projekte/e10/>
<https://www.zukunftsstadt-dresden.de/>
<https://www.ioer.de/projekte/zukunftsstadt>

PROJECT “Dresden – City of the Future 2030+”

Transition experiment “Schools as Living Spaces created together”

Franziska Ehnert

DATE & PLACE December 2018 – June 2021, Dresden, Germany

GROUP civil society actors (Stadtteilverein Johannstadt e. V.), Grundschule Johanna Dresden, research partners from the Leibniz Institute of Ecological Urban and Regional Development

FIELD REPORT & REFLECTION As public schools are highly institutionalised organisations, there were many regulations to consider and many actors to involve in the administration of schools (e.g. School Administration Office, Urban Planning Office, school management, supporting association of the day care centre, facility management, accident insurance agency, technical control board - TÜV). In order to support the co-creation process, the municipality had introduced the Office of the City of the Future (including a community manager) as an intermediary unit to facilitate cooperation between the citizen-led TE teams and diverse administrative offices. However, given the complex institutional context of school administration, even the Office struggled to identify the units and actors responsible and coordinate between them. This led to miscommunication during the co-design process and not all relevant information being shared with all involved actors. A private planning office contracted by the School Administration Office was not properly informed about detailed plans for re-structuring and re-building the front yard of the school, even though the TE team had tried to reach out to it. This caused confusion and required the planning office to revise original plans, which needed additional resources.

Moreover, security regulations for public playgrounds had not been properly considered during the co-design process by the TE team. Therefore, one play equipment that had been set up by the TE team had to be rebuilt to comply with security guidelines. This situation led to conflict and confrontation between the TE team and the School Administration Office. The community manager acted as mediator between the variegated actors to bring everyone back to the table and find solutions for re-adjusting the problematic object. The example raises the question of what extent of controversy and confrontation between actors is ethical in TTR? Where are the boundaries of ethical research overstepped?

LINKS <https://www.zukunftsstadt-dresden.de/projekte/a7/>
<https://www.zukunftsstadt-dresden.de/>
<https://www.ioer.de/projekte/zukunftsstadt>

PROJECT University-School Cooperation project “Mobiler Heustadel”
Eveline Wandl-Vogt

DATE & PLACE 26. January –2. February 2024 Vienna /AT

GROUP 2 university lecturers, 1 of them teacher at AHS, 2 researchers / mentors, 12 students (self assessed), 50 school children /2 classes/ 10–17 years old (not self assessed)

(IN)JUSTICES Spatial Justice, Environmental Justice, Intergenerational Justice, Gender Justice
DISCUSSED

METHODS USED JustHood including Masterplans of the school, and a variety of sizes of the neighbourhood/district, Participatory Futuring, interview, Survey, participant observation, App development (Tools XX), User Design and Usability Testing, mobility map of the students for the week, Google Maps, daily stand ups, Group work, PPT, Social Media (Instagram, LinkedIn), Peer to peer learning.

MAIN RESULTS 8 mobility related concepts envisioning future of mobility in their closest district and school building including very concrete proposals for next steps; draft for a resolution; for each pupil a reference how he/she did the work to be judged non verbally, aligned with this new method for educational feedback for teachers; overall documentation of students for the teaching experiment; presentation at the OEGB open innovation factory of all concepts with teachers, parents and community creates mobility members; scientific analysis of the process (in the pipeline).

CHALLENGES expectation management (needed results for university teacher, school teacher, students, pupils, us) and time frame (1 semester, 1 week of interaction), language issues (one methods mediator only EN/ES/PL not DE), mindset (crucial concepts are still not embodied: open science, participatory methods, experience based teaching/learning, futures literacy), transformation and growing on all levels (not everybody is open to get on a joint journey), funding.

LEARNINGS as experimental researcher on transformational processes usually our experiences are highest and not fulfillable; sharing of materials and who shall be allowed to use what in which way (licensing) shall be conducted; be aware that you might just do your further research based on your own documentation; working with children requires further legal issues (eg. related pictures etc.); flexibility is core of the process – the more methods you have in your toolbox, the easier to fit in the needs of the knowledge carriers and get the most out of it and meet their learning types; consider your work as a step into a certain direction and analyse your results in a failure matrix critically, related both, human / organisational / societal and non-human factors; adapt and personalise your workflow as much as needed and possible – just is not everybody gets the same, but everyone gets as much as they need.

LINKS <https://www.mobility.community/projekt-mobiler-heustadel-nach-haltige-mobilitaet-durch-kollaboratives-lernen-foerdern/>
<https://www.linkedin.com/feed/update/urn:li:activity:7158338258299502593/>

PROJECT BioCultural Manifesto Sprint
Eveline Wendl-Vogt

DATE & PLACE 23.–24. October 2019 Vienna / AT

GROUP 3 moderators (AT/ES/FR), about 20 people, self assessed, some per invitation (not paid)

(IN)JUSTICES Biodiversity Justice (focus)

DISCUSSED

METHODS USED Do it yourself accreditation via badges, adjusted Open Space Technology, Brainstorming and Ideation, Co-Writing, Discourse and Text analysis

MAIN RESULTS BioCultural Manifesto in 22 official and lesser used languages; Online; 20 art works by a well-known Austrian Artist related to the topic; Book (in print due to COVID19 and illness issues with big delay)

CHALLENGES manifesto sprint as a new format for the participants; new format with discourse and text analysis to reflect results during the process; short intervention, complex topic, serious result; variety of actors; twofold results: manifesto and book chapters; manifesto translation in a variety of languages aligned with content; funding

LEARNINGS do it yourself accreditation badges work well to introduce personally without affiliation focus; manifesto sprint is a efficient format to create or re-write manifestos, network contributed with manifesto translations; manifesto and related work was not considered relevant DH output, yet community was formed to push forward related ideas and work such as the development of a biocultural diversity index.

LINKS Results: <https://biocultural-diversity.org/>
 Process call: https://www.oeaw.ac.at/fileadmin/Institute/ACDH/img/events/ACDH_activities/Core_Unit_4_Methods_and_Innovation/BioCulturalDiversity_full_CFP_2019.pdf
 Process description: <https://www.tandfonline.com/doi/full/10.1080/23311983.2022.2050603>

PROJECT Energy justice in the Power2U project – co-creation of recommendations with practice actors for the heat and mobility sector
Katrin Beer

DATE & PLACE October 2021 – January 2025, Germany

GROUP Interdisciplinary team of researchers, scientific advisory board, practice advisory board (8 associations), selected practice partners; different experts in the field of heat and mobility transition in Germany selected by the research team for interviews and workshops

FIELD REPORT & REFLECTIONS The research project Power2U followed an interdisciplinary and transdisciplinary research design and aimed at compiling recommendations for a suitable mix of instruments and interventions that support the empowerment of private households to participate in the energy transition by investing in renewable energy technologies. The focus was on the shift from the use of fossil-based energy technologies to the use of renewable energy technologies in private households in Germany. More specifically, the example of investments in heat pumps has been analysed as an example for the energy transition in the heat sector and investments in electric vehicles have been analysed as an example for the energy transition in the mobility sector. Furthermore, the study focused on private households that lived in owner-occupied one- or two-family houses with comparably low energy standards (existing buildings, not newly built houses), a private parking space and the

possibility to install a private charging infrastructure for electric vehicles.

Justice related challenges in this TTR project occurred in various ways. Three justice related areas of the research project will be discussed in the following: First, there has been a focus on energy justice and the empowerment of vulnerable groups, like low-income groups, households in rural areas and other groups that faced different kinds of barriers regarding energy justice. Second, the transdisciplinary project design implied the collaboration in the research process with different actor groups, like practitioners from the practice advisory board, other practice partners and households that took part in online surveys. Hence the question which perspectives and voices should be included in the research process had to be answered. Third, the institutional framework in which the research took place and the inherent logics and dynamics of the academic system opened up some justice related questions.

Energy justice and distributional justice, participatory justice, spatial justice, global and international justice, in the Power2U project:

In the project, the aim was to develop recommendations for the empowerment of private households to invest in renewable energy technologies. As this empowerment was meant to be geared towards groups that potentially need empowerment from the outside to take investments, it was necessary to elaborate which kinds of groups were the target groups in this project. It had been defined that there should be a focus on vulnerable groups, very general, and on households in rural areas. Conceptual, literature based and empirical work has been done in order to clarify which groups actually could be seen as target groups in the project. Vulnerable groups have been defined as groups who lack access to renewable energy technologies due to a lack in affordability, availability or accessibility. The aspect of affordability covers low-income groups and groups with low property assets as well as the market situation, e.g. if renewable technology options are exceptionally expensive. The aspect of availability covers issues like the availability of a certain technology or services on the market and the availability of infrastructure in a certain area or place, e.g. if there is a charging infrastructure or if alternatives services are available, like charging infrastructure for electric cars or heat networks as alternative to individual heating systems. In contrast to the aspect of availability, the aspect of accessibility stresses more the individual situation of a person or a group.

For instance, electric vehicles and a charging infrastructure can be affordable and available in a certain region for a certain person, but still not be accessible as an option, e.g. due to personal limitations like disabilities that do not allow driving a car (visual handicaps, neurological disorders, etc.). In the research process, it has been a justice related challenge to define groups which are to be empowered in contrast to groups which are seen as actors that are assigned the role that they can do investments without further empowerment from external institutions. This division in the research process is a challenge that in the same way occurs in policy design and the actual implementation of political instruments and can make a big difference for individual persons or social groups as a result.

Another justice related issue that was relevant in the project Power2U was the question how to define energy justice. In order to design and support a transition process, it is necessary to define goals for the target situation. This implies the challenge to define a situation in which energy justice is achieved, or to define injustices regarding energy supply and energy security which are to be addressed. The conceptual work in the project was based on considerations of various authors who published scientific work on energy justice and climate justice (Baasch, 2023; DellaValle and Sareen, 2020; Lee and Byrne, 2019; Newell et al., 2021; Sovacool et al., 2019, 2017; Sovacool and Dworkin, 2015). The devil is in the detail when it comes to balancing needs and justice in the field of energy and climate policy. On the one hand, with relation to climate justice and global justice, it is an urgent goal to defossilize the energy system as fast as possible, to shift to renewable energy use, to increase energy efficiency and energy savings. On the other hand, there is the aim to provide clean energy for all, as stated in the SDGs, to an extent that allows everyone to fulfil their needs. However, it is difficult to translate these goals to practical guidelines. For instance, in the field of heat use in residential buildings, some dilemmas come up, especially when it comes to financial instruments which work with incentives and disincentives. To increase energy efficiency and decrease the use of fossil fuels, high energy costs for heating can be an incentive. But on the other side, low-income groups often live in old buildings with low energy standards and cannot afford to live in new buildings. They might have limited opportunities and scope for action to decrease their energy use due to the building structure. Also, low-income groups more often rent a flat or a house and cannot decide which heating system to use. They hence might not have an influence on the decision, whether an investment in a renewable heating system will be made.

Also, high energy costs hit low-income groups harder. Even though they usually live in a smaller place which they need to keep warm in cold conditions, the share of energy costs related to their income is much higher and cost increase therefore put them under more pressure than high-income groups, who have more possibilities to balance out cost increases in energy costs. Conflicts of goals between climate justice, energy justice and social justice are coming up in political processes in many areas recently and this is a vast field of research for the next years.

Procedural, participatory, recognitional, epistemic justice in the transdisciplinary research process: Researchers get paid for their work, partners from practice/partner institutions participate voluntarily and on their own costs and these costs either have to be covered by the institutions of practice partners, if possible, or they work on a voluntary basis, hence without financial compensation.

Regarding the institutional framework and structures of the academic system, the possibilities to include different perspectives and to cover different groups, both regarding researched vulnerable groups and interviewed/invited experts, were limited by the capacities given for the research. The approved budget for the research project determined the capacities of the researchers, the duration of work contracts and the available time for different work packages. There was a necessity to select actors, groups, perspectives which were to be included and such a selection always implies an exclusion of other groups. Challenges that occur in this area are the development of selection criteria and actual decisions of whom to include and whom to exclude in such a study. The section on guiding questions in this collection (section 3) can be a valuable resource for this step.

In addition to the overall limitations of work capacities of a research project, the written and unwritten rules in the academic world determine to some extent how the available workforce, the capacities of the employees and financial resources can be used. Besides the content related aims of a research project, there are different kinds of aims related to the academic system that play a role. To make this point more concrete: It is not necessarily the goal with the highest priority for researchers, for instance in a research project on the energy transition, to actually move forward the energy transition in the researched area. Other goals related to the academic system can be more important to researchers, like publishing a certain amount of academic papers, giving a certain amount of talks, organising a certain amount and certain kind of events, etc., and content related research goals can to some

extent move into the background, while reaching above mentioned indicators and milestones can become an end in itself. In the academic culture, transdisciplinarity and practice-oriented research or action research can have its disadvantages. In academia, very science-oriented achievements and outputs are rewarded. This can lead to a situation in which a researcher has to decide whether he/she wants to focus on academic work packaged in order to bring forward the personal career and to increase the reputation of the own department/institute/char/profile or whether he/she wants to focus on actual impact in practice, in real world processes and on exchange with practice partners.

LINKS <http://power2u.ovgu.de/>

PROJECT **Personal reflections inspired by “Making power explicit: Using values and power mapping to guide power-diverse Participatory Action Research processes” (Littman et al. 2021)**

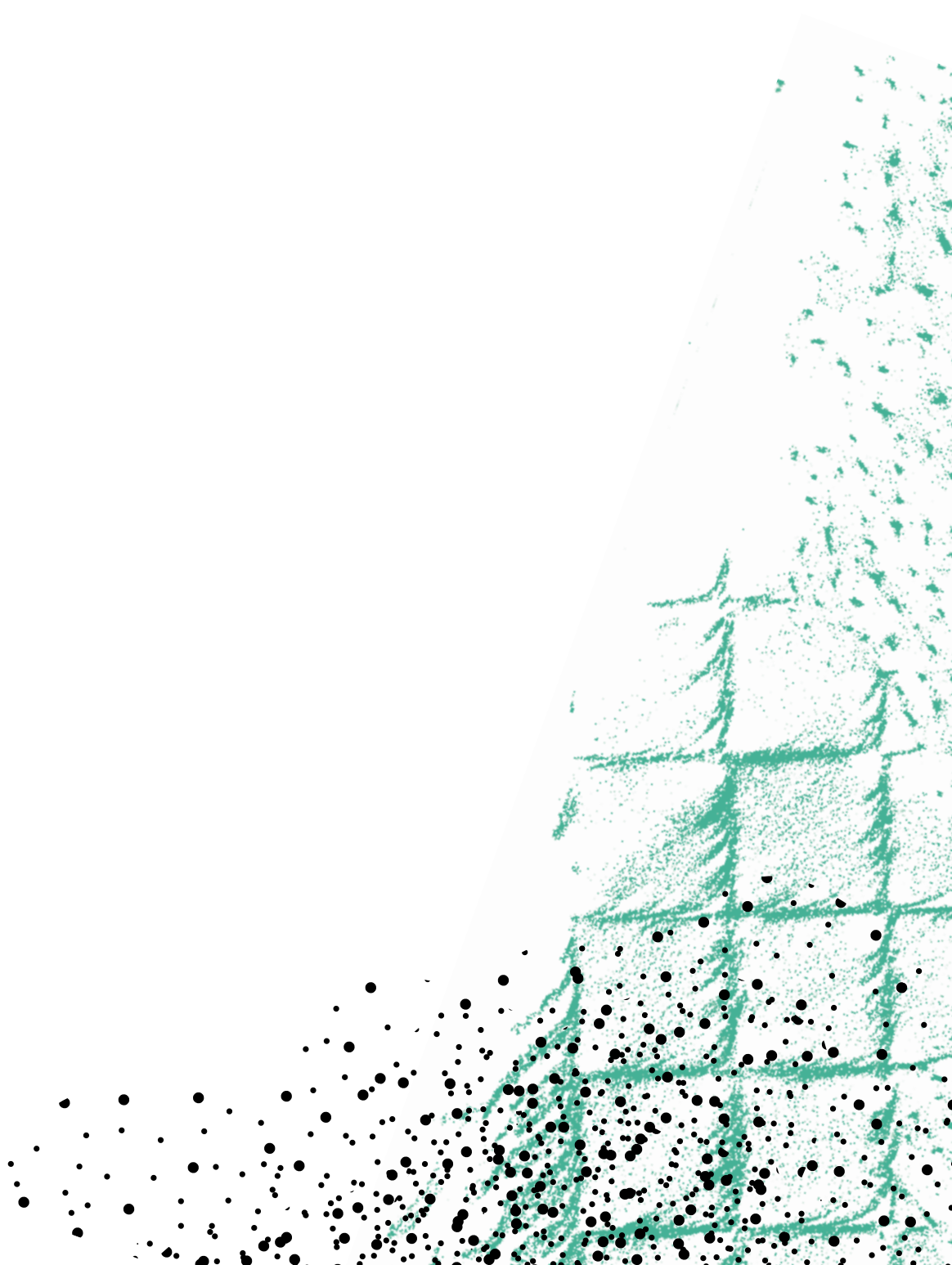
Jules Rochielle Sievert

FIELD REPORT & REFLECTIONS I know from my own project in East Boston, that the items in section four of the article “Making power explicit: Using values and power mapping to guide power-diverse Participatory Action Research processes” by Danielle M. Littman et al. (2021) reminds me how often our team needs to implement a process to reflect and establish values as a group. I really appreciated the section on Values as a Guide. This section felt particularly meaningful to the Participatory Action Research (PAR) work in East Boston. We have actively made an attempt to go through a process of re-aligning our group values and then documenting that set of values or modifying the values that help guide the work we do and the values we bring forward into the world. We have to revisit this step a lot over the years, especially when the power dynamics and identity dynamics start to surface. I hope this is helpful. I found that I was really thrilled to have come across this article because it has reaffirmed some of the other auto-ethnographic writings I have been creating, reflecting on what we are learning in this work with our community partners. In my own process, we have held weekly meetings every Monday morning with our PAR group, to work through things. We have been working together for over 5 years in our University/Community Partnership. From this position, I reflect that this type of work is incredibly under-supported and under-valued in my academic institution. In terms of a research model, we have had a very difficult time grappling with our Institutional Review Board. As a result of communicating this issue with one of our funders, my co-worker, the lawyer team member that

I collaborate with, is now actively working with that funder to host a series of workshops with other grantees that are also having this struggle within their institutions.

In my institution, there are several researchers trying to shift the dynamics that downplay PAR research, struggling to shift the way PAR is perceived and given status. From my standpoint community engaged work, which is how we drive justice, is under-valued, under-mined and under-funded.

LINKS <https://onlinelibrary.wiley.com/doi/full/10.1002/jcop.22456>



CHALLENGES IN THE RESEARCH PROCESS AND STRATEGIES TO ADDRESS THEM

The catalogue of challenges and possible solution strategies in this subsection has been assembled by us, the members of the Doing Justice Collective, based on our practical experiences in TTR projects. This list aims to serve as a guideline and a peer-to-peer manual for addressing concrete justice-related challenges that can come up in the research process in transdisciplinary and transformative research. The following table gives an overview of the challenges encountered in TTR processes.

CHALLENGES RELATED TO JUSTICE IN TTR PROCESSES	
<i>Categories</i>	<i>Challenges</i>
a) Actors, Roles, Interests	Diversity of actors
	Conflicts and confrontation between actors involved in experimentation
	Dealing with anti-democratic actors in TTR
b) Organising the Process	Project Management
	No extractive process
c) Framework, Context	Legal Regulations and Ethics
	Sustainability and Scale
d) Academia – Rules, Standards, Conventions, Practices	Academic System & Academic Culture do not reward TTR
	Project failed – how to deal with it in reports, publications etc.

A) ACTORS, ROLES, INTERESTS	
Challenge	How to address this challenge?
Diversity of actors Variety of actors, backgrounds, cultures, languages	The team for conducting TTR should incorporate designated facilitators who act as intermediaries and translators between different actors and their worldviews.
Conflicts and confrontation between actors involved in experimentation	The team for conducting TTR should incorporate designated facilitators who act as intermediaries and, if necessary, mediators between the actors involved in the TTR project. Furthermore, resources for professional conflict mediation should be provided in the project budget so that external facilitators can be included if need be.
Dealing with anti-democratic actors in TTR	Taking epistemic justice seriously, the imperative is to make all voices and knowledge heard. This might include dealing with knowledge bearers and local actors whose worldviews are detrimental to basic ideas of democracy and justice. This is related to the question of how to maintain openness and legitimacy in participation processes to co-design and co-produce local experiments? Example: A group of Reichsbürger proposed a transition experiment during the planning phase of "Dresden – City of the Future 2030+".

B) ORGANISING THE PROCESS	
Challenge	How to address this challenge?
Project Management Project partners change in the process, responsibilities are not clear, lack of commitment of partners	It might be helpful to use written commitment forms, which outline the responsibilities of all partners in the TTR project (Example: https://www.zukunftsstadt-dresden.de/wp-content/uploads/2022/06/ZSDD_WSK_Vorlage-Mitwirkungspflichten.pdf). Another opportunity, especially regarding commitment, is to co-design projects that are intrinsically driven by the (small) group of actors participating under the idea of "Potentialentfaltungsgemeinschaften" (communities to build potential) (Link: https://www.youtube.com/watch?v=yxMYAryunXk).

No extractive process	We prepared an “Urban Transition Kit” (WerkStadtKoffer; https://www.zukunftsstadt-dresden.de/werkstadtkoffer/) as a virtual toolbox to synthesise and share the lessons learnt. It includes tutorials, handbooks and good practice examples of designing co-creation and participation processes, as well as transition experiments to advance sustainability in particular domains. The Urban Transition Kit was co-designed with societal stakeholders to better tailor it to their questions and needs.
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C) FRAMEWORK, CONTEXT	
<i>Challenge</i>	<i>How to address this challenge?</i>
Legal Regulations and Ethics	For example, relevant legal regulations (e.g. road traffic regulations) are under review and up to amendment. Therefore, the legal basis for real-world experiments is not clearly defined, which leads to considerable uncertainties for both the local administration and the TE team. This raises questions regarding the ethics of conducting TTR.
Sustainability and Scale	Dealing with the limits of an “academic” understanding of “justice”. Imagine people had to choose between living in a society that is in some respects blatantly unjust but by most accounts works quite well and a society that really tries to be just in all respects but fails to produce really good outcomes because it’s simply too complex and big of a task to get right (i.e., some parties always feel stepped on their toes and there is never a state of calm). Wouldn’t many people probably say I have had enough with justice, I just want to live in peace? So, is there maybe a need to also guard against overreaching with justice and making it too complex to be useful in the end? Or to put it differently, maybe a key aspect of justice work is also a need to accept some degree of injustice and build up some resilience in expectation for it?

D) ACADEMIA – RULES, STANDARDS, CONVENTIONS, PRACTICES	
Challenge	How to address this challenge?
Academic System & Academic Culture do not reward TTR	Academic institutions and funding bodies should reward “un-disciplinary journeys” (Haider et al., 2018). We should encourage critical dialogue on the reward culture within academia to acknowledge transdisciplinary engagement and variegated roles of researchers that move beyond reflective scientists to act as knowledge brokers, facilitators and activators (Fazey et al., 2018; Wittmayer and Schöpke, 2014). Conference contributions (e.g. dialogue sessions), opinion articles, manifestos or the like could make this message heard.
Project failed – how to deal with it in reports, publications etc.	We should harness a culture of learning-by-failing. Experimentation is a learning and exploration process that is – on purpose – characterised by open-endedness. Insights can be gained particularly from failure. We should therefore acknowledge mistakes as part of the process. It might rather be our conceptions of failure vs. success that are problematic. Arts-based methods and interventions can create awareness by playing with the idea of learning-by-failing (Examples: Das Büro für die Nutzung von Fehlern und Zufällen – Office for the use of mistakes and coincidences https://hoernemann-walbrodt.de/en/the-office-for-the-use-of-mistakes-and-coincidences/ ; The Art of Imperfection – The Academy of Error https://www.youtube.com/watch?v=cKkaopRN-4Y).

6. Encouraging others



As the conceptual and methodological contributions and the experiences and learnings in this collection have shown, doing justice in TTR comes with multiple and possibly overwhelming challenges. We still feel that we are compelled to act despite (and possibly embracing) these ambiguities and paradoxes. We therefore want to end with a note of hope and encouragement. Please share it with others!

A PERSONAL TESTIMONY FROM HERNAN:

*I've come to believe that striving for justice is inevitably a gradual enterprise, one whose standards require collective reassessment and adjustment at each step. It could hardly be otherwise: It is extremely difficult to understand and navigate the complexities of this world, trying to flourish and find meaning in our lives, while keeping a harmonious relationship to our surroundings and the lives of others. The values and motivations that guide us are extremely heterogeneous, and they translate into different forms of agency which might conflict in the public space. If we accept that there is no privileged standpoint, then conflict seems inevitable. **But conflict does not have to result in injustice.** Conflict could be managed in ways that acknowledge our subjectivities and personal integrity. And it could also be confronted with creativity and deep appreciation for the value (even complementarity) of alternative perspectives. Thus, I believe in embracing pluralism, acknowledging the value of different ways to approach the world, while promoting critical but collaborative engagement among parties.*

A PERSONAL TESTIMONY FROM MARINA:

*Some days I feel like justice is a never-possible-to-achieve kind of doing but that feeling is ever more so the reason why I believe it so important to keep going. **Because ultimately it is probably not about achieving justice but doing justice in the process of trying to achieve it.** As a researcher, many times I had to critically reflect on my acts of doing. To what extent were they just? Was I a mere contributor to furthering injustices? My feeling is that my encouraging words to others lie there: only by critically reflecting and re-assessing our action at multiple points in the process, can we truly strive to do justice – to the process, the people and ourselves.*

A PERSONAL TESTIMONY FROM NEELAKSHI:

*I think that the theoretical underpinnings of transformative research with regards to an orientation towards justice are encouraging and transdisciplinary research arenas are excellent grounds for putting this into practice. Of course, this is by no means an easy and straightforward task, as we have repeatedly underlined in this collection. In this messy middle, I find the words of Dr. Martin Luther King Jr. quite encouraging: **"We shall overcome because the arc of the moral universe is long but it bends toward justice"**. Working on these challenges as a group in this document has been encouraging to build the strength necessary for this work.*

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