Reading radical environmental justice through a political ecology lens

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ABSTRACT

Environmental justice (EJ) and political ecology (PE) have grown during recent decades to become leading critical approaches to socio-environmental analyses. The two fields share a history of pluralism and an openness to integrating new theoretical insights. Based on work by political philosophers in the radical justice tradition – such as Fraser, Young and Honneth – a 'radical environmental justice framework' has been established within EJ, focusing on three core elements: distributive justice, recognition and procedural justice. Later, inspired by Sen and Nussbaum, capabilities has been added as a fourth aspect. We have read this radical EJ framework through a PE lens and assess the potential for cross-fertilization between the two fields in relation to these four elements. First, the systematic treatment of distributive justice in the EJ literature provides a conceptualization that may be useful for PE in its specifications of various forms of injustice. Second, recognition is a useful perspective for both EJ and PE, but this aspect also highlights power relations that may need to be decolonized. To contribute to such a process of decolonization we suggest a focus on senses of justice and critical knowledge production. Third, the focus on procedural justice in the radical EJ framework would benefit from engagements with various power theories and discussions of participation that are prominent in the PE literature. Fourth, based on the PE viewpoint, we argue that there are two weaknesses in how capabilities theory tends to be used in the radical EJ literature: communities are discussed as homogenous groups without internal power relations; and actors and structures responsible for environmental injustice tend to be downplayed.

1. Introduction

In this article, we investigate interfaces between environmental justice (EJ) and political ecology (PE). Based on our own backgrounds and positionalities situated within PE, we study the EJ literature through a PE lens. With the recent and rapid expansion of the literature within EJ and PE and their common normative aspirations and focus on justice, it is surprising that there are relatively few explorations of interfaces and possible synergies between these two fields.

EJ is a broad field, and we do not pretend to cover the whole breadth of the EJ literature in this article. As pointed out by Holifield et al. (2018: 4) in the introductory chapter of *The Routledge Handbook of Environmental Justice*, 'it is impossible, even in a large volume, to do full justice to environmental justice'. Because of this breadth of the field and the extent of the literature, we delimit our review of the EJ literature to contributions within what we call the 'radical EJ' framework, which has been formulated in several publications by David Schlosberg in particular and specified and applied by a number of other researchers. Schlosberg (2003, 2004) first developed the framework by focusing on three key elements from the radical justice tradition in political

philosophy: distributive justice, recognition, and procedural justice. Later, he extended it to include capabilities theory developed by Amartya Sen and Martha Nussbaum (Schlosberg, 2007).

Distributive justice refers to the distribution of burdens and benefits related to environmental interventions. *Justice as recognition* concerns who is given respect (or not) and whose interests, values and views are recognized and taken into account. *Procedural justice* is about who is involved and has influence in terms of decision-making, while *capabilities theory* focuses on the extent to which people are able to live the lives they consider to be valuable.

The field of PE has also grown tremendously during the last few decades and today offers an extensive body of literature. This article is not a comparison, as such, between the broad scholarships of PE and EJ. Instead, it is a reading of the radical EJ literature through a PE lens. We offer a focused literature review based on our own positionality, combined with some examples from our empirical research within the field of PE.

The questions we ask are: To what extent may PE take inspiration from the radical EJ framework? And can radical EJ be strengthened by drawing more on PE ideas and approaches? To answer these questions

and discuss the potential for cross-fertilization between the two fields, we focus in this article on each of the four elements in the radical EJ framework.

In responding to these questions, our first finding is that the systematic treatment of *distributive justice* in the general EJ literature may be useful for PE in being more specific about categories of distributive injustice and how these play out in reality. Secondly, we found that although *recognition* is a useful perspective for both radical EJ and PE approaches, it includes power relations that may need to be decolonized in order to achieve this aspect of justice. In line with this need to decolonize recognition, we suggest a focus on 'senses of justice' as well as on 'critical knowledge production' as additional elements to help specify recognition. Senses of justice refer to ways in which people affected by environmental interventions subjectively perceive, evaluate and narrate the situation and its consequences. Furthermore, people affected by environmental interventions are often faced with knowledge production that turns out to be contrary to their interests and values. Drawing on the work of Gramsci and Freire, we argue that there cannot be environmental justice in an environmental conflict, unless the affected people – often the vulnerable or the poor – possess the opportunity to conduct their own critical knowledge production.

Thirdly, we found a lack of specification of the various conceptions of 'power' in the radical EJ literature. We suggest that this scholarship would benefit from engagement with various power theories – including those focusing on agency, economic structures, and discourses – as well as the critical literature on the meaning and implications of 'participation'. Fourthly, from PE perspectives, we found two shortcomings in the ways that *capabilities theory* tends to be used in the radical EJ literature. First, we see a tendency to discuss capabilities in relation to communities as homogenous groups. Second, when justice is reduced to a matter of bridging the gap between what victims want in terms of well-being compared to what they have, the actors and structures behind the injustice become invisible. Attention may therefore be diverted from the root causes, as well as from what needs to be done to change underlying situations of injustice.

We proceed by providing a brief background to similarities and differences in the development of the two fields of EJ and PE, with a focus on radical EJ compared to some other framings of EJ. Thereafter, we discuss the potential for cross-fertilization between the two fields related to the four elements of the radical EJ framework: distributive justice, recognition, procedural justice, and capabilities.

2. Background to EJ-PE interfaces

In this section, we first show how the two fields of EJ and PE have evolved in parallel as two different, yet related, academic traditions within epistemic communities that study environmental interventions. We then provide an overview of what we consider to be the main content and contributions of radical EJ.

Thematically, EJ and PE overlap in that they both involve critical studies of environmental interventions. EJ emerged in the United States (US) in the 1970s and 1980s in the form of civil rights struggles against the dumping of hazardous waste and was closely linked to issues of race and class (Schlosberg, 2003, 2004; Walker, 2012; Agyeman, 2013; Holifield et al., 2018). The earliest contributions to academic scholarship on EJ came from sociologists such as Robert Bullard, who published the article 'Solid waste sites and the black Houston community' in 1983, and Capek (1993) who provided an early social constructivist perspective on EJ struggles.

Since the 1990s, scholars from various disciplines have contributed to the development of the field of EJ in the US. For instance, the geographer Pulido (1996) studied resistance among Mexican Americans caused by exposure to pesticides and conflicts over grazing. Her analysis focused on political economic structures and the role of racism in causing environmental injustice. In a similar vein, the sociologist Pellow (2002) analyzed the politics of garbage dumping in Chicago and

showed how minority and poor communities carry the costs of this dumping in the form of exposure to health risks. He also demonstrated the role of class and race in the production of these outcomes.

Since the turn of the millennium, EJ scholarship has expanded geographically to places other than the US. In addition, this literature has widened, both thematically and in terms of academic framing (Martinez-Alier et al., 2014; Holifield, 2015; Holifield et al., 2018). As a result, EJ perspectives are now being used on global scales (Agyeman, 2013; Martin et al., 2013; Mehta et al., 2014; Martinez-Alier et al., 2016), such as in the global South (Schroeder et al., 2008; Sikor and Newell, 2014; Martin et al., 2016), and in other geographical locations such as Europe, Australia, and the Arctic (Köckler et al., 2018; Steger et al., 2018; Schlosberg et al., 2018; Shaw, 2018). This expansion has, however, generated a critique that EJ tends to employ a Western and universalist analytical framework that results in further domination and misrecognition (Lawhon, 2013; Martin et al., 2013; Vermeylen, 2019). Hence, EJ may yet need to be decolonized (Álvarez and Coolsaet, 2018; Fraser, 2018; Temper, 2019).

In parallel, PE has evolved with a focus on how power manifests itself in both discursive and material struggles regarding the environment (Forsyth, 2003; Robbins, 2012). Important influences on PE have been Marxist political economy (Watts, 1983), actor-oriented perspectives (Blaikie and Brookfield, 1987), post-structuralist theory and analyses (Peet and Watts, 1996; Adger et al., 2001; Escobar, 2008; Fletcher, 2010), and science and technology studies (Robbins, 2007; Goldman et al., 2011). As in the case of EJ, PE is an explicitly normative approach, with justice, human rights and environmental sustainability as its core values (Robbins, 2012). And like EJ, PE has been continuously evolving and moving into new theoretical and geographical territory during the last two or three decades.

While EJ emerged with a focus on pollution in the US, PE initially concentrated on the governance of renewable natural resources (such as soils, forests, pastures) in the global South. In more recent years, PE has included urban studies (Swyngedouw and Heynen, 2003; Holifield, 2009; Heynen, 2014), and environments in the global North (McCarthy, 2005; Schroeder et al., 2006; Benjaminsen and Robbins, 2015). Although it has been claimed that PE also needs to be decolonized (Schulz, 2017), PE scholars have been at the forefront of decolonizing environmental science (Neimark et al., 2019) as well as themes such as 'conservation' (Adams and Mulligan, 2003; Salazar Parrenas, 2018), 'development' (Wainwright, 2008), 'environmental education' (Meek and Lloro-Bidart, 2017), and 'food justice' (Bradley and Herrera, 2016).

Although a number of authors mention both EJ and PE and note that they overlap, there are few explicit comparisons or discussions of the two fields together. Examples are Holifield (2009, 2015) and Ranganathan and Balazs (2015), although limited to a discussion of EJ and urban political ecology (UPE). In his analysis of the overlaps between the two bodies of work, Holifield (2015: 585) points out that EJ and PE have been 'traveling down quite different paths' and only recently started to meet, despite seemingly being such 'a perfect match'.

Holifield (2015) also points out considerable differences between mainstream EJ and PE. Methodologically, EJ has traditionally been grounded in quantitative descriptions, while PE has been dominated by qualitative methods and case studies, although there are exceptions to these trends in both fields. The same author refers to critique of mainstream EJ research by some political ecologists (Swyngedouw and Heynen, 2003) as lacking a focus on (radical) theory. When mainstream EJ has been theorized, it has been dominated by rational choice and systems models, which according to Holifield (2015), explains why EJ and PE have remained separate for so long.

Following Cook and Swyngedouw (2012), Holifield (2015) comments that mainstream EJ focuses primarily on patterns of socio-environmental inequalities, while PE is concerned with explaining the production of such inequalities. Nevertheless, Holifield recognizes contributions from critical and radical scholars from the early history of EJ, noting that by the turn of the millennium, such contributions 'had

set the stage for deeper engagements between political ecology and alternative approaches to environmental justice' (Holifield, 2015: 589).

Ranganathan and Balazs (2015) demonstrate the fruitfulness of drawing from a blend of EJ and UPE perspectives in their comparative analysis of two cases of water marginalization across the global North/South divide. They include within EJ scholarship what they see as health-oriented, as well as critical theoretical strands, combining this with UPE based on Marxist approaches, post-colonialism, and with an explicit focus on power relations regarding access to clean and safe water.

The radical EJ approach emerged when Schlosberg (2003, 2004) adopted the three elements of *distribution*, *recognition* and *procedural justice* from the field of political philosophy, in particular the work of Fraser (1998, 1999), but also that of Young (1990) and Honneth (1995, 2001). Nancy Fraser initially proposed a two-dimensional focus on *distribution* and *recognition*, but in the second half of the 1990s she included *representation* as a third dimension (Fraser, 1998, 1999), while Young (1990) had already included these three dimensions along with others.

With a focus on the three elements of distributive justice, recognition and procedural justice, radical EJ evolved rapidly into a sort of leading template for many EJ studies. As mentioned, it was later expanded in various ways by Schlosberg and other scholars, notably by adding a radical version of *capabilities theory* as a fourth element (Schlosberg, 2007; Walker, 2012; Sikor, 2013).

The importance of pluralistic approaches is often emphasized within the radical EJ framework (Schlosberg, 2002, 2007). Reflecting on these developments, Holifield et al. (2018: 4) observe that

> … scholars have increasingly addressed and theorized the multi-dimensionality of the justice in environmental justice. In addition to *distributive* justice, which remains a key focus of much quantitative and spatial analysis, a growing body of literature now attends to *procedural* and participatory justice, justice as *recognition*, and justice as *capabilities*, as well as the interrelations among these dimensions.

As pointed out by Fraser (2015), a considerable part of early EJ scholarship drew on the work of the liberal philosopher John Rawls (Rawls, 1999; Singer, 1988; Wenz, 1988; Langhelle, 2000). However, this liberal justice tradition has to some extent been abandoned within EJ, particularly so in the literature on radical EJ. As described above, the first three elements of radical EJ were drawn from radical justice philosophy that contrasts with the liberal justice perspectives of Rawls. On the other hand, the fourth element of the radical EJ framework (capabilities theory), is often characterized as a liberal theory – especially in Sen's version – due to its focus on individual choices and deliberate processes. Schlosberg, however, applies what Edwards et al. (2016) interpret as a radical version of this theory, with a primary focus not on the hedonic well-being of individuals, but on the functioning of communities and collective goods. Thus, all four elements of the radical EJ framework may be seen as constituting a radical alternative to liberal EJ theory.

The literature that builds on the radical EJ framework has become extensive over the last decade. Examples of the broad range of EJ topics discussed are: elderly people in urban neighborhoods (Day, 2010); ecosystem services (Sikor, 2013); biodiversity conservation (Martin et al., 2013; Lecuyer et al., 2018); climate change interventions in cities (Bulkeley et al., 2014); and carbon offset forestry projects (Fisher et al., 2018). Walker (2012) also uses this radical EJ approach in his expanded framework focusing on the main distinctions between claims about justice, evidence and process. In Walker's framework, all such claims can be classified as being about distribution, recognition, procedural justice, or capabilities.

Thomas Sikor and colleagues also subscribe to the radical EJ framework in their 'empirical approach to justice' concerning dimensions, subjects and criteria, in which distribution, participation and recognition constitute the various dimensions. In their framework, subjects

entail individuals, groups and generations, as well as non-human organisms and nature, while criteria encompass equality, need, merit and deservedness (Sikor, 2013; Sikor et al., 2014; He and Sikor, 2015; Fisher et al., 2018).

It is important to emphasize that radical EJ is only one of the various types of EJ that are applied today. For instance, contributions are still made to liberal EJ studies. In addition, there is an approach known as 'critical EJ' (Pellow and Brulle, 2005; Pellow, 2016, 2018), which – with its multiscalar approach and critique of the state – has much in common with PE. Critical EJ is based on four pillars (Pellow, 2018: 17-18): (1) Paying more attention to multiple social categories; (2) Promoting multiscalar methodological and theoretical approaches; (3) Pursuing transformative rather than reformist approaches to challenge inequality and resist the power of the state; and (4) Focusing intensely on how humans and more-than-human nature are indispensable in terms of building just sustainabilities.

Furthermore, Pulido and De Lara (2018) have recently argued for yet another alternative way to frame EJ, based on abolitionist theories and decolonial epistemologies, which may serve to critique power relations without depending on state recognition. Agreeing with Pellow, Pulido and De Lara view the lack of power analyses as problematic aspects in mainstream EJ (including radical EJ).

We now continue by assessing the potential for cross-fertilization between radical EJ and PE in terms of each of the four elements in the radical EJ framework.

3. Distributive justice

Distributive justice is the first element of the radical EJ framework. This was initially the main concern of the general EJ tradition (Wenz, 1988; Schlosberg, 2003, 2004; Walker, 2012), and it still constitutes a key element of this tradition.

Bell (2004) provides three questions that should be addressed when constructing claims about distributive justice. The first question asks *who* the recipients of justice are, which is obviously also a question of recognition, as we will discuss later. This implies a need to establish who enjoys the benefits and who shoulders the burdens that might result from an environmental intervention. The second question addresses *what* there is to be distributed that might result from environmental interventions.

The third and most significant question asks which of Bell's (2004) *three principles* of distribution of burden and benefits should be applied. The first is a 'principle of equality'. The second is a 'principle of equality plus a guaranteed standard' (such as everybody's right to clean water). The third is a 'guaranteed minimum with variation above that minimum according to personal income and spending choices'.

Aligned with the *who* question, Caney's (2014) discussion of burden-sharing justice suggests that the following questions must be asked: Who has contributed to causing the problem? Who benefits from the problem? Who has the ability to pay to compensate for its costs?

There are several variations of distributive justice principles. Walker (2012: 46) notes that several of them 'demonstrate that it is not only distribution of the direct environmental burden or benefit itself that can be at issue, but also other dimensions of distribution which interact with these'. Walker (2012) emphasizes the dimensions of vulnerability, need and responsibility. This viewpoint implies that some people are more affected by an environmental impact than others and may also have less capacity to recover from it. Needs vary among population groups and this should be considered when benefits and burdens are distributed. The principle of responsibility implies that those who have caused any problems should cover the costs of repairing the damage and compensate those who have carried the costs.

PE is also genuinely concerned with distributive justice, and political ecologists have documented numerous cases of unjust distribution of costs and benefits following environmental interventions. Frequently, these case studies provide examples of serious injustice, in

striking contrast to dominating narratives of win-win outcomes (e.g. Neumann, 1998; Peluso and Watts, 2001; Brockington, 2002; Igoe and Croucher, 2007; Cavanagh and Benjaminsen, 2014; Duffy, 2014; Büscher and Ramutsindela, 2015; Svarstad and Benjaminsen, 2017). So far, however, there is little specification of normative theories in PE, beyond documentation and claims of injustice. On the topic of distributive justice, PE may gain some advantage by integrating insights from EJ, such as the principles mentioned above developed by Bell and Walker. In other words, political ecologists may benefit from studying the 'tool box' of distributive justice principles developed by EJ scholars.

Within the broad arena of EJ scholarship today, distributive justice still seems to constitute a core focus. This is evident, for instance, in studies that are based on spatial analysis and quantitative methods (Mennis and Jordan, 2005; Buzzelli, 2007; Chakraborty et al., 2011). However, in the literature on radical EJ, more attention has been directed during recent years to recognition and procedural justice (e.g. Schlosberg, 2007; Walker, 2012). Linked to this trend, there is a tendency to see distributive justice as primarily the domain of liberal justice theories. Hence, within the radical EJ framework there seems to be a shift of attention towards cultural aspects through a focus on recognition, combined with less attention being paid to questions of material distribution.

In contrast to a view on distributive justice as a concern only for liberal theories, we would like to draw the attention to Marx' 1875 *Critique of the Gotha Programme*, where he repeated a slogan from the socialist movement of an ideal for a future communist society in which people contribute according to their abilities, and receive materially according to their needs (Marx, 1970). This is clearly a principle of distributive justice.

Furthermore, Marx's theory of value production in capitalist societies should also, in part, be seen as a theory of unjust distribution, because capitalists do not pay their laborers the full price for their work, but extract a surplus that is used for accumulation of their own capital. At the same time, Marxist and neo-Marxist theories of development view capital accumulation – with its unequal exchanges and dispossession of smallholders from the use of their land and natural resources – as perpetuating and deepening material inequalities as well as power differences between people. How this takes place is not at all a given, but shifts throughout history; the process varies across space and topics such as different sectors of environmental conservation, climate change mitigation, and mining.

While the notion of justice – including distributive justice and injustice – has been an implicit theme in materialist scholarship following Marx, the explicit focus has been more on the structural conditions that produce injustice, rather than on measuring the material aspects of the process and its distribution of burdens. We argue that to study such processes empirically constitutes a central task of any socio-environmental scholarly approaches, and that this empirical work should be combined with a continuous elaboration of tools to identify distributive justice and injustice. Thus, from a materialist PE position, we argue that a focus on distributive justice remains essential for any study in both fields of EJ and PE.

4. Recognition, senses of justice and critical knowledge production

Justice as recognition constitutes the second dimension of the radical EJ framework. Some social groups and individuals are poorly recognized compared to others, and this is seen as a justice dimension in itself, as well as an underlying cause of unjust distribution. The conception of recognition in radical EJ has to a large extent been inspired by Nancy Fraser's work. Based on her research on gender, Fraser (2000) connects recognition to social status and sees misrecognition as the institutionalization of social subordination. Such misrecognition may take place in different ways, for example, by cultural domination, non-recognition or disrespect. Misrecognition may be connected to

social categories such as gender, race, religion or ethnicity. State institutions may explicitly or implicitly afford different levels of recognition to different groups (Schlosberg, 2004, 2007; Walker, 2012).

James Fraser (2018: 719) has recently questioned this approach to recognition arguing that the two dimensions of recognition – *legal recognition* and *intersubjective recognition* – "are not always adequately addressed in the literature". As an alternative to Nancy Fraser's approach, he suggests that Honneth's categorization of recognition into *love*, *rights* and *solidarity* (Honneth, 1995) "puts us in a better position to capture both senses of recognition (love being intersubjective, rights being legal, solidarity being both)".

Pulido and de Lara (2018) also criticize a conception of recognition that depends on the state or other entities from 'above'. Instead, and parallel to Fraser (2018) and other recent contributions to EJ and decolonization (e.g. Álvarez and Coolsaet, 2018; Bétrisey et al., 2018; Temper, 2019; Vermeylen, 2019), they suggest linking EJ to decolonial epistemologies and ask "whether we can imagine forms of freedom that are not dependent on recognition … by the liberal state" (Pulido and de Lara, 2018: 77).

We agree with the importance of distinguishing between legal and intersubjective recognition, and acknowledge that love and solidarity often can play important roles at the intersubjective level in building recognition of marginalized individuals and groups in relation to environmental issues. At the same time, conflicts over land and natural resources take place all over the world; in such circumstances, increased recognition of marginalized groups by the state and society at large is crucial for increasing the status and power of these groups – and, concomitantly, decreasing the injustices that they may suffer. In this respect, we find it useful to apply a conception of recognition close to Nancy Fraser's, combined with a decolonial lens (see also Temper, 2019). Thus, we argue that conceptions of recognition inspired by Fraser as well as those of Honneth may be useful in EJ, and that these ought to be viewed as theoretical tools to be considered, revised and elaborated in relation to specific cases and contexts.

4.1. Senses of justice

To follow up the idea that epistemologies or approaches to knowledge production may play a key role in attempts to decolonize recognition, we suggest two elements of recognition that may help to achieve this aim: 'senses of justice' and 'critical knowledge production'.

Besides stressing misrecognition, there is a question of how scholars may be able to describe or reflect the perspectives of subaltern groups and individuals, while simultaneously avoiding stereotyping and paternalism. To facilitate the expression of subaltern voices, we suggest that applying a *senses of justice* perspective may be useful. We define 'senses of justice' as ways in which affected people subjectively perceive, evaluate and narrate an issue, such as their perspectives on an environmental intervention. The representation of the interests of such groups by scholars or other outsiders does not necessarily qualify as recognition of these groups. Instead, it is necessary to investigate how senses of justice are expressed by and within the marginalized groups themselves.

The perspectives and interests of people affected by environmental interventions are, however, rarely homogenous; particular views on issues cannot be assumed, but should be subjected to empirical examination. This is an insight that is well established in PE and in development studies (Cooke and Kothari, 2001; Cleaver, 2012; Li, 2014). To elaborate and give examples of the notion of 'senses of justice', we continue by discussing some recent contributions to the EJ literature.

The first example by Barron (2017) builds on McKittrick's (2011) notion of 'black sense of place' and brings 'sense of place' into the EJ literature. Barron's fieldwork was conducted in a predominantly black neighborhood in the small city of Anniston in Alabama, US. For several decades, the chemical company Monsanto had dumped polychlorinated biphenyl (PCB) contaminated effluent into land dumps and streams.

This caused high levels of PCB in the residents' blood, with severe health consequences such as cancer.

After this environmental crime was uncovered, a process of cleaning up and remediation took place. However, Barron (2017) shows how the citizens' positive linkages to their area – their sense of place – were not acknowledged in the remedial process. This had specific consequences – the cleanup activities were delimited and did not consider the whole area where, for instance, children had played and people had gone fishing during the earlier period.

Moreover, Anniston had earlier been viewed as 'a small city nested in a picturesque area' (Barron, 2017: 63), and West Anniston was a neighborhood with a proud history; but these qualities were lost as a result of the pollution, and the senses of place were ignored during the remedial process. Barron (2017) does not directly apply the radical EJ framework nor write about the notion of recognition. Nevertheless, the emphasis on peoples' attachments and thoughts about their home places, and a focus on 'sense of place' may help to capture local notions and senses of justice as well.

The next example is an empirical study by Lecuyer et al. (2018) who applied the radical EJ framework to investigate conflicts about environmental conservation and management in Calakmul, Mexico. Lecuyer et al. (2018) refer to 'feelings of justice' in the form of local perceptions and views expressed by farmers and ranchers in focus group interviews in two communities. They argue that interventions to conserve biodiversity need to recognize the feelings of justice among affected people, in order for such projects to succeed.

Following Pellow (2018), one may ask: recognition by whom? And we would like to add: for what purpose? There is a danger that researchers might frame and carry out studies of environmental issues in which they map local concerns for the benefit of powerful actors in conflicts – such as state agencies, national or international non-governmental organizations (NGOs), or corporate interests. These actors may use the resulting knowledge in ways that co-opt selected local groups and contribute to strategies that lack any benefits for marginalized groups and individuals.

The third example is taken from He and Sikor's (2015) case study of a large scheme in China dealing with payments for ecosystem services. Farmers in upper watersheds receive state-led payments for converting cropland to tree plantations in order to enhance environmental conditions in downstream areas. He and Sikor (2015) examined and compared 'notions of justice' embedded in policy and viewed by local state officials on the one hand, and among villagers in an area with five upper watersheds on the other. They argue that successes and failures of the program should not be considered merely by external assessments of distribution in terms of level of compensation, degrees of procedural justice with local participation, and external views on recognition. However, in their own study, He and Sikor found relatively uniform responses among the villagers and a high degree of consistency between villagers and officials concerning the notion of justice, with a particular focus for both groups on distribution. They concluded that procedural justice was not a serious concern, and nobody they met 'even considered demanding villagers' participation in policy formulations' (He and Sikor, 2015: 214). These findings may, however, be a result of a context of limited democratic space combined with the chosen methodological approach. Questionnaires or group interviews may not be appropriate methods to capture senses of justice in a top-down political culture. Ethnographic methods and time spent in communities may sometimes make it possible to establish the necessary level of trust and confidence in order to gain access to 'hidden transcripts' (Scott, 1990). Otherwise, people may answer according to a hegemonic discourse of 'public transcripts', or put differently – according to a disciplining form of governmentality (Fletcher, 2010), caused by fear of sanctions. In such cases, instead of being a positive force, 'recognition' may serve to entrench domination and injustice (Bétrisey et al., 2018).

Clearly, there are some methodological challenges associated with understanding senses (feelings, or notions) of justice among people who are to be recognized. Discourse and narrative analysis may often provide useful insights into the perceptions and strategies of actors involved in environmental struggles. In PE, such analyses have shown how local concerns sometimes deviate considerably from the views of powerful producers of discourses and narratives (e.g. Leach and Mearns, 1996; Bassett and Bi Zuéli, 2000; Svarstad, 2000a, 2005; Adger et al., 2001; Johnsen et al., 2015).

In the following paragraphs, we present two case studies, which demonstrate how senses of justice identified through the use of narrative analyses may be examined in specific cases of environmental interventions. Elsewhere, we have described this approach in more detail (e.g. Svarstad, 2003, 2009; Tumusiime and Svarstad, 2011).

The first case is a study of conservation views among villagers living adjacent to a national park in Uganda. The dominating narrative produced by international conservationists and government officials, is that the park provides win-win benefits for conservation goals and local people. This narrative would imply fairly good distributive justice as a result of this conservation intervention including the interests of the villagers. On the other hand, a critical narrative produced by some foreign scholars and activists depicts the park as having negative consequences for the villagers' livelihoods and presents villagers as being opposed to the park. Our Ugandan first author conducted long qualitative interviews in the local language, and by using narrative analysis, we found in fact, that the majority of villagers living close to the park tend to subscribe to a narrative of ambivalence. They are disappointed that the park has brought them scarcely any benefits, caused restrictions on resource use, and they have not been compensated for crop losses caused by wildlife. Nevertheless, they also expressed positive views on the conservation of wildlife and the hope that the future would bring them more benefits from park tourism (Tumusiime and Svarstad, 2011).

Thus, in order to recognize marginalized people, they need first to be listened to. Narrative analysis may be a way to present voices that are often not heard, nor taken seriously. In this case, the result was misrecognition of local community voices, not only by state agencies and conservation groups, but also by some critical scholars and activists. The former disregarded local views and critiques of conservation interventions, while the latter misrepresented local views by failing to reflect the ambivalent position of most local people.

The second example is from a study of bioprospecting in Tanzania (Svarstad, 2003, 2005). It also illustrates the importance of studying senses of justice among affected groups, instead of mere recognition thereof based on external views of the situation. Since the early 1990s, bioprospecting has been the subject of polarized discourses of win-win gains versus biopiracy. In a success story narrated by bioprospectors from a US company during a collection mission in Tanzania, traditional healers were apparently recognized and portrayed as actively participating in the activities, as well as being beneficiaries of just benefit-sharing. However, in interviews with many traditional healers, they expressed disappointment with the benefits of bioprospecting, thereby questioning the win-win narrative.

Furthermore, the biopiracy discourse about external exploitation of local knowledge and biodiversity was also found to be incompatible with the voices of traditional healers. Most of the interviewed healers expressed a wish for more bioprospecting, although they wanted this activity to be conducted in ways that would benefit them more directly. Many of them possess much knowledge about plant remedies that they use to treat their own patients. Several of the healers appreciated the fact that foreign visitors recognized them as being holders of valuable knowledge. Interestingly, many also expressed a desire to learn more about the knowledge held by Western science about plant biochemicals, treatment effects and side effects. They consider Western science as offering additional knowledge that could be useful for them in their own practices. The traditional healers tended to be disappointed by the bioprospecting taking place, because they did not get the type of

feedback from the company that could have provided them with such insights (Svarstad, 2000b, 2003).

In both cases of conservation in Uganda and bioprospecting in Tanzania, we found that marginalized people were not really recognized as actors with independent voices by scholars and activists who were speaking *for* them instead of listening to them. A decolonial approach to recognition would seek instead to find ways of voicing their concerns. Narrative analysis with a focus on senses of justice can be a useful tool to enable this approach.

4.2. Critical knowledge production

In addition, together with the notion of *senses of justice*, we also suggest that *critical knowledge production* may help to unpack and specify *recognition*. Critical knowledge production is a justice dimension that we consider necessary if people who are confronted with environmental interventions and injustice are to be able to formulate and express their own senses of justice. This suggestion is based on our experiences with PE research on environmental conflicts; we found that there tends to be an asymmetry in power relations between actors such as government authorities, companies, or international NGOs on the one hand, and groups of local residents on the other. Whereas actors in the first-mentioned categories are likely to have good access to public information about, for instance, laws and policies relevant to the conflict, this is often not the case for local communities. Instead, they may be dependent on information provided by their opponents in the conflict. Such information tends to be produced and reproduced as part of discourses and narratives that are favorable to the dominant actors. This information may be disseminated in various ways through schools, environmental sensitization programs in local spaces such as villages, and through the media.

People may often reflect and reproduce perspectives from powerful opponents without even being aware that this happens, as indicated in Gramsci's hegemony theory (Gramsci, 1971) and Foucault's notion of 'governmentality' (Foucault, 1991); the latter in particular under the disciplinary form (Fletcher, 2010). In cases of environmental conflicts about the use and conservation of land and natural resources in the global South, local residents are often exposed to 'sensitization' by state agencies or conservation NGOs (Benjaminsen et al., 2008; Martin et al., 2015). In other cases, companies may hide problematic aspects of their activities behind narratives of organic production or fair trade (Goodman, 2004; Ramus and Montiel, 2005).

Thus, we see the need to elaborate the notion of *critical knowledge production* as a requirement of environmental justice for groups affected by, or threatened with, environmental interventions. We argue that this element is important for PE as well as for radical EJ. Much can be drawn from the tradition following Paulo Freire's critical pedagogy, in which people are enabled to elaborate their own positions and strategies through reflection and knowledge-building about their lives and social structures (Freire, 1970). In order to engage in critical knowledge production, marginal communities and other groups need access to essential and independent information about actors responsible for environmental injustice, knowledge about consequences for them of particular environmental interventions, and capabilities to elaborate their own alternatives and strategies. In the broader EJ tradition, concerns for the knowledge production of EJ activists has often been stressed. Pulido (2015), for instance, points to the role of EJ scholars in providing foundations for EJ activists in terms of conceptualizing environmental injustice. A case study of pollution and contamination by the Exide company in Southern California showed that neighborhoods of low-income Latina/o immigrants were severely affected. Pulido (2015) shows how Exide could be accused of white supremacy in terms of their awareness of breaking the law, their decision to deprive their neighbors of their health and well-being, and considering them as being racially inferior. She argues that EJ scholars may play an important role in order to "identify culprits and name names, so that the global

community will understand who the guilty parties are and how we should respond to them" (Pulido, 2015: 7). We find it important that scholars within critical traditions such as PE and EJ conduct research and disseminate findings that in various ways can be useful for marginalized groups in establishing mechanisms for their own critical knowledge production.

To summarize this section, we argue that the notions of senses of justice and critical knowledge production may help to foster decolonial epistemologies and thereby to decolonize recognition and EJ more broadly.

5. Procedural justice versus power

The third element of the radical EJ framework is procedural justice, which involves issues of decision-making and power. In the general field of EJ, power is a key theme in the sense that most scholars write about power struggles involving EJ action groups, industry and government. A good example is Harrison's (2011) detailed study of struggles around pesticide drift in California. Moreover, Pellow's (2000, 2002, 2018) critical EJ draws on various power perspectives involving historical processes behind environmental injustices related to colonialism, racism, and state power, leading to environmental injustices as they are played out today. However, in the EJ literature in general, we do not find much discussion or use of the broad range of power theories available within the social sciences. Theorizing power, in particular, appears to be rare in contributions to the radical EJ literature, despite the core focus on procedural justice and the associated topic of participation.

In fields such as PE and development studies, *participation* has been thoroughly unpacked and critiqued as a process often implying the involvement of local people, yet without much influence (Pretty, 1995; Ribot, 1996; Cleaver, 1999; Mohan and Stokke, 2000; Cooke and Kothari, 2001; Mosse, 2005; Benjaminsen and Svarstad, 2010). These studies have demonstrated that what is rhetorically referred to as 'participation' often implies a top-down approach in practice. However, so far, findings such as these are not reflected in the radical EJ literature (e.g. Schlosberg, 2004, 2007; Walker, 2012) and procedural justice in general is not analyzed in relation to theories of power.

In the field of PE, power is a key concern, although – similar to the field of EJ – there are few contributions that explicitly theorize and synthesize various power theories in the field and compare them to the broader debates on power in the social sciences (exceptions include Ribot and Peluso, 2003; Fletcher, 2010; Hall et al., 2011; Svarstad et al., 2018). When studying the power dimensions of environmental conflicts, Svarstad et al. (2018) identify three main theoretical perspectives on which political ecologists have tended to base their analyses. These perspectives often overlap.

First, there are actor-oriented power theories. Weber (1968) defines power as the ability of individuals to realize their will despite resistance from others. Actor-oriented power focuses on ways that actors exercise power in relation to others, with intention, and with wanted results for themselves. PE scholars have emphasized the exercise of power by two types of actors – those who carry out environmental interventions and those who resist them. Often, the former could be companies, government agencies or NGOs (Neumann, 1998; Brockington, 2002; Igoe and Croucher, 2007; Büscher and Ramutsindela, 2015; Bergius et al., 2018). The latter could, for instance, be peasants and pastoralists who exercise power through different types of resistance or adaptation (Holmes, 2007; Cavanagh and Benjaminsen, 2015; Gingembre, 2015; Hall et al., 2015; Mariki et al., 2015; Rocheleau, 2015).

Second, there are structural power perspectives drawn from Marxist political economy on inequalities produced by global capitalism. Neo-Marxist ideas such as 'accumulation by dispossession' (Harvey, 2003), 'spatial fix' (Harvey, 1999) and 'production of nature' (Smith, 2008) have been influential in PE during recent decades. Generally, in a Marxist understanding, power does not rest with individuals, but is

found between social classes, in the relations of production.

Furthermore, and also inspired by Marxist philosophy, conceptions of power in PE often cut across scales and spaces. As pointed out by Wisner (2015: 56), PE focuses on power relations 'up and down a continuum of scales from global to local'. In the PE literature, we find studies of power exercised not only by actors at the site of an environmental intervention, but also often in national capitals, and sometimes at many different locations globally. While Blaikie and Brookfield (1987) suggest starting an analysis with the immediate land manager and then moving on stepwise to examine influences in chains of explanation, Robbins (2004) and Rocheleau (2008) argue that this might assume rigid hierarchies of power. Instead, one is more likely to find networks or webs of relations, with interactions within and across scales. Nevertheless, establishing the point of departure at local sites has often proven useful in identifying influences locally, as well as in understanding how these influences are linked to various centers of power. In a similar vein, Pellow (2018:15) comments that '(a)side from important work by political ecologists and geographers, few studies attempt to grasp how EJ struggles function at multiple scales'.

Third, there are discursive power perspectives that are inspired by post-structuralism and scholars such as Foucault (1991) and Gramsci (1971). Political ecologists analyze how powerful actors in the private sector, governments and NGOs produce and reproduce discourses, and they compare discursive claims to realist knowledge (Leach and Mearns, 1996; Svarstad, 2000b, 2005; Adger et al., 2001; Robbins, 2007; Forsyth and Walker, 2008; Benjaminsen et al., 2015). The Foucaultian notion of *governmentality* is currently widely applied in PE (Agrawal, 2005; Li, 2007; Fletcher, 2010, 2017; Johnsen and Benjaminsen, 2017; Ahlborg and Nightingale, 2018; Svarstad et al., 2018). Governmentality was originally seen as ways in which governments discipline citizens and make them act in accordance with government priorities. Building on Foucault's last lectures, Fletcher (2010) extended this approach to include three 'governmentalities' in addition to the original 'disciplining', namely: *truth*, which means ruling over people through religion or other overarching truth-defining principles; *neoliberal rationality*, which implies that an incentive structure is established to maximize desired results; and *sovereign power*, which refers to governing through defined rules and sanctions. Each of these governmentalities may work alone, overlap or conflict with any of the other forms.

Although the radical EJ approach deals with aspects that can be related to various power theories, this is not made explicit and discussed. Thus, the focus on procedural justice can be seen as having to do with actor and structure-oriented power in decision-making processes. Likewise, recognition, distributive justice and capabilities all have something to do with power, although there is a lack of comparison with the main body of theories on power in social sciences.

Although the radical EJ approach deals with aspects that can be related to various power theories, this is not much discussed. For instance, in the seminal texts where Schlosberg (2003, 2004, 2007) presents the radical EJ framework, he does not clarify what kind of power the framework captures, although he touches on various power aspects when discussing the EJ movement, and he recognizes important perspectives from outside the radical EJ framework. For instance, he acknowledges Pulido's (1996) concerns about economic restructuring or redistribution, power relations, cultural practices and systems of meaning. Schlosberg also mentions Harvey's (1996) remark that EJ will be achieved only by confronting the fundamental underlying processes, including their associated power structures. Schlosberg (2007: 178) also briefly mentions that if Foucault has 'taught us anything, it is that power is multiple, and arises everywhere in everyday situations and must be constantly resisted where it is experienced'. Moreover, Schlosberg remarks how transnational resistance groups do not seek formal power nationally or internationally, but instead may affect outcomes of international politics through influencing the content and relative weight of global discourses.

In Walker's (2012) presentation of the radical EJ framework, power is also mentioned, although not theorized in the presentation of procedural justice and participation. Like Schlosberg, Walker (2012) emphasizes the value of plurality in the sense of recognizing various theoretical contributions to EJ. Furthermore, in a review of urban PE, Walker (2012: 74) refers to '(t)he urban political ecology Manifesto' of Heynen et al. (2006), who see 'social power relations' as crucial for access to, and control over resources and other components of the environment. Social power relations are considered as having multiple forms – economic, political, material, and discursive. Walker also stresses the role of discourses and how '(p)ower is embedded within dominant knowledge systems' (Walker, 2012: 74). Furthermore, Walker recognizes Marxist political economy contributions within the broad EJ field that emphasize 'how capitalism works to produce uneven environmental outcomes' (Walker, 2012: 68).

To summarize this section, we observe that the radical EJ literature contains many statements of openness to a plurality of theories and perspectives within EJ; and it also mentions contributions related to *power* that are framed outside the radical EJ framework. We see, however, a lack of explicit discussion of the radical EJ framework in relation to general power theories in the social sciences. In PE, on the other hand, there is a broader application of theoretical power perspectives, although also in PE there are limited contributions to broader discussions and syntheses of various power theories. Moreover, there are critical EJ scholars such as Pellow and Pulido, whose theories concerning power exercised by states and corporations, represent useful contributions to both the fields of PE and radical EJ.

6. Capabilities

In his 2007 book, Schlosberg introduces a *capabilities* approach as an addition to the three elements of EJ adapted from radical political philosophy. He based this on the seminal contributions to capabilities theory by development economist Amartya Sen and philosopher Martha Nussbaum (e.g. Sen, 1999; Nussbaum, 2000; Nussbaum and Sen, 1992). Schlosberg brought in capabilities as a separate element but also to serve as "an integrated framework within which various broad understandings of justice – including distribution, procedure and recognition – can be encompassed" (Walker, 2012: 52). Schlosberg writes: "Capabilities theory examines what is needed to transform primary goods (if they are available) into a fully functioning life – and what it is that interrupts that process" (Schlosberg, 2007:4). Thus, inspired by Sen and Nussbaum, the radical EJ focus is on "the capacities necessary for people to function fully in the lives they choose for themselves" (Schlosberg and Carruthers, 2010: 15). Although capabilities theory should be seen as a central element of radical EJ, there is so far a limited body of published literature offering theoretical or empirical examination of capabilities in contributing to the radical EJ framework (exceptions include Schlosberg and Carruthers, 2010; Walker, 2012; Martin et al., 2016; Edwards et al., 2016; Holland, 2017; Day, 2018).

The two basic concepts of capabilities theory are *functionings* and *capabilities*. Functionings may be defined as "the various things a person may value doing or being" (Walker, 2012: 52). As examples of *doings*, Schlosberg mentions eating, reading and seeing, and of *beings* he mentions to be well nourished and free from disease. He defines *capabilities* as "a person's opportunities to do and to be what they choose in the context of a given society" (Schlosberg, 2007: 30). Justice in this perspective is seen as implying that "people are able to live lives that they consider to have value" (Edwards et al., 2016: 756).

With capabilities theory, Sen and Nussbaum have influenced the measurement of development to encompass more than only economic measures such as income and GDP. Thus, the Human Development Index by United Nations Development Program also includes national aggregates such as life expectancy, education, and gender equality. The Sustainable Development Goals and related reports may also be seen partly as an elaboration based on capabilities theory. Nussbaum has

provided a capabilities approach as a kind of human rights thinking with a list of ten central capabilities and thresholds to be achieved for everybody as a minimum (Nussbaum, 2000). Sen, on the other hand, has maintained a more open approach where capabilities are to be defined and decided in deliberative processes in specific contexts.

In capabilities theory, *functionings* (and thereby indirectly *capabilities*) are seen as a matter of the well-being of individuals and communities, as opposed to focusing on the distribution of goods as a primary goal. Edwards et al. (2016) draw from social psychology theory on well-being and the distinction between the two philosophical traditions of *hedonic* and *eudaimonic* well-being to develop this approach further. The former is about 'achieving a state of subjective personal happiness', while the latter is about 'achieving a satisfaction with one's life whether or not one feels subjectively happy' (Edwards et al., 2016: 760). Thus, eudaimonic well-being can be seen as a person's ability to flourish and achieve goals that do not necessarily give them pleasure. Edwards et al. (2016) argue that EJ should seek to maximize eudaimonic rather than hedonic well-being. They see this approach as being "consistent with a notion of justice which gives primacy to society and its collective goals" (Edwards et al., 2016: 764). Edwards et al. see Schlosberg's take on capabilities approach as more eudaimonic and thereby more radical than those of Sen and Nussbaum.

Unlike the radical EJ tradition, the influence of capabilities theory on PE is limited (but see Leach et al., 1999); that is, capabilities theory has not become a commonly used approach within PE. Seen from a PE perspective we argue, however, that there are two shortcomings in how capabilities theory is used in radical EJ.

First, there is a tendency in radical EJ to discuss capabilities in relation to communities as homogenous groups. For instance, Schlosberg and Carruthers (2010) write about community capabilities and functioning and argue that this is "especially apparent in indigenous cases" (p. 18). However, homogeneity of perceptions amongst members of an indigenous (or any other) group should not be taken for granted. Differences may be related to aspects such as relative wealth, positions of power, divisions of labor, gender, age and ethnicity. As we discussed above in relation to senses of justice, scholars and activists should be careful not to establish or strengthen unfounded ideas about homogeneity or stereotypes about thoughts and interests within any group, particularly regarding indigenous and marginalized communities. Thus, the focus in radical EJ on eudaimonic welfare at the level of communities and groups seems to display a lack of attention to inherent diversities within these groups.

Second, in contributing to the capabilities approach within radical EJ, we argue that there is too limited a focus on actors responsible for environmental injustice, as well as the structures that enable acts of injustice. This stands in contrast to the call from Pulido (2015) (discussed previously) to name the culprits. Building on Freire's critical pedagogy, we argue that people confronted with environmental injustice need their own critical knowledge production in order to be able to expose villains as well as structural causes behind the injustice, and to elaborate their own aims and strategies. Instead, the capabilities approach in radical EJ so far tends to concentrate more narrowly on negative effects on the well-being of victimized groups.

7. Conclusions

In this article we have used a PE lens to examine the part of EJ scholarship that applies the radical EJ framework, which is inspired by radical political philosophy (Fraser, Young, Honneth) and the capabilities theory of Sen and Nussbaum. We have, on the one hand, discussed the relevance for political ecologists of this framework and how it might inform PE research. On the other hand, we have highlighted aspects of EJ which might be strengthened by drawing more on insights from the field of PE.

First, we have argued that political ecologists may take inspiration from the more systematic treatment of principles of *distributive justice* in

the broad field of EJ. So far, there is little specification of normative theories within PE, beyond documentation and claims of injustice. In terms of distributive justice, PE may therefore gain by integrating insights from EJ, not only from contributions to the scholarship on radical EJ, but also from various parts of EJ scholarship at large.

Second, *recognition* is a useful perspective for both EJ and PE, but recognition is also a difficult concept with potential pitfalls such as paternalism and domination leading to activists and scholars speaking for people instead of listening to them and point at the importance that victims of environmental injustice get to elaborate their own critical knowledge production. Hence, recognition theory may gain from interaction with decolonial thinking. In order to decolonize recognition, we suggest a focus on *senses of justice* and *critical knowledge production*. We define senses of justice as ways in which affected people subjectively perceive, evaluate and narrate an issue, such as their perspectives on an environmental intervention. Such an approach may help to prevent stereotyping and paternalism that are risks in attempting to recognize marginalized groups, both in EJ and PE. In addition, people who are subjected to environmental interventions are often exposed to knowledge production that goes against their interests and values. Therefore, we argue that there cannot be justice in an environmental conflict unless affected parties possess the opportunity to conduct their own critical knowledge production and thereby analyze their situation, independently of narratives produced by powerful actors. In this regard, we highlighted perspectives drawn from Gramsci and Freire as being useful for both EJ and PE.

Third, *power* is a key theme in the broader field of EJ, as well as in PE. However, when examining the radical EJ scholarship, we find a lack of specification of what power means, despite a core focus on relevant topics, including *procedural justice* and *participation*. Although PE also has few theoretical contributions that explicitly theorize and synthesize various power theories in the field, PE is still more explicitly concerned with power. Three main theoretical perspectives on power tend to dominate within the field of PE: actor-oriented, economic-structural, and discursive. In addition, there is an extensive literature in development studies and in PE on unpacking the notion of *participation*, that may also be beneficial for radical EJ to draw on. Hence, radical EJ may learn from more critical and theoretical approaches to power and participation, such as those found in PE and development studies. In addition, there are contributions by critical EJ scholars such as David Pellow and Laura Pulido, that help to understand the power exercised by states and corporations that may be useful to PE as well as to radical EJ.

Fourth, capabilities theory inspired by Sen and Nussbaum has recently been added as a fourth element in the radical EJ framework. This perspective of justice means that people need to have access to capacities that enable them to live the lives that they consider to have value. From a PE perspective, we see two shortcomings in how capabilities theory tends to be used in the radical EJ literature. The first is that there is a tendency to discuss capabilities in relation to communities that are viewed as homogenous groups. Thus, a one-sided focus in radical EJ on eudaimonic welfare at the level of communities and groups may ignore diversities within these groups. The second shortcoming is a lack of focus on actors responsible for environmental injustice as well as the structures that enable acts of injustice. Thus, justice becomes a matter of bridging the gap between what victims want in terms of well-being, compared to what they have as a result of an environmental intervention. This may render invisible the actors and structures behind the injustice.

Finally, during recent decades, EJ and PE have evolved as two largely separate bodies of literature and epistemic communities, with surprisingly little discussion of interfaces and synergies between the two fields. Since these two fields share an explicitly normative focus on justice, we believe the time has come for scholars within both fields to explore these synergies and the potential for cross-fertilization between EJ and PE. Reading radical EJ through a PE lens, we have, in this

article, suggested areas where the two fields of EJ and PE can learn from each other.

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Hanne Svarstad: Conceptualization. **Tor A. Benjaminsen:** Conceptualization.

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