

Teea Kortetmäki

Justice in and to Nature

An Application of the Broad Framework
of Environmental and Ecological Justice



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UNIVERSITY OF JYVÄSKYLÄ

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ABSTRACT

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This dissertation applies and develops the broad framework of environmental and ecological justice. It is a new relational approach to justice, whose elements have been introduced by David Schlosberg in his works on environmental and ecological justice. The present study provides a systematisation of the framework and applies it to contemporary environmental topics using the methods of conceptual analysis and case-implication critique. The main outcome of this study is that the elements comprising the broad framework of environmental and ecological justice provide fresh and useful insights into topics like species extinctions and ecosystem wellbeing. In particular, the holistic and conflict-resolutive characteristics of the framework show promise. The dissertation consists of four original research articles and an introductory chapter. The introductory section outlines the context of the study, articulates its theoretical background and methodological choices, and sums up the research contributions of the essays. In the end, remarks on the limitations of the present study and on questions for future research are presented. The first article provides a comparative analysis of the broad framework of environmental and ecological justice with deep ecology. The article demonstrates that many central ideas of the broad framework are remarkably similar to those of deep ecology. The article situates the broad framework in the continuum of environmental normative theorising and demonstrates how the approaches can learn from each other. The second essay applies the broad framework in the context of global climate negotiations. The essay asserts that a focus on distributive justice cannot capture all the relevant aspects of climate injustice. The essay demonstrates how the notions of recognition and representation help reveal various forms of injustice, which is crucial for understanding the problems inherent in climate negotiations. In the third article, the capabilities-based elements of the framework are developed in the context of ecosystems. With reference to studies on ecosystem wellbeing, it is proposed that resilience comprises a central ecosystem capability. The implications of this argument for policymaking are also discussed. The fourth article examines whether species as groups can have capabilities. The outcome is that species as evolutionary groups can be viewed to possess capabilities, which enables but does not necessitate making the claim that species are recipients of justice.

Keywords: environmental justice, ecological justice, capabilities approach, recognition, species ethics, ecosystems, climate change, David Schlosberg

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LIST OF ORIGINAL ESSAYS

- I Kortetmäki, T. 2016. Is broad the new deep in environmental ethics? A comparison of broad ecological justice and deep ecology. *Ethics and the Environment* 21(1): 89–108.
- II Kortetmäki, T. 2016. Reframing climate justice: A three-dimensional view on just climate negotiations. *Ethics, Policy & Environment* 19(3): 320–334.
- III Kortetmäki, T. 2017. Applying the capabilities approach to ecosystems: Resilience as ecosystem capability. [In press, *Environmental Ethics*]
- IV Kortetmäki, T. Can species have capabilities, and what if they can? [Resubmitted, under review]

CONTENTS

ABSTRACT

ACKNOWLEDGEMENTS

LIST OF ORIGINAL ESSAYS

CONTENTS

| | | |
|-------|--|----|
| 1 | INTRODUCTION | 11 |
| 1.1 | Context: two domains of justice | 14 |
| 1.1.1 | Environmental justice | 14 |
| 1.1.2 | Ecological justice | 16 |
| 1.2 | Theoretical background | 21 |
| 1.2.1 | Trivalent notion of justice | 22 |
| 1.2.2 | The capabilities approach | 25 |
| 1.2.3 | The broad framework of environmental and ecological justice | 28 |
| 1.3 | On the methodology and disciplinary boundaries | 35 |
| 1.4 | Objectives and scope | 37 |
| 1.5 | Overview of articles | 38 |
| 1.6 | Limitations of the study and needs for future research | 42 |
| 1.6.1 | Needs for future research | 43 |
| | REFERENCES | 48 |

ORIGINAL ESSAYS

1 INTRODUCTION

In this dissertation, I develop and apply the broad framework of environmental and ecological justice (hereafter BFEJ), a new discursive framework for addressing environmental questions in human-human and human-nonhuman relations. I study how the framework can be applied to topical environmental questions and whether it can provide fresh, useful insights in addressing them. I am also interested in examining the advantages and limitations of the framework and in advancing its theoretical development. The term 'broad framework' is my conceptual contribution to denote the framework with a descriptive single term; its constituents have, though, been introduced by David Schlosberg (2007) as discourses of justice that enable broadening approaches to environmental and ecological justice. I carry out my research in four dissertation essays by exercising conceptual analysis and by applying the framework to the cases of climate change, ecosystem wellbeing, and species extinctions.

Large-scale environmental problems are among the most pressing challenges faced by present human societies. They also impede nonhuman flourishing, the integrity of ecological systems and the viability of many species. Environmental problems are complex and lack single correct solutions. A general agreement has emerged that environmental issues need to be integrated with our thinking about morality and justice. This creates an impetus for change within the academic disciplines. Philosophical and political theorising is on the way of becoming, albeit slowly, ecologically sensitive in a way that opens the discussion about both justice *in* nature as well as justice *to* nature¹.

Justice is a multifaceted and contested notion. What is common to various views on it is the idea of justice as fairness or equality between those beings that should be included in justice considerations, and the idea that this demand for equality invokes responsibilities for specified parties. In the canon of contemporary political philosophy, theories of justice first focused on the fair distribution of primary goods (Rawls 1971) among society members and on the ways in

1 In this introduction, the term 'nature' mainly refers to what is generally called the ecological part of nature, i.e. living beings and systems of their interaction (these systems also involve nonliving things like rocks and water).

which this distribution should be arranged by social institutions. Later works have emphasised the need to reconsider both the contents and potential recipients² of justice.

The BFEJ³ refers to a loose theoretical and conceptual framework that combines two different approaches to justice – the capabilities approach and the trivalent or three-dimensional conception of justice⁴ – and applies them to environmental context. The framework involves a paradigmatic change to the mainstream of justice theorising in two respects. First, ecological justice insists on expanding the community of justice to nonhuman individuals, both sentient and nonsentient ones, and at least some ecological systems such as ecosystems. Second, broadness of the framework also involves broadening the contents of justice. The approach rejects the view that justice is primarily about distribution and endorses instead the relational view of justice as a matter of relations between recipients of justice, where distribution plays a role but is not the whole of justice. In other words, the approach involves a transition from a distributional to a relational paradigm of justice. These far-reaching revisions do not entail full egalitarianism between humans and nonhumans, but they remarkably alter the idea of justice. The case of climate change demonstrates this well. In the broad framework, there is more at stake than only the distribution of atmosphere-related goods and bads (such as emission rights, adaptation resources, and seats in climate negotiations). Multiple ‘new’ issues become matters of justice, such as the preservation of cultures and places, and proper respect for various ways to experience and communicate climate matters. In addition, the impacts of climate change on the rest of the natural world – not just on humans – become matters of justice. These alterations reveal a multitude of ethical challenges related to global environmental change, of which climate change comprises but one dimension.

The present dissertation is composed by an introduction and four essays. The essays examine and develop the BFEJ from various viewpoints with the methodological tools of environmental ethics and environmental political theory. Elements of the broad framework have emerged recently and research literature on the issues is still scant, so my research essentially contributes to developing the framework. This involves exposing both prospects and problems of the framework and discussing its relation to other approaches to environmental and ecological justice. The main outcome of my dissertation is that the elements of the broad framework provide valuable and fresh insights into the moral nature of environmental problems like species extinctions and ecosystem degradation. The framework turns out advantageous in its holistic look and it succeeds

2 Recipients are those beings that merit consideration in the realm of justice.

3 The framework will be introduced more thoroughly in section 1.2, where I begin by describing its theoretical and conceptual backgrounds and expound the framework itself after that.

4 The three-dimensional approach to justice refers to a theory of justice, established by Nancy Fraser (2009), where justice is viewed as essentially including the elements of distribution, recognition, and representation. Though ‘trivalent’ as a term bears connotations of chemistry terminology, it has been used in this sense at least since Schlosberg (2007).

in addressing the conflicting claims of justice more credibly than many alternative approaches. The political promise of the framework lies in its ability to bridge movement discourses and academic exercise. On the other hand, research results support directly the credibility of the two elements that comprise the framework (the trivalent view of justice and the capabilities-based approach to environment) but only indirectly the credibility of the framework as a cohesive theoretical construction. Hence, there are theoretical and conceptual problems and ambiguities that call for further research, if the framework is to achieve cohesion and normative and political feasibility.

Broadened discourses of environmental and ecological justice represent an extensive and ambitious project, and examining the broad framework thoroughly would be impossible within the scope of the present study. Interesting approaches tend to engender a great reservoir of responses and further developments, and my work is a contribution to that emerging stream. To retain a common thread in my dissertation, I have deliberately focused on two themes. First, I contribute to situating the framework in the fields of environmental and political philosophy. This reveals interesting and sometimes surprising differences from, and connections to, other approaches. Second, I apply the framework to topical real-world phenomena in order to see how it helps understand and address such problems. A problem- or phenomenon-based point of departure is characteristic of my essays: they address contemporary issues of climate change, species extinctions, and ecosystem degradation. This framing enables me to simultaneously contribute to the further development of the framework and to participate in philosophical discussions on pressing environmental issues.

My aim is not to offer a full-fledged theoretical defence of the broad framework. I believe its actual application, combined with a conceptual analysis exercised within those contexts, best demonstrates its advantages and limitations. My strategy is largely like a case-implication critique (Sen 1979), where the implications of employing a theory to a given case are compared to our moral intuitions on that case. A viable approach to environmental or ecological justice should be sensitive both to the actual states of affairs and to actual concerns that people have. Putting a framework into this kind of 'litmus test' demonstrates whether the approach is just a beautiful conceptual apparatus or whether it really has relevance for increasing our understanding of the present problems and for helping us deal with them.

This introductory chapter has the following structure. In section 1.1, I describe the context in which the dissertation operates, that is the domains of environmental and ecological justice. These domains are best understood as thematic areas of discourse where different theoretical approaches can be employed. Section 1.2 gives the reader a look at the theoretical background of my dissertation. This section introduces the theoretical foundations and central concepts of the BFEJ. In section 1.3, I make short yet necessary remarks on the methodological choices and disciplinary boundaries of my study. This is followed by a description of the objectives and scope of the present work (section 1.4). Section 1.5 provides an overview of the articles that comprise this disserta-

tion. Articles and their main outcomes are summarised, and their contribution to academic research as well as their role in answering the main objectives of this dissertation are discussed. In the concluding section 1.6, I discuss the limitations of my study as well as needs for future research on the topic.

1.1 Context: two domains of justice

The present dissertation operates within two domains of justice: environmental and ecological. One way to describe the distinction between the two is that environmental justice presents environment as an *ingredient* of justice whereas ecological justice regards environment (or certain parts of it) as a *recipient* of justice (Dobson 1998, 240–1). Environmental justice concerns the management of environmental matters within human communities. These matters include, for example, nature-related benefits and burdens of human activities, environmental quality and environmental decision-making. Ecological justice, in contrast, is about justice between humans and the nonhuman world: it expands the community of justice beyond human beings. I will next briefly introduce both domains (or discourses) to illustrate the operative context of my dissertation.

1.1.1 Environmental justice

Environmental justice has its origins in North American movements that opposed the disproportionate way of allocating industrial toxins and pollutants to areas inhabited mainly by people of colour, hence called environmental racism. Environmental justice movements criticise the mainstream environmentalism for a ‘white middle-class profile’ that largely dismissed the concerns of blacks, the poor, and other lower-income groups (Bullard 2000). The starting shot of contemporary environmental justice activism⁵ can be located at the turn of the 1970s and 1980s. At that time, the impacts of toxic waste dumping in Love Canal were first reported in the news (Dobson 1998, 18) and protests were organised against the creation of a PCB disposal site to an area mainly inhabited by poor African Americans in Warren County (Shrader-Frechette 2002, 8–9). These events gave public attention to the fact that those who experienced relative poverty also had to live with greater environmental degradation in their everyday life.

The paradigmatic principles of the environmental justice movement have been articulated in 1991 in the *Principles of Environmental Justice* document that was ratified in the First National People of Color Environmental Leadership Summit. These principles involve the elements of inter- and intra-generational equity; fundamental rights to clean air, water, land, and food; right to a safe

5 The emergence of environmental justice and animal rights activism took place during (roughly) the same time period. The two movements were separate still, and animal rights activism emerged in arguably ‘white middle- or high-class’ spheres among university students in the UK. Later developments involve connections between the movements.

work environment; right to participate in policy-making processes; and demand for public policies that respect and do justice for all people (Taylor 2000, 539–541). Similar themes have become established as central in the academic discourse of environmental justice.

Although the environmental justice movement was first articulated in North America, kindred civil activity has been identified around the world (see, e.g., Agyeman, Bullard and Evans 2002). The grassroots movements have also significantly influenced the academic works on environmental justice, and the two continue to have a close connection. This interplay presents itself in the academic environmental justice literature that is multidisciplinary and involves a rich body of empirical research. As the dissertation at hand represents a work of philosophy and political theory, further discussion here will focus on the theoretical dimensions of this discourse.

In theoretical debates, environmental justice was initially framed as an issue of a fair distribution of environmental benefits and burdens or environmental quality (e.g., Dobson 1998; Low and Gleeson 1998). Environmental justice expanded the contents of justice remarkably. This expansion complemented social justice discourse by pointing out the non-compensability of many environmental goods – we cannot breathe money – as well as the importance of considering risk distribution as a matter of justice. It became difficult to justify the ‘exploitative’ view of nature that was earlier largely upheld in social justice. As a result, contemporary discussions of social justice often acknowledge the dependence of human wellbeing on environmental resources and services and sufficiently stable environmental conditions.

Important theoretical developments have taken place in the domain of environmental justice since the earliest contributions. The initial distributional emphasis has evolved into a broader understanding about the notion of justice. Participatory equality has become a central theme in environmental justice (e.g., Eckersley 1996; Shrader-Frechette 2002; Schlosberg 2007; Figueroa 2011; Kortetmäki 2016b). Participatory injustice involves foundational problems that cannot be fixed simply by distributing power to minorities by, let us say, adding their seats in meetings or by creating other instruments to promote their formal inclusion.⁶ If those groups are still not actually listened to, or if they still lack economic, social, or informational resources required to make them equal peers in actual decision-making processes, inequality is likely to persist (cf. Schlosberg and Carruthers 2010).

Recently, there has also been growing interest in applying the notion of recognition to interpreting and addressing claims made by environmental justice movements (Schlosberg 2007; Schlosberg and Carruthers 2010; Whyte 2011; Hourdequin 2016; Kortetmäki 2016b; Martin et al. 2016). These contributions have further expanded the contents of environmental justice. Many contributions point towards endorsing a trivalent view of environmental justice that

6 A related problem is the representation of future generations (see e.g., Dobson 1996 and Ekeli 2005). In my study, I have deliberately left the problem of future generations and their representation outside the scope of my inquiry.

incorporates distribution, recognition, and representation as essential elements of justice. A more detailed introduction of the trivalent notion of justice will be given in section 1.2.

Interesting overlaps can be identified between environmental and other domains of justice. Climate justice, which concerns the fairness of climate change impacts and climate mitigation and adaptation policies, is an epitome of this. Exploration of climate matters has expanded during recent years so that climate justice has practically become its own discourse, which is not surprising given the broadness and complexity of climate-related ethical challenges. The domain of climate justice also partly overlaps with ecological justice, as some contributions in the field are concerned about how climate change harms nonhumans. Another area of overlap can be identified between environmental and food related questions of justice, where many concerns relate to environmental issues such as the impacts of pesticides on food workers, or the impacts of climate change on farming (Gottlieb and Joshi 2013; Kortetmäki and Oksanen 2016).

1.1.2 Ecological justice

Ecological justice discourse concerns justice in human–nonhuman relations and views at least some nonhuman entities as recipients of justice. This is a more radical stance compared to those views that reserve the community of justice for humans and argue ‘merely’ for transforming the contents but not recipients of justice. The possibility of ecological justice has not only been ignored but clearly rejected in the seminal works on justice. Rawls (1971, 512) distinguishes the sphere of moral concern from the sphere of justice and argues that we can only have moral duties of compassion and humanity, but not duties of justice, to sentient animals⁷. Rawls’s theory of justice as fairness then concerns only human beings and allows for liberal ecogism but excludes nonhumans from justice considerations (Bell 2006). A similar distinction has been adopted by many authors, including Brian Barry (1997), who concludes that justice cannot be applied outside human relations. Ecological justice rejects this mainstream stance of the contemporary liberal justice as inadequate and argues for expanding the community of justice to include human–nature relations, or at least some forms of them, into the realm of justice (e.g., Low and Gleeson 1998; Baxter 2005; Schlosberg 2007; 2014). The discourse of ecological justice does not necessitate expanding the realm of *social* justice but makes the case that social justice does not define the whole community of justice.

At this point, a clarificatory distinction is at place between animal and ecological justice. Animal justice focuses on the question whether we have duties of justice towards (typically sentient) animal individuals, or whether they have rights (e.g., Garner 2013). Granted that animal justice also concerns certain human–nonhuman relations, it comprises an independent discursive realm, one

7 Rawls does not expand this discussion to other sorts of nonhumans but, since sentient beings are the first ‘safe bet’ if any expansion on the community of justice is made beyond humans, it can be assumed that Rawls does not consider us to owe duties of justice to other kinds of nonhumans either.

that has actually sometimes been considered as belonging to the domain of *social* justice (Nussbaum 2006; 2011, 158). Ecological justice adopts an essentially more expansive view. For the advocates of the idea of ecological justice, sentience is not a necessary condition for an entity to become a victim of injustice. Defining alternative criteria for identifying those entities that can encounter injustices is a central theme of ecological justice literature. Potential candidates for such criteria involve having interests, being able to flourish, or being a living being or process with integrity. In my dissertation, I participate in this discussion in Essays III and IV.

Arguments for ecological justice in the contemporary form originate from environmental ethics⁸. Calls for justice to nonhumans were made during 1970s and 1980s by prominent authors such as Arne Naess (for an analysis of his views in this regard, see Kortetmäki 2016a), Holmes Rolston III (1985) and Paul W. Taylor (1986). Early discussion was, however, vague regarding the relation between the realm of justice and that of moral concern. Contemporary contributions to ecological justice have addressed the demarcation between morality and justice more carefully and paid more attention to the ways in which societal structures essentially impact nonhumans and also regulate the opportunities of individuals to act responsibly.

Expansion of the community of justice to nonhumans has engendered multiple objections, which is not surprising considering the paradigmatic change the suggestion involves. As my interest lies primarily in pointing out the strengths and limitations of applying the broad framework of ecological justice, I will next discuss these general objections in a relatively concise manner. Further discussion can be found in the dissertation articles to the extent it has had relevance for my argumentation (Essays III and IV). As far as it goes, objections to bringing nonhuman matters into the realm of justice discourse typically take two different forms. The first one concerns the community of justice and the other one contents of justice⁹.

The first kind of objection arises mainly from the contractarian grounds of political philosophy. In this view, the ability to participate in contract formulation and voluntary cooperation is what makes humans capable of belonging in the community of justice. The same reason, then, excludes any non-rational entities from that community. This assumption that recipiency of justice requires moral agency is characteristic of objections to ecological justice (Baxter 2005, 77). It is, however, susceptible to the marginal argument employed in animal justice:

8 Very early remarks exist on doing justice to animals by refraining from eating meat; see for example Porphyry's *On Abstinence from Killing Animals*. These remarks typically concern the morality of individuals rather than fairness of societies and social structures that are relevant for contemporary works on justice. Early comments have also been rather sporadic in contrast to the active, contemporary stream of environmental ethics beginning from 1970s. In my work, I delimit my discussion to this contemporary period.

9 A careful reader notes that the latter point actually relates perhaps even more to *environmental justice*. I will, however, address both objections here because the latter point has been linked, in a somewhat confusing way, to ecological justice by Schlosberg (2007, 107).

not even all humans are moral agents (infants, severely disabled, and so on) and some are likely to never be such. Moral agency may arguably be a prerequisite for certain kinds of rights which benefit only moral agents – such as the right to education and freedom of religion – but this does not exclude the possibility for other sorts of rights possessed by other kinds of beings. Ecological justice can be sensitive to factors that relevantly comprise the wellbeing or integrity of various entities under consideration.

Another type of objection against the idea of ecological justice (or even a broad incorporation of environmental matters to other domains of justice) relates to neutrality associated with liberal approaches to justice. In general, liberal theories of justice rely on the idea that justice ought to be neutral to different conceptions of good and ways to realise one's own view of a good life. This 'space of freedom' is, however, limited to contain only those conceptions of good whose realisation does not restrict the same freedom of other people or harm their vital interests. It is a matter of debate where such boundaries should be drawn. What kind of harm, and to whom, counts as a justifiable reason to restrict freedoms in the name of neutrality? Those who object to the incorporation of environmental matters into the realm of justice argue that environmental protection is but one instance of various individual conceptions of good. Hence, environmental issues can at best be promoted within the public sphere and perhaps agreed on by the major vote but they cannot justifiably restrict the 'space of freedom'. This view has been articulated even by Rawls (1971), and his intellectual successors have often accepted the idea without criticism. The argument fundamentally restricts the extent to which nonhuman nature can be a legitimate subject of moral and justice concerns. The way we treat nonhumans is to be left to market mechanisms or public deliberation.

Objections that appeal to the neutrality principle can be contested from two standpoints. First, not accepting a common ecological end in a liberal state risks all other ends: justice presumes at least some environmental protection to allow pursuing different forms of human life (Dryzek 1987). It may actually be possible to deduce from Rawls's just savings principle¹⁰ a restraint principle to protect environmental sustainability (Wissenburg 1998). Schlosberg (2007, 107) goes even as far as to argue that '...underlying conditions under which a number of different conceptions of the good [human] life can flourish is a state of ecological justice'. This statement is a bit hasty, though: at stake are still the human-human relations, so the point is about environmental justice (arguably, outcomes for nonhuman nature may be here similar to those that could be achieved with a concern for ecological justice). The acknowledgement of the requirement of sustainability has inevitably 'greened' liberalism (Stephens 2016), but it has not made its mainstream yet sympathetic to the idea of doing justice *to nature*.

10 The just savings principle refers to an obligation to make sure that no generation will be worse off relative to the previous generations. This concerns the conditions of just institutional structures and primary goods.

Another response is that there are foundational problems in the very idea that the ‘space of freedom’ would involve neutrality to different conceptions of good in practice. The existing forms of liberalism at the state level are far from neutral (Schlosberg 2007, 107–108), and liberal democracy can even be claimed to be anti-ecological (Eckersley 1996, 213): liberal state policies involve a bias¹¹ in favour of short-term preferences at the cost of restraining the opportunities of future humans and nonhuman nature to flourish. An economic system that allows the unsustainable utilisation of natural resources and processes is not neutral to different conceptions of good but systematically destroys freedoms and opportunities of many beings. From the viewpoint of ecological justice, the idea of ‘neutrality to different conceptions of good’ would need more elaboration. Neutrality claims should be made with relation to a community of entities that also involves nonhumans. A slightly different response to the neutrality problem can be made by attributing ‘nature experiences’ an essential role within the very idea of liberty and freedom. In this view, it can be argued that ‘liberalism’s core value of liberty is protected through nature experience’ and that ‘in an increasingly technologised world, the green ideals of nature experience may be precisely what fulfilling the liberal value of liberty demands’ (Stephens 2016, 68).

The above responses may rebut the main objections against the idea of ecological justice but leave it nevertheless unclear why nonhumans should in the first place be included into the community of justice. This question is addressed by Robert Garner (2013, 44–60) in the context of animal justice, yet his arguments can be largely applied in the context of ecological justice as well. First, moral considerations do not necessarily invoke corresponding obligations in the institutional level whereas rights do. It is the justice framing that gives rise to legal compulsion and opens the door for protection mechanisms like constitutional protection¹². Without such mechanisms, protection depends on the (morally good) actions of individuals or on grounds that such protection is found to benefit humans. Furthermore, the discourse of justice shifts the focus from the individual to the institutional sphere, and Garner finds it more important to discuss the responsibilities of a just society rather than of responsible individuals. These arguments are equally applicable in the case of ecological justice more broadly. Bringing ecological entities into the realm of justice significantly increases prospects for their effective protection. Focus on the institutional realm is crucial as well: large-scale ecological problems cannot be sufficiently addressed by focusing on individual-level actions. What is more, from the intuitive viewpoint, many agree that a human-caused extinction or destruction of a vulnerable ecological habitat is not ‘merely’ wrong: it is in some sense injustice *to* those natural entities that are wiped out by human activities. This

11 ‘Bias’ does not need to be malicious; it can even be unintentional.

12 Arguably, law may also involve matters related to harm (such as a prohibition of cruelty to animals) without a need to consider them as matters of justice: justice is a sufficient, but not a necessary, condition of granting particular entities protection. When issues of morality and harming become matters of justice depends on the approach: ecological justice may concern only distribution (Baxter 2005) or a broader array of human–nonhuman relations (Schlosberg 2007).

intuition, in its different forms, has been shared not only by the advocates of ecological justice but also by worldviews that do not draw a sharp line between humans and nonhumans, such as Māori cosmology.

At this point, it is appropriate to reiterate that I do not aim at providing a full-fledged defence of the idea of ecological justice in this dissertation. My primary interest in that regard lies in seeing what would follow from its acceptance and its theoretical and political application. I feel I can better contribute to the discussion on the possibility, prospects, and problems of ecological justice by exemplifying its actual application through the case-implication critique, rather than by restraining my examination to a highly abstract realm.

Expanding the community of justice beyond sentient beings leaves room for different views on both the recipients and contents of justice. On the first issue, a major point of disagreement concerns whether only individual beings or also collective entities can be recipients of justice and whether the emphasis should be on individuals or systems. Nicholas Low and Brendan Gleeson propose the community of justice should include all natural entities, both individuals and collectives, because 'every natural entity is entitled to enjoy the fullness of its own form of life' (Low and Gleeson 1998, 156); in conflict cases further principles of precedence are to be applied. Their definition of the ecological justice community involves all possible natural entities, even non-living ones (that have the lowest moral priority). A more restricted view is presented by Brian Baxter (2005), whose theory of ecological justice as a fair distribution of natural resources concerns living organisms. Baxter further specifies that simpler, non-sentient life forms are recipients of justice as populations rather than as individuals. He then includes populations in the community of justice in some limited cases but excludes systems that are not composed of single species organisms: ecosystems are not recipients of justice in this view. In contrast, the broad framework for (environmental and) ecological justice defends the inclusion of even some ecological systems like ecosystems into the realm of justice. Human activities that harm ecosystems, like the drainage of a mire, become instances of injustice independently from the harm caused to individual beings inhabiting the system¹³. Section 1.2.3 provides a more detailed outlook on how the broad framework defines the community of justice.

Ecological justice significantly expands the community of justice and, in so doing, it also involves new demands of justice. A central question concerns the nature and extent of such demands. A general point of agreement is that the rights of nonhumans are different from those of moral agents (Baxter 2005, 86–87), but this does not tell what kinds of duties ecological justice can or should entail. At a minimum, ecological justice can be understood to invoke a negative duty not to harm nonhumans. It may also engender positive duties of restorative justice¹⁴ in cases where humans have violated or harmed central nonhuman

13 Ecosystems also change on their own. This change occurs in a long, evolutionary timeframe, as opposed to human-caused disruptions that usually cause changes relatively quickly (and in this way impede the system's possibilities to adapt to changing circumstances).

14 Restorative justice refers to measures that correct earlier wrongdoings.

capabilities. A more demanding stance would be that there are also positive duties to protect and promote nonhuman flourishing in more active ways. The idea of positive duties to nature however entails a risk that our duties of justice become overwhelming and the approach loses its viability (Cripps 2010; 2013). Another problem is that the more we have duties to nature, the higher is the risk of conflicts between our different duties of justice, and this also evokes a question whether human entitlements (and corresponding duties to humans) always take precedence in such cases. I address these challenges in the dissertation Essays III and IV and discuss some unaddressed points in the section 1.6.1.

1.2 Theoretical background

I will next outline the theoretical and conceptual background of my dissertation. The BFEJ is a new approach that has not been systematised in the research literature before this dissertation. Therefore, this section reaches beyond the framework itself and begins with an overview of approaches that have been influential in the formation of the BFEJ: the capabilities approach and the trivalent notion of justice.

At least since Rawls, the analysis of justice has largely concentrated on distributional matters forming a paradigm. Rawls (1971, 7) argued that the primary subject of social justice is ‘the way in which the major social institutions *distribute* fundamental rights and duties and determine the *division* of advantages from social cooperation’ [italics mine]. Rawls’s statement and the favourable discussion it entailed constitute a set of ideas revolving around the notion of distribution. To simplify, what could be called the distributional paradigm is the endorsement of the idea that justice is only or primarily an issue of fair distribution of different goods. This does not mean that the contents of justice should be material: social positions that consist in rights, liberties and responsibilities can be considered distributable as well (Walzer 1983).¹⁵ Moreover, distributive principles vary greatly between different theoretical accounts on how the fairness in distribution is to be understood and how broad its scope should be.

Among the most prominent accounts are strict egalitarianism, Rawls’s difference principle, equality of opportunity and luck egalitarianism, and welfare egalitarianism. Strict egalitarianism holds that the amount of goods distributed to every person should be strictly equal (a proposal that descends into problems as soon as one thinks about the distribution of immaterial goods). In contrast to this simple and rather problematic view, Rawls adopts two additional principles for the justness of a society. First, difference principle adds an exception that inequalities in distribution are just if they benefit (in absolute terms) the least advantaged in a society (Rawls 1971, 75-83). Second, he also noted that in some domains of social primary goods (namely certain positions and offices),

¹⁵ Nor does the paradigm exclude other aspects from moral considerations, but issues that are devoid of any distributional resolutions are not matters of justice.

the equality of opportunity rather than the equality of outcomes should be the determining principle of justice. The ideas of equality of opportunity and luck egalitarianism are closely related to each other. They both rely on the idea that those properties of an individual that are outside of her personal control – such as gender and race – are not proper grounds for any discrimination. Luck egalitarianism takes this idea further by arguing that several other cases of ‘brute luck’ (getting into an accident, having poor genetic heritage and so on) may put a person in a worse position in a society regardless of her personal choices and efforts, and a just society should somehow compensate the inequalities that result from ‘brute luck’ (e.g., Barry 1988; Dworkin 1981a; 1981b). A different viewpoint to these concerns is represented by welfare egalitarianists who view that such concerns are derivatives from the primary concern of how they affect the welfare of people (e.g., Goodin 1995).

Alternative paradigms of justice contest the status of distribution as the only, or perhaps even primary, metrics of justice. The argument is that there are other relevant and equally weighty, or perhaps weightier, aspects to justice, that are not reducible to the distributional realm. Whereas distributional paradigm views justice as a matter of distributing goods, the relational paradigms view justice as a matter of granting everyone the relational standing as an equal. Nowadays, the most prominent alternative to the distributional paradigm is the capabilities (or capability) approach (Brighouse and Robeyns 2010). Alternative paradigms agree that distribution has its place in considerations of justice but it must be complemented with other elements or viewed as a means for the actual constituents of equality. Capabilities, for example, are not just a matter of divisible goods but of personal traits, social relations and norms, and public structures (Anderson 1999). I will next characterise two alternative approaches that challenge the distributional paradigm and that have been central for the BFEJ: the trivalent notion of justice and the capabilities approach. Due to the limitation of space, this introductory discussion is limited to a characterisation of features that comprise the essential foundations of the BFEJ.

1.2.1 Trivalent notion of justice

The trivalent notion of justice has roots in critical theory and feminist thinking, and in particular their discussions on recognition and identity politics (see e.g., Young 1990; Benhabib 1992). Various dimensions of the trivalent notion of justice were initially introduced by Nancy Fraser, first as a bivalent (Fraser 1997; Fraser and Honneth 2003; see also Figueroa 2005) and later as a trivalent version (Fraser 2009). The trivalent or three-dimensional view of justice entails three analytically separate yet, in practice, intertwined elements of justice: distribution, recognition, and representation. In this distinction, distribution refers mainly to the economic and material elements of justice¹⁶. Recognition concerns

¹⁶ Those approaches to justice that represent the distributional paradigm usually have a broader content in their distributional aspect (that is the only aspect of justice for them), and (re)distribution may concern also immaterial things such as rights. Fraser aligns some of these ‘distributables’ to her two other dimensions of justice.

the social and cultural aspects of justice, such as institutionalised value patterns and public depiction. Representation, in turn, covers all political aspects of justice. These three dimensions are irreducible to each other, and often the mechanisms of injustice are grounded on more than one aspect (Fraser 2009). The epitome of multifaceted injustice is gender inequality that is produced and maintained at all three levels, not just through economic maldistribution. Climate negotiations provide another example of interrelated injustices that can be captured only by looking at the negotiations through multiple analytical lenses established by trivalent justice (Kortetmäki 2016b). The trivalent notion of justice is relational, meaning it is concerned with the social and political relations (and their equality) between recipients of justice.

Recognition is the element of trivalent justice that is perhaps most in need of defence, yet it is also the one that most clearly distinguishes the trivalent view from those that represent the distributional paradigm. Recognition constitutes a cultural and social dimension of justice and regards institutionalised value patterns, which impact the opportunities of society members to participate in societal life. Recognition requires adequate respect of agents regardless of their different backgrounds, for example cultural or ethnic. Misrecognition manifests itself in patterns of cultural value and in various forms such as exclusion, cultural subordination and depreciation (Fraser and Honneth 2003, 28–30.) It is often faced by groups of ethnic, religious and sexual minorities, a topic that was discussed in identity politics literature already before Fraser linked it to the realm of justice. Misrecognition often impacts the distributional and political equality – lack of respect entails lack of concern in distribution and in decision-making – but it may also exist on its own (Fraser and Honneth 2003, 16–26). An example of ‘plain misrecognition’ is the case of a person who can equally participate in public decision-making and have a well-paid job but who, due to her sexual identity, for example, still encounters social discrimination and public insults in everyday life. Even though some authors have defended social relations as matters of distribution (e.g., Walzer 1983), the trivalent view to justice holds that cultural value patterns or institutionalised respect are issues that cannot be distributed like material goods or rights. When certain ethnic groups or women are discriminated due to institutionalised value patterns, it appears arbitrary to view this merely as an issue of unequally distributed respect or esteem. Moreover, it is possible to imagine a situation where the objects of distribution are distributed evenly but in a manner that does not demonstrate equal respect for all people. Unlike distribution-oriented theorists, the proponents of the trivalent view would consider this unjust.

The above described model represents the status model of recognition (Fraser and Honneth 2003, 29), which views recognition as an aspect of justice and primarily as a question of participatory parity between recipients of justice. This differs from the Hegelian–Honnethian tradition, where recognition constitutes an interpersonal relation that essentially contributes to the overall psychological integrity and self-esteem of a person. Fraser’s model can be called an adequate regard insight and Honneth’s model, in contrast, a mutuality insight

to recognition (Laitinen 2010). Honnethian school of thought speaks of recognition only in the context of persons, and the idea of recognising nonhuman nature is impossible within that approach (some apes, to whom personhood can be attributed, may be an exception). There is lively research in social philosophy and social ontology around mutual recognition, a fact that might engender doubts about the possibility of recognising nonhumans at all. The recognition of nonhumans is however conceptually perfectly possible through the idea of recognition as adequate regard or as an issue of status injury. In this view, the misrecognition of nonhumans involves institutionalised value patterns of disrespect towards nature and human domination over nonhumans (Schlosberg 2007, 140–141; Kortetmäki 2016a). Nonhuman recognition will be further discussed in section 1.2.3.

There is emerging literature on recognition and environmental justice (see for example Figueroa 2005; Turner 2006; Schlosberg and Carruthers 2010; Whyte 2011; for works related to environmental racism, see Cole and Foster 2001). These works point out how environmental injustice often involves oppression of the values and cultural traditions of harmed communities. The same communities that face environmental injustices experience political ignorance and public disregard of their lifestyles and worldviews (visible in, for example, a general depreciation for indigenous knowledge). In this way, misrecognition tends to create vicious circles of injustices that reproduce western hierarchical valuations and ‘Eurocentrism’ present in global trade and politics. While it can be questioned whether the trivalent view represents a wholly transformative account or rather a further development of the distributional paradigm, recent works on environmental justice indicate the importance of articulating claims for justice in terms of recognition, instead of translating them as claims for redistribution.

Another analytically distinct dimension in Fraser’s trivalent notion of justice is representation. It concerns the political: procedures, framings and structures that define where and how decisions are made and how the groups of decision-makers and those affected by decisions are framed. Such questions have been partly addressed by the distributional paradigm of justice too, because the formal constituents of decision-making such as seatings and voting rights can be distributed. Hence, it is possible to question whether this analytical dimension brings anything new to the discussion. Proponents of the trivalent view reply to these doubts by answering that masking participatory justice merely as an issue of distribution neglects several important aspects: it tends to assume the prevailing institutional arrangements to be justifiable and, hence, to propose affirmative rather than transformative changes. This means that proposed solutions to increase political justice mainly relate to improving formal inclusion within the prevailing structures. However, problems lie also in the institutional structures and framings themselves. As a response to this problem, the trivalent view of justice promotes a transformative view of politics. Transformative strategy is based on the argument that the framing, ‘who’ of justice and politics, should be opened for negotiations. This also entails a call for opening the question of how the ‘who’ can be defined, and how current structures produce in-

formal and sometimes invisible patterns of exclusion (Fraser 2009; Kortetmäki 2016b). Importantly for the BFEJ, the transformative approach to politics opens up the possibility to incorporate ecological justice into the realm of politics.

Addressing representation as an independent element of justice also enables one to incorporate the notion of listening into the considerations of justice. Surprisingly little attention has been paid to the aspect of listening and hearing in democratic theory, although listening is an essential prerequisite for truly dialogical relations. Good listening requires recognition (Dobson 2014). A formal right to utter words in decision-making processes is of no value without other people's willingness to submit themselves to the influence of those who speak. Listening cannot be distributed¹⁷, and making it an aspect of political justice requires an approach that takes non-distributive elements into account. This point is important in the context of environmental justice, and the demand for more just and more effective participation is repeatedly articulated in literature (Shrader-Frechette 2002; Schlosberg 2007, 96–98; Cole and Foster 2001). The importance of listening is, however, perhaps even greater in the context of ecological justice, where the contemporary framing of deliberative democracy tends to exclude nonhuman voices unless they are represented by proxies who 'translate' nonhuman signals into what counts as speech (Dobson 2014). In these circumstances, much of the signals or voices made by nonhumans are left undelivered and unheard.

1.2.2 The capabilities approach

The capabilities approach can be viewed as an alternative to the distributional paradigm in terms of its answer to the 'equality of what?' question. The concept of capabilities was first introduced by Amartya Sen (1979) in his Tanner Lectures, with a focus on development economics. A more comprehensive and detailed framework for theorising social justice within the capabilities grammar was later introduced by Martha Nussbaum (e.g., Nussbaum and Sen 1993; Nussbaum 2000; 2006; 2011), and the discussion has been lively ever since. In what follows, I focus on the Nussbaumian line of the capabilities thinking unless otherwise stated, for the broad framework of environmental and ecological justice mainly employs the Nussbaumian capabilities approach.

The most central question for the human capabilities approach is what each individual is able to do and to be, in other words their capabilities or effective opportunities (Robeyns 2005). Opportunities include both one's personal capacities as well as the social, economic, political (and ecological) conditions in which a person can carry out activities. Capabilities can be realised into various functionings, states of being or doing, and through this they enable a person to pursue her own vision of a good life and to realise capabilities in ways she finds valuable. These conceptual premises are shared by both Sen and Nussbaum. From these

¹⁷ Even if I can share my own attention differently between different sources of speech, there is no institutional way to manage or promote 'equal listening' of different parties. Whether certain groups are actually heard, e.g. in panels by those with more power, remains still dependent on the attitudes (and skills) of the powerful ones to listen.

premises, Nussbaum has developed what can be called a 'partial and minimal account of social justice' (Nussbaum 2006, 71), which uses capabilities as the basis or a 'measure' for minimum social justice. Nussbaum argues that certain capabilities are essential for the pursuit of any feasible idea of a good human life: hence, it is possible to create a list of central capabilities whose centrality can be agreed upon even in a pluralist society. Securing and promoting these central capabilities is a necessary condition of minimum social justice (Nussbaum 2011, 32–33).

The central human capabilities include entitlements to 1) Life (of normal length and worth living); 2) Bodily health; 3) Bodily integrity; 4) The use of senses, imagination, and thought; 5) Feeling different emotions; 6) Exercising practical reason and forming one's own conception of the good life; 7) Affiliation with others and self-respect; 8) Living with concern for or in relation to other species and the natural world; 9) Play; and 10) Political and material control over one's environment (Nussbaum 2011, 33–34).¹⁸ Central capabilities set a threshold below which nobody should be left. It leaves open, for example, what sorts of distributional arrangements are considered fair after securing the threshold of central capabilities. The capabilities list includes themes closely linked to recognition and representation, yet Nussbaum's work has remained detached from the discourse of trivalent justice (until the BFEJ framework).

In contrast to approaches that focus on the distribution of particular resources, the capability approach asks what a person can actually get out of them. People have differing needs depending on personal traits, condition, and environmental and societal circumstances. Some of these differences may require seemingly unequal distribution for an equal outcome: it is necessary to invest more in the education of women in societies where they have long been deprived of that opportunity, and physically disabled individuals need more resources for equal participation in societal life (Nussbaum 2011, 57). In addition to paying attention to individual differences, the capabilities approach also takes into account the problem of adaptive (malleable) preferences. Preference satisfaction based metrics of measuring wellbeing – some of which might be able to address the individual differences discussed above – focus on the experienced wellbeing but ignore the malleability of preferences. A person can internalise her second-class status to the extent that she is unable to feel dissatisfied about living in continued oppression, if she cannot imagine herself to deserve anything better (Nussbaum 2011, 54–55). The emphasis of the capabilities approach on actual opportunities becomes, then, particularly valuable in these kinds of contexts that address the status of oppressed people or communities, like those of environmental injustice faced by indigenous communities.

While the capabilities approach has turned out interesting in the context of development and gender equality, its use is not restricted therein. The approach can be applied within both environmental and ecological justice discourses.

18 The list has been slightly revised through time. Items listed as central capabilities were essentially similar already in *Women and Human Development* (Nussbaum 2000), but some revisions of the more detailed contents of each capability have taken place since that.

Breena Holland and Amy Linch (2016) summarise various ways in which capabilities have been linked with the environment. First, the protection and promotion of human capabilities cannot be separated from environmental considerations. Human flourishing crucially depends on life-enabling environmental conditions, and we need various resources and ecosystem processes for realising our capabilities. Protecting human capabilities requires environmental protection, too. It can even be argued that sustainable ecological conditions are a meta-capability, a precondition for other central human capabilities (Holland 2008). The opportunity to form relations with nature is also an important constituent of human flourishing: this point is incorporated in Nussbaum's central capabilities list (especially in the capability to live with concern for or in relation to other species and the natural world), whereby it invokes a duty to protect conditions that enable forming such relations.

Second, the nonhuman world can be incorporated into the capabilities framework in various ways that call for the moral consideration of nonhumans for their own sake. The first strategy for this is to argue that Nussbaum's theory in itself involves or at least allows for a biocentric outlook, in which the dignity of all life makes it worthy of respect. This viewpoint has been articulated by Jeremy Bendik-Keymer (2014) and Katy Fulfer (2013), though the authors differ in their stance on whether this viewpoint should mean the inclusion of nonhumans in the community of justice.

Nussbaum is sympathetic towards expanding the community of justice beyond human beings. She proposes that capability lists can be determined for sentient beings whose wellbeing should anyway become a concern for justice (Nussbaum 2006; 2011), an argument she has explored in a more detailed manner with a view to whales (Wichert and Nussbaum 2016). Nussbaum's view on nonhuman capabilities has received critique as it also promotes 'policing or sanitising' nature, which means direct intervention in relations between nonhuman beings such as predators and their prey (for critique on this, see Schlosberg 2007, 151-152; Hailwood 2012; Crescenzo 2012). As opposed to Nussbaum's view, ecological justice by definition concerns human-nature relations, not those that take place without direct human involvement. Ecological justice does not require, or endorse, 'policing' nature. Another difference between Nussbaum and capabilities-based ecological justice theorists is that Nussbaum acknowledges a conceptual possibility to expand the capabilities framework beyond animals but does not favour such an expansion (Nussbaum 2011, 157-160). The BFEJ, within its domain of ecological justice, takes a significant theoretical leap in expanding the capabilities framework in a direction that enables a concern for ecological systems for their own sake and includes them in the community of justice. Of course, such an expansion cannot go without invoking multiple questions, such as what capabilities an ecological system can possess or what kind of duties of justice we may have regarding their capabilities. These questions are further introduced in section 1.2.3 and addressed in the dissertation articles.

The broad framework of environmental and ecological justice builds theoretically on the two above introduced grounds, the trivalent notion of justice

and the capabilities approach.¹⁹ The framework allows, but does not require, the amalgamation of both approaches into a single theoretical construction. As a loose framework, the BFEJ allows utilising a chosen set of incorporated elements from the approaches for addressing environmental matters. I will next introduce the broad framework of environmental and ecological justice more closely and characterise, in particular, how it applies the above outlined theoretical and conceptual ideas within the domains of environmental and ecological justice.

1.2.3 The broad framework of environmental and ecological justice

The BFEJ is a conceptual and theoretical framework for addressing those environmental and ecological issues that may invoke considerations of justice. Its elements were introduced (yet not systematised) by David Schlosberg in *Defining Environmental Justice: Theories, Movements, and Nature* (2007). The articulated collection of broader approaches to justice was not meant to comprise a single, all-inclusive theory of environmental and ecological justice, but to ‘expand the discourse of justice, and legitimize the use of a variety of tools and notions as they apply to various cases’ (Schlosberg 2007, 8–9). Before I continue to describe the main ideas of this approach, it is useful to illustrate the components of this framework and its domains of application. I have created a set diagram to illustrate the ways in which the two domains of justice and the two theoretical backgrounds can intertwine and relate to each other in different ways within the BFEJ.

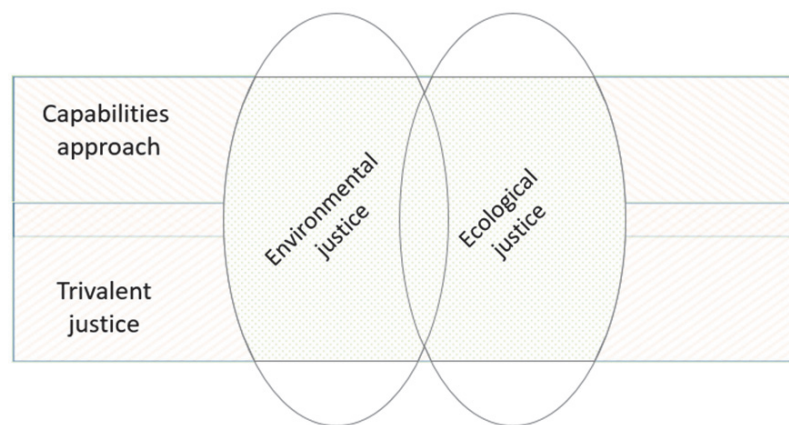


Figure 1 The theoretical framework and two discourses of justice.
Green dotted area denotes the scope of the BFEJ.
(Differences in shape sizes do not bear relevance.)

¹⁹ The framework also utilises and applies much of the ‘justice vocabulary’ used by grassroots level movements. These claims, however, do not form a separate conceptual or theoretical basis for the BFEJ; rather, Schlosberg (2007) argues that the movement claims can be captured well with the capabilities and trivalent approaches to justice.

Two rectangles in Figure 1 illustrate the backgrounds the BFEJ draws on, two approaches to justice: the capabilities approach and the trivalent view of justice. Although the approaches emerge from different traditions – the former from Aristotelian, the latter from Marxian – and have been distinct projects, similarities can be identified between them. Both are alternatives to distribution-oriented approaches to justice and emphasise the importance of social relations, human dignity, and self-respect as essential for a dignified life. Both approaches are also broadly involved in the empowering of oppressed groups, issues of respect, cultural pluralism, gender equality, and both address those forms of injustice that are not always traceable back to inequalities in distribution or formal representation. Both also use empirical evidence and examples of the claims of various groups and movements to link their theoretical foundations strongly with the practical realm. Due to these similarities, one can integrate elements from both approaches, a possibility illustrated by the overlapping area of the rectangles: in this integrative sphere, the result is a four-dimensional view of justice where capabilities, redistribution, recognition and representation are all essential elements of justice (Schlosberg 2007; Kortetmäki 2016a).

The circles in Figure 1 illustrate two domains of justice relevant to the BFEJ, that is environmental and ecological justice. These domains are more extensive than their application in the present work, which is illustrated by their reach over the theoretical rectangles. An area of overlap in circles signifies that environmental and ecological justice overlap in those issues that impact both nonhuman and human wellbeing in a similar way²⁰. ‘Theoretical rectangles’ reach beyond the circles because capabilities-based and trivalent views of justice are applied in other domains of justice as well. Both theoretical approaches have in the first place been developed for theorising social justice, and certain parts of their vocabularies are applicable only in the human realm (like concepts related to gender equality, labour, and education).

The operative scope of the BFEJ is delimited by the outer edges of two circles. Within this scope, relations between the shapes illustrate various ways in which the theoretical foundations can be applied to environmental matters. It is possible to utilise either one or both of the theoretical background approaches for environmental matters within the BFEJ. Research literature provides examples of different strategies. Some works utilise both capabilities-based and trivalent approaches to justice (e.g., Schlosberg 2007; Schlosberg and Carruthers 2010; Kortetmäki 2016a), yet many focus on either the capabilities framing (e.g., Cripps 2010; Schlosberg 2012; Crescenzo 2013; Essays III and IV in my dissertation) or the trivalent justice, where emphasis is often on recognition²¹ (Figueroa 2005; Whyte 2011; Hourdequin 2016; Kortetmäki 2016b; Martin et al. 2016).

20 A case of a lethally poisonous toxic leakage would be an example of this. It is of course impossible that the impact would be exactly the same, because the ‘nonhuman’ here refers to a very diverse group of beings and processes regarding whom the impacts inevitably vary.

21 Figueroa’s work in 2005 represents Fraser’s *bivalent* notion of justice that incorporated distribution and recognition as separate elements of justice before Fraser developed her approach into a trivalent form.

Given this diversity in how the BFEJ can be utilised, the framework is best characterised as a theoretical and conceptual ‘toolbox’ rather than a comprehensive theory in itself. Although Schlosberg is optimistic about the compatibility of trivalent justice and the capabilities approach, he does not develop their theoretical integration much further. Rather, his works focus on applying various elements from both approaches to the extent they are appropriate for addressing environmental or ecological justice. It is possible to study issues of justice by using all four elements of the BFEJ as essential constituents of justice, yet this strategy may create analytical redundancy. Another strategy would involve pointing out that the two approaches provide different analytical perspectives that should both be taken into account: capabilities approach emphasises subjective agency, whereas the trivalent view focus on the equality of relations between the recipients of justice and hence adopts a ‘panoramic view’ to justice. Although there is no need to transform the BFEJ into a single theory, the looseness of the framework calls for clarification and the relevance of its different elements in an environmental context requires further inspection. In my dissertation, I have participated in systematising the framework in this respect by exploring the areas in which its different theoretical elements are most applicable and by relating the framework to other approaches in the research field.

Sections 1.2.1 and 1.2.2 described the theoretical foundations of the BFEJ, the capabilities approach and the trivalent notion of justice, mainly at a general level and with relation to social justice where both approaches were established. I will next characterise how the BFEJ applies, further develops, and at some points alters, the core of its theoretical foundation. As my dissertation contributes to this development process, the characterisation also involves references to my own works (a detailed overview on my articles and their contributions is provided in section 1.4).

Trivalent justice in the environmental context

According to the trivalent notion of justice, there are three distinctive elements in justice: distribution, recognition, and representation²². The BFEJ adopts this distinction in a straightforward manner and assigns recognition and representation a central role in environmental and ecological justice. This broadens the view with which environmental and ecological matters can be approached within the BFEJ in contrast to those environmental approaches that follow a distributional paradigm. A broadened idea of justice is well in line with justice claims made by grassroots level movements whose experiences of injustice often go beyond distributional matters and relate to implausible opportunities for political participation and issues of respect (Schlosberg 2007; Figueroa 2011).

22 I refer to this view as a trivalent notion because both Fraser and Schlosberg count to three in this regard; Figueroa (2011), however, appears to me as speaking relevantly of the same three-dimensional approach yet he labels it as bivalent, presumably because Fraser’s initial approach was initially thus (and did not treat participation as a distinctive element of justice but internal to the issues of distribution and recognition).

Incorporating the elements of distribution, recognition, and representation as the essential constituents of justice has become a widely accepted perspective on environmental justice (Figueroa 2011).

Representation has been a popular theme in environmental ethics and political theory as long as there has been discussion about how to incorporate nonhuman matters into the institutional realm. The importance of representation arises from the fact that nonhuman entities cannot speak for themselves with the language usually associated with making politically or morally relevant claims. Many theorists have emphasised that this is not a reason to exclude 'the inarticulates' from the sphere of concern, because different strategies can be employed to enable their representation. Related suggestions involve representative proxies for nonhuman animals (Feinberg 1981), trustees, or dedicated environmental institutions that 'speak on behalf of nature' (Eckersley 1999; 2004; Baxter 2005; Dobson 2014), reflexive democracy (Schlosberg 2007), and learning to 'listen to nature' through appreciating the signals it sends (Dobson 2014). On the one hand, the BFEJ continues the tradition of addressing nonhuman representation in the political sphere; on the other, it revises this discussion by making the argument that representation is an element of justice on its own. Misframing political community in a way that excludes nonhumans or does not sufficiently ensure 'hearing' their claims is a form of injustice, not just a matter of implementation failure.

Recognising nonhuman nature is, in contrast to representation, an unexplored idea, and the BFEJ opens a new arena of research by introducing it. In contrast to the mutuality insights of recognition, the BFEJ adopts a non-psychological account of recognition that does not require personhood as a precondition for being recognised. In this view, recognition is primarily a relational concept and refers to the participatory parity, adequate regard, and overall respect of the recognised ones (Fraser and Honneth 2003; Fraser 2009; Schlosberg 2007). The idea of the recognition of nonhuman nature might be more easily comprehended with reference to its negation, misrecognition. Misrecognition as injustice is a status injury that deprives the beings misrecognised of participatory parity or respect. It may be present in forms such as cultural oppression, nonrecognition or ignorance, and disrespect visible in public representations of certain identifiable groups.

This classification is applicable to nonhuman nature as well. The cultural domination of human interests over nonhuman wellbeing is visible in a broad variety of practices: the superiority of economic arguments over others in climate policies and the practices of factory farming are perhaps the best-acknowledged examples of this. Misrecognition by ignorance refers to ways in which nature is often dismissed as a potential 'subjected one' regarding the consequences of human actions. Disrespect, in turn, is visible for example in the jokes made against the protection of ecological habitats or endangered species in cases when their protection is repeatedly required in policymaking: in Finland, for example, the protection of flying squirrels has become a relatively common topic of jokes in land use planning discourse. Criticism about human

domination over nonhuman nature is also present in earlier environmental ethics, within ecofeminism literature in particular (Plumwood 2002), and a general motivation of normative environmental theory arises from the fact that nonhuman nature is somehow unjustifiably ignored or disregarded. The BFEJ, however, gives these critiques now a common name and a conceptual systematisation in a way that enables linking such issues with an approach to justice (cf. Kortetmäki 2016a).

As explained earlier, the status injury and adequate regard view of recognition allows detaching recognition from personhood. This opens the possibility to discuss who 'merits' recognition: what kind of entities can and should be recognised? In the BFEJ, the main candidate for a feature that makes an entity merit recognition is integrity. Integrity refers to 'the potential in nature to develop, its autonomy, resilience ... the quality of a self-directing, self-regulating, or self-correcting entity or system' (Schlosberg 2007, 136). Schlosberg maintains that the principle of respect for integrity is shared broadly among the environmentally concerned political theorists, regardless of whether they defend the idea of ecological justice or maintain the emphasis on the rational and enlightened human self-interest rather than non-anthropocentrism. Recognition of nonhuman nature does not, then, require non-anthropocentrism but a general respect for integrity and acknowledgement that at least some nonhuman beings possess that kind of integrity. This has been noted already by Tim Hayward (1998) who rejects the anthropocentrism–non-anthropocentrism debate as heavily misunderstood and argues that our fundamental interest in our own integrity also gives rise to respect for nature and nonhuman beings.

Grounding recognition in integrity allows expanding the scope of recognition beyond persons, sentient beings, and even individuals. At least certain kinds of ecological systems can be argued to have integrity that can be harmed (Schlosberg 2007; Crescenzo 2013; Westra 2016; Essays III and IV). This move away from the individualist position, characteristic of the mainstream liberal justice, has also been endorsed in the discourses of environmental justice and justice to indigenous communities. Many grassroots movements speak about justice to collectives and call for the recognition of collectives in a sense that is not reducible to individuals (Schlosberg and Carruthers 2010). Fraser's notion of recognition as an issue of status equality allows the idea of the recognition of collectives without a need to resolve a difficult question of whether collectives are persons in some sense.

There are three major reasons for incorporating the concept of recognition into approaches to environmental and ecological justice. First, recognition provides a useful concept for addressing the claims of justice that concern the respect of community values, practices, and even the survival of cultures and communities (Schlosberg 2007, 58–64; Kortetmäki 2016b). Second, the concept of recognition allows analysing reasons beyond distributive environmental and ecological injustice: the correction of various forms of ignorance or lack of respect is a prerequisite for achieving justice in the distributional and political realm as well (Kortetmäki 2016b). Third, analysing recognition helps reveal par-

ticularities that are ‘masked’ as universalities in contemporary societies. They are hidden and unquestioned assumptions that produce and maintain inequalities, exclusions, and that impede hearing nonhuman voices within the political sphere full of human noise (Dobson 2014, 143–149; 169). A great majority of political theorising has carried unquestioned assumptions about the reasons why nonhumans are excluded from direct concern. From Aristotle to Hobbes, the distinction between politically meaningful communication and ‘noise’ has meant that other signals than human speech are nothing but noise (Dobson 2014, 141). For a long time, nature was regarded merely as a resource; as a modest development to this, it became regarded as a resource that should be managed sustainably. The recognition of nonhumans rejects the ‘political superiority of a man’ and brings the nonhuman world to the realms of politics and justice. In this new constellation, a denial of the integrity and agency of ecological systems entails wrongdoing to nature and is not just a matter of unsustainability or injustice to future generations.

Nonhuman capabilities

The capabilities approach comprises another theoretical cornerstone of the BFEJ. The human capabilities framework can be directly employed to address the matters of environmental justice as they relate to human equality, wellbeing and sustainability.²³ The importance of this discussion was well indicated in the *Journal of Human Capabilities* thematic issue on sustainability and the capabilities approach in 2013. Hence, I will here focus on the nonhuman capabilities: the novel and contradictory elements of the BFEJ regarding capabilities lie in applying them beyond sentient beings²⁴. Some authors have chosen to call this framework the expanded capabilities approach²⁵, but I have in my essays preferred the term environmental capabilities instead because this term explicitly denotes the nonhuman context that distinguishes it from other capability-related applications. In the BFEJ literature, the capabilities-based discussion usually builds on the Nussbaumian strand of the capabilities approach. Another strand of thinking about capabilities, influenced by Sen, puts emphasis on the freedom of each community or cultural group to deliberate their own central capabilities, an idea that is difficult to apply to the nonhuman realm.

The idea of ecological justice requires modifying the capabilities framing in fundamental respects: it expands the community of justice to nonsentient beings as well as systemic entities like ecosystems. This questions the applicability of some notions employed in the human capabilities approach, such as self-respect and dignity. As a result, Schlosberg (2007, 145–147) refrains from

23 This is also implicit in Martha Nussbaum's list of central human capabilities.

24 To reiterate, Nussbaum herself considers sentient animals as recipients of justice in her capabilities framework.

25 The term ‘expanded capabilities approach’ was first used in Schlosberg 2007, and the term has been adopted from there to later discussions, sometimes also in the form of the extended capabilities approach. The notion of expanded capabilities has been used in engineering, biotechnology, and marketing literature in a sense that has no connection to justice discourses.

using the individualist and psychologically loaded notion of dignity and speaks of the flourishing and integrity of nonhuman nature instead. Although the idea of the capabilities of ecological collectives still remains contested, the case that capabilities can be collective is made broadly in the community capabilities literature (e.g. Stewart 2005; Ibrahim 2006; Schlosberg and Carruthers 2010; Murphy 2014).

According to the environmental capabilities framework, nonhuman flourishing requires certain capabilities whose realisation comprises the set of functionings that are essential to the flourishing characteristic of a given creature. A central idea of the environmental capabilities approach is that the community of justice includes all entities whose integrity and capabilities can be harmed by human activities. This has engendered debate on the capabilities of ecological systems. Can they, in the first place, have capabilities? And if they can, what kinds of capabilities should be considered as central capabilities of ecological systems? I have contributed to this discussion through Essays III and IV and characterised the general relation between nonhuman capabilities, functionings, and flourishing in Essay I.

Emerging literature on the BFEJ provides tentative answers to questions about the contents of nonhuman capabilities and the scope of the community of 'capability-possessors'. Some central capabilities of sentient beings were initially articulated by Nussbaum (2006; 2011). Since then, there has also been discussion on the possible central capabilities of other kinds of ecological entities (Schlosberg 2007, 149; Crescenzo 2013), a discussion in which I participate in Essays III and IV. If nonhumans are acknowledged to possess capabilities, a subsequent question concerns the nature of duties invoked by such capabilities. The simplest and least demanding strategy would be to affirm that our duties to nonhumans primarily involve a negative duty of noninterference (Schlosberg 2014). On the other hand, interference cannot be avoided, and much harm has already been done: these facts incline towards an argument that there must also be positive duties of justice to nature.

The idea of positive duties to nature invokes some fundamental problems, however. Such duties will certainly conflict at many points because different beings, let alone individuals and systems, have conflicting needs; they may also easily become so overwhelming that our duties can never be entirely fulfilled. Some authors view these as reasons to reject the environmental capabilities approach, at least as an approach that creates justice-related obligations (Cripps 2013). A possible response to this is that the environmental capabilities approach should be viewed as a nonideal theory of justice whose primary purpose is to help evaluate which actions make the world more or less just, rather than propose what a perfectly just world would look like (Schlosberg 2014). I have addressed these problems to some extent in all my dissertation essays. Here it must be noted that the problems described above are common to all approaches that expand the community of justice beyond sentient individuals. Actually, it can be argued that a capabilities-based approach to ecological justice is superior

to many alternative approaches in its capacity to address conflicting demands and with the risk of ‘overwhelming duties’ (Essay III).

One of the main advantages of the capabilities-based view of ecological justice is that it can be used as an approach to minimal rather than full justice. The idea of threshold capabilities may well result in a less demanding set of duties in comparison to distributional approaches to ecological justice. A focus on the opportunities rather than actual functionings may also be fruitful for addressing conflicting demands. If the functionings of A and B conflict, it is often still possible to find alternative ways to realise the related capabilities in non-conflicting ways²⁶. Another advantage is that a capabilities-based approach directs our attention to actions that promote resilience²⁷. The importance of resilience has been largely neglected in earlier discussions on ecological justice, yet it bears great importance in the circumstances where it is impossible to predict the precise impacts of global environmental change and often the best we can do is to support the adaptation of human and nonhuman communities to forthcoming changes.

1.3 On the methodology and disciplinary boundaries

This dissertation occupies academic fields whose boundaries are not clearly distinguished and whose scopes of interest overlap: environmental ethics and environmental (or green) political theory. Whereas some may want to emphasise such distinctions, most authors who have contributed to the BFEJ literature have engaged in the discussion without drawing disciplinary boundaries. As the present dissertation, however, began as a study in philosophy and is to be categorised as a thesis in that field, short remarks on my disciplinary stance and methodology are in order here.

Environmental political theory can be viewed as a discipline that ‘attempts to bridge the gap between political science and environmental ethics’ (Smith 2016, 105). Environmental ethics often uses the viewpoint of an individual moral agent on values and morality. Consequently, it tends to derive normative principles for public policy from the individual level without paying attention to social structures that affect moral agents and their actual possibility to make different choices. Political theory, on the other hand, has paid attention to social structures but reduced the natural environment to the role of a theatre scene or background setting with no significant influence. Environmental political theory represents a territory in between the two approaches. It must be added that political theory, though often identified as a subdiscipline of political sciences, draws much from philosophy and differs from philosophical exercise mainly in

26 Protecting and realising my central capability to enjoy recreation, laugh and play does not mean I need an actual opportunity to enjoy it by hunting endangered species (a functioning that would likely conflict with many nonhuman capabilities).

27 Ecological resilience refers here to the amount of disruptions a system can absorb before it changes its essential structures (Berkes, Folke & Colding 2000, 12).

its custom of addressing more particular practical issues. There would be no political theory without the cornerstones of justice written in political philosophy.

Theorising justice within the environmental context further blurs the boundaries between environmental political theory, political philosophy, and ethics. The capabilities approach and the trivalent view of justice both have elements some of which are characteristic of political philosophy, others of political theory or even ethics. Both approaches aim at achieving certain universal (or at least broadly acceptable) and timeless principles but emphasise the relevance of empirical information to normative reasoning; and both address normative problems manifested in the present life world.

There are no grounds for asserting that works on environmental and ecological justice should remain within a single disciplinary boundary, and they have never done that. I consciously adopt a cross- or post-disciplinary stance in my essays and their methodology is in accordance with that choice. Dissertation articles do not represent a single discipline or method, in a strict sense, but their conformity lies in the application and development of the BFEJ. For example, the first paper utilises philosophical conceptual and theoretical comparative analysis within environmental ethics, whereas Essay II applies political theory methodology and gives room for empirical examples and examines actual claims made in climate negotiations. Essays III and IV, in turn, belong to an area where environmental ethics and environmental political theory intersect. The present dissertation does not aim to demonstrate excellence in applying a single method but in the ability to combine diverse conceptual and theoretical elements for addressing complex and cross-disciplinary topics.

The primary methods used in this dissertation are conceptual analysis and case-implication critique. Conceptual analysis is understood broadly and pragmatically, rather than denoting only the traditional practice that examines the sufficient and necessary conditions of a concept *a priori* (independently of human experience)²⁸. Broadly understood, conceptual analysis aims to study and clarify given concepts by examining and clarifying their conceptual preconditions; by evaluating the implications of their application; by fleshing out the conceptual connections between the clarified concept and related notions; and by distinguishing a given concept from other related notions. In the present work, this analysis also empirical justification to support or reject certain uses of concepts. This kind of approach does not necessarily provide the explicit definitions of a given concept, yet even partial definitions are important in increasing our understanding about given concepts and their use (Kipper 2012).

Case-implication critique is a method of justifying or rejecting certain theoretical principles “by taking up particular cases in which the results of employing that principle can be seen in a rather stark way, and then to examine these implications against our intuition” (Sen 1979, 197). Sen used this technique to point out the problems of utilitarian approaches to human wellbeing. Case-

28 Basic information about the traditional conceptual analysis in philosophy and its variants can be found in the Stanford Encyclopedia of Philosophy: Concepts.

implication critique is akin to, but not identical with, reflective equilibrium that has become known as the standard method of moral inquiry. Reflective equilibrium is a process in which judgements, background theories, and principles are examined and adjusted to achieve equilibrium between them (Brun 2013, 239). In contrast to this, the case-implication critique rather gives or denies support for the tested theoretical standpoint: reflective equilibrium starts with intuitions and case-implication critique ends with them. Admittedly, all moral philosophy involves using reflective equilibrium to some extent and the present work is not an exception. Case-implication critique and reflective equilibrium both employ moral intuitions whose universal credibility can be questioned; in this regard, it has to be noted that the role given to moral intuitions can vary, and attacks on the problems related to moral intuitions and intuitionism do not provide a reason to reject all methods that use intuitions (Brun 2013).

1.4 Objectives and scope

The overarching task of the dissertation articles is to systematise, evaluate and further develop the broad framework of environmental and ecological justice. This can be further divided in three main objectives:

- 1) To clarify the position of the BFEJ in the field of normative environmental theorising (environmental ethics, environmental philosophy and environmental political theory).
- 2) To apply the BFEJ to various topical ecological problems and to provide novel, innovative contributions to related discussions.
- 3) To examine theoretical and conceptual advantages and limitations of the BFEJ with regard to theorising environmental and ecological justice.

The first aim contributes to basic philosophical research that positions novel approaches within the tradition and identifies interesting similarities and differences between new and old discourses. In his first attempt to formulate the BFEJ, Schlosberg (2007) positioned his approach mainly in the fields of political philosophy and political theory but paid less attention to how the approach was also a continuum to discussions in environmental ethics.

The second objective engages in the basic task of the environmental political theory and applied environmental ethics: addressing contemporary issues. I deal with three focal problems that have attracted vivid discussion in earlier literature: climate justice, ecosystem degradation, and species extinctions. The second objective reveals how the BFEJ can provide new insights to 'old' problems and improve our understanding about their ethical dimensions.

The third objective contributes to research that aims to advance theoretical and conceptual developments: it involves examining the advantages, potential, and limitations of the BFEJ in relation to its purpose as a framework for theorising environmental and ecological justice. This task also involves discussing po-

tential solutions to identified limitations and theoretical challenges. This objective is closely linked with the second aim and can be viewed as its theoretical complement.

1.5 Overview of articles

The present dissertation consists of this introductory section and four articles, which all study the broad framework of environmental and ecological justice from different yet related angles. Articles contribute to the three main objectives of this dissertation by relating the framework to other normative approaches, by showing how it can be applied to various practical problems and by pointing out its advantages and limitations in these contexts. The first article (I) provides a general look to the framework and its central principles, whereas the three other essays (II, III and IV) turn the examination into particular topics: they allow me to enlarge on different theoretical and conceptual elements in a more detailed manner.

In article I, 'Is Broad the New Deep in Environmental Ethics? A Comparison of Broad Ecological Justice and Deep Ecology' (published in *Ethics & the Environment*, 2016), I make the claim that the BFEJ shares many of its core ideas with those of deep ecology and its individual-level articulation, the ecosophy T of Arne Næss. This article contributes to positioning the BFEJ in the field of environmental normative theory. It points out how environmental ethics and political theory are exercises on the same disciplinary continuum rather than separate academic fields. The article also assesses whether the two compared approaches could learn from each other. This article is the most general of dissertation articles in its scope and it also serves as an introductory piece for those unfamiliar with the BFEJ.

The article begins with an overview of the factors that make up the broadness of the BFEJ. In this regard, particular attention is given to misrecognition that is injustice in its own right and often lies beyond distributional injustices too. Next, I point out how the features that make deep ecology 'deep' are remarkably similar to those that make the broad framework broad. The essence of this similarity lies in the critique both approaches make towards 'shallow/narrow' approaches that do not examine deeper factors beyond, and structural constituents of, environmental harms and injustice. Deep ecology and the BFEJ both argue for going 'beyond' maldistribution and symptomatic forms of harm to identify deeper structures and patterns that cause and reproduce it.

In the second section, I expound on how deep ecology has elements similar to those of the BFEJ. A central finding is that deep ecology employs the idea of recognition-like respect in its critique of the human domination over nonhuman nature and of ignorance about biospherical relations and human depend-

ence on them (Næss 1989). Nonhuman representation is also addressed in deep ecology, though it has not received that much attention. Moreover, interesting similarities can be found between the capabilities framework and the ecosophy T of Arne Næss. Næss (1989; 2008) emphasises that the flourishing of each being consists of the realisation of its potentials. This idea of self-realisation, central in ecosophy T, is often misunderstood to imply a certain metaphysical commitment one must adopt in order to achieve it. However, Næss speaks of the self-realisation of even nonsentient organisms, which implies that to interpret self-realisation as requiring a particular metaphysical stance seems misleading, notwithstanding that Næss himself commits to a particular, 'Spinozist' worldview.

In the conclusion of the first article, I propose ways in which the BFEJ could learn from deep ecology and especially from the works of Næss. I suggest that deep ecology can contribute to 1) decreasing the gap between theory and practice; 2) enriching the discussion on cultural pluralism; and 3) advancing arguments on reconciling human and nonhuman flourishing. Overall, the first article contributes to basic research in environmental ethics by bringing two seminal pieces into the same discussion in a way that has not been done before and by pointing out the contemporary value of some deep ecological ideas. The article also contributes to the development of the BFEJ by proposing how it could utilise some points made in the deep ecology discourse to further bridge theory and practice, and to theorise about reconciling human and nonhuman flourishing. In summary, the article engages in answering the first and third of my three dissertation objectives.

In article II, 'Reframing Climate Justice: A Three-dimensional View on Just Climate Negotiations' (published in *Ethics, Policy & Environment*, 2016), I examine the fairness of the UNFCCC global climate negotiations using the trivalent notion of justice. The main argument of the paper is that climate justice should be reframed as an issue of multidimensional justice in order to capture different manifestations of injustice and causes beyond it. I also argue that due to their special characteristics, climate negotiations deserve to be addressed as an issue of justice on their own, rather than as just one context of climate justices in general.

The first part of the paper focuses on representation as an element of justice that should be considered as separate from, yet intertwined with, issues of distribution. Examining global climate negotiations in this light reveals the difficulties faced by the distributional paradigm of justice in this context: the paradigm can deal with some issues of representation but remains affirmative to the present frame-setting of representation, whereas the trivalent notion of justice promotes a transformative approach that opens the 'who' of climate justice to wider and more radical revisions. The consequences of this opening involve the

question about whether the state-territorial framing of representation is outdated and unfair.

The second section discusses recognition. I expound on various ways in which misrecognition is present in climate negotiations in the forms of nonrecognition, cultural domination and cultural ignorance. Climate negotiations manifest a Western-oriented and 'econocentric' discursive sphere where alternative worldviews and voices are often regarded as less important or even irrational. Misrecognition constitutes barriers for the equal consideration and respect of different communities who first face the adverse impacts of climate change. The demand for equal respect of different cultures and worldviews does not entail that just any claims for equal recognition are justified: those practices and cultures that maintain or promote inequality are an exception. To illustrate how the justifiability of recognition claims can be evaluated, I discuss some claims for recognition made by the representatives in the 2013 and 2014 UNFCCC meetings.

Article II advances theoretical research on climate justice by proposing a new way to approach climate justice and global climate negotiations in particular. The article provides in abundance examples on how the focus on recognition and representation helps a more comprehensive identification of factors that impede climate justice. The article also considers the implications of a trivalent approach to climate justice and makes some practical suggestions for making negotiations fairer. While it remains uncertain whether fully fair negotiations can be achieved, reframing climate justice in a way proposed in this article increases our understanding of the problems that have made climate injustice and unsuccessful negotiations a persistent phenomenon. With regard to the dissertation objectives, this article deals with the first and second objective by relating the BFEJ to earlier discourse on climate justice and by applying the trivalent notion of justice in a novel context.

Essay III, 'Applying the capabilities approach to ecosystems: Resilience as ecosystem capability' (in press), shifts the focus from environmental to ecological justice and from trivalent approach to the capabilities framework. The essay investigates the capabilities-based notion of ecological justice in the context of ecosystems and proposes one capability for the list of central ecosystem capabilities, namely resilience. Critique of the environmental capabilities framework (Cripps 2010) has pointed out that the approach owes an account of the capabilities of ecological systems. Although Schlosberg (2007) distinguishes between constructing a capabilities-based theoretical approach and actually proposing such capabilities, the framework remains too abstract to allow a proper evaluation of its promise unless it provides some proposals on nonhuman capabilities. Essay III contributes to filling this deficit. Ecosystems have been chosen as the object of examination due to their status as the strongest candidates for recipients of ecological justice in the earlier BFEJ literature (Schlosberg 2007; Crescenzo 2013).

I begin by reflecting on differences between the flourishing of humans and of ecological systems. The latter greatly differ from individual entities like humans and sentient animals to whom central capabilities have earlier been attributed. Even the possibility of talking about the wellbeing or flourishing of ecosystem-like entities has sometimes been questioned. Such doubts are, however, premature: literature on the operationalisation and measurement of ecosystem wellbeing indicates that the idea of ecosystem flourishing is considered meaningful even by authors in ecological sciences and in multidisciplinary conservation projects. I use this literature to discuss how wellbeing, functionings and capabilities can be meaningfully understood with relation to ecosystems.

The second part of the essay introduces resilience, a concept much used in ecological sciences but less so in environmental ethics or political theory. Ecological resilience refers to the 'buffering capacity of the system to changing conditions' and can be measured by the amount of disruptions a system can absorb before changing its essential structures (Berkes, Folke & Colding 2000, 12). Building on this definition and the first part of the article, I demonstrate by conceptual analysis how resilience can be understood as a central capability of ecological systems in the world of ongoing anthropogenic disruptions.

The third and final part of the essay asks whether the idea of resilience as a central ecosystem capability adds any value to ecological justice discourse. As a domain of concern, resilience is a politically viable idea because it has already been operationalised to some extent and this makes it a credible and measurable variable. Moreover, in many cases it is impossible to predict the precise impacts of human activities on nonhumans, and supporting nature's own capacity to cope and adapt with unpredictable disruptions is the most feasible policy strategy. To give my argumentation practical relevance, I conclude with a brief commentary on how the idea of resilience as an ecosystem capability could be applied in the political realm.

This essay develops nonhuman capability theorising in an interdisciplinary manner that combines political theory with research in ecological sciences. The article demonstrates how environmental political theory can (and should) be sensitive to such information, and how such information can be used to justify particular conceptions such as the wellbeing of ecosystems. It also examines the role of the notions of resilience and integrity in the context of ecological justice, although the relationship between these two concepts arguably warrants deeper examination. This essay engages in answering the second and third research objectives of my dissertation: it applies the BFEJ (in particular its capabilities dimension) to a given instance and demonstrates the advantages and problems of the approach in that context.

Essay IV, 'Can species have capabilities, and what if they can?' (in review), examines whether species as wholes can be considered to have capabilities, in a

similar fashion to ecosystems that have earlier been proposed to have capabilities and standing in the community of justice.

I begin the essay by introducing the earlier literature on environmental capabilities and by characterising those features that have been proposed to make at least some ecological entities possess capabilities. I also introduce the differentiation between species and their populations to explain why species are more proper objects of concern here. Building on these remarks, the second section constructs and articulates the main argument of this essay: that species as evolutionary groups have a capability to adaptive capacity, which is central to their continued existence and the maintenance of viability. Human-induced extinctions and species endangerments are in this view the violations of species capabilities.

In the final section, I discuss the implications of my argument on the question whether species are recipients of justice. In contrast to earlier literature on environmental capabilities, I point out here that it is not necessary to link environmental capabilities with claims of ecological justice. Rather, there are at least three different strategies for applying the capabilities framework to species protection. In this regard, the essay IV makes an argument that has not been made earlier in the ECA literature: it suggests that the approach can apply the capabilities framework also for other purposes than making claims of ecological justice, and these other applications may indeed gain broader support among those who object the idea of doing justice to ecological systems²⁹.

Essay IV contributes to research on the ethics of species. The essay examines a topic that has not been addressed by nonhuman capabilities theorists before despite its great importance. This examination is a good example of applying the case-implication method to review whether a given theoretical approach, in a particular context, provides arguments that are in line with our ethical intuitions. My analysis also exposes problems that result from applying the capabilities approach to various ecological entities especially when this is assumed to evoke duties of justice, and these problems indicate limitations in the nonhuman capabilities framework that require further addressing. Essay IV relates essentially to all three dissertation objectives. It points out how a capabilities-based view of species protection relates to earlier discussion on species ethics; it applies the nonhuman capabilities framework to this particular case, and in so doing, it points out the strengths and limitations of the framework.

1.6 Limitations of the study and needs for future research

I will end this introductory section with remarks on the limitations of this study and some comments on problems that have arisen in the dissertation essays and

²⁹ Those applications of the environmental capabilities framework that do not relate to justice discourse also broaden the scope of the BFEJ framework presented in Figure 1, extending its reach outside the discourses of environmental and ecological justice.

require future research. First, it must be acknowledged that writing a compilation dissertation has been an immensely educating process. It has involved writing four separate yet interconnected essays that have been produced during a period of four years. The academic maturation process, alongside the overall advancements of the BFEJ discourse, is visible in my works. A sharp-eyed reader can find minor differences in how different essays employ various concepts of the framework. In my defence, it can be said that the use of many central concepts has not become fully established even within the field of the BFEJ, let alone in the academic discourses of environmental and ecological justice in general.

In my essays, I have not offered a solid defence of the idea of ecological justice. I have deliberately focused on examining the consequences, as well as some difficult problems, that arise if the idea of ecological justice is accepted. For this reason, my study does not consider some foundational issues regarding the community of justice or objections made against expanding the community of justice to nonsentient ecological entities.

One can always question the choices made in framing the subject matter. In two of the essays, I propose particular capabilities to given ecological systems but refrain from proposing comprehensive central capabilities lists for those entities. Focusing more deeply into one particular aspect of the BFEJ, such as the task of defining central nonhuman capabilities, would allow a deeper treatment of that topic. I have chosen a broader framing that may appear less deep or less consistent. I admit this can be viewed as a shortfall, but I also believe my framing of the research topic has been useful for two weighty reasons. First, it has been a more educating and challenging strategy as it has required the adoption of multiple problems and viewpoints. Second, this dissertation contributes more richly to the advancement of the academic discourse on BFEJ by participating in various discussions on the subject matter rather than contributing to a narrower subtopic.

1.6.1 Needs for future research

Even if the idea of ecological justice were accepted, it remains unclear which entities should be included in the community of justice according to the BFEJ. Many authors have agreed that the community of justice includes both individual and systemic entities and that among systems, ecosystems are ‘the least questionable’ recipients of justice. The status of species, populations, habitats, and ecological processes remains unclear and warrants further research. A related problem is that capabilities may turn out to be attributable to such a diverse set of ecological entities that the idea of nonhuman capabilities becomes normatively or politically infeasible due to its enormous complexity. The nonhuman world consists of various systems and their subsystems with different functionings, and exposing all potential levels to justice considerations might result in an overwhelmingly complex and ‘overlapping’ community of justice.

Expanding the community of justice to nonhumans expands our duties of justice, and this gives rise to theoretical and political challenges. Essentially, it

raises questions about the nature of our duties to nonhumans and the problem of conflicting claims of justice. Restricting the duties of ecological justice to negative duties would reduce the demandingness of the project and minimise (though not erase) the amount of conflicts. Yet, it seems unconvincing that humans would not have positive duties of at least restorative justice, given the amount of harm already done. On the other hand, however, the anthropogenic harm to nonhumans has already been so extensive that it may engender an overwhelming amount of duties (Cripps 2010; 2013). When entitlements conflict, it might be argued that central human entitlements (central capabilities) can be given first priority as far as they relate to self-preservation, since this principle can be inferred from the foundational right of self-defence (cf. Taylor 1986, 263–269). It has also been argued that different kinds of organisms may have different moral weights so that for example the organisms belonging to endangered species and organisms possessing psychological capacities have greater moral weight (Baxter 2005, 149–151), and human beings still possess the greatest moral weight. In my essays, I discuss some ways to relieve this problem, but my proposals are even at best tentative sketches on approaching credible solutions rather than final answers to the problem. Conflict cases and the question of whether different ecological entities may have different moral weight need further examination. A more elaborate treatment of our duties to nonhumans may also reveal that the capabilities and trivalent frameworks address this issue in somewhat different ways.

In addition to these two broad and foundational questions, there are other problems that are more limited in their scope but nevertheless need to be addressed. To avoid an exhaustive listing of such topics (philosophers are usually much better in making up new questions than in answering the old ones), I conclude by pointing out three issues I find most pressing.

First, there is only a handful of suggestions on the actual nonhuman capabilities. Reasoning out possible capabilities is urgent to increase the policy relevance of the approach. The process of defining capabilities is also a litmus test for the approach itself: if identifying central nonhuman capabilities turns out impossible or renders the approach unviable, the framework loses its promise. This field of inquiry has only just been opened with some proposals on the capabilities of sentient individuals (Nussbaum 2006), of ecosystems (Schlosberg 2007, 149; Crescenzo 2013; Essay III), and of species (Essay IV). More work needs to be done and must be accompanied with discussion on nonhuman flourishing and on how these capabilities relate to duties of justice to nonhumans.

Second, the notion of recognition of nonhumans has received thus far only little attention but certainly deserves more. Schlosberg (2007, 131–142) distinguishes two ways in which one can approach recognising nonhuman nature. One is based on the similarities we share with nature and another one on the Fraserian structural approach where recognition primarily links to relational inequality, status injuries, and injustice. Dobson (2014, 147) identifies Schlosberg's proposal as an affirmative strategy of recognition that seeks to revalue

the recognised ones but does not challenge the categorical distinctions that dictate our thinking. Dobson points out that the affirmative strategy of recognition may be insufficient for promoting ecological justice: it leaves the political community still tied to the idea of reasoned speech that nonhumans lack. On the other hand, it is unclear what the transformative recognition of the nonhuman world would actually mean. Nonhuman recognition warrants future research. A related point is that recognition as participatory parity needs clarification in the ecological context. Fraser's typology of misrecognition is applicable to the nonhuman world (Schlosberg 2007, 140; Kortetmäki 2016a) but falls short of explaining what the nondomination, respect and equal concern of nonhumans would actually mean. Instances of the misrecognition of nonhuman nature require further analysis, for until then the idea of the recognition of nonhumans remains somewhat obscure and open to a multitude of contestations.

Third, the role of different ecological concepts in normative environmental theorising and their conceptual relations requires further studies. I find that one of the merits of the dissertation articles is that they demonstrate the applicability of concepts such as resilience and integrity in the discourses of justice. Arguably, existing conceptual ambiguities have not been fully resolved in the articles and they require further examination. Future research should study the notion of integrity with regard to different types of ecological objects, clarify the relationship between resilience and integrity in the contexts of ecosystems and species, and at a more general level assess how normative environmental theorising could further benefit from integrating the findings of ecological sciences to philosophical and political studies.

YHTEENVETO (SUMMARY IN FINNISH)

Tämä väitöskirja tarkastelee ympäristö- ja ekologista oikeudenmukaisuutta koskevia kysymyksiä käyttäen oikeudenmukaisuuden laajaa ja relationaalista tulkintakehystä. Työ osallistuu samalla kyseisen tulkintakehyksen teoreettiseen kehittämiseen ja kriittiseen arviointiin. Tutkimus käsittää johdantoluvun sekä neljä alkuperäistä artikkelia. Artikkeleissa tarkastellaan, millaisia näkökulmia ja vastauksia oikeudenmukaisuuden laaja tulkintakehys tarjoaa ympäristön tilaan ja ei-ihmisluonnon moraaliseen huomioimiseen liittyviin kysymyksiin. Johdantoluku selvittää väitöksen taustoja, näkökulmaa ja tutkimusmenetelmiä sekä osoittaa, miten artikkelit muodostavat temaattisen kokonaisuuden. Johdannon lopussa käsitellään myös tämän tutkimuksen rajoitteita sekä hahmotellaan tärkeimpiä jatkotutkimusta kaipaavia kysymyksiä.

Ensimmäinen artikkeli käsittelee ympäristö- ja ekologisen oikeudenmukaisuuden laajaa tulkintakehystä yleisellä tasolla sekä vertaa sitä syväekologiseen ympäristöetiikkaan paljastaen näiden teoreettisten näkökulmien yhtäläisyyksiä. Kolme muuta artikkelia keskittyvät laajan viitekehyksen soveltamiseen suhteessa ajankohtaisiin ja merkittäviin ympäristöteemoihin: globaaleihin ilmastoneuvotteluihin, lajien sukupuuttoihin ja lajiensuojeluun sekä ekosysteemien tilaan. Näiden kontekstien kautta työ käsittelee mm. sitä, millaisia velvollisuuksia yhteiskunnilla voidaan ajatella olevan koskien luonnonsuojelua yleensä tai erityisesti ei-inhimillisen luonnon kuten eläinten, ekosysteemien ja lajien kukoistamista tai elinvoimaisuuden edistämistä. Tämän tarkastelun kautta tutkimuksen kohteena olevan tulkintakehys myös asemoituu laajempaan ympäristöpoliittiseen ja ympäristöeettiseen keskusteluun. Tarkastelu osoittaa, että oikeudenmukaisuuden laaja tulkintakehys tarjoaa mahdollisuuden lähestyä epäoikeudenmukaisuutta ja sen syitä laajemmin kuin mihin perinteiset oikeudenmukaisuusteoriat ovat ympäristöetiikassa pystyneet. Tulkintakehyksen asettama fokus ei-inhimillisen luonnon toimintaedellytyksiin ja itsesäätelyprosesseihin on myös kiinnostava näkökulma, ja se mahdollistaa esimerkiksi ekologisen resilienssin asettamisen keskiöön pohdittaessa yhteiskunnan velvollisuuksia esimerkiksi ekosysteemejä kohtaan.

Tutkimuksen keskeisenä tuloksena on, että laaja oikeudenmukaisuuden tulkintakehys tarjoaa kiinnostavan teoreettisen ja käsitteellisen välineistön, jonka kautta ympäristöongelmien tarkasteluun ja ratkaisuun voidaan löytää tuoreita ja vähemmälle huomiolle jääneitä näkökulmia. Siinä missä perinteiset teoriat näkevät oikeudenmukaisuuden materian ja oikeuksien jakamisen reiluteen liittyvänä kysymyksenä, laaja tulkintakehys liittyy oikeudenmukaisuuden ideaan kaksi muutakin aspektia. Poliittinen aspekti liittyy siihen miten oikeudenmukaisesti eri osapuolet ovat edustettuina päätöksenteossa, onko niillä aidosti yhtäläinen mahdollisuus osallistua päätöksentekoon ja miten niitä kuunnellaan päätöksentekotilanteissa. Kulttuurinen eli tunnustuksellinen aspekti puolestaan liittyy yhteiskunnan vallitseviin arvoihin ja institutionalisoituihin normeihin sekä näissä esiintyvään syrjintään, mikä voi ilmentyä esimerkiksi luontoon liittyvien arvojen tai ympäristöllisen kestävyuden alistamisena talou-

dellisille arvoille. Esimerkiksi globaaleissa ilmastokokouksissa esiintyviä ongelmia ja globaalin etelän kritiikkiä neuvottelujen epäreiluudesta on helpompi ymmärtää, kun ilmastokokouksia arvioidaan poliittisen ja tunnustuksellisen aspektin kautta.

Toinen keskeinen tutkimustulos on, että toimintamahdollisuuksiin³⁰ (*capabilities*) pohjautuva teoreettinen viitekehys on sovellettavissa myös ekologisen oikeudenmukaisuuden alaan lupaavalla tavalla. Osoitan, että esimerkiksi lajeilla evolutiivisina ryhminä voidaan ajatella olevan mahdollisuus integriteettiin, joka viittaa niiden kykyyn jatkaa olemassaoloaan ja sopeutua sekä uusiutua. Ekologisen oikeudenmukaisuuden näkökulmasta voidaan tällöin esittää, että ihmisen aiheuttama lajin integriteetin vahingoittuminen esimerkiksi lajille tärkeiden elinympäristöjen tuhoamisen tai salametsästysten kautta on ekologisen epäoikeudenmukaisuuden ilmentymä. Argumentin laajempänä seurauksena on, että yhteiskunnilla on velvollisuus auttaa lajeja sopeutumaan ihmisten aiheuttaman ilmastomuutoksen edessä. Tällainen näkökulma tuo mukanaan myös omat teoreettisen ja käytännön tason ongelmansa. Niitä tarkastellaan väitöskirjassa ei-inhimillisen luonnon toimintamahdollisuuksia ja oikeudenmukaisuutta käsittelevissä artikkeleissa.

Väitöskirja lähestyy ympäristöongelmiin ja ympäristönsuojeluun liittyviä kysymyksiä tavalla, joka haastaa perinteisen ympäristöeettisen keskustelun laajentamaan näkökantojaan. Poliittisen ja kulttuurisen aspektin eksplisiittinen tunnistaminen sekä toimintamahdollisuuksien käsitteistö tarjoavat uusia mahdollisuuksia ympäristöongelmien käsitteellistämiseen ja hahmottamiseen sekä velvollisuuksiemme tarkasteluun.

Avainsanat: ympäristöoikeudenmukaisuus, ekologinen oikeudenmukaisuus, toimintamahdollisuudet, tunnustus, lajiensuojelu, ekosysteemit, ilmastomuutos

30 Termille *capabilities* ei ole toistaiseksi vakiintunut yhtä ainoa suomennosta; 'toimintamahdollisuudet', 'toimintaedellytykset' ja 'toimintakyvyt' lienevät yleisimmin käytetyt käännökset.

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ORIGINAL ESSAYS

I

IS BROAD THE NEW DEEP IN ENVIRONMENTAL ETHICS? A COMPARISON OF BROAD ECOLOGICAL JUSTICE AND DEEP ECOLOGY

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II

REFRAMING CLIMATE JUSTICE: A THREE-DIMENSIONAL VIEW ON JUST CLIMATE NEGOTIATIONS

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III

APPLYING THE CAPABILITIES APPROACH TO ECOSYSTEMS: RESILIENCE AS ECOSYSTEM CAPABILITY

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IV

CAN SPECIES HAVE CAPABILITIES, AND WHAT IF THEY CAN?

by

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[Under review]