Critical Exchange

Justice Through a Multispecies Lens

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The bushfires in Australia during the Summer of 2019–2020, in the midst of which we were writing this exchange, violently heightened the urgency of the task of rethinking justice through a multispecies lens for all of the authors in this exchange, and no doubt many of its readers. As I finish this introduction, still in the middle of the Australian summer, more than 10 million hectares (100,000 km² or 24.7 million acres) of bushland have been burned and over a billion individual animals killed. This says nothing of the others who will die because their habitat and the relationships on which they depend no longer exist. People all around the world are mourning these deaths and the destruction of unique ecosystems. As humans on this planet, and specifically as political theorists facing the prospect that such devastating events will only become more frequent, the question before us is whether we can rethink what it means to be in ethical relationships with beings other than humans and what justice requires, in ways that mark these deaths as absolute wrongs that obligate us to act, and not simply as unfortunate tragedies that leave us bereft.

The start of the 21st century saw the powerful combination of a rise in consciousness with respect to the environment and animals and the collapse of several key claims concerning the exceptional capacities that have purportedly justified not only an ontological, but also an ethical and political chasm between humans and beings other than humans. This shift represents a significant challenge to ethical and political theory. Already, a number of scholarly fields – such as environmental and animal justice (Schlosberg, 2007; Regan, 2004; Nussbaum, 2006) multispecies ethnography (Van Dooren *et al.*, 2016; Hamilton and Taylor, 2017), new materialism (Bennett, 2009), actor–network theory (Latour, 2005) and posthumanism (Haraway, 2008) – have been exploring the ethical and institutional implications of deconstructing the traditional dualisms that have constituted the human as unique, and that have underpinned the institutional structures of the west, along with the disciplines that study them. The radical challenge that these

literatures pose for political theorists is that, once status categories like agency, autonomy, subject, or life project cease to function as the ontological prerogative of the human alone, the relegation of ethical concerns about beings other than humans to welfare or protection ceases to be sufficient. We find ourselves in a moment where beings other than humans are entering the scene of justice.

This Critical Exchange seeks to thematize for political theorists some of the thornier questions that arise when we try to imagine and institutionalize justice in ways that accommodate this far broader and more diverse cast of subjects, agents and actors, as well as their relationships. We do not simply seek to increase the range of subjects of justice, but also to challenge the idea that it is only subjects, understood as individuals, who fall within the ambit of justice. This introduction briefly locates the emergence of multispecies justice within a larger set of ongoing debates amongst political theorists about the nature of justice and notes some of the principal debates taken up in the five interventions that follow. To commence, some preliminary comments about the scope and terminology of multispecies justice are in order.

In this Critical Exchange, we seek to explore what happens to the concept and practice of justice when it moves beyond the human and even beyond sentient animals to encompass a broader range of the 'more-than-human' and their relationships – hence the term 'multispecies'. By adopting as our subject category 'multispecies', we might well be accused of committing the same ontological error and ethical violence that Derrida (2008) associated with the category of 'the animal'. Doing so would seem to reduce a myriad of beings, as different to each other as they are to the human, to the status of being 'other' than the human, who thus remains the privileged measure of all beings. While acknowledging this danger, in the context of a discussion of justice, which has been circumscribed precisely in these dichotomous terms, the point of the designation 'multispecies', in the first instance, is to break open the constitutional exclusion. Questions still remain about which beings belong within this transformed sphere of justice, about their internal diversity, and about whether new (internal) distinctions ought to be drawn between different types of beings on the basis of other distinctions (such as sentience or simply life). As will become evident in the pieces that follow, we take the view that the puzzle of who or what, within this 'multispecies world' – animals, micro-organisms, forests, rivers, soils and more - ought to fall within the ambit of justice are precisely what needs to be worked through, and ought to remain contentious. Even remaining within the terms of the intra-human, it would be unjust to impose distinctions based on western ideas about say, who is human, who has personhood, and even who is alive, recognizing that for different human groups and within different lifeworlds these distinctions are drawn in very different ways (De la Cadena, 2019). Beyond this, seriously answering the multispecies invitation means confronting the ethical demand that any distinctions encoded within a theory of multispecies justice must take seriously the lifeworlds and perspectives that

different beings themselves might have on such matters – for they also draw distinctions.

As has been discussed elsewhere (Van Dooren et al., 2016), the 'species' part of the term multispecies is also contentious, specifically because it seems to buy into a mode of Linnaean categorization, simultaneously collapsing individual beings into classes drawn according to a particular human knowledge system, and excluding beings like rivers, mountains, ecosystems or soils that seem not to belong to any species, however multiplied. Moreover, as Haraway observes, insofar as it retains the legacies of its association with intra-human subjugation, 'species reeks of race and sex' (2008, p. 18). Nevertheless, the term has the advantage of clearly pointing beyond the human as a 'type', where admission has precisely been dependent on membership to this type, or more accurately, recognition by those with power as partaking of this type, thereby ensuring that some humans, by virtue of their putative animality, were not to be admitted (Mbembé and Meintjes, 2003). In this regard, the term is useful because it continues to illuminate that what is at work in the politics of exclusion is typological – not individual. For this reason, we stay with 'multispecies' as an umbrella term, even as some of our authors reject it. As will be evident, all interventions of the argue that one of the principal implications of approaching justice through a multispecies lens is that any conception of the individual, be it the individual being, or the individual species, needs to be recast as essentially constituted within relationships. Species are then, riffing on Tsing (2012), always interspecies relations.

What though does the conjunction of multispecies and justice imply? To date, most multispecies scholarship has occurred in the fields of anthropology, geography and environmental humanities. While political theorists count amongst those who have critiqued humanism and human exceptionalism, the interface between multispecies studies and justice studies, which falls squarely in the wheelhouse of political theory, has received little explicit attention. Approached from this angle, it is useful to locate this exchange within more general trajectories of theories of justice.

Using very broad brushstrokes, the justice project of modernity might be conceived as the establishment of the principle, albeit never realized, of universalism. The concept of justice moved towards the regulatory ideal that all human persons ought to be seen as essentially equal, thereby delegitimating institutionalized distinctions based on the group to which a person belongs. Understood as a circle, whose expansion was informed either by enlightened recognition, or more likely thrust open by the demands of the excluded, this process of universalization aimed to assimilate into the universal human subject of justice ever more categories of people – unpropertied men, (white) women, racial and religious minorities, Indigenous peoples, children, people with disability and so on (Hunt, 2007, p. 150).

Against this background, and spurred by feminist, antiracist and anticolonial critiques of liberal humanism, the justice project of contemporary political theory (dating it to roughly the mid-twentieth century) complicated justice with the problematic of intra-human difference (Young, 1990). If, at its core, the concept of justice entails rejecting arbitrary distinctions in how its subjects are to be treated, the insistence that such subjects are different in morally significant ways forces the question, what must be held constant and what must be allowed to remain in flux to achieve justice? Put differently, what becomes of the universalist aspiration once the injustices perpetuated by the claim to universalism have been exposed? Difference-oriented justice sought to reveal the implicit injustices that universalism or difference-blind treatment effected, by, variously, ignoring the persistent historical legacies of unequal treatment and exclusion, assuming the neutrality of institutions designed with particular identities in mind, and failing to account for how economic, political and cultural structures and norms implicitly - if not necessarily – propped up some and constrained others (Pateman, 1988; Matsuda, 1986; Williams, 1989; Pellow, 2017). Building on this tradition of action and thought, any 'turn' to the non-human needs to be informed by these deep and longstanding understandings of justice that do not begin and end with the western liberal subject of rights.

Alongside these theoretical debates concerning the nature of the subject of justice and the relationship between identity and institutions, arises the question of representation, understood in the dual sense of representation of perspectives and interests and more formalized political representation. Once again, difference-sensitive justice exposes the injustice perpetrated when institutions fail to explicitly represent, or even better ensure self-representation for people belonging to differently located, and specifically marginalized groups (Williams, 2000; Young, 1990). At the outer edge of such concerns is the more fatal contention that the inevitably exclusionary character of all political and discursive organisation renders structurally inevitable the distortion – if not outright prohibition – of some voices and perspectives (Spivak, 1988).

If we stage the introduction of beings other than humans onto the scene of justice as part of this trajectory of justice theory, two puzzles immediately arise. First, what do the truly radical differences of these newly introduced subjects imply for both the concept of justice and the institutions designed to administer it? The differences are radical in the sense that beings other than humans have different phenomenal lifeworlds, biotic affordances, capacities, and needs. Moreover, in a way much more far-reaching than any communitarian theories in the intra-human realm, their introduction challenges the notion that the irreducible subject of justice is an individual. Ecocentric theories – for example (Eckersley, 2007) – foreground the ecology or intra-acting collective, within which individual beings are ontologically and morally secondary.

The second question that the introduction of beings other than humans poses concerns communication and representation (Drvzek, 1995). Amongst humans, there is no doubt a range of impediments to undistorted representation, including entrenched patterns of epistemic injustice and the resistance that hegemonic systems put up against claims from radically different lifeworlds and hermeneutic backgrounds (Medina, 2012; De La Cadena, 2019). When it comes to beings other than humans, the difficulties multiply. Given the primacy of human language as the medium for claims-making, negotiation, deliberation and decision-making, failing the most thoroughgoing transformations in the scope of translation and in institutional forms, the possibility of beings other than humans representing themselves seems precluded. This difficulty has led to a range of ideas and even experiments whereby particular humans are tasked with the duty to represent other than human beings (Gray and Curry, 2020). Still, even if we pass the hurdles involved in deciding which beings ought to be represented, by whom, with how much weight and how, we face further challenges. These include apprehending what their interests are and interpreting their communications without assimilating them into our own forms of understanding and being – which would undermine the possibility of accurate representation, and commit the further injustice of misrecognition and domination (Rodman, 1977). In this Critical Exchange Fishel and Reid, and Chatterjee and Neimanis, take this up in their interventions arguing that the challenge is to avoid a twin peril: either not apprehending beings and thus continuing to exclude them, or apprehending them only to bring them into a politics or epistemology of domination.

In other words, there is a danger of seeing multispecies justice merely as an extensionist project. I include 'merely' because we should not preclude the possibility that affording the status reserved for humans to beings other than humans (such as legal personhood) may be a sound way to achieve more justice within the existing institutional and imaginative possibilities. Multispecies justice, however, places at its centre the demands of the most radical edge of difference-sensitive justice theories – to be alive to the fact that reforms posing as inclusion or equal treatment may in fact perpetrate deeper forms of exclusion.

Unsurprisingly, even amongst those who agree that beings other than humans ought to be subjects of justice, there remain serious disagreements. Principal amongst these are questions about how to weigh and negotiate between what seem to be the competing claims of individuals and collectives, where the latter are organized either around species or ecosystems (Cripps, 2010; Schlosberg, 2014). Such debates have been at the heart of antagonisms between animal rights and ecocentric thinkers and advocates, and today feature in vehement debates around the use of lethal methods under the guise of protecting endangered species or valued ecosystems (Wallach *et al.*, 2018). In their interventions in this Critical Exchange, Waldow and Schlosberg, and Srinivasan and Cochrane offer novel conceptual frameworks that seek to recast these putative dualisms within a more

encompassing set of ethical principles and practices. Their contributions ask, might we develop conceptions and practices of multispecies justice that do not require hierarchies amongst beings, nor assert what is ontologically primary or secondary (individuals or systems for example)? Might it be possible to develop practices of justice that work with different kinds of 'scales of mattering'?

Another set of disagreements amongst advocates of multispecies justice concerns the applicability of institutions developed to deal with intra-human injustices. In line with concerns that apparent inclusion effects de facto exclusion, the worry here is that, if existing institutions have been designed with human affordances (like the capacity to form a conception of injustice) in mind, it makes no sense to apply them to injustices against other beings. In this Critical Exchange Celermajer and O'Brien take this question up in their exploration of what transitional justice, or justice in relation to large-scale historical wrongs, might look like when the victims are beings other than humans. Their contribution points to the importance of multispecies justice theories attending to the way the inclusion of beings other than humans presses not only on core concepts, but also on institutions and practices.

Each of the contributions to this Critical Exchange seeks to tease out and begin to answer some of these key questions. Taken together, they seek to demonstrate the tensions that remain, and perhaps ought to remain when beings other than humans, in their myriad differences, enter the scene of justice.

Danielle Celermajer

The subject of multispecies justice: moving beyond individualism with sympathetic imagining

One of the major challenges posed by the idea of multispecies justice is the move it suggests beyond the individual human subject as the only viable subject of justice. While a number of theorists have developed theories to expand justice to other individual sentient animals and, more broadly, to other organisms, species, and ecological communities and systems, the focus has been mainly on specific qualities of nonhuman subjects that would bring them into a community of justice. We focus, rather, on *how* to expand this community, using the ideas of sympathetic imagination and relational subjectivity. Building on Nussbaum's (2006) claim that sympathetic imagining plays an important role in bringing into focus the experiential dimension of the nonhuman other, we demonstrate that the relationality resulting from processes of sympathetic imagining need not be limited to the intersubjective realm where two sentient individuals connect with one another. The intrinsically relational nature of the concept of sympathy can ground an ecological account of justice that regards sentient and non-sentient life as integral parts of a larger whole composed of infinitely many perspectives. Approached from this

angle, relational subjectivity normalizes an attentiveness to ecological flows and systems, and human and nonhuman connectivity. Such an approach offers a pathway for the engagement with and resolution of conflicts between the widely varied subjects of a multispecies lifeworld.

Nussbaum's capabilities account has been instrumental in extending the conception of the subject of justice to nonhuman animal life. While Nussbaum began this endeavour laying out a list of capabilities for sentient animals identical to that for humans (Nussbaum, 2006), central was the idea that different species have different capabilities that they need to actualize in order to flourish. Justice towards animals must consider these needs, ensuring that relevant capabilities can be accessed. When specifying how it is possible to determine the capabilities of a given species, Nussbaum has repeatedly argued that it is not enough to look to the scientific evidence (2001, pp. 118–119); she argues that the 'capabilities approach uses sympathetic imagining, despite its fallibility, to extend and refine our moral judgments in this area' (2006, p. 355). Such 'sympathetic imagining' is key to apprehending the distinctly experiential dimension of animal life.

Numerous objections have been raised to Nussbaum's engagement with justice for animals, including the use of sympathetic imagining. Fulfer (2013), for example, notes that Nussbaum limits subjects of justice to sentient beings most similar to us, leaving unconsidered the moral significance of organisms with which we do not easily sympathize. What goes missing, she argues, is that sentient and non-sentient life are interdependently related, jointly enabling the flourishing of ecosystems that can be considered subjects of justice in their own right. Similar considerations underlie Baxter's conception of the importance of 'communities of justice' (1999, 2000) and Schlosberg's demand that we focus on ecological systems as well as individuals when assessing who counts as a subject of justice (2007, 2012). Bendik-Keymer has insisted that Nussbaum's use of the concept of 'wonder' holds the potential for us to think more extensively about nonhuman animals in these ways: an *intersubjective* wonder, he argues, can encompass more than individual sentient animals and allow a move away from biocentric individualism (2017, p. 346).

In response to such interventions, our argument is that a properly considered sympathy-based account of multispecies capabilities and justice is able to trace relationality beyond the confines of the individual. Such an account is able to treat ecological relations and systems as subjects of justice by rendering morally salient the situated perspectives of the many different parts of that system, as well as the functioning of relationships themselves. In its focus on situated perspectives, this approach prevents a reductive and individualist functionalism, which ignores the crucial importance of the communicative and experiential dimension of organic flows of life. To show that sympathetic imagination can achieve this, we enrich Nussbaum's account by providing a slightly different reconstruction of the ability to sympathetically engage with others. This reconstruction normalises the idea that

human subjectivity is not an isolated thing, but is always developed in a field of immersive relations (Mackenzie and Stoljar, 2000). This reality of relational subjectivity enables a conception of sympathetic imagination open to ecological flows and interactions that bring into focus the connectivity of human and nonhuman life.

Instead of accepting the requirement that creatures be similarly sentient to humans, we propose considering that each individual (be it a worm, a tick or an octopus) is embedded in a set or flow of interdependent relations in which different forms of life perpetually communicate with one another (Kohn, 2013). The dimension of communication is important insofar as it adds to the ontological interdependence of organisms considerations about their ability to respond to and be affected by the signals their environment constantly emits. Speaking about communication when trying to capture what it means to be a living creature thus highlights that being able to exert certain capabilities is a matter of connecting with and responding to the signals of other creatures. For example, being a living tree is a matter of being in perpetual communication with the signals emitted by the flora and fauna constituting the tree's *Lebenswelt*.

Now, if it is a creature's sympathetic receptivity that enables it to decode this flow of signals, it turns out that a great deal of what sympathy consists in can be specified through a being's ability to emit signals and respond to the signals of others. So put, sympathy takes the form of a communicative flow of life between the constituent parts of greater systems. This sympathy does not require resemblances of a specific type and it always strives to go beyond the individual. Concretely, this means that sympathetic imagining might indeed be useful when trying to comprehend complex animals - like whales - as intelligent and emotionally and socially complex creatures, which Rachel Nussbaum Wichert and Martha Nussbaum take to be attributes that confer on whales a person-like status (2016, p. 38). Sympathy enables perceivers to detect these attributes as they imaginatively tune into the flow of signals structuring the whale's experiential dimension. However, in so doing, sympathetic imagining reaches further than that. It renders accessible the whale's situation within its complex relationships that extend far and wide through the biochemical complexities of the ocean, understood as the inhabited world of myriads of organisms (Neimanis, 2014; Fulfer, 2013; also see Fishel and Reid in this Critical Exchange on the co-constitutive relationship of the ocean and its beings). The whale's perspective here counts as one among many, and the system – in this case the biosphere of the ocean – constitutes the ecology that determines how we can evaluate the importance of the whale's subjectivity, and not just its sentience.

Given this proposed focus on systems and relationality, one worry might be that individuals can too easily be sacrificed for the sake of the greater whole. If an acorn's flourishing is related to its capability to serve as food for animals, what can be said about its prospect of thriving and growing so it can become a tree (Schlosberg 2007, p. 24)? Indeed, the case of the acorn might not be as problematic as the case of the animal or human whose death can easily be construed as serving the functioning of a larger ecosystem. Srinivasan and Cochrane's contribution to this Critical Exchange also discusses the problem of losing sight of the concrete suffering of individuals as a result of highlighting the moral status of systems. To their mind, any satisfactory answer to this problem must include considerations of shared vulnerabilities to safeguard the specific perspective of each constituent of the relevant system.

We believe that a sympathy-based system approach includes considerations of shared vulnerabilities and can successfully deal with the risk of abstracting away from subjective experiences. Although drawing attention to the complex interdependencies of the constituents of a given system, sympathetic imagining is able to home in on one particular perspective in relation to many other perspectives. This means that it does two things at once. In its focus on relationality, it puts us in touch with what Fulfer takes to be 'objective (or intersubjective)' flourishing (2013, p. 25). At the same time, sympathetic imagining foregrounds relationality precisely because it renders salient the particular subjective perspectives of concretely situated creatures. In this sense it involves 'a decisive turn towards the victim's experience of harm and injustice', as Celermajer and O'Brien call it here in this Critical Exchange. Through this second function, sympathetic imagining bridges the realms of the objective, intersubjective and subjective, revealing the actual and potential possibilities and impediments to each creature's flourishing in the context of other creatures' – and systems' – flourishing.

In many cases, but not in all, having a perspective involves having experiences of a specific type. Taking these experiences seriously – even if we cannot fully grasp what they are - adds to the complexity of judging the situation at hand. We therefore argue that, even if – as Fulfer claims (2013, p. 26) – we might not be able to correctly imagine what it is like to be a battery-caged hen or a drought-stressed forest, sympathetic imagining is nonetheless a useful tool. When engaging with the signals that a concretely embedded creature or system emits – signals that clearly tell the imagining human mind that the hen or the forest are negatively affected by what they are undergoing - sympathetic imagining brings home to humans the hen's or forest's struggle with their current situation. And we can comprehend this aspect of their impacted life regardless of the limitations encountered when trying to imagine what exactly an animal's, tree's, or system's phenomenal experience must be like when relating to the world in its specific way - especially if our sympathetic imagining is informed by the knowledge of others, such as scientists, farmers, veterinarians, firefighters, forest-dwellers and/or all of those who share lives with affected beings.

Admittedly, it is rather difficult to judge what a just course of action would be in situations in which we sympathetically connect with a multitude of complexly related perspectives. To spell out what this involves goes beyond the frame of this article. Suffice it to say that differential and conflicting needs are real, and some kind of weighting of the relevant perspectives has to be part of this process (Schlosberg, 2012, 2014). If sympathetic imagining is involved in this process, an important effect is that the particularities of specific situational contexts can be foregrounded, thereby counterbalancing the tendency to operate with fixed schemata that define a given species' or place's moral value once and for all. Baxter seems to think that such fixing is desirable, arguing that we should 'give the interests of some organisms more weight than those of others, with certain kinds of human interests having the greatest weight of all' (Baxter, 1999, p. 122). Our suggested approach resists this move, opting for a case by case assessment of complexly related interdependencies and the perspectives involved in them.

Our suggestion is compatible with and can be supplemented by Bendik-Keymer's (2017) argument for the value of wonder. Bendik-Keymer builds on Rawls's original position to argue that 'wonder' is a part of what it means to imagine the lives of others, and insists on a 'biocentric wonder ... to see ourselves in our specific form of striving alongside other living forms' (2017, p. 346). But this ecological form of wonder, or sympathetic imagining, we insist, must move the concept beyond the individualistic, introspective process at the heart of Rawls's original position: such a process remains isolated, unattached, and unengaged in an attempt at an intersubjective understanding of real others with whom we are immersed in life. For us, sympathetic imagining requires a more relational, collective, and pluralist understanding of sympathy.

Sympathetic imagining must also be part of a larger communicative system attentive to multispecies justice. While Nussbaum suggests that nonhuman capabilities will be determined by collective engagement and endorsement with others through a form of public reason, the kind of biocentric wonder Bendik-Keymer argues for demands a more thorough and deliberative engagement – something more akin to a deliberative system open to a wide range of nonhuman communicative input (Dryzek, 1995). Recent demands for broadly inclusive and deliberative responses to climate the emergency serve as an example of what such a system would look like.

Consider the following example, in which we are currently immersed. As we have been writing this Critical Exchange, bushfires of unprecedented scale have been burning on all sides of Sydney and across Australia. While fires are a normal part of eucalypt forest ecology, and Aboriginal communities have used fire for forest management for thousands of years, the particular contemporary condition of forest systems is clearly impacted by human-caused climate change. The current situation has burned over 10 million hectares of forest and the impact on humans alone is extraordinary: 32 human lives have been lost, 2000 homes burned, the ongoing smoke and air pollution have been declared a public health emergency. Sydney's drinking water is at risk because of both drought and ash, and there has

been increasing concern about the growing anxiety and mental health impacts in the wake of both the fires and climate change more generally.

More broadly, of course, there are impacts beyond the human – on the forest ecosystems and the nonhuman animals dependent on them. Our ecologist colleagues at the University of Sydney estimate over one billion animals have been killed – and that doesn't include fish, amphibians, insects, or domesticated farm animals. The basic biodiversity of the forests is at risk (Doherty and Davidson, 2019). International attention has been on the thousands of koalas who have been burned alive, but beyond the iconic species are countless others who depend on the forest in critical ways – greater gliders for their diet, a wide range of birds for nesting, and a host of insect species for nectar. On the ground, the burned understory deprives many other species of food and shelter. There is a growing lament for the innumerable creatures and places being lost across the country, as not only eucalypt forests, but rainforest ecosystems and habitats unaccustomed to fire now regularly burn.

If a capabilities approach to justice defines injustice as the interruption of basic capabilities, the broad range of injustices wrought by fires caused by governmental and corporate neglect and inaction on climate change over the last decades should be clear. The Australian identification with, and sympathy for, 'the bush' helps to break down both a human-centred and individualistic focus on this injustice. In some cases, sympathetic imagining is aided by the media. Early in the crisis, a video of a woman saving a single koala from the flames went viral, and the animal hospital it was taken to quickly received over AU\$2m in donations (though the particular koala died of its burns). Wombats at a threatened sanctuary have been airlifted to safety, and the New South Wales environment minister tweeted a picture of state biologists dropping carrots and sweet potatoes to endangered wallabies. In the news and on social media, we hear the sympathetic imagining towards affected communities, the firefighters, the asthma-sufferers, as well as the fire-impacted realities of flying foxes and cockatoos, forests and rivers, insects and soil. A range of voices has been raised to criticize state and federal governments, and the criticism is, in particular, about their failure to listen to, or have sympathy for a multiplicity of views. Former chiefs of fire services from around the country requested a meeting with the prime minister and were ignored. Victims of the fires dumped the ashes of their homes on the door of state and federal parliaments. Climate scientists, ecologists, psychologists, residents, and more plead with the government to hear their perspectives, formed by both sympathetic imagining of the future of human and nonhuman life alike.

Democratic engagement on the injustices of the impacts of climate change, or of the extraordinary harm done by Australia's bushfires, will entail more than a 'biocentric individualism'. It will take a deliberative system attentive to, and inclusive of, multispecies sympathetic imagining. What is promising is that we already see in this growing public discourse elements and examples of the sympathetic imagining that will be necessary for multispecies justice. The ideal of engagement with a multitude of differently situated perspectives is becoming visible through the smoke, as is the relational and systemic thinking about both human and nonhuman capabilities – and the way that they are similarly undermined. Protest and our climate-changed reality may mean that ongoing climate denialism and deflection are waning as the politics of the day, but it is the institutionalization of our increasingly sympathetic and multispecies imagining that will remain as the larger challenge.

Anik Waldow and David Schlosberg

Justice, conflict and shared vulnerabilities in a multispecies world

In order to explore the possibility and shape of multispecies justice, we need to address questions about its scope. How far can justice be extended: to humans, to sentient animals, to all living organisms, to collectives such as species and ecosystems? How can conflicting claims of justice between these entities be reconciled? This contribution explores various ways of delineating the scope of justice. It argues that traditional anthropocentric theories are untenable and that all sentient creatures possess certain enforceable claims. While a sole focus on sentient individuals can neglect the collectives which sustain individual flourishing, attempts to extend justice beyond individuals raise profound problems: first, they can at times have harmful implications for individuals; and second, as we show, 'ecological justice' can quickly collapse into the prioritization of human over nonhuman interests. In order to begin a discussion of ways to overcome these limitations, the final section of the paper briefly sketches the possibility of grounding justice in 'shared vulnerabilities'. This reorientation, we suggest, helps to avoid the filtering back in of anthropocentrism into decision-making about common conflicts between nonhuman individuals and collectives.

From anthropocentric to sentientist justice

Traditionally, most political theorists have thought that justice applies solely to human beings. Writing on animals, Hume claimed that, while we ought to 'give gentle usage to these creatures', we are not 'under any restraint of justice with regard to them' (1975, p. 190). This anthropocentric understanding of justice has important implications for nonhuman nature, as it means that what is owed to nonhuman beings is dependent upon human interests and concerns, since only humans possess enforceable claims. Crucially, this anthropocentric framework is reflected in the legal and institutional structures of existing political communities.

Two rationales are usually provided for reserving justice for humans. First is the idea that justice only applies between members of a 'shared scheme of cooperation'

(Rawls, 1999, p. 96). Since, on this view, nonhumans do not directly contribute to the common pool of social goods, they are not entitled to take from it. Second, theorists sometimes argue that justice requires some particular characteristic – like 'moral personhood' – which only humans are believed to possess (Garner, 2004).

These rationales are problematic on many counts. With respect to the criterion of social contribution, it is obvious that many nonhumans contribute to societal flourishing (Valentini, 2014; Donaldson and Kymlicka, 2011). Moreover, there is good reason to doubt the relevance of social contribution for meriting justice. Human infants certainly possess entitlements of justice in spite of not contributing to the common pool of resources in obvious ways. Furthermore, they possess such entitlements in spite of the fact that they might lack the characteristics of moral personhood.

In light of these shortcomings, theories have emerged (Nussbaum, 2006; Donaldson and Kymlicka, 2011; Garner, 2013; Cochrane, 2018) which claim that justice should be extended beyond humans to individual sentient nonhuman animals. Perhaps their most important claim is that justice should not be dependent upon any kind of social contribution or capacity, but rests on something much more basic: possession of 'well-being' – a life that can go well or badly for oneself. On this view, being a sentient being, a creature who is aware of themselves, who can feel the effects of others' actions upon them – in short, a being who is a '*subject*-of-a-life' (Regan, 2004) – is sufficient for justice.

From ecological to anthropocentric justice

Some thinkers have argued for the extension of justice beyond sentient creatures to include all living organisms, including plants (Taylor, 1986). Others have argued that 'collectives', such as 'species', 'population', and 'ecosystem' ought to be considered subjects of justice (Baxter, 2004; Schlosberg, 2007). These calls for 'ecological justice' make some sense. For one, no sentient animal is just a single solitary organism; rather there are all sorts of bugs and bacteria who inhabit their bodies. More important, however, is the inextricable link between the well-being of sentient individuals and the health of other sentient and non-sentient life-forms. Living organisms and biophysical processes provide a whole range of 'services' that allow human and nonhuman individuals in multispecies communities to flourish (Schlosberg, 2007).

Indeed, Schlosberg (2007, p. 149) argues that simply extending justice to individual animals without recognizing the importance of the flourishing of the systems in which they reside is not only counterproductive, but 'atomizes nature' and 'devalues a form of life'. As such, we need to respect, recognize and acknowledge the claims of the system as a whole: this is also the only way in which we can do justice to the individuals who make it up.

The extension of justice to ecological collectives however raises some important questions about the competing claims of all of these putative subjects of justice (see also Waldow and Schlosberg's discussion in this Critical Exchange). One of the most discussed areas of conflict is that between nonhuman collectives and individuals. Specifically, a focus on the justice entitlements of the 'system' can lead to significant harm to individuals. Such problems have been written about widely when initiatives that are meant to benefit ecological collectives harm people, for example, when human individuals and communities are displaced, and even killed, in the pursuit of biodiversity conservation (Duffy, 2016). Similar conflicts emerge when there are competing justice claims between nonhuman individuals and collectives. Such conflicts are starkly evident in the domain of biodiversity conservation, since it is oriented towards the protection of nonhuman collectives.

For instance, the negative justice effects of the focus on ecological collectives are obvious where individual sentient animals are exterminated in vast numbers for the sake of the 'ecosystem', as is seen in efforts to manage invasive alien species such rabbits and cane toads in Australia, and grey squirrels and mink in Scotland. Less obvious, but equally troubling examples lie in zoos, and in captive breeding, de-extinction, trophy hunting and wildlife ranching programmes which subject individual animals to serious harms in order to safeguard or promote the flourishing of a larger collective such as a 'species' or a 'population'.

Analyses of the everyday politics of conservation have shown that the valorization of collectives often serves the purpose of meeting human interests of one kind or the other (Srinivasan, 2017), and thus tends to collapse back into anthropocentrism. For instance, by prioritizing a larger collective over individual animals, trophy hunting for conservation allows for (human) recreational interests to be met even while seeming to fulfil obligations to nonhuman nature. Similarly, de-extinction or captive breeding programmes are ultimately about addressing the human desire to preserve particular animals for a certain type of aesthetic value: any ecological function that endangered wildlife may have had has usually disappeared following the habitat loss that usually accompanies their endangerment, while surviving individuals face highly compromised life-experiences.

Indeed, this is becoming more evident with the recurrent failure of species reintroduction programmes: these animals are brought back into highly modified social and biophysical landscapes and face almost immediate persecution for the threats they pose to people (Lorimer *et al.*, 2015; Doubleday, 2018). Even if ecological functions are restored, the aim is almost always towards preserving a state of affairs that benefits humankind. The prioritization of human interests is also seen when it comes to dealing with invasive species: it is usually only those organisms that have negative impacts upon human economic, material or aesthetic interests that are targeted for control and extermination (Sagoff, 2009). Creatures that have deleterious impacts on 'native ecosystems', but that serve (some) human interest, such as sheep in New Zealand, are never subject to such eradication. In

effect, when nonhuman individuals are harmed in the name of the flourishing of nonhuman collectives, it is often the case that human interests are at play.

Grounding justice in shared vulnerabilities?

How can these issues be navigated? Is it possible to extend justice beyond humans, recognize the importance of collectives to individual flourishing, whilst neither losing sight of the value of individuals, nor collapsing into anthropocentrism?

One possible pathway to negotiate these competing justice claims lies in the concept of 'shared vulnerabilities' (Derrida, 2008; Plumwood, 2002). This concept highlights the vulnerability that is inherent in being a living entity on this planet – one that cuts across all organisms, human and nonhuman (Srinivasan and Kasturirangan, 2016). This shift in attention to our shared state of vulnerability foregrounds questions relating to how the risks of living on this Earth are distributed within and across our multispecies communities. Humans are one among many creatures who inhabit this planet, and we share with nonhuman others certain risks and vulnerabilities that underpin our embodied existence.

Justice, in the simplest sense, is about ensuring equity in how 'goods' and 'bads' are distributed. Insofar as the idea of shared vulnerabilities refocuses attention on 'bads', and specifically, who is harmed and how, it can offer fresh insights on how to navigate justice conflicts. These can be illustrated by returning to the example of conservation and showing how starting from our shared vulnerabilities problematizes common decision-making in this area.

If we revisit the examples discussed above with renewed focus on the different and unequal harms faced by various members of our multispecies communities (and not only any positive gain or 'goods', such as species preservation) the calculus through which individual organisms are sacrificed in the name of the collective radically changes. For instance, the (human) interest in preserving the panda as a species would *not* trump the lived experiences of individual pandas. The extreme vulnerabilities of individual pandas in captive reproduction programmes would raise the questions of why and whether they should disproportionately bear the harms of species preservation efforts that try to mitigate human-caused ecological harm and loss.

This approach radically alters how different interests are balanced when attempting to do justice to all. For example, the anthropocentric classification of particular species as invasive or vermin that need eradication would not be automatically privileged over the fundamental harms that individual members of these species experience as a result of these classifications. So, for example, if red squirrels in Scotland are vulnerable and need protection, then this would not entail eradicating grey squirrels, but rather require preventing those human activities that erode red squirrel habitat and endanger them in the first place. Overall, the framework of shared vulnerabilities complicates the implicit prioritization of human interests (or, specifically, the interests of privileged humans) that often (but not always) colours conservation practice.

By flagging that human beings are one kind of life-form among many, the notion of shared vulnerabilities also challenges the assumption that humankind somehow knows what is 'right' and 'best' ecologically (see also Chatterjee and Neimanis in this Critical Exchange). Conservation actions that harm individual organisms to protect the collective rest on the premise that humankind can fully understand, predict and control how the rest of the world works. Human history, and in particular, the history of environmental problems, shows that knowledge is always incomplete and fallible (Harari, 2014). The framework of shared vulnerabilities reminds us that humans are part of nature, as opposed to having special oversight, knowledge, and control. Qualifying human hubris means that actions causing harm to vulnerable others in the name of doing ecological 'good' become far more difficult to justify; it also generates an approach based on greater respect for the agency of the rest of nature, as exemplified by rewilding initiatives that relinquish control.

The framework of shared vulnerabilities does not provide a detailed roadmap outlining how the various claims of members of multispecies communities ought to be balanced. Instead, it offers a reorientation of approach: one that urges critical attention on who is harmed and how. This reorientation offers a way of overcoming the implicit anthropocentrism that often shapes how we think of nonhuman wellbeing, especially in the context of conflicts between nonhuman individuals and collectives. This approach thus calls for engagement with these problems in a manner that is attentive to the subtle ways in which human interests enter decisions about justice trade-offs among nonhumans, that do not a priori privilege human interests or human knowledge, and that foreground questions of harm. It calls upon us to experiment with social and political institutions which see humans as just one creature amongst many, living in multispecies communities of shared vulnerability. Krithika Srinivasan and Alasdair Cochrane

Intimacy without mastery: multispecies justice and knowing other lifeworlds

The question of enacting justice in and for a context that extends beyond the human demands a rigorous investigation of what it means to know. To understand the conditions of possibility for more-than-human worlds to flourish we must know something of those other worlds and species – or, at least, know what is and is not available to our ways of knowing. In a historical context of colonialism, western scientific modes of knowledge as mastery remain hegemonic. We argue that multispecies justice necessitates a different relationship to knowledge. In fact, we

insist that the colonial imperative to assimilate other lifeworlds through full knowledge as mastery eliminates the possibility for multispecies justice.

Turning to art as a distinctive kind of engagement with other lifeworlds, we ask: can research-based artistic practice, and the imaginative and technical means it harnesses, cultivate intimacy without mastery? In this inquiry, we recognize that artistic practice, as much as it might represent the world and its injustices, also produces knowledge and offers tactics for different ways of knowing. We do not claim that art is outside of western scientific knowledge practices, nor that it is any guarantee of justice for multispecies worlds. Nor do we claim that all scientific knowledge practices will necessarily lead to injustice towards other beings (see for example the discussion of soil science in Celermajer and O'Brien, in this Critical Exchange). Through examples of artworks that seek different kinds of intimacies with plant worlds, we instead argue that even as these artists grapple with their own complicity in colonial knowledge (and the systems with which they are entangled), their practices also offer ways of disrupting those systems. What emerges are openings for different relations with nonhuman species and other lifeworlds.

Since the sixteenth century, scientific knowledge has been the touchstone of western civilization. While the terms 'western' and 'civilization' have come under close scrutiny in the last decades, both constructions are key to the making of knowledge systems since the enlightenment. The application of sixteenth century scientific methods in Europe afforded advances in ship building, navigation and artillery, which allowed European powers to infiltrate a diverse range of distant regions. If the pursuit of scientific knowledge was intrinsic to merchant, settler, and imperial modes of colonization, historians of science among other philosophers and thinkers have all pointed out that modes of knowing were inseparable from broader goals of mastery of nature – including climates, land, flora, fauna, and native peoples (Said, 1978; Spivak, 1988; Plumwood, 1993; Drayton, 2000). As Europeans put down deeper roots in the colonies, the colonies themselves became centers of scientific knowledge, and places like Sydney and Kolkata took on a measure of scientific autonomy and authority, while remaining within a framework of imperial dominance.

The imbrication of colonialism and capitalism over the course of the nineteenth and twentieth centuries also meant that both cultural and ecological systems were inextricable from global and neoliberal ones. This potted history reminds us that knowledge is always bound up in material extractions and violence – simultaneously epistemic and environmental (Mukherjee, 2010; Nixon, 2011). It also reveals that political and epistemological hegemonies impose new infrastructures of being-in-relation to others – for example, new relations of property, calculability, or use value – from which localized cultures or lifeworlds cannot easily extract themselves.

Nevertheless, these entanglements do not result in a smooth globe, where all lifeworlds are equally known or knowable. Local cultures also resist and reject such

impositions. After all, certain lifeworlds are fundamentally heterogeneous – these include multispecies ecologies where humans and nonhumans reject an ontological separation between those two categories, as well as worlds that exist beyond human habitation, such as in the deep sea, the underground, or at microscopic scales (for example, see Fishel and Reid, in this Critical Exchange, on the need to resist mastery of the deep oceans). Under the conditions of global colonialism and capitalism and its knowledge projects, such differences are thus interpellated into a colonial capitalist ontological frame at the same time as these lifeworlds exceed that frame.

Anthropologist Marisol de la Cadena refers to this excess that disrupts the notion of a 'one-world world' (Law cited in Blaser and de la Cadena, 2017) as 'the uncommons' or the 'Anthropo-not-seen' (de la Cadena, 2015). Both of these terms belie the within/without or both/and structure of the more-than-human lifeworlds we invoke here. The concept of 'uncommons' holds together colonial enclosure and extraction in the name of the 'common good' with worlds that exceed these enclosures, but which nonetheless cannot exist completely outside of a colonizing context (Blaser and de la Cadena, 2017, pp. 185–186). Meanwhile, the Anthroponot-seen both rejects naming this geological epoch in a way that gathers up all of Anthropos in one totalizing grip, at the same time as it recognizes the impossibility of living outside of our changing planetary conditions: we (in the full multispecies interpellation of this pronoun) are both all in this together and we are all in this together in very different ways (Braidotti, 2019; Neimanis, 2017). Some of these ways, as de la Cadena insists, are necessarily excessive. Such ontological situations - of being both within and in excess of - corroborate the problem of knowledge as mastery that we outline above. While colonialism produced various 'contact zones' (Pratt, 2008 [1992]; Wilson, 2019) that roped other species and lifeworlds into its systems, this could not extinguish an ontological excess that could not be assimilated. But even as - or perhaps because - some lifeworlds are unassimilable or inscrutable, we are still faced with the task of including them in the project of multispecies justice: we need to *both* know them *and* resist mastering them through knowledge. The question is: how?

If our hope is for multispecies justice, then de la Cadena's framing of the Anthropo-not-seen underscores the imperative to hold in tension the need for *both* some kind of commons among different species, cultures, and lifeworlds *and* an unassimilable, unknowable difference that holds them, to some extent, apart. Both of these ideas mark what we do not and cannot know as a very particular kind of knowledge that disrupts colonial knowledge projects of mastery. This ethico-ontological understanding of knowledge as fundamentally and only ever partial is echoed in feminist, multispecies theorist Donna Haraway's notion of 'situated knowledge' (Haraway, 1988). Haraway argues that the limits of any knowing body's perception and the overemphasis of what can be 'seen' in science has been used to 'signify a leap out of the marked body and into a conquering gaze from

nowhere' (Haraway, 1988, p. 581). Emphasizing the agency of the observed over the observer and the contingency of any knowing subject's position in the world, Haraway reminds us that there are no neutral observers. Haraway instead posits that we must be accountable for our various 'prostheses' – that is, all of the embodied, cultural, physiological, technical and other tools that enable us to know, from a human retina, to a microscope, to a particular language and its accompanying worldview. Being accountable to *how* we know is part of the project of doing justice to what we seek to know. Being accountable to our own partial knowledge promotes (rather than hinders) the project of multispecies justice.

We recall that the 'contact zone' sutures different worlds together while also holding them apart. Drawing on Haraway, we can ask: what tools or 'prosthetics' of knowing might we bring with us into the contact zone to make us accountable to our own partiality and our complicity within western frames of knowing, while also disrupting those frames in order to open to multispecies justice? In the words of scholar and artistic practitioner Natasha Myers, 'If the aim is to break with the colonial ecological imaginary, why not start with the disruptive potential of art?' (Myers, 2017, p. 4). While Haraway's theory of situated knowledge reminds us that all knowledge is prosthetic, artistic practice shows us that tools of western science (sensors or cameras, for example) sit alongside imagination, curiosity, and care as prosthetics for knowing other worlds. Here, then, we turn to art. Through several brief illustrations, we argue for different modes of artistic research (speculation, kinaesthetic photographic protocols, literary fiction, video documentation) as cultivating intimate knowledge about (and with) other species and lifeworlds, while resisting the impetus to mastery.

Our first example takes up artist and media scholar Jennifer Gabrys' work with lichens. Symbiotic partnerships of separate kinds of organisms – fungi, algae, and even a form of yeast – lichens are colonies, collaborative multispecies collectives. Gabrys's artistic research practice takes the form of a 'speculative bioindicator garden' (Gabrys, 2018, p. 354). This is not a garden that she plants or paints, but one that she brings into imagination via her documentation of lichens in the Arctic, her scientific research into the bioindicating capacities of lichens as pollution sensors, and the ways in which lichens anchor multispecies communities. Drawing on Isabelle Stengers and Gilbert Simondon, Gabrys posits speculation as an experiment in new forms of collectivity.

Here, the imaginary of a different world begins by wondering how other species also produce knowledge. Focusing on the capacity of lichens as bioindicators for a host of pollutants such as heavy metals and carcinogens, as well as radioactive contamination, Gabrys documents lichens as both observer and observed, knowledge producer and the means of knowing. Justice thus also becomes about making room for lichen to be a knower, amidst a network of human and nonhuman bodies, sensing together. For example, lichens provide sustenance for reindeer and by extension Indigenous people in the Arctic. Yet, the Arctic as an environmental space is also shifting due to resource extraction in the form of mining and logging, and a rapidly warming Arctic may cause even further shifts in lichen populations: as accumulators, lichens can instigate new chain reactions, not dissimilar to the accumulation of radionuclides in reindeer and indigenous human populations spurred by lichens' accumulative capacities. Paying attention to what and how lichens 'know' pollution underscores the instability and this knowledge, and the way it always exceeds any specific knowing subject. In Gabrys's words, 'If this speculative bioindicator garden offers up a proposition for how to engage with the bioindicative capacities of lichens, it might then suggest that this garden is productive of other counter-practices of cultivation that rework relations, entities and environments through shared inhabitations with - and even against - pollution' (Gabrys, p. 367). Her garden also prompts the question: might the distributed subject-ness of lichens mandate a kind of multispecies justice that accommodates the shifting contours of what counts as an organism, or a subject of justice? Following in the footsteps of European modes of sensing, Gabrys at once engages histories of sensing, while destabilizing the agentive quality of knowing as a precursor to action. Prying open a space for lichens to know us back, and know with other species, Gabrys's artistic research practice is complicit in colonial knowledge projects while also trying to disrupt them.

A second example is 'Becoming Sensor', the ongoing project of settler anthropologist and artistic research practitioner Natasha Myers and her collaborator, dancer and filmmaker Ayelen Liberona. 'Becoming Sensor', Myers notes, is in an attempt to 'do justice' (Myers, 2017, p. 11) to the remnants of an ancient oak savannah on a 400-acre urban parkland in Toronto, Canada. This work entails experiments in what they call 'decolonizing the ecological sensorium' (Myers, 2017) through specific kinesthetic and photographic protocols for being open to the sentience of the trees and the ecologies they animate. The artist-researchers are very specific about the tools and prostheses they need to adopt in order to move towards this goal:

We hold open the aperture long enough to keep our moving bodies in the frame, allowing us to register the moods and energies of the land relationally as we pull at light and colour, and participate in the vibration of each happening. As situated knowledge these relational images document the energetics of an encounter, the push and pull between bodies, human, more-than-human, and machine. Generated in the act of moving with and being moved by the beings and doings of these lands, these images register ephemeral happenings and offer records of the momentum of our active *involution* in this affectively-charged ecology (Myers, 2017, pp. 13–14).

The outcome includes beautiful photographic artworks, but the practice itself is a means of grappling with colonial, extractive knowledge that disavows the sentience and agency of nonhuman species. In 'cultivating new modes of embodiment, attention, imagination, and new ways of telling stories about lands and bodies' their practice reveals a deep intimacy that can 'begin to refuse the colonial norms and logics of conventional ecology in order to open up to sensing other sentiences' (Myers, 2017, p. 11).



At the speed of trees, kinesthetic images by Natasha Myers (2017).

Other forms of artistic and creative practice offer additional tactics for knowing plant lifeworlds in ways that explicitly link the knowledge/mastery of other species to colonization of Indigenous worlds. Yugambeh poet Ellen van Neerven draws on her own Indigenous cosmologies that reject the harsh ontological separation of 'human' and 'plant' to offer another kind of story of intimacy without mastery. In her short story 'Water' (2014) van Neerven describes an erotic relationship between a queer Indigenous woman and Larapinta – a 'sandplant', whom the protagonist refers to more ambiguously as one of the 'plant people'. Van Neerven's story enlivens a world of multispecies otherness that certainly exceeds and disrupts western colonial forms of knowing. Yet, this is still embedded in a narrative that does not shy away from the reality of complicity within western scientific practices (the Indigenous protagonist is herself tasked with scientific sampling and 'specimen sensing' activities as part of her job), or from the fraught reality of asserting

sovereignty in a context where Indigenous lifeworlds have also been fetishized and commoditised.

Research-based artistic practices can also make visible injustice at different moments of a process of human knowing and doing. For example, artists such as Jumana Manna illuminate the complexities of interspecies injustice. Manna's video work, 'Wild Relatives', follows the long-winded and complex path of seeds between Lebanon and Svalbard. Moving between the entangled routes of local farming practices, the intimate lives and personal histories of young migrant women, international agricultural research interrupted by the Syrian war, gene banks and the impetus to store seeds to preserve both knowledge (seed saving) and the potential to regenerate lifeworlds, the video work makes connections between injustices on multiple interspecies scales in a globalized world in the throes of a climatic crisis. It exposes the complex entangled relation of agricultural processes – between the histories and logics of colonialism, capitalism, science and war. Becoming at once a meditation on control, and an exploration of the lineages of colonial botany and industrialized farming, the video work produces an intimate history of benevolence – through the lives of seeds, landscapes, human labour, and organizations such as the International Center for Agriculture Research in the Dry Areas. The slow, expansive visual space created in Manna's artistic method allows for such obfuscated connections to come into visibility.

While artworks can bring us into intimacy with incommensurable worlds of other species in the Anthropo-not-seen, they can simultaneously keep these worlds strange – never fully known, impossible to assimilate. To repeat: this is not to claim that scientific knowledge will always or inevitably lead to injustice. Nor are we claiming that art will save the (multispecies) world: artworks and artists are as susceptible to extraction, reduction and aspirations to mastery as any colonial knowledge project. But in their opening to alternative tactics and knowledge prosthetics, artworks can help us, in the words of Myers, 'expose the colonial and extractive logics of the sciences' (2017, p. 3). In linking the knowledge of mastery to the colonial project, these artworks also remind us that multispecies justice must keep all of the differences inherent in the 'multi' alive. These projects can attend not only to nonhuman species, but also to multiple lifeworlds that reject this difference altogether.

Sria Chatterjee and Astrida Neimanis

From land to sea: thinking multispecies justice in fluid environments

Rosi Braidotti, in her Tanner Lectures, reflected on the possibility of an affirmative notion of the human and its connection to others: If 'we' are in this together, who are 'we'?' (Braidotti, 2017, p. 22). For those engaged in struggles for justice, the 'we' can be especially fraught as justice for the human animal has long gone

unrealized. It is difficult to create a 'we' among a single species – homo sapiens – let alone across species. As Srinivasan and Cochrane query in this Critical Exchange: 'How far can justice be extended?' Attention toward multispecies justice, or the preferable term 'multibeing justice',¹ will often be seen as distracting or subtracting from human struggles. For this short intervention, following Braidotti, we explore a way in which multibeing justice can be reimagined to sustain 'the material, embodied and embedded interconnected nature of things both human and nonhuman' (Braidotti, 2017, p. 28) for the purpose of creating a more just world for all. It is not a matter of attaining justice for humans and then turning our attention towards the nonhuman, but rather that issues of justice, harm reduction, and reconciliation remain entangled across species. Human justice remains crucial but must always consider the wider multibeing milieu in which justice can live (and thrive).

Using the ocean as our inspiration, we posit a 'spheric' understanding of justice based on all beings and their interdependencies with each other and their environments. The litho-, hydro-, anthropo-, cryo-, bio- and atmo-spheres rely on the functioning of the others just as the beings in each sphere are co-constituted with each other. This emphasizes justice as a matter of interdependency across and within the spheres, from the large to the very small.

We argue two simple points to this end: the first section foregrounds the coconstitutive relationship of the ocean and its beings. These relationships are at best attenuated by the development emphasis of international ocean governance regimes. Given the interconnectivities between the atmosphere, anthroposphere, hydrosphere and the biosphere, the second point acknowledges the perduring and ancient contributions of deep ocean spherics to our planetary relations. In this context in the second section, we argue that justice may mean not interfering with the deep ocean (see Chatterjee and Neimanis, in this Critical Exchange). It is too crucial as a carbon sink and home for wondrous and strange beings: we need never fish, explore, nor inhabit the ocean to truly create justice.

Getting wet: thinking justice at sea

This drift into the deep sea recognizes known and unknown lifeways, communities and materialities that are its animating pulse. As such, law's account of the ocean as 'aqua-nullius' is unequivocally debunked for the fiction that it is. However, law's reductive abstraction of more-than-human natures prevails as an enabling imaginary for the forces of extractive capital, thereby eliding fuller reckonings of ecological losses and vulnerabilities. These rapacious forces now stretch from exhausted terrestrial frontiers towards the promise of deep ocean resources: minerals, animal bodies, as well as biological and genomic materials. By way of reciprocity, extractive capital spills the waste products of its land activities seaward – plastics, toxins, fertilizer runoffs and heat of global industry.

We suspect that outside of specialists cognisant of international law's operations and limitations, there is a general understanding that the institutions of international law and governance presiding over the ocean would be sufficient protection against abuses. Evidence points to the contrary as we now witness how the laws of the seas are laws designed to facilitate its exploitation, not its protection. Conservation provisions are regulated to the extent that they do not distract from the extractive goals of transnational corporations. One only needs to consider the seabed mining provisions of the United Nations Convention on the Law of the Sea (UNCLOS 1982) or the stubbornly exploitative quotas (CCSBT, 2019) still enabling blue-fin tuna bodies to be extracted from the sea by their tonnage, despite the population's critically endangered listing with the IUCN/Redmap (IUCN, 2019). The former licenses mining companies to remove vast tracts of the seafloor, destroying precarious ecological communities in the process. UNCLOS's seabed mining regime institutes a self-regulating environment, activities several kilometres below the surface are difficult to monitor, and conservation provisions remain weak (Reid, 2020). In the case of the latter, concern for the lives and livelihoods of humans and commercial profits are protected over the tuna and its right to life, population recovery and habitat. From land to ocean the livability needs of humans and morethan-humans entangle and trouble multibeing justice processes.

If justice considerations are concerned with how humans might cohabitate less harmfully with the ocean, it is necessary to stretch our imaginations beyond the human centric orientations that underpin normative international ocean governance. We need to think and creatively speculate beyond the spheres of law's development focused imaginaries. Justice invokes us then to cast ontological nets further and more generously in order to attend to and cultivate intimate appreciation of the materialities, phenomenologies and relations that bind ocean lifeways well (Reid, 2020). What relational possibilities emerge by conceptually and imaginatively sinking into the ocean's darkness and depths for our illumination?

Just as layers of differently bundled justice issues intersect, ocean 'clines' provide distinct, yet intersecting conditions of livability, within sections of the water column differentiated by temperature, depth, chemicals and salinity concentrations. These interact with gradients of light and depth, and the organic nutrients, toxic traces and plastics that now co-generate the ocean's complex atmosphere. As we descend into this watery place, following photons into the ocean and watching light shed its spectrum, it becomes apparent that our human photocentric orientations also need shedding in order to reimagine the conditions of livability for deep ocean dwellers (Reid, 2020). Sea life, writes Stacy Alaimo, 'hovers at the very limits of what terrestrial humans can comprehend' (Alaimo, 2012, p. 477). Recognition 'of these limits as a suspension of humanist presumptions may be an epistemological-ethical moment' delivering us 'from human privilege', the state of wonder and disorientation a generative counter to mastery (Alaimo, 2012, p. 477).

We might also understand marine beings' coexistence with the ocean's dynamic watery atmosphere as being in a state of suspension: one that is not fixed, but always moving and transitional. Thinking with Timothy Choy's observations of air atmospherics, suspension can be understood as a state of being held (Choy, 2018, p. 211). Rather than an adversity to which deep-sea beings such as anglerfish need to adapt, for example, pressure might be reconceived to function like a great muscle around the fish, providing containment of organs, holding its body together. Moving up through the water column to escape trawlers or mining plumes is an unlikely option for slow-growing, slow-moving deep-sea creatures whose biology is kept intact by benthos pressure (Reid, 2019).

Alaimo's concept of transcorporeality - the movement of materialities through porous bodies -usefully animates how we might understand this state of suspension as a dynamic exchange of fluid, minerals, chemical, and organic matter between a fish and the ocean, each cogenerative of the other. We argue that multibeing justice calls for recognition of co-constitutive being and world-making. Taking a blue-fin tuna as an example, the tuna is held by the ocean but at the same time, the ocean's omnipotent watery pressure presses against its scaly, sleek body. The ocean floods the tuna's mouth, it is pressurized, and then squeezes oxygen through its billowing gills. Microbial particles flush from the tuna back into the ocean, organic matter and de-oxygenated water. The fish and ocean are ontologically inseparable to speculations of justice. Both 'intra-act', to use Barad's neologism, to 'become part of the world in its becoming' (Barad, 2007, p. 396). It is this 'mattering', coming into being through relation, that calls for adaptive formulations of justice in the materially transforming ocean (see Celermajer and O'Brien, in this Critical Exchange). As Alaimo also intended, thinking of the transcorporeal exchanges through the ocean atmosphere and its vulnerable tuna bodies, we can better apprehend the ethical implications of our human flows of toxic, heat and plastic pollutions (see also Neimanis, 2017). Justice for the tuna also means justice for and paying attention to the atmosphere of the ocean.

Sinking deeper: thinking justice in the dark sea

As we drift down into the mesopelagic zone of the sea, it is sunless and cold. There are no tables around which to gather, no territory to claim or disavow, but rather currents, suspension, and immersion in a liquid that human bodies are ill suited for. Along with the cooling water as it wraps around us, we begin to feel the chill of a world that humans cannot ken: some worlds do not pivot around human knowledge, and this place is certainly one of them. It is as if Nietzsche's musing of the place of human knowledge in the universe was made into a watery location: 'there have been eternities when [human intellect] did not exist; and when it is done for again, nothing will have happened' (Nietzsche, 2012). This is, perhaps, an act of

imagination: an attempt at sympathetic imagining to connect with experiences humans can never truly know (Waldow and Schlossberg, in this Critical Exchange).

Beyond 200–1000 metres below the surface of the ocean, marine lives depend on dim light and cold conditions. Animals from the mesopelagic zone migrate at dusk to the ocean's surface to search for food and retreat once the sun arises. It is a unique ecological zone and not much is known about the mesopelagic depths. Although too deep for photosynthesis, this zone is a 'major part of the world's carbon cycle' (Costello and Breyer, 2017, p. 36), even if carbon cycling and food webs are poorly understood (Anderson and Tang, 2010). As particles drift down from the upper ocean, the deeper dwellers consume those particles along with plankton, creating what scientists call the 'carbon pump effect' (Bland, 2018). The mesopelagic dwellers 'transport energy in the form of carbon toward the seabed' (Bland, 2018) and in so doing eliminate CO_2 from the surface waters by 'transforming it in the form of faeces in deeper ocean layers' (Sarant, 2014).

The deep ocean's physical inaccessibility has, until recently, provided some protection from the extractive reach of transnational corporations. Increasingly sophisticated fishing and mining technologies are rapidly weakening those protections. The biomass of the mesopelagic zone, for example, has garnered the attention of the transnational fishing corporations. Although there is little scientific data on the zone, marine scientists worry that the ecosystem and its services to humans will be impacted by potential, industrial-scaled fishing (Ocean Sciences Meeting, 2018). Justice for the mesopelagic zone will be protected only by leaving the dwellers of this place alone. This deep application of the precautionary principle could also protect human communities from the loss of a crucial carbon sink. To rethink the 'we', as Marisol de la Cadena writes, is an active process that offers 'conceptual possibilities' that displace Anthropos and replace it with an emerging subject connected to beings 'seen and unseen' (de la Cadena, 2019, p. 479). In our spheric formulation of justice, the critical connection between the atmosphere and the hydrosphere through carbon sinking in the mesopelagic zone are both seen and unseen, valued and protected. Put differently, if justice for the tuna also means justice for and paying attention to the spherics of the ocean, then justice for mesopelagic zone dwellers means paying them no attention at all.

Stefanie Fishel and Susan Reid

Transitional justice in multispecies worlds

The idea of transitional justice has emerged in recent years, responding to the demands posed by large-scale, long-term, structural political injustices insufficiently addressed within the frame of the foundational dyad of distributive and corrective justice (Aristotle, 1999). Insofar as it is concerned with how we ought to deal with wrongs of the past and the harm and loss they caused, transitional justice

incorporates corrective aspects. Beyond grounding actions like compensation and rehabilitation which aim to restore the 'balance' between parties or to return those harmed to an imagined state 'ex-ante', transitional justice is oriented by a number of macro-objectives. These include transforming the basic institutions that structure relationships and, more directly, transforming those relationships. They also include establishing the conditions under which systematic wrongdoing will be impeded, or, more positively, under which peace and just relations can flourish within the relevant political community (Teitel, 2000).

Almost without exception, transitional justice theories and practices have been limited to the sphere of intra-human relations, primarily in the context of the demise of political regimes organized around structural inequality, domination and/ or exploitation. A somewhat narrower but related from of justice - reparative justice - has had significant purchase beyond the human sphere, particularly under the guise of environmental restoration (Baldwin et al., 1994; Gunn, 1991; Taylor, 1986). But there has been little thought, and even less experimentation, in relation to what transitional justice might look like with respect to systematic violations against beings other than humans. The vast scale and structural character of the harms that humans have inflicted on other beings (including nonhuman animals, trees, rivers, soils and ecosystems), and even more importantly, the embeddedness of these harms in the ontological, epistemological, economic, and political regimes of western modernity, suggests that failure to think through what transitional justice might entail with respect to these abusive regimes constitutes a grave omission. Moreover, if one looks at some of the main lines of critique levelled against environmental restoration, one can identify an incipient move towards more expansive understandings and practices of justice.

Environmental restoration is organized around the normative principle that, when humans have damaged or degraded the environment, there is a moral obligation to restore it to a relative state of 'naturalness'. Despite its wide embrace, four principal criticisms have been levelled against it. First, that the idea of restoration is built on a fantasy that what once existed can be authentically replaced (Elliot, 1997). Second that it falsely projects the possibility of identifying a 'natural' baseline to which the harmed ecosystem ought to be returned (Oksanen, 2008). Third, that insofar as it accords humans the responsibility to define the baseline and engineer restorative change, it perpetuates the very human-centricity that underpinned the original abuse (Katz, 1997). Fourth and perhaps most damningly, that the promise of restorability implicitly sanctions ongoing abuse (Katz, 2012; Emmerman, 2014). Combined, these criticisms all point to the weakness of assuming that where humans have committed grave injustices against the more-than-human world, justice can be achieved by humans unilaterally 'making good' through subsequent acts that - they suppose - will repair the harmed victim, or by replacing those that have been destroyed with other beings they take to be their equivalent. Parts of the restoration community have responded to the

first two criticisms by shifting their objective to restoring the functioning of ecosystems, and rebuilding healthy relationships between 'nature' and 'culture', but the last two critiques remain live.

We would point to three particularly salient moral weaknesses of restorative approaches that these criticisms illuminate. First, the restoration paradigm treats the harmed beings as fungible/replaceable and so fails to recognize them as subjects with intrinsic value. Second, the victim shows up as the object but not the subject of the work of justice. In other words, it is not the beings that have been harmed that identify the wrongs meriting compensation, nor do they suggest the forms that compensation ought to take, but rather humans, albeit by trying to work out what constitutes harm to other beings. Third, this form of justice focuses on the harm to the victim, and the wrongdoing of the wrongdoer, but not on the relationship or the parties' experience. In recognition of these problems, a number of thinkers (Almassi, 2017; Basl, 2010; Hill, 2007; Lee et al., 2014; Oksanen, 2008; Throop, 2012) have suggested that the work of justice ought to be to transform the perpetrator, or, following Margaret Urban Walker's notion of moral repair (Walker, 2006, 2010), the relationship, such that the integrity or moral character of the damaged relationship is in some way repaired. This does not imply turning away from the victim, but rather turning towards the victim's experience of harm and injustice and conveying this to the perpetrator such that they, and the relationship, will be transformed. In this vein, thinkers have called for heightened receptivity to the experience of the harmed other (Kompridis, 2013; Dobson, 2010), as a means to develop a better appreciation of the character of the harms from their perspective, and, as a process necessary to build what, in intra-human terms, we might think of as trust.

Unsurprisingly, this focus on justice as restoring (or perhaps establishing for the first time) the integrity of relationships between humans and the more-than-human world has been criticized for mistakenly attributing to beings other than humans qualities that they evidently lack, like interiority, or the reflexive or the propositional capacity to experience harm as harm (Card, 2004). Similarly, the idea that something even approximating trust could be restored when one of the parties is not human has drawn incredulity (Katz, 2018). Where the damaged party is not an individual but an ecological system or a species, transposing the logic of restoring the integrity of relationships is seen as particularly inappropriate. One response to these criticisms is to dismiss them as yet another instance of the dogma that any being who does not fit the mould of the rational, linguistic individual subject cannot merit moral considerability (Goodpaster, 1978). But it can also, as Neimanis and Chatterjee explore in their contribution to this Critical Exchange, be motivated by the worry that such attributions erase critical ontological differences and thus foreclose recognition of the alterity and distinctiveness of beings other than humans.

What though, if we suspend the assumption that the presence of a certain type of subject – one with the capacity to have propositional knowledge of the harm experienced, and the capacity to articulate that knowledge is ways that most humans find legible – is a necessary condition for the work of moral repair? To return to the idea of transitional justice, what would be involved in allowing beings other than humans to express the harm that they have experienced such that the human perpetrators and the relationship might be transformed in this reception?

For the purposes of this reflection, we do not adopt the more common strategy deployed when trying to introduce a novel type of subject into a realm from which they have been excluded, that is, choosing the one most similar to those already admitted. Rather, we consider a being that radically differs to the human subject – soil. Doing so renders the argument more challenging, but it allows us to confront and – admittedly only superficially here – begin to think through some of the most difficult challenges in this endeavour, especially given how the notion of justice has been sutured to the idea of the individual sentient subject. The core injustice against soil, we contend, is the interruption in its becoming and in the relationships it fosters.

First, let us consider the nature of the harm that has been done against soil. Soil is best considered an ecosystem and not a bounded individual. This relational character describes both the ontology of soil, and the types of harms that have been inflicted on it. Soil ecosystems have been immeasurably damaged by agriculture since the neolithic revolution and more recently since the development of industrial agriculture. Over the past century, the intensification of industrial farming has increased the rate of soil erosion 60-fold, with at least several tonnes for each person on the planet eroded each year (Foucher *et al.*, 2014; Montgomery, 2007). Numerous features of conventional agriculture, for example the use of machinery that compacts the soil, and the cultivation of annual rather than perennial plants, which keep the land in a constant state of emergency (Berry, 2012), mean that the predominant human interaction with soil has been one of enduring disruption. Conventional tillage and overgrazing cause excessive disturbance of fertile topsoil. Regular disturbance severs biological relationships, atomizing soil particles and making them more vulnerable to erosion.

To flourish, soils needs connection to the roots of living plants, their main food source. Plants feed sugars from photosynthesis to soils via their roots. In turn, soil organisms use this carbon to fabricate a variety of complex molecules, building intricate architectures and spongy textures that improve the availability of minerals, water and oxygen. When soil is disturbed, such carbon is oxidized and released to the atmosphere, compromising soil functioning, and sometimes triggering vicious cycles where degraded soil profiles become hostile environments for plant growth. If plant cover is removed through ploughing or overgrazing, soils lose major food sources and with them, the abundance and diversity of resident organisms. If deeper layers of soil are exposed to sunlight, the habitats of earthworms and mycorrhizal fungi can dry out. Over 90 percent of all land plants form mycorrhizal associations

in the wild (Feijen *et al.*, 2018). However, in many agricultural ecosystems, their presence is greatly diminished (Verbruggen *et al.*, 2015). Along with earthworms, such fungi can be seen as 'ecosystem engineers' because they build vessels that help circulate resources and exude glue-like substances that cohere the soil in aggregates.

The key point is that the damage done by humans to soil is, in keeping with the relational ontology of soil, damage to relationships, or, more radically, to beings that need to be understood in relational and processual terms. When soil ecosystems are excessively disturbed, their *becoming* is interrupted. It is this interruption to becoming that constitutes the core injustice. Beings in relationship are thwarted from collectively growing in ways that reach greater integration and that produce 'ecological infrastructure', emergent properties that, in a way resonant with Cochrane and Srinivasan's argument in this Critical Exchange, support individual and broader ecological flourishing, in forms such as pores, vessels, and woven 'meshworks' (Ingold, 2008). When properly functioning, soil fungi can respond to vibrations of nearby organisms, warning one part of their network about a danger occurring in another, or they can respond to deficiencies by redistributing resources. When damaged, soil organisms withdraw from participation and become less able to perceive and respond to their environments.

Some might object at this point that the processes described are incorrectly classified as injustices. Two principal arguments might be offered to resist the justice framing. First, processes like erosion and desertification are natural, and all that is happening is that they have been accelerated through humans being part of the system. Second, humans cannot be seen as perpetrators because they were unaware of the damage they were causing or even that there was a being that could be damaged in a morally relevant sense. But our point is to denaturalize processes like 'erosion' and demonstrate that they are outcomes of broken-down relations. Indeed, those relations were broken because humans failed to recognize their existence as relationships, or that they required their care. While one variety of wrongdoing involves explicit malice against a being one recognizes as meriting moral considerability, the failure to recognize the moral worth of certain classes of being constitutes a distinctive type of wrong, one we might characterize minimally as neglect, or more precisely as a form of epistemic injustice. As Medina (2012) has argued, the failure to recognize other beings as the types of beings that merit just treatment usually involves a number of epistemic vices, including epistemic arrogance, laziness, closed-mindedness and insensitivity, as well as meta-vices such as insensitivity to the original insensitivity. Importantly, and as elaborated by Neimanis and Chatterjee in their contribution to this Critical Exchange, such epistemic vices are embroiled in an economy of interest and distributive justice where not knowing renders possible the persistence of practices that systematically benefit some and harm others.

No doubt, the impediments to recognizing soil as 'harmable' are particularly large. Soil has been understood as raw material, and not itself being capable of creative production, let alone showing up as a being that is sentient or has a life project. It is repeatedly treated as 'a standing reserve', as if it was lifeless, fungible and invulnerable to disturbance. At the same time, the means whereby harms have been inflicted, for example, through overgrazing and technologies like ploughs and GPS/satellite guided machinery, do not readily show up as acts of human wrongdoing, because they are so heavily mediated or buffered.

The first expression of transitional justice in relation to soil must thus involve a recognition of the harms that have been committed, and underpinning this, of soil as the type of being that can be harmed in a morally relevant sense. Critically though, and in keeping with the criticisms expressed earlier about the failure of environmental reparation to respect the radical alterity of different types of beings, this must not entail assimilating soil into the ontological model of those beings who have been thought to merit such considerability. In this sense, while knowledge of harm to soil is a precondition for the transitional justice moves we are suggesting, common modes of knowledge production reproduce the very ideologies that enable its destruction. As others in this Critical Exchange point out (Chatterjee and Neimanis; Fishel and Reid), extractive, colonial and mastery-oriented knowledge practices often inflict violence on more-than-human worlds. By contrast, a humble and exploratory knowing, beginning from a recognition of not knowing, can open the possibility of a very different type of, perhaps a just relationship with other beings. Engaging the senses and emotions, 'learning to be affected' (Latour, 2004a), and, with Waldow and Schlosberg in this Critical Exchange, engaging sympathetic imagination, can help to build the intimacies and relationalities that ground knowledge inflected with responsiveness and accountability to other forms of life.

Indeed, this would be precisely the demand: that humans accord moral considerability to soil on the basis of its integrity and the capacity to foster relationships. Without overplaying the analogy, one might imagine a modification of the truth commission, whereby those who have inflicted harm, including the broader collective of humans who have rendered that harm invisible as harm, are exposed to a version of testimony. This calls to mind the 'Council of all Beings' (Seed *et al.*, 1988), or the 'Parliament of Things' (Latour, 2004b), but in forms oriented to addressing past and present wrongs. Rather than narrating the nature or experience of harm, this might involve exposure to the forms of life that can proliferate in soil and their vulnerability to destruction through habitual human practices.

Transitional justice processes may also include educational dimensions aimed at informing communities about wrongs that have been explicitly concealed or otherwise occluded through habitual epistemological blindness and practices that routinise and normalize them. As Waldow and Schlosberg suggest in their contribution, where radically different types of beings are concerned, this may require forms of sympathetic imagining that allow us to move beyond transposing our own understandings and ways of being onto others. Educational commitments in this regard also contribute to a further demand of transitional justice: the obligation to non-repetition of the wrongs. In keeping with its forward looking or constitutive character, transitional justice in relation to soil thus ought to include changes to agricultural training and practices, so that people who work with soil learn to recognize the value of the integrity of soil ecosystems and how to practically build and safeguard this integrity. One might imagine that the obligation to non-repetition could be institutionalized through the imposition of penalties for harmful practices, analogous to, but going beyond Aldo Leopold's call to extend 'social conscience from people to land' (Leopold, 1989, pp. 208–209.)

Imagining transitional justice in relation to the harms inflicted upon soil ecosystems no doubt troubles a number of foundational assumptions about the scope of justice and the relationships that involve moral obligation. It also risks offending people and communities who are yet to see any proper accounting for the systematic violence and harm that they have suffered and often continue to suffer through colonialism and capitalism and their beneficiaries. But justice is not a zero sum game, and indeed, as ecofeminist, posthumanist and postcolonial scholars have argued, the forms of social organization and patterns of dominance that have been the source of the mass exploitation of specific groups have frequently been isomorphic with those that underlie the exploitation of other earth beings, relegated to the category of resource and not subject.

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Notes

1 Our preference for the term 'multibeing' is based on reservations about the Linnaean implications of the term 'multispecies'.

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