



Justice and conservation: The need to incorporate recognition



Adrian Martin^{a,*}, Brendan Coolsaet^b, Esteve Corbera^c, Neil M. Dawson^a, James A. Fraser^d,
Ina Lehman^a, Iokiñe Rodriguez^a

^a School of International Development, University of East Anglia, Norwich, UK

^b Centre for Philosophy of Law, UCLouvain, Belgium

^c Institute of Environmental Science and Technology, Universitat Autònoma de Barcelona, Barcelona, Spain

^d Lancaster Environment Centre, Lancaster University, Lancaster, UK

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ABSTRACT

In light of the Aichi target to manage protected areas equitably by 2020, we ask how the conservation sector should be incorporating concerns for social justice. We focus in particular on 'recognition', because it is the least well understood aspect of environmental justice, and yet highly relevant to conservation because of its concern with respect for local knowledge and cultures. In order to explore the meaning of recognition in the conservation context, we take four main steps. First, we identify four components of recognition to serve as our analytical framework: subjects of justice, the harms that constitute injustice, the mechanisms that produce injustices, and the responses to alleviate these. Secondly, we apply this framework to explore four traditions of thinking about recognition: Hegelian intersubjectivity, critical theory, southern decolonial theory, and the capabilities approach. Thirdly, we provide three case studies of conservation conflicts highlighting how different theoretical perspectives are illustrated in the claims and practices of real world conservation struggles. Fourthly, we finish the paper by drawing out some key differences between traditions of thinking, but also important areas of convergence. The convergences provide a basis for concluding that conservation should look beyond a distributive model of justice to incorporate concerns for social recognition, including careful attention to ways to pursue equality of status for local conservation stakeholders. This will require reflection on working practices and looking at forms of intercultural engagement that, for example, respect alternative ways of relating to nature and biodiversity.

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1. Introduction

Concerns about equity and justice¹ have become prominent in debates about conservation. These concerns include questions about how we distribute costs, benefits, rights and responsibilities, questions about how we give voice to different cultures and beliefs, and questions about how we make trade-offs between current and future people, between individual rights and the greater good, and between humans and non-humans (Brechtin et al., 2002; Norton, 2003; Shoreman-Ouimet and Koppina, 2015). Working to improve 'conservation justice' is

considered ethically desirable, but also instrumental to improved conservation effectiveness because it reduces the likelihood of conflict (Martin et al., 2013; Pascual et al., 2014; Suiseeya, 2014) or improves participation (Coolsaet, 2015). But determining what constitutes 'conservation justice' is not easy. It is not enough to consult national or international laws to determine what is just because it is often perfectly legal to subject people to harms arising from pollution, deforestation, climate change, or indeed harms arising from the establishment of protected areas (Smith and Pangsapa, 2008). Thus conservation has to look beyond the judiciary for its moral compass.

This paper contributes to understanding what this moral compass should look like: how should we frame our thinking about conservation justice? In doing so it particularly highlights the need to incorporate the dimension of *recognition*. Contemporary academic framings of environmental justice tend to use a tripartite typology of concerns: distribution, procedure and recognition (Schlosberg, 2004; Sikor, 2013; Walker, 2012). Distribution refers to differences between stakeholders in terms of who enjoys rights to material benefits and who bears costs and responsibilities. Procedure refers to how decisions are made, who participates and on what terms. Recognition is typically concerned

* Corresponding author.

E-mail address: Adrian.martin@uea.ac.uk (A. Martin).

¹ We use 'equity' with reference to the Convention on Biological Diversity (CBD) because this is the term used in that process. For much of the rest of the paper we prefer to use 'justice' as it better incorporates our focus on 'recognition'. Environmental 'justice' tends to refer to an enlarged set of concerns, including distribution and participation, but also incorporating calls for cultural recognition, a dimension of justice that passes largely unnoticed in equity discussions, and which we think should be brought into the foreground more clearly.

with respecting identities and cultural difference (Fraser and Honneth, 2003); it is about the extent to which different agents, ideas and cultures are respected and valued in interpersonal encounters and in public discourse and practice. We focus on recognition because we think it is highly relevant to conservation conflicts and because it is comparatively poorly understood and neglected.

It is not pragmatic to seek a single definition of justice-as-recognition because this would ignore important differences in understanding, including among political philosophers. Instead we find it a necessary first step to provide a roadmap to the plural ways in which recognition has been understood, both in theory and in practice, and to relate this to contemporary conservation conflicts. Our approach is therefore to describe different traditions of thinking and to illustrate these through case studies. We then proceed to a synthesis discussion in which we explore how elements of common spirit or intent can be drawn together in order to make key aspects of the concept of recognition legible to conservation practice. Prior to this, we briefly review recent attention to justice within conservation practice.

2. Conservation practice, justice and recognition

Biodiversity conservation is linked with recognition injustices for three main reasons. Firstly, protected areas (PAs) are spatially associated with cultural diversity (Gorenflo et al., 2012; Stepp et al., 2004) and with people whose knowledge and environmental governance institutions are vulnerable to being marginalised (Brosius and Hitchner, 2010; Escobar, 1998). Secondly, mainstream conservation management strategies are influenced by culturally specific (and often disputed) ideas about what works and about what counts as evidence of what works. For example conservation approaches have been driven by the assumed superiority of exclusionary models of protected areas in which people are separated from the rest of nature (Lele et al., 2010; West et al., 2006). Thirdly, these dominant blueprints about how conservation should be done become a basis for the misrepresentation and misrecognition of indigenous and local people. For example, the 'Yosemite model' of conservation, in which nature is conceived as wilderness, has led to the representation of local and indigenous lifestyles as harmful to nature conservation (Cronon, 1996; Dowie, 2009; Stevens, 1997). Given the powerful assumption that conservation holds the moral high ground, these lifestyles are also therefore portrayed as morally inferior (Martin et al., 2013; Neumann, 2004). But biodiversity conservation can also work constructively with local communities, especially if it embraces the concept of recognition. Where innovative, non-exclusionary models are developed, indigenous people have sometimes embraced protected areas as a way to positively promote both their territories and traditions (Stevens, 1997).

The language of equity and rights has been in global conservation discourse since at least the early 1970s (UNEP, 1972). In the 1980s, ideas of inter- and intra-generational equity were foundational to popular narratives of sustainable development (WCED, 1987) that fed into the first 'Earth Summit' in 1992. The Convention on Biological Diversity (CBD) was one of the outcomes of this summit and builds on three objectives: 'the conservation of biological diversity, the sustainable use of its components and the fair and equitable sharing of the benefits arising out of the utilisation of genetic resources' (Art. 1). The 2010 Nagoya Protocol develops the third objective of access and benefit sharing (ABS) whilst 'taking into account the important role of traditional knowledge' (Secretariat of the CBD 2010, preamble). The inclusion of equitable ABS is something that was pushed for by developing country stakeholders who feared a highly preservationist CBD and expected financial returns from the exploitation of their genetic resources and traditional knowledge (Broggiato et al., 2015). However, it is worth noting that both the process and implementation of the CBD and its Nagoya Protocol have led to controversies over recognition. One charge is that the CBD and Nagoya are culturally dominating, requiring prospective beneficiaries to assimilate imposed ideas of what is fair and equitable as a condition

of benefiting (De Jonge, 2011; Suiseeya, 2014; Whiteman, 2009). For example, the San people are expected to conform to norms of fair procedure rooted in western principles of representative democracy in order to negotiate an ABS agreement related to the Hoodia plant (Vermeulen and Walker, 2011).

With regard to its first two objectives, the CBD pays attention to cultural diversity and the identity of indigenous peoples in the much-quoted Articles 8j and 10c which respectively demand that Parties to the Convention protect indigenous and local communities' knowledge, practices and lifestyles relevant to the conservation and sustainable use of biodiversity. Nevertheless, Parties to the Convention have time and again adopted policies that conflict with traditional ethics of stewardship of nature, notably with regard to the so-called "marketisation" of nature. An outstanding example is Decision 30 on "Incentive Measures" taken at COP-11 of the CBD which strongly encourages Parties to include the economic valuation of nature in their national conservation programmes. Such approaches are regularly resisted by indigenous peoples' representatives but gain more and more traction with governments.

One of the overriding criticisms of existing global attempts to formalise aspects of conservation equity would seem to be the lack of recognition of other cultures and other ways of thinking about justice in relation to the environment. Without attention to the equal status of others' ways of seeing the world, attempts to define conservation justice are likely to reproduce dominant (western) conceptions about what constitutes equitable distribution, procedure and recognition. Such a concern is not confined to state representatives at global forums. At Nagoya, conservation NGOs were seen to align with the interests of states, pressing to bypass discussion of foundational questions about how conservation justice is to be defined (Suiseeya, 2014). In conservation planning and practice, recognition has not featured centrally either. Biodiversity conservation programmes have largely been informed by scientific principles, and have thus targeted nationally representative ecosystems, taking account of species rarity and diversity, recreational value, and level of threat (Margules et al., 2002). Conservation has historically been characterized by territorial and natural resource management conflicts, where distinct values and interests collide. For example, the move towards people-centred conservation since the 1980s has rendered mixed results and made evident how difficult it can be to reconcile the ideas and aspirations of conservation practitioners with those of local people and other actors (Adams et al., 2004; Wells et al., 1992). As of today, conservation is still marked by a lack of willingness to engage fully with different and changing beliefs about nature, or to explore diverse, culturally-suited implementation approaches instead of relying on blueprints (Reyers et al., 2010).

3. Thinking about recognition in conservation justice

Whilst we are arguing for more concerted consideration for recognition within conservation practice, we also acknowledge that its application remains difficult, not least because of contested meanings and approaches. The main contribution of this paper is therefore to shed light on these differences and to reveal common, core concerns that can serve as a basis for progress. In doing so we draw on four contributory schools of thinking: Hegel's theory of recognition, critical theory, decolonial theory and the capabilities approach (all defined below). There is considerable theoretical overlap between the first three of these, but we separate them analytically because they are distinct in terms of the scholars using them, their geographical focus, and the kind of responses they call for. We employ a simple conceptual framework that decomposes these approaches to defining recognition into four components: subjects, harms, mechanisms and responses.

Subjects of justice refer to the stakeholders or users who are entitled to moral consideration: those who hold rights and deserve recognition (Sikor et al., 2014). One debate is about the spatial and temporal

scope of responsibility and the extent to which we can bear moral responsibility for those in distant states, or for those not yet born. Moral concern for future generations is almost a defining feature of environmental justice (Dobson, 2003) and despite some scholars' difficulties of asserting responsibility across national boundaries (Nagel, 2005; Rawls, 1971), recognition theorists now tend to argue that we are global citizens with global responsibilities (Fraser, 2009; Honneth, 2014; Young, 2010). A second debate pits individualism against communitarianism. Liberal traditions of justice tend to prioritise the individual as the subject of justice, whilst communitarians argue that communities can also be harmed and therefore deserve recognition (Sandel, 1998; Schlosberg and Carruthers, 2010). Such communitarian ethics also feature strongly in African and Latin American indigenous philosophies (Biko, 1998; López, 2013). A third debate concerns expanding the reach of moral responsibility to embrace non-humans (Nussbaum, 2007; Schlosberg, 2013; Singer 1995). Finally, moral responsibility towards the spiritual world is central to many Latin American indigenous peoples' notions of environmental justice (e.g. de Castro, 2012).

Harms are the kinds of injustices suffered by moral subjects and can vary according to the dimension of environmental justice. Distributive injustice is more likely to result in objective material harm such as impoverishment whilst misrecognition tends to be linked with harms to subjective wellbeing such as reduced self-esteem. However, we will see that there is an important debate about whether the harms from misrecognition are purely subjective and psychological, or whether they are inextricably bound up with material harms.

Mechanisms refer here to the institutional and structural explanations for injustices. How can we explain how similar injustices appear repeatedly, in different places and times? Very broadly speaking, causal explanations fall into ideational and material camps: Either one argues that the roots of oppression are found in the realm of ideas and culture, or that they are found in the economic structures of society (Atkinson, 1991; Parsons, 2007). But there are also middle positions, in which cultural and economic forces are viewed as operating in tandem (Coulthard, 2007).

Responses. Finally, it is inevitable that traditions that identify different harms and mechanisms will also propose different solution frameworks. For some, responses can start with individual efforts at self-development, such as recognizing one's connectedness to the rest of nature (e.g. Naess and Rothenberg, 1990). For others, a more political project is required, such as extending participatory democracy (Dryzek, 2000; Sen, 2009), redefining national constitutions to allow plural notions of citizenship (Walsh, 2007), or giving voice to alternatives to capitalism such as degrowth and *Buen Vivir*² (Escobar, 2016).

Table 1 summarises these four components of environmental justice for four traditions of thinking about recognition: Hegelianism, critical theory, decolonialism and capabilities. We now proceed to discuss each of these in turn.

3.1. Hegelianism and recognition

The German philosopher Georg Hegel (1770–1831) is considered the founder of the continental European ethics of recognition. Hegel conceived the struggle against injustice – indeed the whole history of humanity's struggle for freedom – in terms of an essential need to be recognized and respected by others. For Hegel, such recognition is deemed essential because it is the basis of individual freedom. Failure

² The literal translation of *Buen Vivir* in Quechua and Aymara languages is "To Live in Plenitude". It refers to a contemporary non-capitalist ideology that has recently blossomed in South America with roots in indigenous and non-western conceptions of human welfare and of nature. *Buen Vivir* is a holistic concept rooted in principles and values such as harmony, equilibrium and complementarity, which from an indigenous perspective must guide the relationship of human beings with each other, with nature (or Mother Earth) and the cosmos.

to respect important constituents of a person's cultural identity, such as their beliefs about nature, is a denial of their freedom of thought and freedom to live according to their chosen belief system. Such freedoms are protected today in the 1948 Universal Declaration of Human Rights and in the 2007 UN Declaration on the Rights of Indigenous Peoples. For example, the latter requires parties to recognize "the right of all peoples to be different, to consider themselves different, and to be respected as such".

One of the most important insights from Hegel is that human freedom cannot be achieved unilaterally but only through social relationships of a psychological nature. Such relationships can be described as 'inter-subjective' interactions inevitably occur between persons who are more and less powerful. For Hegel, recognition injustice was a form of enslavement that occurred through unequal encounters in which the more powerful actor fails to recognize the value of the other. The critical point here is that a person can only really value their own life if they see that others value such a life. For example, it is not possible to have high self-esteem if you perceive that others treat you with contempt. One's psychological sense of worth is formed by how others act towards you; or put more fundamentally, one's freedom is achieved or denied through psychological encounters with others. This is very relevant to biodiversity conservation because a person might only be able to enjoy cultural freedom if their ways of knowing and living with nature are respected by others.

The denial of recognition leads to fundamental harms of a psychological nature. Fanon (1967) saw such psychological harm as fundamental to the lasting injustices of colonialism in Africa. Others consider such psychological harms to contribute to the health problems faced by some indigenous peoples today (Ohenjo et al., 2006). If we accept such a characterization of harm and injustice, some difficult questions are posed for a more just conservation. How, for example should conservation proceed in states, such as Rwanda, that continue with assimilationist policies towards indigenous and local peoples (Dawson and Martin, 2015; Ohenjo et al., 2006)?

For Hegel the mechanism of subjugation was psychological and the required response was to move relations towards more reciprocal recognition. In contemporary terms, this is a call for multiculturalism, which involves affirmative attempts to revalue previously denigrated cultures. As becomes clear below, we are sceptical that such a change in social encounters is sufficient in the absence of an accompanying transformation of underlying economic and political powers. But by the same measure, we should conclude that economic reforms (such as access and benefit sharing or payments for ecosystem services) are equally unlikely to achieve justice without accompanying attention to intersubjective relationships. For Fanon (1967) for example, the end of direct colonial economic and political rule was not sufficient to emancipate Africans from the internalised sense of inferiority that had been forced upon them.

3.2. Critical theory and recognition

Critical theory is a neo-Marxist school of thought characterized by its emancipatory ambitions and by its alignment with prevailing social movements (Fraser, 1985; Horkheimer, 1982). In the past, such movements have been dominated by calls for economic redistribution to resolve class-based injustices. But in the late 20th century there emerged new social movements linked to cultural identity struggles (Habermas, 1981), including indigenous peoples movements and elements of environmentalism. Whilst old social movements struggled for more just division of resources, new ones engage in 'indivisible conflicts' arising over goods for which distribution makes little sense, such as 'dignity' and 'respect' (Honneth, 2004). Fraser develops a theoretical framing that attends to both old and new struggles, framing injustice in terms of inter-twined cultural and economic forces. She proposes that a critical theory of recognition needs to reveal 'the ways in which

Table 1
Summary of different schools of thinking about recognition.

	Hegelianism	Critical theory	Decolonialism	Capabilities
Subjects	Individual humans embedded in social relations.	Individual humans and social groups.	Humans (ancestors, present, future), non-humans, spirits, mother nature.	Individual humans; <i>potentially</i> human and non-human communities.
Harms	Psychological, e.g. loss of self-esteem.	Psychological, social, political and material.	Psychological, material and cultural.	Constrained opportunities; loss of freedom/dignity.
Mechanisms	Non- recognition caused by cultural relations of power.	Status inequalities caused by cultural and economic forces.	Colonisation by Eurocentric, modernist knowledge production.	Value universalism, lack of participation.
Responses	Affirmative recognition for multi-culturalism	Affirmative recognition of difference and economic and political redistribution.	Prioritise indigenous knowledge; political and economic change	Liberal pluralism & multiculturalism; deliberative public debate.

economic disadvantage and cultural disrespect are currently entwined with and support one another' (Fraser, 1997).

A critical theory approach to recognition does not obviously differ in terms of the subjects of justice it identifies, but differs fundamentally from a Hegelian account of recognition in terms of the nature of harms, the mechanisms by which these are produced, and putative solution frameworks. For Fraser, misrecognition is about social mechanisms which produce status differences that harm the opportunities of some social groups. Societies develop hierarchies of cultural values that degrade the status of some groups of people, thereby culturally subordinating them and denying equality of social interaction. Such status injustices are reproduced through formal institutions, such as property laws that discriminate against indigenous forms of tenure, or against women, but also through informal institutions including cultural norms and prejudices.

Fraser reconciles this observation about cultural status with more traditional Marxist economic analysis, identifying twin mechanisms that produce injustices. Injustices arise out of a combination of economic exploitation and cultural subordination, neither of which can be analytically subsumed under the other (Fraser, 1995; Fraser and Honneth, 2003). Gender inequality for example has connected roots in both economic arrangements (e.g. rules of resource access) and culture (Robeyns, 2003; Young, 2010). Responses to these status-based harms need to be multi-dimensional. As with Hegelian thinking, there is a need for affirmative efforts to tackle cultural misrecognition (Fraser, 2000). But to achieve parity of participation there is also a need to transform institutions that define distribution and political representation (Fraser, 2009).

Fraser's struggle of choice is feminism and she has not herself addressed issues of environmental justice. Nevertheless, her combined focus on recognition and distribution appears fruitful for a critical theory of conservation justice. Firstly, economic inequalities are often considered to be drivers of biodiversity loss, both through mechanisms of impoverishment of some groups that undermine sustainable practices, and the corresponding enrichment of others that fuels profligate consumption. Secondly, however, this is only ever part of the story (Roe and Elliott, 2005) because material practices are entwined with status inequalities and political marginalisation. Our first case study, below, illustrates the ways in which failures of recognition serve to undermine traditional knowledge and cultures whilst also highlighting how such cultural subjugation operates in tandem with forms of political and economic inequality.

3.2.1. Case Study 1: Seeding recognition in France

AgroBio Périgord (ABP) is an association for the development of organic farming in Dordogne, a department in southwestern France. Among other things, ABP is known for its activities of in situ conservation of local and regional plant landraces threatened by genetic erosion (called 'conservation varieties' or 'peasant varieties'). It is a key member of the nation-wide Peasant Seed Network ('Réseau Semences Paysanne'), and hosts a community seedbank ('Maison de la Semence') for both professional farmers and home gardeners.

In 2000, the founding members of ABP started gathering and reusing local plant landraces as an act of resistance to the use of so-called 'elite'

varieties (commercial pure lines or F1 hybrids). Under the banner of 'peasant farming' ('agriculture paysanne'), a term previously restricted to subsistence agriculture in the global South (Ploeg, 2008), the underlying struggle aims at the cultural recognition of small-scale, farmer-driven agriculture, through the reintroduction of local landraces. But local landraces are useless without the associated local agroecological knowledge and practice, which had been largely lost since the emergence of industrial agriculture in Western Europe in the second half of the twentieth century. Therefore, in 2001, ABP launched a participatory plant-breeding programme to select and multiply environment-specific breeds and foster the conservation of local plant landraces through their utilization. In order to reacquire know-how and breeding techniques, each farmer breeds a certain amount of local landraces on a testing parcel, and commits to multiply and return two-thirds of the initial amount of seed to the community seedbank. Through peer-based 'farm-talks', participatory plant breeding takes the form of the social learning platform in which farmer-driven knowledge not only gains 'scientific' recognition, but is also enriched through the active participation of other local farmers and partner scientists. On top of cultural and scientific recognition, the association also claims legal recognition. As the use of peasant varieties is currently unregulated under French law, they are considered 'phyto-genetic resources', which can only be exchanged for experimental purposes. The domination of corporate seed remains protected by a system of Plant Variety Rights that leaves alternative seed users legally invisible.

Historically, the creation of ABP was triggered by the reaction of local farmers to having been sold 'organic' maize seed that had been contaminated with genetically modified genes. But the re-emergence of peasant agriculture is also part of a broader opposition to the way in which the agricultural economy is organized. Agricultural policy serves the interest of a market-only logic, and the sector is characterized by multinational companies' increasing control over agronomic research (Bonneuil and Thomas, 2009).

The conservation activities undertaken by ABP should therefore be seen as a combination of struggles for the recognition of farmers and for more economic equality. Justice claims take on a combined character, denouncing both the socio-cultural subordination of small-scale farmers and their economic exploitation by the dominant agri-food system (Coolsaet, 2015). In 2011, ABP co-signed the declaration of the European Forum on agricultural biodiversity "Let's Liberate Diversity", adopted in Szeged, Hungary. It demanded of "the European Union and all of its Member States recognition that European farmers are also contributing to the conservation of plant genetic resources" and that policies "take into account the right to food sovereignty [...] the right to preserve local cultural heritage," and the right of farmers to freely define their farming practices.

3.3. Decolonial thought and recognition

Decolonial thinking has roots in both Hegelianism and critical theory, emphasising forms of inter-subjective, social, cultural and political subordination that deny freedom and opportunity to some groups. However, it is also distinct for its focus on the global South and for identifying mechanisms of subordination in Eurocentric scientific and

political worldviews. Proponents of this school of thought are largely from Latin America (Escobar, 2007; Leff, 2001; Mignolo, 2008; Quijano 2000), but also from India (Visvanathan, 1997), Portugal (de Santos et al., 2007; de Santos, 2010) and New Zealand (Smith, 1999) among others.

According to this body of theory colonialism ended when the global South gained political independence. However, 'coloniality' is a process of subjugation that persists through the expansion of a European cultural worldview. This dominating European culture is institutionalised through education, the media, state-sanctioned languages and behavioural norms. Thus, coloniality is a mechanism of recognition injustice that creates structural oppression over marginalised sectors of society whose alternative worldviews become devalued and stigmatised. Decoloniality scholarship is inspired by indigenous peoples' movements and their struggles against modernity (Mignolo, 2008). It therefore has links to indigenous cosmogonies, leading to conceptions of justice subjects that emphasise community over individuals (López, 2013) and includes moral responsibilities towards mother nature and intangible beings such as spirits.

Decoloniality argues that forced assimilation to modernity leads to profound psychological harms to indigenous peoples, eroding vital conditions for their wellbeing such as cultural identity, freedom of belief, and self-respect. But coloniality also leads to more tangible impacts on status and participation by disregarding local notions of authority and territory, frequently resulting in displacement or enforced change to livelihoods. Decolonial theories describe mechanisms of harm that resemble those of Fraser's critical theory. Accordingly, psychological and physical harm is perpetuated through political and economic power which operating in connection with knowledge-based discursive power produce harms to identities and subjective being. Thus, responses to coloniality necessarily involve decolonizing power, knowledge and being. This involves moving away from a unitary model of citizenship and civilization to one that respects different local economies, politics, cultures, epistemologies and forms of knowledge.

Conservation practice is primarily linked to the coloniality of knowledge, because it forms part of a dominant form of knowledge production (western science), institutionalised within bodies such as the CBD, which has marginalized local forms of knowledge (Visvanathan, 1997; de Santos, 2010). Thus, responding to conservation injustices must include democratizing science itself by creating opportunities for intercultural dialogues as part of the knowledge production process (Walsh, 2007). Case study two explores how this means prioritizing the indigenous world view and its concerns 'and then coming to know and understand theory and research' from that perspective (Smith, 1999).

3.3.1. Case Study 2: Pluricultural politics, intercultural dialogues and cognitive justice in Canaima National Park, Venezuela

Canaima National Park is located in southeastern Venezuela, near the border with Brazil and Guyana, and inside the ancestral territory of the Pemon Indigenous Peoples. Since the park was established, the Pemon have been in conflict with environmental authorities and have made claims for territorial rights and self-determination. Tensions arose due to conflicting land use demands and because the park was established on ancestral territory without consultation or local consent. With an estimated population of 20,000, many Pemon still maintain their traditional system of scattered nuclear family settlements. Their lifestyle is based largely on traditional activities: agriculture, fishing, hunting and gathering, although there is more and more work in tourism and, for the younger generation, public posts.

The Park's designation has helped protect the Pemon's territory, but they still view it as a threat to their existence. This is a result of a style of environmental management and development planning which has failed to recognize the area's cultural value for the Pemon, their environmental knowledge or their notions of authority and territory (Rodríguez, 2014). One area of conflict is the traditional practices of

slash and burn agriculture and savannah burning that are considered a threat to watershed and soil conservation by park managers. There are also conflicting views about how to manage the influx of tourists into the Park and how to distribute the corresponding benefits, and conflicts over projects of strategic interest for the Venezuelan Government, such as the building of a high-voltage power line to export electricity to Brazil (1997–2000), and the installation of a satellite sub-base (2007).

Misrecognition has been at the core of all conflicts, which the Pemon have dealt with by resorting to a variety of strategies, including silent resistance (in the case of fire use practices) and more overt ones. In the case of tourism and large scale development this has included direct violence, law suits and political and social mobilization, which in the particular case of the power-line conflict, unfolded into a national indigenous movement demanding constitutional changes to the nation state to incorporate legal rights to cultural difference. This was achieved in 1999 with a new national constitution in which Venezuela became a pluri-cultural state.

Since the mid-1990s, and to cope with conflicts and rapid cultural change, the Pemon have been developing their own "Life Plan", the ideological, spiritual and philosophical foundation to visualize and define a desired future, based on reconstructing their history and cultural identity. An imperative to move forward in constructing a Pemon Life Plan has been developing capacities and participatory methodologies for community analysis and planning. For this purpose, they have been supported by a series of collaborations with external actors who have incorporated the "Life Plan" agenda within their research projects, thereby generating opportunities for intercultural dialogue and the articulation of traditional and scientific knowledge in Protected Area (PA) management, particularly related to fire management. More specifically, this has involved help with participatory historical reconstructions, territorial self-demarcation processes, and community reflection about socio-ecological changes and a desired future. These activities have been decisive for the Pemon, revealing fire management knowledge that challenges conventional explanations of landscape change. This local knowledge, combined with results from studies of Pemon fire regimes, fire behaviour ecology and paleo-ecological research, now inform a counter narrative of landscape change that is influencing a shift in environmental discourse and policy making towards an intercultural fire management approach (Rodríguez et al., 2013).

3.4. Capabilities and recognition

The capabilities approach argues that what is relevant for justice is whether *individual* persons as subjects of justice have the *freedom* to realise the objectives they have in life (Nussbaum, 2007; Sen, 1993; Sen, 1999). In other words, the 'good' to which justice aspires is defined in terms of a person's opportunities or 'capabilities' rather than their actual achievements (Sen, 1999). Such capabilities are clearly dependent on a range of conditions, including economic distribution and cultural recognition. The capabilities approach has therefore provided environmental justice scholars with another way of framing links between distribution and recognition (an alternative to Fraser's critical theory) (Martin et al., 2015; Schlosberg, 2013).

Whilst Sen and Nussbaum do not explicitly use the terminology of 'recognition', the capabilities approach offers a comprehensive view of the conditions needed for a good life that incorporates aspects of recognition, participation and distribution (Robeyns, 2003; Schlosberg, 2007; Schlosberg and Carruthers, 2010). Nussbaum, for example, includes the requirement for people to have "the social bases of self-respect and nonhumiliation [...] [which] entails provisions of nondiscrimination on the basis of race, sex, sexual orientation, ethnicity, caste, religion, national origin" (Nussbaum, 2007, 77).

Whilst capabilities thinking stems from liberal individualism, environmental justice scholars have started to explore its potential to accommodate communitarian approaches to the subjects of social justice, for example through the idea of 'community capabilities'

(Schlosberg and Carruthers, 2010). The approach might also enable the inclusion of non-human capabilities (Nussbaum, 2007; Schlosberg, 2007). Nonhuman animals can evidently flourish or not flourish based on their capabilities, and this might serve as a basis for human duties towards them (Armstrong, 2012; Cripps, 2010).

The nature of harms considered by capabilities thinkers is somewhat contested. A person who has fewer capabilities to accomplish what they reasonably value would be regarded as less well-off than others (Sen, 2009, 231). In that sense, injustice is the denial of choice. However, there is less agreement about whether there are universal thresholds for certain capabilities that can serve as benchmarks for justice. It seems clear that some things are universally essential for a dignified life – sufficient food for example – and that failure to provide these essentials will always be unjust. But going beyond examples like food and water becomes contentious (Gough, 2004). Sen assumes a ‘thin universalism’: that beyond basic needs people will pursue different and context-specific ends (Sen, 1993). In contrast, Nussbaum assumes a ‘thicker universalism’: there is a comprehensive set of capabilities that are essential for “a life that is worthy of the dignity of the human being” (Nussbaum, 2007, 70).

Even though there is this element of universalism, one of the important insights from capabilities thinking is the idea that what constitutes a meaningful life for an individual will not be predominantly universal, but mediated by various social and cultural values. Identity is viewed as complex, multiple and dynamic, such that attempts to reduce people's values to a simple, collective label are seen as ‘the appalling miniaturisation of people’ (Sen, 2007). Whilst the capabilities approach does not directly describe mechanisms of injustice (it is not a theory as such), it is implied that injustice arises from forms of governance and democracy that lead to such miniaturisation. In terms of responses, justice requires that individual humans (and perhaps communities and non-humans) be granted the political conditions that enable them to live the lives that they choose as meaningful. This is an everyday confrontation for the conservation sector because maintaining biodiversity and ecological processes is intimately entwined with, and can often conflict with, valued ways of life (Holland, 2007, 2014; Polishchuk and Rauschmayer, 2012; Sikor et al., 2014). Our third case study illustrates the ways in which policies to promote biodiversity conservation often form part of wider land management and development strategies, such as farming intensification, rural modernisation and formalisation of rights, which are ultimately assimilationist and conflict with alternative ways of knowing and living with nature.

3.4.1. Case study 3: The Twa people and misrecognition in Rwanda

In Rwanda, a small and densely populated country, only a few isolated areas of natural forest remain. Strict conservation through PAs has occurred with some benefits for all interest groups, but with some negative impacts felt locally. In particular, the indigenous Twa people inhabited Rwanda's forests into the late 20th century and strict forest protection stripped them of culturally valued resources and livelihood choices, forcing incorporation into mainstream society and occupations (Beswick, 2011). Subsequently many Twa find themselves landless, relying on extremely low paid agricultural labouring (Dawson and Martin, 2015). The costs of conservation interventions can be seen to have denied many Twa adequate nutrition as well as the ability to live according to their culturally valued practices. The harms that have been imposed are produced concurrently by injustices of distribution and recognition: denial of land resources goes hand in hand with denial of the practices they deem meaningful.

Iris Marion Young (2010) describes how discrimination tends to have both institutional roots in the formal apparatus of states, as well as more diffuse cultural roots. This is clearly the case for Rwanda's Twa people. Post-genocide, Rwanda has been governed with very limited tolerance of parallel institutions to suit alternative cultural preferences. Ethnic reconciliation has been enshrined in law to redefine all as Rwandans (Purdeková, 2008) and to forbid use of ethnic labels

(Waldorf, 2011). The Twa are no longer to be called the Twa, but the ‘historically marginalised people of Rwanda’. Institutional failures of recognition are matched by widespread cultural discrimination that contributes to the low status suffered by the Twa.

Whilst manufactured blindness to ethnic or cultural groups may constitute a recognition injustice, so too might the collapsing (miniaturisation) of individuals into simplified group identities. Identities rarely remain unaltered and boundaries between interacting groups are not fixed, but complex and dynamic (Bierschenk, 1988). Although groups with different cultural values can be identified in Rwanda based on their origin and history, distinctions between the three broad ethnic labels (Hutu, Tutsi and Twa) as farmers, pastoralists or forest-dwellers are often crude simplifications (Pottier, 2002) and also overlook considerable intra-group variation. For example some Twa may highlight cultural links to forests, whilst others have lived whole lives next to forests but pursued completely unrelated livelihoods. In line with Sen's liberal pluralism, this necessitates a multifaceted approach to understanding and responding to recognition injustices. In the case of the Twa, responses to address issues of recognition may need not only to be attentive to cultural differences and restorative in nature but also to attend to the varied and changing aspirations expressed.

Attention to recognition poses a challenge to how conservation can seek to offset costs with benefits. In Rwanda, a small proportion of tourism revenues are provided, in kind, to local inhabitants, in addition to some employment and income generating opportunities. However these benefits don't always reach those whose choices have been most curtailed and are at any rate not always commensurable with what has been lost. Benefits are geographically concentrated in areas with greatest infrastructure and accrue almost exclusively to the wealthiest, whether as jobs, livestock or establishment of farming cooperatives (Dawson and Martin, 2015). A Twa community living adjacent to one forest they had previously inhabited were granted ‘traditional’ costumes to perform dances for tourists and earn an income. In the absence of alternatives such opportunities are well received, but some Twa say they would prefer interventions that address their inequality of status, to provide an opportunity to reduce the everyday ethnic discrimination that they suffer. For example they would value training that enabled them to work and to manage their own money and cooperatives.

4. Discussion and conclusion

Hvalkof (2000) catalogues a history of atrocities against peoples of the upper Amazon. He finishes with a warning that if conservationists arrive in this landscape determined to impose their particular ways of valuing and governing nature, then they are really not much better than the oil and rubber barons who have come before. Such a caution applies as much to global institutions as it does to field level operations. As Escobar (1998) argues, forums such as the CBD can be vital spaces for opening up intercultural dialogue or they can be dominated by western knowledge and agendas. Our empirical cases illustrate that such tensions between the potential costs and benefits of conservation are very much alive. PAs may help to protect much that is dear to the Pemon people in Venezuela and the Twa in Rwanda, but perversely, conservation has also become a threat to their existence as indigenous peoples. The case of ABP in France, however, suggests that the science of (agro)biodiversity conservation can also be part of a dialogue between different ways of doing and knowing conservation, which, when community-driven, can help to oppose the institutional threats to their knowledge and livelihoods.

There are some important differences between the theories of recognition that we have outlined here and summarised in Table 1. For Hegelian scholars recognition requires self-development and affirmative multiculturalism as methods to seek mutual recognition; for critical theorists it requires institutional and structural reforms to bring about

status equality; for decolonialists, a key priority is to vindicate 'other' non-modern conceptions of life that have been denied by enfoldment into western knowledge systems; for capabilities thinkers, the conditions for human freedom will require liberal deliberative democracy. There are also similarities, however. When focused on the conservation sector, all of these theoretical and political lenses suggest the need to strive for more equitable spaces of engagement. The responsibility to do this stems from the responsibility to prevent harm and to strive to ensure people have the capabilities to live in dignity. This responsibility extends to governments, NGOs and the wider public who support and benefit from conservation. As Young (2010) suggests, responsibility is not evenly distributed but falls more to those in a *position* of power to effect change, and those who have the *privilege* of benefiting from conservation whilst not being exposed to the corresponding costs.

Whilst we are not in a position to provide detailed guidelines as to how to enact these responsibilities, we think that the ideas discussed in this paper provide robust theoretical support for some actions. First and foremost, there is a need to move beyond a distributive model of thinking about the social benefits and costs of conservation. A distributive analytical approach is important and can provide real insights into failures of recognition. For example, quantitative studies of the distribution of costs of toxic pollutants in the US revealed underlying causes in status inequalities linked to race and class (Warren, 1999) and studies of the displacement of people for conservation emphasise the historical burden suffered by indigenous peoples (Dowie, 2009). But the theories of recognition reviewed here also reveal the limitations of a distributive model and, in doing so, identify categories of concern that require additional coverage.

Secondly, building on this point, the social impacts of conservation are in large part relational, whether this is taken in a Hegelian sense that inequitable relationships constitute the harm itself, or more in line with feminist, critical and decolonial scholars, that this is part of a broader structuring of social relations that produces loss status for some groups. We therefore need to explore and develop analytical and practical ways to pursue relational aspects of environmental justice.

Thirdly, as we develop practices that attend to these relational concerns, we can be guided by the concerns over the status of peasant cultures and knowledge worldwide, which are central to both the threats and opportunities that biodiversity conservation brings in our case studies. Whilst the CBD is committed to recognising different knowledge, it is clear that ways of working across alternative ways of perceiving and valuing nature are still not widely effective. As a first step, improving recognition is about acknowledging that conservation can produce these kinds of harms as well as providing opportunities for their alleviation. A second step involves changing power relations and moving towards relationships of more equal influence. For example, changing the legal and economic institutions to allow small farmers' choice to engage in locally-valued land use practices, such as to plant the seeds they want, or changing the formal tenure of indigenous territories to enable local control over land use and political autonomy.

This brings us to the fourth and final requirement, namely that equitable influence over decision-making will rarely be served by use of pre-defined blueprints for biodiversity conservation, whether it be models for protected areas or market-based instruments. Such blueprints, such as the 'ecosystem services' model, are themselves institutionalisations of particular (western) ways of knowing and valuing nature and can act as barriers that prevent consideration of alternative knowledge and values. By contrast, practices such as the intercultural dialogue between external actors and the Pemon may help to open up the space for more genuine integration of conservation and development. We realise that such practices represent real challenges for field level conservation, in terms of resource constraints, methods and training, and in some cases political constraints. But if we are serious about the commitment for conservation to be equitable, engaging with issues of recognition is a necessary step to take.

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References

- Adams, W.M., Aveling, R., Brockington, D., Dickson, B., Elliott, J., Hutton, J., Roe, D., Vira, B., Wolmer, W., 2004. Biodiversity conservation and the eradication of poverty. *Science* 306, 1146–1149.
- Armstrong, A., 2012. *Ethics and Justice for the Environment*: Routledge.
- Atkinson, A., 1991. *Principles of Political Ecology*. Belhaven Press, London.
- Beswick, D., 2011. Democracy, identity and the politics of exclusion in post-genocide Rwanda: the case of the Batwa. *Democratization* 18, 490–511.
- Bierschenk, T., 1988. Development projects as arenas of negotiation for caste groups: a case study from Bénin. *Sociol. Rural.* 28, 146–160.
- Biko, S., 1998. Some African cultural concepts. In: Coetzee, P., Roux, A. (Eds.), *The African Philosophy Reader*. Routledge, London, pp. 26–30.
- Bonneuil, C., Thomas, F., 2009. Gènes, Pouvoirs et Profits: Recherche Publique et régimes de Production Des Savoirs de Mendel Aux OGM: Éditions Quae.
- Brechin, S.R., Wilshusen, P.R., Fortwangler, C.L., West, P.C., 2002. Beyond the square wheel: Toward a more comprehensive understanding of biodiversity conservation as social and political process. *Soc. Nat. Resour.* 15, 41–64.
- Broggiato, A., Dedeurwaerdere, T., Batur, F., Coolsaet, B., 2015. Access and Benefit-Sharing & the Nagoya Protocol: the Confluence of Abiding Legal Doctrines. In: Coolsaet, B., Batur, F., Broggiato, A., Pitseys, J., Dedeurwaerdere, T. (Eds.), *Implementing the Nagoya Protocol Comparing Access and Benefit-sharing Regimes in Europe*. Nijhoff Publishers, Leiden; Boston, pp. 1–29.
- Brosius, J.P., Hitchner, S.L., 2010. Cultural diversity and conservation. *Int. Soc. Sci. J.* 61, 141–168.
- Coolsaet, B., 2015. Transformative participation in agrobiodiversity governance: making the case for an environmental justice approach. *J. Agric. Environ. Ethics* 28, 1089–1104.
- Coulthard, G.S., 2007. Subjects of empire: indigenous peoples and the 'politics of recognition' in Canada. *Contemporary Political Theory* 6, 437–460.
- Cripps, E., 2010. Saving the polar bear, saving the world: can the capabilities approach do justice to humans, animals and ecosystems? *Res. Publica.* 16, 1–22.
- Cronon, W., 1996. The trouble with wilderness: or, getting back to the wrong nature. *Environ. Hist.* 7–28.
- Dawson, N., Martin, A., 2015. Assessing the contribution of ecosystem services to human wellbeing: a disaggregated study in western Rwanda. *Ecol. Econ.* 117, 62–72.
- de Castro, E.V., 2012. Immanence and fear: stranger-events and subjects in Amazonia. *HAU: Journal of Ethnographic Theory* 2, 27–43.
- de Santos, B.S., 2010. *Descoloniar el saber, reinventar el poder*. Ediciones Trilce, Uruguay.
- de Santos, B.S., de Santos, B.S., Nunes, J.A., Meneses, M.P., 2007. Opening up the canon of knowledge and recognition of difference. In: De Sousa, Boaventura (Ed.), *Another knowledge is possible: beyond northern epistemologies*. Verso, London.
- De Jonge, B., 2011. What is fair and equitable benefit-sharing? *J. Agric. Environ. Ethics* 24, 127–146.
- Dobson A. 2003. Social justice and environmental sustainability: Ne'er the twain shall meet? Pages 83–95 in Agyeman J, Bullard RD, Evans B, eds. *Just Sustainabilities: Development in an Unequal World*. Cambridge, MA: MIT Press.
- Dowie, M., 2009. Conservation refugees: the hundred-year conflict between global conservation and native peoples. *Conservation Refugees: The Hundred-Year Conflict Between Global Conservation and Native Peoples*. MIT Press, Cambridge, MA.
- Dryzek, J.S., 2000. *Deliberative Democracy and beyond: Liberals, Critics, Contestations*. Oxford University Press, Oxford.
- Escobar, A., 2016. Degrowth, postdevelopment, and transitions: a preliminary conversation. *Sustain. Sci.* 1–12.
- Escobar, A., 1998. Whose knowledge, whose nature? biodiversity, conservation, and the political ecology of social movements. *J. Polit. Ecol.* 5, 53–82.
- Escobar, A., 2007. *Worlds and knowledges otherwise 1: the Latin American modernity/coloniality research program*. *Cult. Stud.* 21, 179–210.
- Fanon, F., 1967. *Black skin, white masks*. Grove Press, New York.
- Fraser, N., 1985. What's critical about critical theory? The case of Habermas and gender. *New German Critique*, pp. 97–131
- Fraser, N., 1995. From redistribution to recognition? Dilemmas of Justice in A 'Post-Socialist' age. *New left review*, p. 68–68
- Fraser, N., 1997. *Justice Interruptus: Critical Reflections on the "Postsocialist" Condition*. Cambridge Univ Press.

- Fraser, N., 2000. Rethinking recognition. *New Left Rev* 107–120.
- Fraser, N., 2009. *Scales of Justice: Reimagining Political Space in a Globalizing World*. Columbia University Press, New York.
- Fraser, N., Honneth, A., 2003. *Redistribution or Recognition?: A Political–Philosophical Exchange*. Verso.
- Gorenflo, L.J., Romaine, S., Mittermeier, R.A., Walker-Painemilla, K., 2012. Co-occurrence of linguistic and biological diversity in biodiversity hotspots and high biodiversity wilderness areas. *Proc. Natl. Acad. Sci.* 9, 8032–8037.
- Gough, I., 2004. Human well-being and social structures relating the universal and the local. *Global Social Policy* 4, 289–311.
- Habermas, J., 1981. *New social movements*. *Telos* 1981, 33–37.
- Holland, B., 2007. Justice and the Environment in Nussbaum's "Capabilities Approach": Why Sustainable Ecological Capacity is a Meta-Capability Political research quarterly.
- Holland, B., 2014. *Allocating the Earth: A Distributional Framework for Protecting Capabilities in Environmental Law and Policy*. OUP, Oxford.
- Honneth, A., 2004. Recognition and justice outline of a plural theory of justice. *Acta Sociologica* 47, 351–364.
- Honneth, A., 2014. *The I in We: Studies in the Theory of Recognition*. John Wiley & Sons.
- Horkheimer, M., 1982. *Critical Theory*. Continuum, New York, NY.
- Hvalkof, S., 2000. Outrage in rubber and oil: extractivism, indigenous peoples, and justice in the Upper Amazon. In: Zerner, C. (Ed.), *People, plants, and justice: the politics of nature conservation*. Columbia University Press, New York, pp. 83–106.
- Leff, E., 2001. *Justicia Ambiental: construcción Y Defensa de Los Nuevos Derechos Ambientales Culturales Y Colectivos en América Latina: Programa de Las Naciones Unidas Para El Medio Ambiente*.
- Lele, S., Wilshusen, P., Brockington, D., Seidler, R., Bawa, K., 2010. Beyond exclusion: alternative approaches to biodiversity conservation in the developing tropics. *Curr. Opin. Environ. Sustain.* 2, 94–100.
- López, P.G., 2013. *Pueblos indígenas y decolonialidad. Sobre la colonización epistemológica occidental*.
- Margules, C.R., Pressey, R., Williams, P., 2002. Representing biodiversity: data and procedures for identifying priority areas for conservation. *J. Biosci.* 27, 309–326.
- Martin, A., McGuire, S., Sullivan, S., 2013. Global environmental justice and biodiversity conservation. *Geogr. J.* 179, 122–131.
- Martin, A., Akol, A., Gross-Camp, N., 2015. Towards an explicit justice framing of the social impacts of conservation. *Conserv. Soc.*
- Mignolo, W.D., 2008. Preamble: the historical foundation of modernity/coloniality and the emergence of decolonial thinking. *A Companion to Latin American Literature and Culture*, pp. 12–52.
- Naess, A., Rothenberg, D., 1990. *Ecology, Community and Lifestyle: Outline of an Ecosophy*. Cambridge University Press.
- Nagel, T., 2005. The problem of global justice. *Philos Public Aff* 33, 113–147.
- Neumann, R.P., 2004. Moral and discursive geographies in the war for biodiversity in Africa. *Political Geography* 23, 813–837.
- Norton, B.G., 2003. *Searching for Sustainability: Interdisciplinary Essays in the Philosophy of Conservation Biology*. Cambridge University Press.
- Nussbaum, M., 2007. *Frontiers of justice. Disability, nationality, species membership*.
- Ohenjo, N., Willis, R., Jackson, D., Nettleton, C., Good, K., Mugarura, B., 2006. Health of indigenous people in Africa. *Lancet* 367, 1937–1946.
- Parsons, C., 2007. *How to Map Arguments in Political Science*. Oxford University Press, Oxford.
- Pascual, U., Phelps, J., Garmendia, E., Brown, K., Corbera, E., Martin, A., Gomez-Baggethun, E., Muradian, R., 2014. Social equity matters in payments for ecosystem services. *BioScience* 64, 1027–1036.
- Ploeg, Y.D., van der, 2008. *The new peasantries. struggles for autonomy and sustainability in an era of empire and globalization*. Earthscan, London.
- Polishchuk, Y., Rauschmayer, F., 2012. Beyond "benefits"? Looking at ecosystem services through the capability approach. *Ecol. Econ.* 81, 103–111.
- Pottier, J., 2002. *Re-Imagining Rwanda: Conflict, Survival and Disinformation in the Late Twentieth Century*. Cambridge University Press.
- Purdeková, A., 2008. Building a nation in Rwanda? De-ethnicisation and its discontents. *Stud. Ethn. Natl.* 8, 502–523.
- Quijano, A., 2000. Coloniality of power and eurocentrism in Latin America. *Int. Sociol.* 15, 215–232.
- Rawls, J., 1971. *A Theory of Justice*. Harvard University Press, Cambridge MA.
- Reyers, B., Roux, D.J., Cowling, R.M., Ginsburg, A.E., Nel, J.L., FARRELL, P.O., 2010. Conservation planning as a transdisciplinary process. *Conserv. Biol.* 24, 957–965.
- Robeyns, I., 2003. Is Nancy Fraser's critique of theories of distributive justice justified? *Constellations* 10, 538–554.
- Rodríguez, I., Sletto, B., Bilbao, B., Sánchez-Rose, I., Leal, A., 2013. Speaking of fire: reflexive governance in landscapes of social change and shifting local identities. *J. Environ. Policy Plan.* 1–20.
- Rodríguez, I., 2014. Canaima National Park and world heritage site: spirit of evil? In: Disko, Stefan and Tungendhat, Helen (eds) *world heritage sites and indigenous peoples' rights*. IWGIA, Forest Peoples Programme and Gundjeihmi Aboriginal Corporation. Denmark, Copenhagen.
- Roe, D., Elliott, J., 2005. *Poverty-conservation linkages: a conceptual framework*. 12. Poverty and Conservation Learning Group, London.
- Sandel, M.J., 1998. *Liberalism and the Limits of Justice*. Cambridge University Press, Cambridge.
- Schlosberg, D., 2004. *Reconceiving environmental justice: global movements and political theories*. *Environ. Polit.* 13, 517–540.
- Schlosberg, D., 2007. *Defining Environmental Justice: Theories, Movements, and Nature*. Oxford University Press, Oxford.
- Schlosberg, D., 2013. Theorising environmental justice: the expanding sphere of a discourse. *Environ. Polit.* 22, 37–55.
- Schlosberg, D., Carruthers, D., 2010. Indigenous struggles, environmental justice, and community capabilities. *Glob. Environ. Polit.* 10, 12–35.
- Sen, A., 1993. *Capability and Well-Being*: na.
- Sen, A., 1999. *Development as Freedom*. Oxford University Press, Oxford.
- Sen, A., 2007. *Identity and Violence: The Illusion of Destiny*. Penguin Books India.
- Sen, A., 2009. *The Idea of Justice*. Penguin Books, London.
- Shoreman-Ouimet, E., Kopnina, H., 2015. Reconciling ecological and social justice to promote biodiversity conservation. *Biol. Conserv.* 184, 320–326.
- Sikor, T., 2013. *The Justices and Injustices of Ecosystems Services*. Routledge.
- Sikor, T., Martin, A., Fisher, J., He, J., 2014. Toward an empirical analysis of justice in ecosystem governance. *Conserv. Lett.* 7, 524–532.
- Singer, P., 1995. *Animal Liberation*. Random House.
- Smith, L.T., 1999. *Decolonizing Methodologies: Research and Indigenous Peoples*. Zed Books.
- Smith, M.J., Pangsapa, P., 2008. *Environment and Citizenship: Integrating Justice, Responsibility and Civic Engagement*. Zed Books.
- Stepp, J.R., Cervone, S., Castaneda, H., Lasseter, A., Stocks, G., Gichon, Y., 2004. Development of a GIS for global biocultural diversity. *Policy Matters* 13.
- Stevens, S., 1997. *Conservation Through Cultural Survival: Indigenous Peoples and Protected Areas*. Island Press.
- Suiseeya, K.R.M., 2014. Negotiating the Nagoya protocol: indigenous demands for justice. *Glob. Environ. Polit.* 14, 102–124.
- UNEP, 1972. *Declaration of the United Nations Conference on the Human Environment*. www.unep.org/documents.
- Vermeylen, S., Walker, G., 2011. Environmental justice, values, and biological diversity: the San and the Hoddia benefit-sharing agreement. In: Carmin, J., Agyeman, J. (Eds.), *Environmental Inequalities Beyond Borders: Local Perspectives on Global Injustices*. MIT Press, Cambridge, MA, pp. 105–128.
- Visvanathan, S., 1997. *A Carnival for Science: Essays on Science, Technology, and Development*. Oxford University Press, Delhi.
- Waldorf, L., 2011. *Instrumentalizing Genocide: the RPF's Campaign Against "Genocide Ideology"*: na.
- Walker, G., 2012. *Environmental Justice: Concepts, Evidence and Politics*. Routledge, London.
- Walsh, C., 2007. *Interculturalidad y colonialidad del poder*. In: Saavedra, J.L. (Ed.), *Educación superior interculturalidad y descolonización*. PIEB-CEUB, La Paz, pp. 175–176.
- Warren, K.J., 1999. Environmental justice: some ecofeminist worries about a distributive model. *Environ. Ethics* 21, 151–161.
- WCED, 1987. *Our Common Future*. Oxford University Press, Oxford.
- Wells, M., Brandon, K., Hannah, L., 1992. *People and Parks: Linking Protected Area Management with Local Communities*. World Bank, Washington, DC.
- West, P., Igoe, J., Brockington, D., 2006. Parks and peoples: the social impact of protected areas. *Annu. Rev. Anthropol.* 35, 251–277.
- Whiteman, G., 2009. All my relations: understanding perceptions of justice and conflict between companies and indigenous peoples. *Organ. Stud.* 30, 101–120.
- Young, I.M., 2010. *Responsibility for Justice*. Oxford University Press, Oxford.