



Blue Justice and the co-production of hermeneutical resources for small-scale fisheries

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ARTICLE INFO

Keywords:

Small-scale fisheries
Blue Justice
Blue Economy
Blue Growth
Epistemic justice
Transdisciplinary research
Hermeneutical resources

ABSTRACT

Blue Justice emerges as a counternarrative to the promise and commitment to Blue Economy and Blue Growth by shifting imperatives for growth and innovation to the central role played by small-scale fisheries and social justice in sustainable ocean development. To instrument Blue Justice, it is important to understand injustices experienced by small-scale fisheries people which can range from accusations of disregard for the environment to equating their fishing practices as illegal, or even the sudden usurpation of their customary fishing grounds and means of livelihoods. Drawing on Fricker's concept of epistemic injustice, we examine how discrimination and lack of interpretative concepts to communicate unjust experiences wrongs small-scale fisheries people in their capacity as knowledge holders and subjects them to testimonial and hermeneutical injustice. We examine 20 testimonies of injustices experienced by small-scale fisheries people collected by the Global Research Network "Too Big To Ignore" (TBTI) and suggest a glossary of new concepts that can be used to interpret these experiences. Our results exemplify the presence of epistemic injustice, emphasizing the need to associate injustices in small-scale fisheries with non-conventional terms or concepts. We discuss the contribution of transdisciplinary research for providing such concepts and the potential role of social scientists and action researchers to enhance collective hermeneutical resources and thereby advance the goal of Blue Justice for small-scale fisheries.

1. Introduction

"The limits of my language mean the limits of my world".

Ludwig Wittgenstein. *Tractatus Logico-Philosophicus*. London: Routledge Classics. para. 5.6, page 68, 1974.

The term Blue Justice was first introduced in the context of small-scale fisheries at the Third World Small-Scale Fisheries Congress held in Thailand in 2018. Now taken up both by scholars and social movements engaged in activism and advocacy, Blue Justice emerged as a counternarrative to the Blue Economy and Blue Growth strategies and their visions for a sustainable ocean economy. These strategies depict the oceans as the world's new frontier for economic growth and development, to be realized by means of technology, innovation and investment, in tandem with measures to ensure ocean health [1–3]. As evidenced at the Sustainable Blue Economy Conference held in Kenya in November 2018 - attended by more than 16,000 participants from 184

countries including some Heads of States – national governments and supranational governing bodies have widely endorsed the Blue Economy/Growth agendas and pledged a large amount of financial support for their implementation. Under this context, Blue Justice reveals a tension between Blue Economy/Growth initiatives and the small-scale fisheries sector globally. While framed in terms of sustainable development, Blue Economy/Growth initiatives overlook the existence of millions of small-scale fisheries people¹ whose livelihoods, as well as their contribution through food provision to their community's wellbeing, rely on their daily harvest from the oceans (see [3,4–6]). One third of the daily protein intake of the world's population is provided by small-scale fisheries people, and their work is crucial for poverty alleviation, especially in countries where the poorest populations have few alternative sources of employment and protein-rich foods [6,7]. Despite their importance, Blue Economy/Growth discourses often depict small-scale fisheries people as being too many in number and exploiting limited

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¹ Small-scale fisheries people refer here to all women and men participating in extraction, transportation, processing or commercialization of coastal marine resources using simple equipment and traditional techniques, often working as self-employed, as part of a family business and/or supplying local markets.

resources in economically inefficient or unsustainable ways [8], as many studies have exemplified (see [9,10–14]). Small-scale fisheries people's stewardship of the oceans, as a consequence of their reliance on modest and low-impact fishing practices, and their resistance to the introduction of industrial fishing technologies [15–17], (cf. [18]) are ignored in these discourses. Furthermore, the primary attention of the Blue Economy/-Growth agendas on economic growth does not align with small-scale fisheries' interests since profit is for them but one of many values that they attach to the oceans [19,20]. Similarly, a new focus on innovation and technological development downplays the worth of small-scale fisher's traditional practices and experiential knowledge. Thus, by neglecting small-scale fisheries and their communities, the current Blue Economy/Growth strategies for ocean sustainable development risk leaving millions of people to face a bleak future.

There is a growing body of literature that takes up issues of equity and justice in Blue Economy and Blue Growth framings. Cisneros et al. [21] show, for example, that the capacity of some geographical regions to achieve a Blue Economy is not due only to available natural resources, but can also be attributed to factors such as national stability, corruption and infrastructure. Following a similar line, Farmery et al. [6] explain how the lack of attention of Blue Growth to equitable distribution of benefits results in three flawed assumptions underpinning this strategy: First, that growth in the blue economy will lead to growth in "blue food" production; second, that increased production will inevitably lead to improved food and nutrition security; and third, that aquaculture production will replace marine capture fisheries. Concerns for food and nutrition security, livelihoods and social justice are absent in Blue Economy/Growth discourses on transforming ocean governance [3,33]. As in the case of Gustavsson et al. [22] who report on the nexus between gender and Blue Justice, claims for recognition, procedural (participation and influence in decision making) and distributive justice (the outcomes of this participation) as well as an analysis of power relations in ocean governance are frequently made. In all these claims, Blue Economy and Blue Growth are understood as concepts that promise to achieve economic, environmental and social goals simultaneously. A picture of an ocean that is underexplored, potentially lucrative and in need of innovation and rational governance further fuel the Blue Economy/Growth discourse [8,23]. Promoted by influential global actors and industries, Blue Economy/Growth strategies depoliticize thus ocean governance, masking inevitable trade-offs [23] and turning problematic when one or two goals show certain supremacy over the others. As argued by Schutter et al. [23], these strategies "enable current power relations to prevail and even to be entrenched: the participation of 'stakeholders' is choreographed, and the beneficiaries of innovative financing and public-private partnerships are not marginalized groups but the powerful elite" [23, p.6]. As a result, the shared vision for the ocean is vaguely contested and the losers, in this case small-scale fisheries people, get off the radar.

1.1. Epistemic blue injustice

Raising voices for Blue Justice and developing strategies with defined goals and targets are required to recognize the centrality of small-scale fisheries people in global ocean agendas. Uncovering the nature of injustices is the necessary first step. In her influential work on epistemic injustice, Fricker [24, p.1] argues that injustice emerges because "it wrongs someone in their capacity as a knower." According to Fricker, this wrongdoing occurs in two situations. First, when people attribute credibility to a statement based on prejudices about the speaker's gender, social background, race or ethnicity, or more broadly, because of their identity. Fricker names this a case of *testimonial injustice* and uses an example of a young black male driver stopped by a policeman whose racial prejudice led him to doubt the driver's statement that he was the lawful owner of the car [25]. The categorical connection between the social practice of assembling information and the injustice makes this a case of testimonial injustice. This injustice is

different to an injustice connected to an act of testimony where the injustice is not the maltreatment but its harming consequences [26]. The second situation, called *hermeneutical injustice*, occurs when someone's experiences are not well understood – by themselves or by others – because these experiences do not fit any concepts known to them (or to others) [24]. As Dieleman [27] explains, those in power determine the collection of concepts or collective hermeneutical resources² that constitute social experience, while the powerless must make do with the social meanings available to them, many of which will be inadequate for interpreting and communicating their own experiences. As an example, Fricker [24] notes that the concept of 'sexual harassment' is a hermeneutical resource that was lacking in the 1950s. According to Fricker, women who suffered from sexual harassment before the term came into use found their social experiences obscured by a lack of conceptual interpretative resources. Defined as "the injustice of having some significant area of one's social experience obscured from collective understanding" [24, p.155], hermeneutical injustice thus precedes the act of communication, and is a consequence of formally poor and biased vocabularies that are the core of language as an institution [29].

When applying Fricker's concepts to small-scale fisheries, what we term Epistemic Blue Injustice, refers to the injustices that cause harm to small-scale fisheries people in their capacity as knowers. From this perspective, the exclusion of the voices of fishers and fish-workers from global Blue Economy/Growth agendas may be due to the lack of credibility accorded to their accounts and testimonies, based not on any relevant concerns but prejudices against their socioeconomic status. Poverty, political marginalization, geographical isolation, reliance on experiential knowledge, and preference for traditional working practices are all characteristics of small-scale fisheries people that should be irrelevant to whether or not they should be accorded credibility or granted a voice. However, in designing policies for the oceans and in allocation of limited resources, governments often grant an excess of credibility to powerful and influential actors such as industry representatives, and sometimes scientists, and thereby give them an unfair advantage over small-scale fisheries people (see [4]). Those who know the ocean through a lifelong career in fishing must remain silent when the "wise men", those "who never have peed in salty sea", speak [30, p.3, 6]. The credibility of small-scale fisheries people is diminished and their accounts and arguments considered irrelevant. Thus, they are victims of testimonial injustice, a "credibility deficit, arising from prejudice about someone's social identity" [31], which has a dangerous capacity to reproduce and further exacerbate existing social inequities. Not being believed can impede fisher's involvement in social and political settings, undermine confidence in their own knowledge, and reduce job satisfaction. Thus, small-scale fisheries people are subject to a "stereotype threat"³ and are under pressure to conform to negative stereotypes of their social group that are held by others with less knowledge of the oceans and minimal understanding of their predicament.

Fricker [24] further argues that testimonial injustice may lead to hermeneutical injustice. In this case, the testimonial injustices inherent in the Blue Economy/Growth agendas structurally affect what is included in the collective pool of knowledge and vocabularies that control the narratives and thereby decisions around the future of the oceans. The absence of a conceptual framework to make sense of one's experiences is an injustice because it favors those 'others' whose experiences are represented in the collective body of knowledge. With no access to social institutions and practices through which language is generated and disseminated (e.g., policy documents, programs, agendas and mandates of governance bodies, and articles in newspapers and

² Hermeneutical resources or interpretative tools are shared concepts, narratives, conceptual frameworks, ideologies, aphorisms, myths, etc. that enable subjects to make sense of themselves and their world and are in circulation across all current discursive communities [28].

³ see [31] for a parallel feminist account.

academic journals), small-scale fisheries people are hermeneutically marginalized. As Jentoft [32, p.258] explains, “the one who controls the language, the words we use, determines the conversation”. To counter this exclusion, small-scale fisheries people need a complementary vocabulary or a pool of collective hermeneutical resources to express knowledge in words that capture their experience, including their experienced injustices. Thus, an examination of how we talk about small-scale fisheries will require a new and more adequate vocabulary, with new concepts and terms [32]. Social scientists, according to Jentoft, can contribute by providing the concepts that are needed to prevent us from ignoring relevant elements that have not been named. However, since language is a collective phenomenon and a relational tool, new concepts must find resonance in the wider community of language users with a stake in the situation of interest. Blue Justice is an example of a ‘new’ concept that has found such resonance, which is now being taken up in primary literature (see for example [23,33,34]) and mentioned in high-level reports, such as “The Human Relationship with Our Ocean Planet” from the High-Level Panel for a Sustainable Ocean Economy (<https://www.oceanpanel.org/ocean-science#reports>) (see [35]).

This article aims to contribute to the research and discourse on Blue Justice, by providing an overview of injustices affecting small-scale fisheries people and suggesting a vocabulary that could improve how we talk about, and relate to, these injustices. We draw on a non-comprehensive cases of testimonies in which researchers and practitioners describe injustices experienced in small-scale fisheries. We select key quotes from each testimony and suggest a few words that could be used to interpret the reported injustices. Next, we present how networks of transdisciplinary researchers of small-scale fisheries could foster the development of relevant vocabularies and how these hermeneutical resources could be circulated among these collectives. This is more than simply an academic exercise. The process of writing this article can also be understood as a real-life experiment to test if we – as researchers – can provide new concepts that support the empowerment and mobilization of the academic and activist groupings involved in promoting the Blue Justice agenda. While we cannot hope that hermeneutical injustice faced by small-scale fisheries people will be immediately acknowledged or remedied, the results of this exercise could represent a first step towards these goals.

2. Methods

In 2019, the Global Partnership for Small-Scale Fisheries Research, Too Big To Ignore (TBTI), issued an open call under its Blue Justice for Small-Scale Fisheries initiative to “gather stories and examples of policies, programs, projects, initiatives, regulatory frameworks, as well as other situations that create different types of injustice and inequity in small-scale fisheries” (see http://toobigtoignore.net/call_blue-justice-for-small-scale-fisheries/). The aim of this initiative was to enhance understanding of the injustices and inequity affecting small-scale fisheries people, and their communities around the world. Voluntary contributors to this call were asked to fill a form (available at http://toobigtoignore.net/wp-content/uploads/2020/06/TBTI_SSF_Blue_Justice_Template_Fillable_April_2020.pdf) and provide background information about a small-scale fisheries case study.

Twenty case studies were submitted in response to the first open call, and the information provided was entered into TBTI’s Information System on Small-Scale Fisheries (ISSF). Most of these testimonies of injustices were derived from transdisciplinary research; they reported the results of participatory observation and/or on-going collaboration between researchers and practitioners and fishers and members of their communities. Each testimony described the injustices experienced by a particular small-scale fishery that informants had been told about, or seen evidence of, or witnessed themselves.

The case studies documented social injustices experienced by at least 21,000 small-scale fishers and their communities in 14 countries, in addition to 20,000 fishers in Myanmar alone. These cases were

geographically distributed over Latin America and the Caribbean (ten cases), Asia (six cases), Africa (three cases) and Australia (one case), and included examples from marine, mangrove forest and freshwater ecosystems. Table 1 shows the location of each study and number of fishers involved, as well a reference to the publication where the case study is described.

We used grounded theory [36] to identify key quotations from the publication describing each case of injustice. For each selected quotation, we then identified one or two terms that could be used to convey the unjust experience or experiences described. A list of concepts, i.e., the terms and their definitions, was subsequently elaborated in the form of a glossary.

3. Results

A total of 13 concepts were proposed to capture testimonial and hermeneutical injustices experienced by small-scale fisheries people in the case studies. The glossary of terms with their definitions is shown below.

For testimonial injustice:

BLUE CONSPIRACY – an informal agreement among several people and/or organizations to unintentionally or purposefully do something wrong, harmful, or not legal to small-scale fisheries people in the name of Blue Economy and/or the Blue Growth.

ECO-BULLYING (or Ecological/Environmental Bullying) – a deliberate attempt to molest, harm, intimidate or coerce small-scale fisheries people through repeated verbal, physical and/or social behavior that is justified as being necessary to protect or conserve the marine and/or coastal environment.

ECO-HARASSMENT (or Ecological/Environmental Harassment) –

Table 1
Location of case studies, number of fishers involved, and references.

Location	Number of fishers/target species	Reference
Turks and Caicos Islands	250 fishers	Calosso et al. 2020
Taklong National Marine Reserve (TINMR), Philippines	375 fishers	Ferrer et al. 2020
Senegal	6800 fishers	Sal 2020
Western Australia	11 fishers (9 women) for blue-swimmer crabs	Obregon 2020
Magdalena State, Colombia	950 fishers	Saavedra-Díaz et al. 2020
Barra del Colorado, Costa Rica	20 shrimp fishers	Solis 2020
Tarituba, Brazil	65 Caçara fishers	Esteves Dias 2020
Japan	50 Splendid Alfonsino fishers (Kinme fishers)	Li 2020
Mendihuaca, Magdalena State, Colombia	700 fishers	Saavedra-Díaz et al. 2020
Saint Martin’s Island, Bangladesh	1200 fishers	Miah and Islam 2020
Sergipe mangroves, Brazil	2000 fishers	Almeida 2020
Yucatan, Mexico	942 fishers	Saldana et al. 2020
Binga, Zimbabwe	500 BaTonga inland fishers	Chinamasa 2020
Kutai Kartanegara Regency (Sabintulung Village), Indonesia	2000 inland fishers	Prayogi 2020
Galapagos Archipelago, Ecuador	1100 fishers	Viteri 2020
The Old Providence and Santa Catalina Islands, Colombia	500 fishers	Marquez 2020
Madagascar	2,000 mangrove forests fishers	Schneider 2020
Puerto Libertad, Sonora State, Mexico	295 fishers	Fitzmaurice 2020
Hussenpara, Kuakata, Bangladesh	300 hilsa fishers	Fagun 2020
Gulf of Mottama, Myanmar	20,000 kyarr phong fishers	Nyein et al. 2020

actions causing intense feelings of annoyance, anxiety, worry or torment among small-scale fisheries people, taken by outside actors and justified as being necessary to protect the coastal and/or marine environment.

FISHERPHOBIA / MISOHALIA (from the Greek *miso* = aversion and *halieus* = fisherman) – attitudes and/or beliefs about small-scale fisheries that lead to inexplicable or illogical fear; resulting in discrimination against them or treating them as inferiors.

PARTICIPATORY DOMINATION – the exercise of power in participatory processes and marginalization of small-scale fisheries people, by being outnumbered, ignored or disparaged by other, more powerful participants. This can occur overtly, covertly, intentionally or unintentionally.

SIDE-LINING FROM GOVERNANCE – a situation that arises, when due to lack of data, capacity deficits, negligence or discrimination, insufficient or inadequate attention is given to rules governing small-scale fisheries.

For hermeneutical injustice:

CULTURAL VIOLATION – any action that damages marine and coastal cultural assets of value and importance to small-scale fisheries people.

FISHER TRAFFICKING – the practice of employing immigrant small-scale fishers and controlling them through threats of deportation.

INDUSTRIAL PILLAGING – expropriation of assets or resources of fishing communities or small-scale fisheries people by large-scale corporations and industries.

MARINE CARBON INJUSTICE – harm caused to small-scale fisheries people and fishing communities as a result of the inequitable distribution of CO₂ emissions, impacts and risks.

MARINE PEONAGE – the use of small-scale fisheries people bound in servitude by debt.

RECREATIONAL ASSAULT – damage to small-scale fisheries people as a result of recreational fishing.

SEAFOOD LARCENY / VALUE CHAIN GRABBING – any action that transfers fish products from a local to a global market and thereby decreases the supply or availability of local fish products in a coastal fisherfolk community.

Table 2 presents key quotations extracted to exemplify the unjust experiences reported and, in each case, the concept that was proposed for their interpretation. The complete record of key quotations and suggested concepts for each case study is presented as an Appendix.

4. Discussion

Epistemic injustice in its two variants – testimonial and hermeneutical – was harming many small-scale fisheries people long before the publication of Fricker's seminal book. From the list of proposed concepts, ecological bullying and harassment, fisherphobia, participatory domination, and side-lining from governance, all harm small-scale fisheries people as a result of testimonial marginalization. The roots of this marginalization can be partially traced back to colonialism and neo-colonialism worldviews and practices [34], (see also [37,38]). Prejudices against small-scale fisheries people and their knowledge prevent their voices from being heard when designing tools and instruments to utilize the marine environment and manage its resources. However, these people's knowledge allows them to be aware of when, how, what and where to fish and without this knowledge, the world's poorest people would have no access to nutritious food and millions of people in developing countries would be unemployed. This knowledge is needed and valuable to science and the design of conservation strategies but too commonly marginalized by biologists, ecologists or economists and decision makers. This marginalization is due in many cases to small-scale fisheries people's low social status, while scientific 'expert

Table 2

Key quotations from 20 case studies and the proposed concepts.

Proposed concept	Key quotation
BLUE CONSPIRACY	<i>"Economic development follows a direction of exclusion of these communities and their knowledge. Based on an agro-developmental model, disregarding the sustainable use of biodiversity resources as a value-adding strategy, and not only replacing this biodiversity with exotic species, with a ready-made technological package that often, besides impacting on Brazilian biodiversity, demands great quantities of energy and inputs for its production"</i> (Almeida 2020)
CULTURAL VIOLATION	<i>"Indeed, for the implementation of this project, new leaders were created with the establishment of new local authorities which entered into conflict of jurisdiction with those who traditionally represented fishing communities"</i> (Sall 2020)
ECO-BULLYING	<i>"Some recreational fishers support the elimination of the commercial sector in the region, claiming that the commercial sector wipes out the crabs from the system"</i> (Obregon 2020) <i>"The authorities also alluded that levies would stay as they were as a way to discourage uncontrolled fishing that might lead to the depletion of resources"</i> (Chinamasa 2020)
ECO-HARASSMENT	<i>"The main fishing grounds of Taturuba fishers were incorporated into one of the most restrictive protected area categories in Brazilian law, the Tamoios Ecological Station, created by a Federal Decree in 1990 but only implemented in 2006. This category of protected area only allows for scientific research and environmental education (Government of Brazil 2000)"</i> (Esteves Dias 2020) <i>"In 2011, fishing was banned inside the park to protect vulnerable coastal-marine ecosystems. However, only in June 2012, a park official told a group of artisanal fishers that the park had the authority to confiscate any fishing gear found fishing inside the park (Constitutional Court, Sentence T-606-15). The fishing ban was enforced without prior and informed consultation with traditional artisanal fishers, emerging as a threat to their income and food security"</i> (Saavedra-Diaz et al. 2020) <i>"The locals found it unfair that they are not allowed to enter [the national park] TINMR, yet they have seen many tourists, researchers, students and others in the area"</i> (Ferrer et al. 2020) <i>"In 1990, when the TINMR [national park] was established the residents of adjacent barangays were not consulted. Few meetings were held, mostly to inform of Protected Area Management Board's (PAMB) decisions. Furthermore, local people claimed that they are even prohibited to enter the area that was for years their source of food and income"</i> (Ferrer et al. 2020) <i>"Local people claimed that they are even prohibited to enter the [marine protected] area that was for years their source of food and income"</i> (Ferrer et al. 2020)
FISHER TRAFFICKING	<i>"Almost all of the workers are immigrants (mostly Haitians) and they are allowed to work only for the entity which secured their work permit. During closed seasons they do not have income and cannot access other legal employment"</i> (Calosso et al. 2020)
FISHERPHOBIA	<i>"Enforcement agencies disproportionately target fisherfolk who can least afford"</i> (Calosso 2020) <i>"Artisanal fishing was doomed since the colonial period to its own demise because it was considered archaic"</i> (Sal 2020) <i>"The Indonesian government often mistargets at providing assistance to all citizens equally. The assisted citizen are usually farmers who receive help for fish cultivation. The assistance for fisherman is often selective and uneven"</i> (Pragoyi 2020) <i>"Fishers are extorted from all government levels (local, state, and federation), excluded from</i>

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Table 2 (continued)

Proposed concept	Key quotation
INDUSTRIAL PILLAGING	<p>subsidies, training, or support what provoked illegal fishing” (Fitzmaurice 2020)</p> <p>“To this date, no studies have been conducted on fisheries social justice, or fisher well-being in Western Australia” (Obregon 2020)</p> <p>“Since the late 1970s this area has experienced rampant coastal development and been dramatically impacted by infrastructure projects linked to coalmine port terminals. Although very little is known about the impacts of the mining sector on SFF in Colombia, these ports have overlapped SSF traditional territories, polluted water sources, and destroyed artisanal fishing grounds” (Saavedra-Díaz et al. 2020)</p> <p>“Researchers found that deep-sea fishing is declining due to large-scale fisheries occurring in spaces traditionally occupied by small-scale fisheries, which consequently creates conflicts among the two sectors and adds additional pressure on the resource” (Miah and Islam 2020)</p> <p>“The negative impact of the palm oil production started in 2004. Since then, the chemical fertilizers used to accelerate the growth of oil palm has been polluting the upstream river. As a result, the river water changes color to a thick black and fish are poisoned” (Prayogi 2020)</p>
MARINE CARBON INJUSTICE	<p>“The community faces the impacts of frequent natural disasters linked with climate change: temperature fluctuation, tidal inundation, changing of rainfall pattern, and extreme conditions such as strong wind and wave” (Fagun 2020)</p> <p>“The fishers living on the rafts, do so without any safety preparedness, and are vulnerable to natural disasters such as cyclones, sea surges, and heavy rains” (Nyein et al. 2020)</p>
SIDELINING FROM GOVERNANCE	<p>“The social and environmental impacts of semi-industrial trawling are not the same as in the case of SSF trawling and the condition of the Caribbean fisheries and the Pacific fisheries cannot be treated in the same way” (Saavedra-Díaz et al. 2020)</p> <p>“Enforcement capacity is limited and mostly focuses on monitoring landings at the processing plants. Due to low resources, the government lacks data to inform management, and the capacity to act strategically” (Calosso et al. 2020)</p>
MARINE PEONAGE	<p>“Indebted and immigrant fishers are not in strong positions to demand safer vessels from which to work” (Calosso et al. 2020)</p> <p>“Many of the fish-workers are migrants from other areas of the country, hired to live and work on rafts. Due to the risk of desertion, Kyar Phoeng owners are reluctant to provide workers with safety equipment, such as life jackets fearing that they may try to use them to escape from the rafts. The working and living conditions of kyar phoeng fishers are clearly below Myanmar’s minimum labor requirements” (Nyein et al. 2020)</p>
PARTICIPATORY DOMINATION	<p>“In 1990, when the TINMR [national park] was established the residents of adjacent barangays were not consulted. Few meetings were held, mostly to inform of Protected Area Management Board’s (PAMB) decisions” (Ferrer et al. 2020)</p> <p>“The processes of creation and implementation of Tamoios MPA were top-down with no or minimal consultation of local communities” (Esteves Dias 2020)</p>
RECREATIONAL ASSAULT	<p>“Though the amount of the catch by pleasure-boat owners is not fully understood, in Kinme fishers’ opinion, the amount is quite high. As a result, a strong sense of unfairness and injustice has been growing among fishers, notably since the Kinme fish stock has declined and is still not in a stable condition” (Li 2020)</p> <p>“The Government of Western Australia is promoting an increase in the number of recreational fishers to 30% of the population in the state. This contrasts</p>

Table 2 (continued)

Proposed concept	Key quotation
SEAFOOD LARCENY / VALUE CHAIN GRABBING	<p>with the decrease in the number of commercial fishing licenses over time” (Obregon 2020)</p> <p>“Seafood processing plants dominate the industry... they are primarily interested in export rather than supplying the local market” (Calosso et al. 2020)</p> <p>“There are problems and conflicts that include ethnic struggles and the progressive degradation of marine ecosystems resulting from increased demands from local and external tourism. This affects food security, since as marine products become merchandised, they are less likely included in the traditional diet” (Marquez 2020)</p>

knowledge’ is privileged.

Instances of what we term ‘eco-harassment’, particularly unintended negative impacts on small-scale fisheries people and their communities resulting from the establishment of no-take zones in Marine Protected Areas⁴ (MPAs), are reported in Malta [39], Zanzibar [40], South Africa [41], the Seychelles [42], Guinea-Bissau [43], Brazil [44,45], Indonesia and the Philippines [46], and Bangladesh [47]. In many of these cases, fisheries peoples’ distress arose from the enclosure of their customary fishing grounds and their subsequent displacement from these areas. However, some more extreme cases have also been reported. For instance, the number of deaths by drowning in fishing doubled over a period of eight years after the establishment of five MPAs around the island of Guam as small-scale fishers were forced to operate in new and unfamiliar fishing grounds [48]. Another example was the declaration of a 640,000 km² ‘no-take’ MPA in the Chagos Archipelago in the Indian Ocean in 2010. This MPA effectively prevented the resettlement by original inhabitants of the archipelago, - expatriated by British colonial power in the 1960s and 1970s – since fishing is the primary source of subsistence for these peoples and their fishing communities [49].⁵ However, recreational fishing by outsiders is permitted, with some restrictions, for which fishing licenses are not required ([49].

The term ‘eco-bullying’ and its kin ‘fisherphobia’ or ‘misohalia’ can be linked to academic discourses about ‘fishermen’s greed’ or assertions derived from neoclassical economic thinking that depict fishers as ‘profit maximizers,’ who are unconcerned about the environment, and thus responsible for overfishing. These assertions contradict the results of numerous research projects showing that small-scale fisheries people values encompass traditional, cultural and social aspects – and not just profit, and that they have strong environmental and stewardship ethics [14,51,52]. Fisherphobia, or discrimination against small-scale fisheries people due to their social class, geographical isolation, poverty, or low level of education, describes a commonly reported injustice revealed in a complex intersection with other common marginalizing elements such as gender, migratory status, race or inherited colonialism values and practices. Fisherphobia is also reflected in the poor integration of social science research on small-scale fisheries topics in policy and decision-making [53,54] and hence their marginalization from governance. Fisherphobia contributes to testimonial injustice when the experiential knowledge of small-scale fisheries people is disregarded and ignored. Furthermore, this discrimination is likely to influence democratic decision-making processes, whereby small-scale fisheries people are barred from participating, despite the rhetoric of ‘inclusiveness’. Linke and Jentoft [55] illustrate this when describing how small-scale

⁴ At the start of the 21st century, moves to speed up the establishment of MPAs led to the declaration of 12,000-MPAs, amounting globally to 12 million km² of protected ocean [see 50].

⁵ In 2015, the Permanent Court of Arbitration unanimously held that the establishment of the MPA was illegal under the United Nations Convention on the Law of the Sea (see https://www.lexpress.mu/sites/lexpress/files/attachments/article/2015/2015-03/2015-03-20/mu-uk_20150318_award.pdf)

fisheries organizations in Europe are not eligible to be represented in the regional Advisory Councils set up by the European Union to improve stakeholder participation in decision-making. Similarly, inequities in numbers and levels of leadership skills of low-income states representatives – where the bulk of small-scale fisheries operate – restrict the ability of these countries to participate effectively in negotiations on a new high-seas treaty led by the United Nations [56]. At a local level, Armitage et al. [57] report that local fishers excluded themselves from fisheries co-management processes in Cambodia because they could not afford to invest time required to take part. The exclusion of small-scale fisheries people from processes related to Marine Spatial Planning – a tool that facilitates Blue Growth (European Commission, 2018) – is a widely reported example of injustices that we term ‘participatory domination’ (see [58, 59–63]). In fact, the large number of documented failures to ensure a genuine participation of small-scale fisheries people in co-management has prompted some scholars to describe co-management approaches in general as a ‘betrayal’ of small-scale fisher’s cultural systems and local forms of organization [64]. As described by Araujo et al. [65], small-scale fisheries people’s participation in decision making in Brazil was hindered by “technocratization of procedures, prioritization of demands, recentralization of decisions, and imposition of knowledge, values and worldviews”, among other mechanisms.

Our empirical material shows that there is a need to name and conceptualize the injustices described in the case studies, which exemplify the presence of hermeneutical injustice. The terms marine carbon injustices, recreational assault, industrial pillage, cultural violation, seafood larceny, Blue conspiracy, fisher trafficking and marine peonage are suggested as hermeneutical sources to name these injustices. The close connection between small-scale fisheries people and the marine environment means that they are more exposed to pollution and other effects of environmental degradation, including climate change. The impacts of climate change on small-scale fisheries, which we term ‘marine carbon injustices’ are currently unknown; however, the issue represents a ticking time-bomb, since ocean warming, acidification, deoxygenation and sea-level rises are projected to result in declines of up to 40% in the catches of tropical fisheries (see [66]). A recent global upsurge of recreational fishing could also contribute to injustices against small-scale fisheries. However, possibly because recreational fishing is rarely promoted by mass-market tourism industries, there are few reports of ‘recreational assault’ in academic literature apart from isolated cases from Brazil (see [67] and Kenya [68,69]). On the other hand, what we term ‘industrial pillage’⁶ is widely reported in academic literature (see [34,70]). This results from favoritism shown by governance institutions towards large-scale, industrial, often multinationally-owned enterprises, which in many cases results in small-scale fisheries people being suddenly denied access to their traditional fishing grounds or markets, and thereby dispossessed of their livelihoods, ways of life (cultural violation) and food supply (seafood larceny). As reported, the responsible industries and enterprises in the Blue Economy/Growth initiatives include large-scale industrial coastal and maritime tourism, aquaculture, offshore oil and gas production, marine renewable energy, and mining [34,70–72]. When industrial pillage is permitted or encouraged under the umbrella of Blue Economy/Growth implementation, small-scale fisheries people become victims of ‘Blue conspiracy’. The case of small-scale lobster fishers in the Faroe Islands negatively impacted by salmon aquaculture sponsored by a Blue Growth Strategy is an example (see [73]). Finally, increasing concern about the possible connections between international organized crime and illegal fishing has brought the issue of crime in fisheries to the fore over the last decade. A number of instances of what we term ‘fisher trafficking’ and

‘marine peonage’, involving different forms of forced labor, have been reported (see [74]). Many of these involve migrant laborers, who are especially vulnerable to extortion and abuse. However, the numbers of small-scale fisheries people involved in such offenses is unknown and there is an urgent need for further research on this issue.

4.1. Addressing epistemic blue injustice through transdisciplinary research

To address epistemic injustice, Fricker [24] proposes the development of “epistemic virtue” and urges the adoption of practices that embody fair and equitable treatment of all knowers. To cultivate epistemic virtue, we need to become receptive hearers, aware of the likely impact of prejudice and stereotypes on our credibility judgments. In academic research, the adoption of transdisciplinary approaches towards sustainability challenges [75] could help develop epistemic virtue.

Transdisciplinary research, similar to approaches such as “participatory action research” and “participatory learning and action”, is a process of joint knowledge production characterized by the inclusion of scientific and non-scientific perspectives and real-world practice. Its “effectiveness stems from its closeness to practice-based/situated expertise and real-life problem contexts” [76, p.111]. Thus, transdisciplinary research and Fricker’s epistemic virtue have in common the principle that all knowers – and their knowledge systems – are of equal merit and equally deserving of consideration. In response to hermeneutical injustice, the co-production of transdisciplinary knowledge needs to engage all knowers in meaningful communication and cooperation [77]. To avoid a one-way relationship in which information flows only from scientists to ocean users or viceversa, both scientists and local knowers need to patiently wait to hear each other out, giving credence to descriptions of the events that are not straightforward or easily comprehensible, or might at first seem unintelligible. This is something we can all practice as individuals and insist on within our own academic and social circles. However, we also agree with Langton [31, p.462] that there is a need for “structural remedy” to address hermeneutical injustices, since these are “structural rather than perpetrated by an individual”. Cognitive biases that may be difficult even for epistemically virtuous individuals to overcome may be more susceptible to correction if the focus is on the principles that should govern our systems of knowledge gathering and assessment ([31]). Hence, while Fricker’s attention to individual epistemic virtue is important, advocates of epistemic justice also need to consider the requirement for virtuous social systems.

It would be naive to expect that epistemic justice could be achieved simply by inventing concepts to describe the experiences of marginalized small-scale fisheries peoples and disseminating them among a larger social collective. Even if academics, practitioners, and members of fishing communities engage in a discussion that embraces new interpretative tools of this kind, it is predictable that dominant groups will resist the incorporation of such a vocabulary in discourses around the future of the oceans. As occurred in the cases of *co-management* and *stakeholders* (which fisher organizations argue should be replaced by *rightsholders*), dominant groups are able to capture concepts developed by advocates of social justice and redefine them to suit their own purposes. In other cases, the introduction of new terms has helped to develop a new agenda, but this process has not gone far enough. For example, the term *small-scale* fisheries, which might denote inferiority or underdevelopment, has been resisted in Scandinavia by fishers who called themselves “coastal fishers”. Yet, adoption of the term ‘coastal fishery’ has not prevented the marginalization and vulnerability of small-scale fisheries peoples in Sweden, where this fishery and the coastal fishing communities it supports have been almost wiped off the map [78]. It will take time for interpretative tools to disperse and translate into action among members of a discursive group who are not willing to see, or see no reason to disagree with, the injustices they describe. By limiting the adoption of new language, and imposing their

⁶ Industrial pillaging can be used as a synonym of “coastal grabbing”, defined as the contested appropriation of coastal (shore and inshore) space and resources by outside interests [72, p.1].

own re-interpretations of new terms that are introduced, powerful groups may appear to have the upper hand in their attempts to control critical thought.⁷ However, it is important to make a start, by identifying the border line that circumscribes the subgroup whose members support the adoption of new concepts. Within this subgroup, transdisciplinary researchers can help reduce the ‘transmission harm’ by disseminating new interpretative tools and vocabularies in universities and research institutes, academic journals and the press, and among political allies. Moreover, the adoption of these vocabularies by membership organizations might induce changes in their makeup by attracting new members. As Goetze [29, p.84] observes: “when people in your own community dismiss your interpretations of your own experience, the ensuing alienation is likely to spur you to leave for a more supportive group”. The existence of groups supportive of victims of epistemic injustice could contribute to network building and the scaling-up of partnerships, thereby enhancing knowledge exchange, the development of skills and competences, and the impact of initiatives for Blue Justice. Moreover, the network possesses a vocabulary that contributes to the identification of partnerships and formation of advocacy coalitions with the potential to set off policy change [79]. Here again, change derived from the broadening of partnerships might be a challenge, given that instruments like the Blue Economy and Growth are supported by strong coalitions between governments, large corporations and international institutions at high levels of ocean governance. But, as Healy [80] argues, “a flat ontology”, with no spatial categories that rearrange the world, can offer the potential to configure a place-based global movement for Blue Justice. Because small-scale fisheries peoples are present in large numbers in most of the world’s coastal and aquatic environments, networks with interpretative tools that make sense of their experiences have the potential to proliferate rapidly at a global level.

Drawing upon the transdisciplinary work by TBTI [81] and lessons from the feminist movement [31], the following are examples of actions that could be taken by the Blue Justice community to promote structural and conceptual remedies to the problem of hermeneutical injustice, as experienced by small-scale fisheries people:

- Apply transdisciplinary research to set up and promote the formation of consciousness-raising groups and diversification of the mainstream social context of small-scale fisheries peoples.
- Gather and pool common experiences about injustices experienced in small-scale fisheries.
- Engage in collective brainstorming to identify terms and develop concepts that correspond to the experiences of small-scale fisheries peoples (the use of portmanteau words such as eco-harassment or fisherphobia might be recommendable).
- Join and support networks and advocacy coalitions that share and disseminate the new concepts.
- Take advantage of any social, political or legal opportunity to institutionalize the use of the concepts, discussion of the situations they describe, and actions to address them.

In the search for concepts, it should be borne in mind that relevant concepts may already exist in the public domain, but not yet applied to the specific case of fisheries. Those concepts may have an easier entry route into Blue Justice discourse because people already know what they mean but have not thought of them in the context of small-scale fisheries people. An example of such a concept could be *gender equality* where academia has produced a significant body of work raising awareness of gender issues and small-scale fisheries (see for example [82,83–85]). As one of the UN Sustainable Development Goals, gender equality describes injustices that Blue Justice and the recognition of the centrality of marginalized fisheries people aim to withstand.

⁷ See for example the role of George Orwell’s “newspeak” in his dystopian novel *Nineteen Eighty-Four*.

In some cases, researchers might encounter resistance to use of complementary hermeneutical resources, not only from powerful interest groups but also from within the academic community. Specifically, there may be resistance to the use of concepts that provide qualitative descriptions of experiences among academics who privilege quantitative evidence over personal testimonies and localized stories. Such scientists often dismiss the voices of people, which qualitative methods collect and facilitate, as “anecdotal” knowledge. This refusal to listen not only leads to both hermeneutical and testimonial injustice against small-scale fisheries people themselves, but is also a possible source of prejudices [86] and testimonial injustice against researchers studying small-scale fisheries. By adopting a transdisciplinary approach, Blue Justice academics commit themselves both to gathering knowledge about the experiences of marginalized small-scale fisheries and to making efforts to demarginalize their own knowledge. As Goetze states: “hermeneutical justice is therefore not only important for ensuring that the experiences of others are not unduly dismissed: it may open our minds to better ways of interpreting our own experiences” [29, p. 87].

5. Conclusions

The concept of Blue Justice emerged in response to concerns about injustices against small-scale fisheries in Blue Economy/Growth agendas; however, the notion also implies acknowledgment of past wrongs that led to the existing marginalization of small-scale fisheries [32]. Unlike the concept of fairness, justice includes a temporal dimension and can include demands for recognition and remediation of past harms. In the absence of interpretative concepts or names for them, many unjust experiences similar to those described in our results, which have been previously reported in the literature on small-scale fisheries – sometimes over decades – have dropped off the radar. The stories were told, but the narratives are still under construction.

Blue Justice for small-scale fisheries requires information and strategies and, to this end, transdisciplinary research to develop new vocabularies that disrupt dominant discourses on what ocean sustainability is and what it entails. In this paper we advocate transdisciplinary research as means of learning how to listen patiently, overcome discrimination and collect testimonies of experiences that transcend our collective hermeneutical resources, and thereby to develop our capacity to understand, discuss and address small-scale fisheries peoples’ struggles for justice. The absence of a set of nuanced concepts to name these diverse and complex experiences is evidence of the existence of epistemic hermeneutical injustice as defined in the literature. Collecting testimonies of these experiences and envisioning concepts to describe them can result in a fertile collaboration with scholars enabling marginalized groups to identify, define and categorize their own experiences of injustice and to convey this understanding to others while maintaining scientific academic rigor. How to ensure that these new concepts realize their potential to create awareness and understanding and truly disrupt current ocean discourses remains a challenge. However, as Rae Langton [31] states in reviewing Amanda Fricker’s work, “knowing your enemy by the name is half the battle”. What remains to be done is for the Blue Justice community and small-scale fisheries peoples to bring these concepts into the public domain and subsequently into the global discourse about sustainable ocean development: to transform first our language and then our actions.

Acknowledgements

We thank the contributors of the TBTI Blue Justice case studies for sharing their knowledge and experience. The research for this paper is part of the ‘Blue Justice Alert’ project, supported by Canada’s New Frontiers in Research Fund. The authors thank also the anonymous reviewers for their insightful comments and suggestions.

Appendix A. Supporting information

Supplementary data associated with this article can be found in the online version at [doi:10.1016/j.marpol.2022.104959](https://doi.org/10.1016/j.marpol.2022.104959).

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