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Environmental Justice Incommen-surabilities Framework: monitoring and evaluating environmental justice concepts, thought styles and human-environment relations

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Abstract

Environmental justice concepts have undergone significant changes from being solely distributive to include underlying power asymmetries. Consequently, we are now faced with a wide array of different interpretations of what environmental justice is. This calls for a fundamental reflection on what environmental justice stands for, how and most importantly why it is used. To achieve this goal, this paper elaborates on the genesis of environmental justice. Recurring challenges of environmental justice research and activism will be identified. Addressing those challenges, as well as breaking down environmental justice concepts into smaller patterns and Fleck'sian thought styles, the Environmental Justice Incommensurabilities Framework (EJIF) is introduced. This evaluation and monitoring tool encourages actors (and especially researchers) to reflect upon ideological positionings and axiological interpretations of human-environment relations as well as justice, making research on and with environmental justice more transparent and comparable.

Zusammenfassung

Konzepte zu Umweltgerechtigkeit erfuhren signifikante Veränderungen, vom Fokus auf Verteilung bis hin zur Inklusion verdeckter Machtasymmetrien. Heute sehen wir uns mit einer Vielzahl unterschiedlicher Interpretationen dessen konfrontiert, was Umweltgerechtigkeit bedeutet. Eine tiefgehende Reflektion darüber, wofür Umweltgerechtigkeit steht, wie und vor allem warum sie angewandt wird, ist notwendig. Mit Blick auf die Genese der Umweltgerechtigkeit werden in diesem Beitrag wiederkehrende Herausforderungen der Umweltgerechtigkeitsforschung und des -aktivismus identifiziert. Dabei wird das Umweltgerechtigkeits-Inkommensurabilitäten-Framework (EJIF) vorgestellt: Umweltgerechtigkeitskonzepte werden in ihre Bestandteile zerlegt und mithilfe der Fleck'schen Denkstile analysiert. Dieses Evaluierungs- und Monitoring-Tool ermöglicht Akteur_innen (insbesondere Wissenschaftler_innen) ihre ideologischen Positionierungen, axiologischen Interpretationen von Mensch-Umwelt-Beziehungen und Gerechtigkeit offen zu legen. Forschung mit und über Umweltgerechtigkeit wird so transparenter und vergleichbarer.

Keywords environmental justice, human-environment relations, social-ecological conflict, claims making

Environmental Justice Incommensurabilities Framework

1.   Introduction

Since the first naming of environmental justice, the concept has experienced a vast broadening, travelling from activism to science (and back), covering terrains of policy making, monitoring and evaluation. Environmental justice interpretations have been combined with those of environmentalism (*Foreman* 1998; *Pezzullo* and *Sandler* 2007), sustainability (*Agyeman* et al. 2003; *Gottlieb* 2009; *Sze* 2018; *Akbulut* et al. 2019), or climate change (*Agyeman* et al. 2003; *Davoudi* 2012; *McCauley* and *Heffron* 2018), opening the conceptual umbrella to pragmatically address trending global debates and transnational activist mobilizations, such as Fridays for Future (*Almeida* 2019). Those context-specific concept stretchings are indeed valuable for case study analyses.

However, the conceptual anchoring to specific perspectives and underlying ideologies within the environmental justice debate is increasingly undefined (or considered axiomatic to the point that the anchors are not clearly stated). This development makes the comparison and choosing of fitting environmental justice applications more difficult. For example, working definitions of 'justice' (for whom and to what extent), or the role of the environment in human-environment relationships (between the poles of anthropocentrism and ecocentrism) change the construction of arguments and thought styles[1] (c.f. *Fleck* 2011a) on environmental justice. Consequently, when differing thought styles come together, incommensurabilities arise. Those incommensurabilities are defined as a lack of understanding of other perspectives, which can lead to their forced devaluation of and hostility towards their representatives. Thus, the deconstruction of incommensurabilities based on how thought styles develop allows for a better understanding of the people's way of thinking and acting in environmental justice conflict situations.

Therefore, I propose a meta-conceptual organisational frame for environmental justice (i.e. Environmental Justice Incommensurabilities Framework; EJIF). The objective here is twofold: first, already existing environmental justice concepts can be placed within the framework to visualize their (underlying) strategies, ideologies and foci, and second, when actively engaging in environmental justice concept stretching and combining with other concepts, the framework can be used as a guideline to identify core areas of environmental justice where normative positionings have to be made by the researcher(s)/activist(s).

The first section of this paper deals with the genesis of current understandings of environmental justice. It sets central thematic, methodological, and conceptual cornerstones. Those cornerstones come with conceptual baggage that will be synthesized in the form of five challenges when working with environmental justice. Addressing those challenges, including the broad application and wide array of environmental justice, the Environmental Justice Incommensurabilities Framework is introduced and discussed, showing its potential to dissect different environmental justice concepts and make their underlying thought styles more transparent.

2.   Contextualization of environmental justice concepts

From a praxis standpoint, environmental justice is nothing new. Action – and consequently – activism have always been cornerstones of environmental justice concepts. For the Americas, the first records from the early 1800s document the fight of people of colour to improve living conditions of slaves, share-cropping rights or the possibility to acquire land (*Taylor* 2000: 514; *Taylor* 2002). Fast-forwarding to the 1940s to 1960s, US-activism for the improvement of health issues, workers' rights or against pesticide contamination has clearly marked the link between social struggles manifest in bio-physical parameters of people's environment, culminating in some of the first academic conceptualizations (*Freeman* 1972; *United Church Commission for Racial Justice* 1987). *Freeman's* (1972) case study is – although criticized for poor quality of analysis (c.f. *Bowen* 2002: 4) – one of the first examples here, focusing on environmental risk for individuals, highlighting the connection of environmental bads to income levels. *Freeman's* analysis represents a thought style that is embedded in a firm theoretical body of economic theory rather than social-(ecological) theories. Consequently, economic aspects are at the foreground of this proto-environmental justice study. The label of 'environmental justice', however, has not been used at that phase; the closest terminology was *Chavis'* coining of 'environmental racism' (*Agyeman* and *Evans* 2004: 156). It had significant semantic impact on the emergence of a fully-developed environmental justice movement to work against locally undesired land use (LULU) (*Pulido* 1996).

Then, the first open wave of environmental justice research focused on individual cases and social problems and movements to influence public policy (*Sze* and *London* 2008: 1333). The overarching goal was to create a framework to define, operationalise and even more so measure environmental (in)justice (*Phillips* and *Sexton* 1999), where distribution played a pivotal role. Besides major methodological shortcomings and flaws (e.g. how to define an affected community, ignoring population density when identifying socio-spatial patterns, or ex-ante risk-definitions of e.g. harmful treatment/storage/disposal facilities, TSDF in short), the environmental justice narrative was increasingly seen as a challenge for conventional environmentalism (*Shrader-Frechette* 2002). From the standpoint of the latter, the former uses the environment as a tool to visualize social injustice, allowing for the perception that environmental issues are merely the means in a fight rather than the objective to be resolved/saved. The main point of conflict is based on the openly different normative interpretation of the role of the environment – and the subsequent ideas on how human-environment relationships should look like.

Up to this point, the distribution of environmental bads was the defining variable for environmental justice concepts. The next phase experienced a first wave of concept stretching of environmental justice. Starting from the visible and easily detectable (mal-) distribution, environmental justice analysis expanded towards the unearthing of underlying processes of siting (e.g. why is a new TSDF site built, have socio-economically disadvantaged people lived there before or are they moving in after the toxic site has been constructed) and their socio-economic as well as -ecological effects on a local and regional level (*Harper* and *Rajan* 2007: 328). In the 1990s, another expansion of the environmental justice narrative was the open distinction between environmental justice as a reactive and a proactive concept (*Hafner* 2018: 58): the former deals with the inductive hands-on, case-driven effects of maldistribution while the latter focuses on a more deductive, theory-driven thought style of how to prevent (environmental) injustices in the first place (c.f. *Faber* 1998: 14). Here, it becomes apparent that the starting point of an environmental justice analysis influences the respective focus and its theoretical and practical outcome. Additionally, the entry point for analysis also reflects the actors involved. Environmental justice activists commonly approach an issue from the bottom, from a specific case. Activist scientists, being closer to activists, may have similar

starting points – both of which are wildly different to theorists' approaches.

In the 2000s, rather than streamlining environmental justice, it experienced another wave of concept stretching towards "new populations and problems, and new places and sites of analysis" (*Sze* and *London* 2008: 1336), combining environmental justice with topics like distribution of climate change effects (*Okereke* 2008; *Davoudi* 2012), sustainability (*Agyeman* and *Evans* 2004; *Gottlieb* 2009), or ecosystem services (*Pham* et al. 2012). Environmental justice in its very nature opens the pathway for the combination of justice debates and geography as long as geographical analyses are not reduced to one-dimensional proximity studies and one-method-fits-all approaches, as "different socio-ecological circumstances imply quite different approaches to the question of what is or is not just" (*Harvey* 1996: 6). Additionally, environmental justice concepts have – from the USA and the Global North – gone global, diving into a sheer infinite pool of local and regional, social, political, economic, and ecological contexts. Also due to the increasing transnationalisation of environmental bads (*Schroeder* et al. 2008), the dichotomisation of the Global North (as beneficiary) and the Global South (non-beneficiary) becomes apparent. The Global South is either considered as a source for raw materials (*Hafner* et al. 2016), a sink by means of disposal of hazardous waste and pollution (*Clapp* 2010), or wilderness that has to be protected (in the form of coercive conservation and the prohibition of locals' access to land) (*Harper* and *Rajan* 2007: 329). Thus, environmental justice has converted into a "plurality of environmental (in)justice experiences [focusing] on recognition, participation, and, more recently, on basic needs, capabilities, and functioning" (*Schlosberg* 2013: 40).

This short presentation of the development of environmental justice shows that the concept started as being embedded in economic theories (and thought styles), followed by competitive challenges between environmental justice and environmentalism. To better understand those disputes, the role of the environment in human-environment relations has to be further explored and defined. Then, the evolution has shown that, depending on the actors involved, different starting points to use environmental justice – alternating thought styles and underlying strategies included – become apparent. This phase is then followed by a globalisation and post-structuralisation of environmental justice, making it even more neces-

sary to make underlying ideologies and thought styles transparent. In so doing, the following section identifies five challenges for environmental justice that subsequently lead to an unearthing of environmental justice positionings.

3.   Five challenges for environmental justice

As shown in the previous section, environmental justice has undergone several phases of concept stretching and multiple ways of interpretation. During extensive fieldwork on NW Argentina's soy agribusiness and social ecological conflicts, I have experienced the difficulties that come with varying interpretations and thought style incommensurabilities, both from a practical case sensitive as well as from a conceptual environmental justice standpoint. Thus, before anchoring individual approaches in an umbrella framework for a better understanding of the purpose of respective environmental justice analyses, I have identified five challenges for the communication of and dealing with environmental justice (both from a practical as well as theoretical perspective): human-environment relations, understanding of justice, transdisciplinarity, semantics, and (non)openness of conflicts (c.f. *Hafner* 2018: 51).

a)   Human-environment relations

Environmental justice can be considered cross-disciplinary, stretching from natural, via social sciences to humanities. Each discipline has elaborated different wordings, conceptual interpretations, and focuses, leading to varying understandings of what the focus is. One of the central questions here is: what is the role of the environment? How is the relationship between humans and the environment defined? In most environmental justice literature, the role of the environment is reduced to a "contextual constant of justice, often implicitly defined and considered as given" (*Hafner* 2018: 52). An excellent example here is *United States Environmental Protection Agency's* (2020: s.p.) definition of environmental justice as "the fair treatment and meaningful involvement of all people regardless of race, color, national origin, or income, with respect to the development, implementation, and enforcement of environmental laws, regulations, and policies". Hence, to achieve human equality, the environment must be of a high standard, too. If the latter is not guaranteed, the former can hardly be achieved (c.f. *Agyeman* et al. 2003). However, particularly activ-

ists have to deal with situations where ecological and social justice goals are in direct competition, weakening their respective positions (*Newell* 2006). Thus, it becomes necessary to identify the understandings of the environment along the axiological axes of anthropocentrism and ecocentrism (*Hafner* 2018: 53). Put in different terms, before talking about environmental justice one must consider the ascribed role and definition of the environment to be able to unearth conceptual and perception discrepancies among actors/activists involved in environmental justice topics, as well as researchers and actors/activists.

b)   Understanding of justice

The second challenge focuses on justice. What is the starting point of justice in environmental justice research? This seemingly simple question has a lot to do with the theorisation of justice among the lines of action and underlying power relations (*Schlosberg* 2009). Simply put, two different approaches are identified: Theory-driven and top-down or praxis-driven and bottom up. Most literature can be found for the first category; their representatives often seek an actual *theory* of justice, identifying universal axiomatic cornerstones on which justice is based. Two popular examples are *Bentham's* principle of greatest happiness for the greatest number of people (*Bentham* 2007), or the categorical imperative by *Immanuel Kant*: "Act only in accordance with that maxim through which you can at the same time will that it become a universal law" (*Kant* et al. 2002: 37). Hence, "individual rights must come prior to identification of utility" (*Martin* et al. 2014: 168). Another highly influential theory to be mentioned here is *Rawls'* theory of justice (1973), including his egalitarian principles of liberty and focus on pro-poorness, meaning the greatest distributive benefit should go to those suffering the greatest hardship. All those theoretical approaches have already pre-established definitions of what is supposed to be good or fair, particularly in the realms of distribution participation or recognition.

A universalist understanding of justice, shared by everyone, would enable and streamline the interpretative notions of justice itself, and subsequently facilitate a more straight-forward and methodologically unified empirical course of fieldwork action. In this ideal situation, there would only exist one moral compass. Incommensurabilities on how conflicts are interpreted would be reduced or even abandoned, since every participant would have the same mind-

set and background. However, contextual differences, varying thought styles (e.g. on the environment and what is considered fair or just) and conflict interpretations are inevitable. Thus, to put in the words of *Martin* et al. (2014: 168), we have to accept the "practical (if not intellectual) impossibility of reaching consensus" towards one universal understanding of justice. In so doing, a more inductive approach to justice is observed. Starting from an empirical, praxis-driven non-ideal situation, antonyms of factors contributing to ideal situations are at the foreground: injustice, maldistribution, misrepresentation, non-participation, misrecognition. Works by *Young* (2011), *Simmons* (2010), or *Arvan* (2014) are examples of such approaches. Of course, the authors themselves have an idea of what is just, or what accounts for good distribution or recognition. Nevertheless, the mindset is focused on the current – interpreted as non-ideal – situations rather than on the general positive norm of justice or fairness. Context becomes important, the definition of justice is more fluid perception-based and thus adapted to particular (environmental) justice cases at hand.

c) Transdisciplinarity

The third challenge has to do with the circulation of the concept among activists, scientist, and the community. I have already shown above that environmental justice is an activist concept that has travelled to the realms of activist scientists and theorists, as well as found its way in legal-administrative settings (e.g. *Commonwealth of Massachusetts* 2002). While the umbrella term 'environmental justice' remains, the actor-specific objectives are wildly different. Laying those expectations bare is fundamental for the advancement and transparency of environmental justice as well as facilitating transdisciplinary communication and cooperation.

d) Semantics

The fourth challenge is of predominantly a semantic nature. Social-ecological struggles are analysed via a great number of different concepts. Social-ecological conflicts, environmental racism, environmental inequality, popular epidemiology are just some approaches to deal with environmental justice issues. In some cases, as observed in Argentina, the term 'environmental justice' has hardly ever been used, also due to lack of translation and different ascriptions and interpretations (*Hafner* 2018: 51). One classic example here is *Reboratti's* (2012) actor-centred concept of social-ecological conflicts.

e) (Non)openness of conflicts

The last, and often overlooked challenge is the clear anchoring of environmental justice research on open conflicts. Classic analyses focus on the following axiomatic features: conflictive situations must be present. They must be clearly noticeable, preferably visible or be tangibly grasped. Consequently, activist activity must be observed, leading to the identification of the (environmental justice) problem and subsequent claims making. Thus, the clash of diverging interests (*Carruthers* 2008; *Walker* 2009; *Martínez-Alier* 2014), the awareness of injustices (*Fraser* 1996; *Urkidi* and *Walter* 2011), as well as the verbal and non-verbal materialisation of conflicts (*Čapek* 1993; *Davoudi* and *Brooks* 2014) are key prerequisites of studying environmental justice conflicts. While the focus on open conflicts does make sense in terms of methodologically approaching environmental justice studies, it is also a major limiting factor: environmental justice cases are easily overlooked (by scientists and activists alike) when there are no overt conflict situations.

The aim of identifying the five environmental justice challenges is to step back from the different conceptual approaches and critically reflect on (1) the axiomatic pre-assumptions on what human-environment relationships entail, (2) what one's standpoint on the very definition of justice is, and (3) how underlying dimensions, individual narratives and thought styles based on personal upbringing, formation and socio-cultural contexts pre-shape the way how we discover environmental justice conflicts. In so doing, the following chapter is an attempt to establish an umbrella framework for environmental justice that allows for individual localization and embedding of researchers' and activists' activities along the lines of classic environmental justice concepts and the resulting challenges.

4. Re-framing environmental justice concepts

The workings of environmental justice concepts are best understood via concrete examples. To show how the researcher's individual background and belonging to a specific thought style shape the interpretation of conflictive situations, I focus on auto-ethnographic reflections of my research on soy agribusiness ex-

pansion in NW Argentina. Considering classic environmental justice indicators, the empirical evidence interpreted from outside the region clearly point to social-ecological conflicts and the potential for the open materialisation of conflicts: deforestation rates from 1990 to 2015 have increased up to 550 per cent (*SIIA* 2016), (forced) relocations of *puesteros* (agrarian smallholders) from former forests to urban areas have been documented (*Krapovickas* et al. 2016; *Hafner* 2018: 135), pesticide sprayings in close proximity to villages are documented and have been experienced first-hand, or soy silos, emitting particular matter to neighbouring boroughs and causing respiratory problems, are just a number of classic environmental justice related issues (*Hafner* 2018: 152ff.).

Even though the local population is suffering from the consequences of soy agribusiness-related changes of bio-physical variables, on-site empirical research has shown that little to no direct opposition against the advancement of the agribusiness in general and hands-on negative impacts is materialised. Incommensurabilities – and different realities – between my interpretation that local resistance and claims making must occur and locals' opposite interpretations and (non-)actions of the same situation arise.

Thus, contextual information is necessary, as is the re-thinking of classic environmental justice concepts: what is my understanding of the environment and human-environment relations? How do I *see* (c.f. *Fleck* 2011b) the bio-physical variables in the case study? How do other actors *in situ* interpret those relationships? Which underlying dimensions (from distribution to recognition, participation, responsibility, or capabilities) are at the foreground of my analysis – and how do they compare to others involved? Which thought style on justice do I belong to? What do I consider fair, how is this way of thinking similar or different to others?

To structure and localize those leading questions that have to be asked in every environmental justice concept in an organizational frame, I propose the Environmental Justice Incommensurabilities Framework (EJIF[2]; *Fig. 1*). Rather than seeing the framework as a step-by-step manual for social-ecological conflict studies, I consider it a tool for reflection of the positioning and evaluation of the challenges and advantages of environmental justice research approaches. In so doing, the EJIF functions as a mental map to better structure and embed individual research positions on environmental justice. The EJIF presents three main dimen-
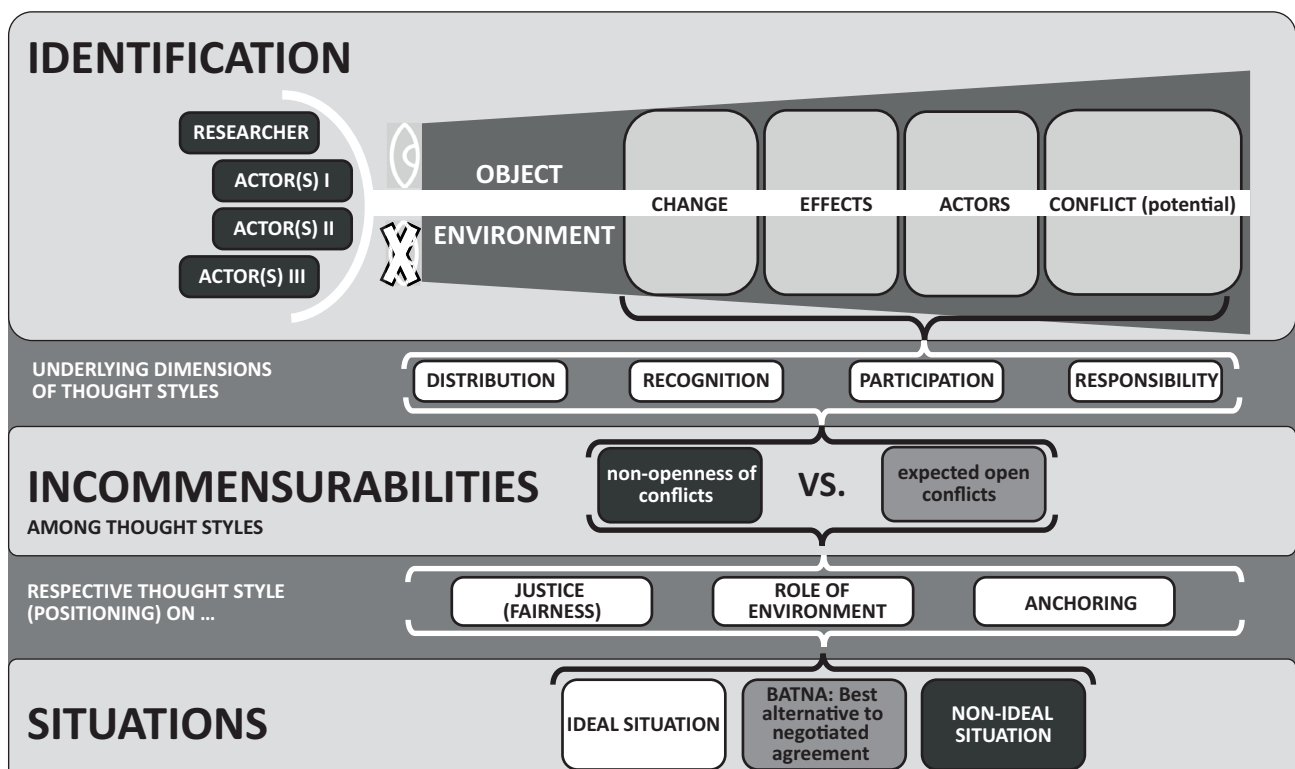

Fig. 1   Environmental Justice Incommensurabilities Framework. Source: adaptation of Hafner 2016, s.p.

sions to describe the actor's ontological positionings: a praxis-driven IDENTIFICATION of the researchers'/activists'/actor's object (with special focus on human-environment relations); INCOMMENSURABILITIES, where the focus lies on whether environmental justice claims are actually manifested or; and the theory-based category of SITUATIONS to unearth ideological starting points. The three dimensions are given two analytical background layers (underlying dimensions and respective thought styles) to understand how the positionings within the three main dimensions have come to be. For a better understanding of the EJIF, the following section goes more into empirical detail.

Starting from the top the first dimension (IDENTIFICATION) sets the bio-physical frame of analysis. Most commonly, the researcher looks at the bio-physical environment to identify changes (e.g. deforestation), the social-ecological effects of those changes (loss of hunting and gathering grounds), the actors involved in this process and which conflict potentials are subsequently visible. There is a clear reference to most environmental justice concepts' foci on tangible analytical categories. In the case of the above-mentioned NW Argentina case study, deforestation or pesticide spraying are two examples of how the environment is changed. Deforestation has led to relocations of locals (one set of ACTORS) from the forest to the city (EFFECTS). Those fast changes have the potential for CONFLICT.

The UNDERLYING DIMENSIONS unearth the way how the conflict (potentials) are interpreted. Based on environmental justice research, questions of distribution of environmental goods and bads (*Schlosberg* 2009), recognition of humans and their entitlements (*Fraser* 2000; *Davoudi* and *Brooks* 2014: 2688), possibilities of participation by disadvantaged parties (*Hunold* and *Young* 1998: 88-91), and responsibility for and by whom (*Holifield* et al. 2009: 596) are used to shed light on why conflict potentials are identified in the first place and why researchers' expectancy for open conflicts and claims-making, the articulation of discontent and demand for change-action, exist. Once again, depending on the thought style and concept used, different category foci apply. It must be laid open which focus is applied by which actor and for what reason. Those are not automatically articulated, making it necessary to construct differing narratives of the same social-ecological changes, effect, actor involvements and conflict potentials. In so doing – and through predominantly ethnographic research

– the researcher's task is to unearth the thought styles (*Fleck* 1980) of the respective actors and the underlying dimensions they are influenced by to be able to retrace the reasoning behind the fact that claims or no claims are made.

The different perceptions and interpretations are manifested in the second dimension of INCOMMENSURABILITIES. In the case study on NW Argentina, the main perceptual contrast are the incommensurabilities that arise due to open conflicts and claims making expected by me and actual non-openness of conflicts and subsequent no claims making by locals[3]. This is, admittedly, one of the most extreme thought style deviations. Nevertheless, they show more clearly the necessity to identify and subsequently reconstruct the thought style paths in both directions (underlying dimensions and respective though style positionings) that lead to diametrically opposing realities. Thus, this part of the framework is the reflective anchor since this is the place where the researcher's interpretation on potential conflict situations are explicitly tested against other actors' perceptions and thought styles.

Then, it is vital to obtain a deeper understanding of the diverging positions, the actors' respective thought style positionings in the understanding of the axiology of justice and fairness (i.e. what is considered just and fair), the role of the environment (e.g. anthropocentric vs. ecocentric distinction; the environment as habitat, or as mere production machine for the city) and the anchoring of the actors in those thought styles. In this sense, the SITUATIONS-dimension focuses on the non-tangible anchoring of environmental justice narratives. Which actors see certain situations as justified (e.g. the soy agribusiness is an ideal and necessary for a prospering society), without the need to change/criticize/claim adaptations? Is the actors' attitude critical against, as in my case, the agribusiness? In that case, they clearly identify the overall situation as non-ideal with the need for action and change. Or, as a third option, can a standpoint somewhere in the middle (i.e. the best alternative to a negotiated agreement) be identified? The respective interpretations of SITUATIONS thus have significant influence on the predisposition of making claims, regardless of the tangibility of IDENTIFICATION-variables.

The EJIF is the first meta-framework that explicitly combines and relates the most common characteristics of environmental justice concepts. This social-

constructivist visualisation allows for new forms of structured interpretation of perspectives on (non-) conflictive situations. In so doing, the challenge of over-focusing on claims making for the case selection in environmental justice research is addressed. Additionally, semantics move to the background, having a great variety of sub-categories beyond environmental justice to facilitate communication across disciplines and languages.

As a final remark, the EJIF has evolved and been tested during extensive fieldwork in the soy agribusiness sector. Thus, the framework has been elaborated out of necessity to make sense of incommensurabilities that I was faced with as a researcher. Nevertheless, an adapted, more practice-based version of the framework may prove fruitful for activists and practitioners to reflect on their (and their opponents') understandings and actions in relation to environmental justice.

5.   Conclusion

Since its first implicit emergence, environmental justice has experienced major conceptual expansions and concept stretching. This broadening has allowed for catering a more diverse audience, from activists, scientists to policy makers, giving environmental justice better traction and visibility. However, as I have shown, one major downside is that environmental justice has somewhat become a loose, often unstructured umbrella term for dealing with social-ecological conflicts without (or very little) reflection on the axiomatic assumptions and interpretations of human-environment relations, definitions of justice and its implications thereof, consequences of conceptual transdisciplinarity for activists, scientists and policy makers, or mere considerations of changing semantics in varying socio-cultural settings.

I have shown that reflecting on those first five challenges is pivotal for understanding the limits of current environmental justice research: even though concepts are broad, the main prerequisite for environmental justice are claims making, predominantly interpreted through a researcher's/activist's lens. As in the case of soy agribusiness expansion in NW Argentina, this very focus on open social-environmental conflict situations has proved to be ineffective as there were no classic open claims manifested, even though clear conflict potentials were observed.

Consequently, there is a need for in-depth reflection on how environmental justice is used as a tool for underlying (normative) strategies by researchers and other actors. In so doing, normative axiological standpoints on justice and the environment must be made transparent. Here, the Environmental Justice Incommensurabilities Framework (EJIF) offers a first step towards the structuring of environmental justice concepts by (1) explicitly demanding a normative positioning in regard to justice and the relationship between humans and the environment, (2) visualizing the use of underlying dimensions to be able to locate the focus of the concept used, and (3) openly addressing the challenge of varying narratives of environmental justice and concrete case studies, based on actors' individual socio-cultural backgrounds and memberships in distinct thought styles.

As a result, the EJIF has the potential to become a meta-level monitoring and evaluation framework for environmental justice case studies and theoretical papers alike. It breaks down environmental justice in smaller pieces and encourages actors (but even more so researchers) to reflect on their positionings and ideologies, particularly in terms of human-environment relations and (in)justice. Once the background of those thought styles are unearthed, the EJIF sets the basis for an in-depth but still straight-forward comparison of environmental justice concepts. By visualizing and structuring their broad scope, case-sensitive shortcomings can be contextualized, thus creating more robust and transparent understandings of environmental justice.

Notes

[1] Simply put, *Ludwik Fleck's* (e.g. 2011a) thought styles are praxis- and community driven ways of thinking that explicitly evolve with the (changing number of) members of the thought collective (i.e. social group). They are particularly useful when carrying out meta-conceptual analysis and concept stretching.

[2] For a more detailed description of the EJIF see *Hafner* (2018: 125ff).

[3] For an in-depth analysis of the empirical case study, see *Hafner* (2018).

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