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How to cite

STEVIS, Dimitris, FELLI, Romain. Planetary just transition? How inclusive and how just? In: Earth System Governance, 2020, vol. 6, n° 100065. doi: 10.1016/j.esg.2020.100065

This publication URL: https://archive-ouverte.unige.ch/unige:147195
Publication DOI: 10.1016/j.esg.2020.100065

Earth System Governance 6 (2020) 100065

Contents lists available at ScienceDirect

Earth System Governance

journal homepage: www.journals.elsevier.com/earth-system-governance

Planetary just transition? How inclusive and how just?

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ARTICLE INFO

Article history:
Received 27 November 2019
Received in revised form
6 July 2020
Accepted 7 July 2020
Available online 21 September 2020

Keywords:
Just transition
Planetary justice
Geography of justice
Socioecological justice
Planetary just transition
Labour environmentalism

ABSTRACT

Planetary justice (PJ) requires a profound planetary just transition (PJT). Recognizing the essentially contested nature of just transition (JT) we propose an analytical scheme to better interpret and differentiate amongst the growing number of JT proposals and, by extension, PJTs. After outlining the increasing association of JT proposals with global policy, as well as their proliferation, we employ scale to address their spatial and temporal inclusiveness and scope to address their social and ecological inclusiveness. Assuming that inclusion does not automatically translate into procedural or substantive justice we then propose that JT proposals should also be evaluated in terms of their socioecological purpose, specifically social equality and standing for nature. We then argue that a full understanding of JT must combine inclusiveness and justice and suggest ways in which we can advance the practice and study of Planetary Just Transition .

Introduction

Since its inception over thirty years ago the Just Transition (JT) strategy has aimed at ensuring that green transitions take place in a manner that is humane and equitable for those displaced by them. During the last several years it has emerged from a concept largely known and contested by labour unions to one that is now promoted and contested by unions, environmentalists, governments, cities, corporations, churches and others (Just Transition Research Collaborative (JTRC), 2018; Morena et al., 2020). Its inclusion in the preamble of the 2015 Paris Accord signified its symbolic ascent to the heights of planetary politics and governance, to be followed by the 2018 Silesia Declaration on Solidarity and Just Transition. Tellingly, the Declaration was adopted in Poland with its strong commitment to fossil fuels and its conservative political tilt, underscoring that there are various uses (and abuses) of the term.

Planetary Justice cannot take place without a massive and profound transition that is socially and ecologically just at a level commensurate with its scale. The goal of this paper, therefore, is to reflect on the ingredients of a 'planetary just transition' (PJT). We fully recognize the essentially contested nature of JT,[1] as well as of the 'planetary' (Connelly, 2007; Gallie, 1955) and rather than attempt a single definition we propose an analytical scheme to better interpret and differentiate amongst the various visions of JT and, by extension, PJT, building on earlier work (Felli, 2014; Stevis and Felli, 2015; Stevis and Felli, 2016). We start by outlining the trajectory of JT from its North American origins to becoming a global concept. This first part highlights the globalization/planetarization of JT as it is increasingly connected to planetary issues such as climate change, and outlines the variability of JT as a growing and diverse number of social forces promote their own versions. In the second part we explore the reach or breadth of JT. Here we employ *scale* to address the geographic and temporal inclusiveness of JT and *scope* to address its social and ecological inclusiveness. How would JT look like from the vantage point of different scales and scopes? What kinds of JT would bring us closer to a PJT?

In the third part we explore the depth of JT proposals by focusing on the articulations of their environmental and social priorities to capture whether and what approach to justice they promote. To what degree and how does a JT extend standing to nature? Does it only aim to make a green transition socially equitable or does it embed a just green transition within nature? Does a JT protect those adversely affected by a green transition or does it empower them? Does it also temper and reduce the power of those responsible for injustice? How would our view of a PJT

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[1] For some important overviews and debates on justice see Olson (2008) Robeyns (2003) Schlosberg (2013) Temper (2019) Biermann and Kalfagianni (2020).

https://doi.org/10.1016/j.esg.2020.100065

proposal shift if we privilege different approaches to nature and society?

The discussions of inclusion and justice provide important insights on their own. However, as we point out in the fourth part, there can be significant divergences between the two in the sense that a PJT proposal may not be necessarily more ambitious than policies limited to particular places. Nor are local JT initiatives necessarily more democratic, ecological and just compared to planetary ones. In fact, a JT that may seem emancipatory at one configuration of scale and scope can be exclusionary and unjust when placed within its full historical context. In the fifth part we suggest some ways forward in terms of empirical research. We close with a recapitulation of our main points.

Just transition: The making and globalization of a contested concept

The major goal of this part is to set the stage for the rest of the paper by highlighting two developments over the last several decades. First, JT has become planetary, particularly through its connection to climate policy and, increasingly, other planetary issues. Second, the proliferation of contending visions of just transition requires their systematic analysis. On that basis there are four periods in the history of the explicit use of JT (Stevis and Felli, 2015; Hampton, 2015; Just Transition Research Collaborative, 2018; Stevis et al., 2020; Rosemberg, 2020). While the term 'just transition' was first used in 1995 it was part of an explicit strategy by unions and environmental justice activists in the USA and Canada that can be traced to the very late 1980s and which focused largely on toxics (OCAW, 1991). During the second period – from around 2001 up to the Great Recession of 2008- it was abandoned by North American unions but taken up by unions elsewhere, as well as global union organizations, with increasing attention to climate change. These continued to play a key role during the third period – the Great Recession – now joined by some IGOs which hoped that green growth would be the solution to the global crisis. The last period, more or less since 2013, reflects the full planetarization of JT, particularly with its inclusion in the Paris Agreement, and its adoption by many environmentalists, governments, business and others.

The Origins of Just Transition: The aggregate employment impacts of the environmental regulations adopted in the USA during the 1970s were not negative. However, they definitely affected certain industries in manufacturing, toxics and nuclear power, which had to adjust to higher environmental standards. Early on people like Tony Mazzocchi of the Oil, Chemical and Atomic Workers' Union (OCAW) realized that transitional policies were necessary and that there were examples of successful transitional policies, such as the support offered to the veterans of WWII (GI Bill) (Leopold, 2007). Mazzocchi's environmentalism was not an isolated case. The attitudes of US unions towards environmental regulation during the 1960s and early 1970s were more diverse than often assumed (Dewey, 2019).[2] During the 1970s, for instance, US labour unions and networks were amongst the earliest advocates of environmental justice (Rector, 2018).

During the 1980s the discussion of transitional strategies fell off the OCAW's agenda but reemerged at the end of the decade. Drawing upon the federal Superfund policy, intended to clean up polluted sites, the union developed a proposal for a Superfund for Workers (OCAW, 1991; Mazzocchi, 1993). Rather than supporting every mobilization to keep any jobs, the union programmatically chose to support a shift to less toxic products and production processes, with significant internal friction. Moreover, the broader strategy of the OCAW envisioned a robust green industrial policy for the USA, strong occupational, health *and* environmental rights and standards, along with universal health care and the formation of an independent labour party (Wykle et al., 1991). This, in short, was a democratic socialist strategy with a significant environmental component, similar to the current Green New Deal proposals in the USA and the EU (US Congress 2018; European Commission 2019).[3] During the 1990s the OCAW promoted the strategy in collaboration with the environmental justice movement (Young, 1998; Harvey, 2018) and through systematic discussions between unions and environmentalists (Renner, 2000). However, after 2001 Just Transition fell of the agenda of US unions and environmentalists because of the resolute opposition of a number of unions, the absorption of OCAW by an anti-environmentalist union, the election of an anti-environmentalist president in 2000 and the nationalist aftermath of September 11, 2001 which was conducive to green industrial strategies that promoted US primacy and avoided questions of justice.

The Globalization of Just Transition: The strategy did not disappear because a couple of global union organizations had become familiar with it and inserted it into their public statements, including in global fora (Gereluk and Royer, 2001). But the primary force behind the globalization of JT was a select group of national unions which played a key role in globalizing Just Transition (Felli, 2014; Hampton, 2015). A very important force was the Spanish Comisiones Obreras which had adopted a proactive approach towards the environment and climate since the late 1980s and whose environmentalism was institutionalized within the union's organization (Gil, 2013; Rosemberg, 2020). In 2004 it formed Sustainlabour, a labour environmentalist NGO which over its 12 year of existence played a critical role in the diffusion of labour environmentalism at the global level and around the world (Sustainlabour and United National Environmental Programme, 2008; Murillo, 2013). One important step was the Trade Union Assembly on Labour and the Environment that took place in January 2006 (UNEP, 2007) and brought together unions from around the world, as well as the International Trade Union Confederation (ITUC, 2009; Stevis et al., 2020; Rosemberg, 2020). Global union organizations – particularly the ITUC - played an important role in the diffusion of the strategy. Its emerging significance was made apparent at the Bali COP (2007) which also attracted a broader delegation of US unions, now supportive of JT at the global level. Processes initiated at the 2009 COP led to the symbolic inclusion of JT in the COP documents starting in 2010. This raised JT to the planetary level and, equally importantly, allowed the collaboration of climate justice activists with labour environmentalists which, up to that time, were working on somewhat parallel trajectories (Roberts, 2007; Rosemberg, 2020; 46–48), even though the environmental justice, labour environmentalist and just transition movements had close contacts as far back as the 1970s (Rector, 2018; Farrell, 2012).

Up to the Great Recession in 2008, unions were promoting just transition as part of a labour strategy that balanced just and green transitions. Once the Recession manifested itself, however, there was a proliferation of proposals that promoted green transitions

[2] It is important to note that we are not suggesting that labour environmentalism or initiatives that may well be considered as squarely within JT were limited to the USA. According to a number of scholars and activists the 1970s Lucas experiment in the UK, and the vision behind it, can be considered one of the pioneering examples of labour environmentalism and just transition (Räthzel, Uzzell and Elliott 2010).

[3] Democratic socialism refers to policies that promote a larger and more democratic social welfare state. The differences between democratic socialism and social democracy are the subject of debate (McCarthy, 2018; Meyer, 2018). Analysts have increasingly made the case for an eco-social welfare state (Koch and Fritz, 2014; Jakobsson et al. 2017)

centered around green growth and green capitalism and in which just transition was a secondary factor, if at all (Jacobs, 2012; Tienhaara, 2014; Rosemberg, 2020). The 2009–2014 Green Jobs Initiative, a collaboration between the ILO, UNEP and the ITUC, increasingly reflected that approach. Just Transition, while mentioned, was reduced to a secondary component. In fact none of the various Green New Deal proposals that appeared during that period fully addressed Just Transition – largely placing their hopes in more green growth and green jobs (Stevis et al., 2020: 17–18).

Just Transition for and from Everyone: During 2013 JT found an additional place in global politics when the Governing Board included it on the ILO's annual conference agenda. Global climate justice activists started seeing value in the concept and some of them transferred it back to their national movements (Rosemberg, 2020). The ILO adopted its JT guidelines in 2015 (ILO, 2015; Galgóczi, 2018). The ITUC's Just Transition Centre, with a decidedly more collaborative approach towards capital, was launched in 2016 (Just Transition Centre, 2017; Moussu, 2020). This mainstreaming did not come without changes. In 2016 Sustainlabour, with its primary focus on unions and workers, closed its operations as its approach became less popular at the level of IGOs and the ITUC. In 2018 The B Team, a business coalition, produced its Just Transition guidelines for employers in collaboration with the ITUC (Just Transition Centre and The B Team, 2018; Just Transition Research Collaborative, 2018), followed shortly thereafter by statements in favor of JT by other business coalitions and networks. The World Bank (2018) produced a report examining its practices with respect to coal transitions from the angle of JT. Other IGOs and actors have also engaged the topic, sometimes using the term 'inclusive transition'. More recently, JT has been associated with foreign policy and the need to prevent destabilizing forces around the world (Ranft et al., 2019). In addition to various proposals, JT policies have also been adopted by countries, such as Canada and Spain, as well as subnational units, such as Colorado and Scotland (see Just Transition Centre, 2017; Galgóczi, 2018; and Just Transition Research Collaborative, 2018 for examples). The European Union has recently adopted a Just Transition Funding Mechanism as part of its massive Green Deal (European Commission, 2019).

It would be hard to claim that all of these entities share the same visions of inclusiveness (scale and scope) and justice (social equality and environmental quality) (on tensions that emerge see Ciplet and Harrison, 2020). Some JT proposals are much more local or limited to particular practices while others are planetary, both in terms of their scale and in terms of their scope, as discussed below. As the universe of proponents and proposals has expanded it is also not surprising that the ambition of JT ranges from conventional forms of CSR to profound transformational proposals that challenge capitalism, whether neoliberal, developmentalist or nativist (Just Transition Research Collaborative, 2018; Mousu, 2020). A necessary step, therefore, is to reflect on the inclusiveness and justice of JT, as we should on democracy or justice, lest the term becomes an empty signifier. We now turn to that task.

Inclusiveness of planetary just transition

Scale and Scope. Given the proliferation of JT proposals it stands to reason that we need some analytical tools to differentiate amongst them – in the same sense that analysts have done with respect to sustainable development and the green economy (e.g., Hopwood et al., 2005; Connelly, 2007; Clapp and Dauvergne, 2011; Jacobs, 2012; Tienhaara, 2014; Felli, 2014).We employ *scale* and *scope* to capture the breadth or inclusiveness[4] of JT – or for that matter democracy, justice or power. Scale refers to the spatial and temporal reach of a particular proposal or policy. *Spatially* a policy or practice may range from local to planetary but the spatial scale of a policy cannot be determined according to some fixed version of jurisdictional boundaries. A national policy to raise US interest rates, for instance, has global implications. The carbon accounting provisions adopted by a city reverberate beyond its boundaries in the form of trade and investment choices. As social geographers have argued spatiality is the product of contestations and politics – rather than a purely physical or legal artifact (Hollifield, Porter and Walker, 2009; Bridge et al., 2013).

Like spatiality, the *temporal* scale of a policy is also the product of contestations and politics with different people and places shaped by and affected differentially by the way timescapes are produced (Adam, 1998; Nixon, 2011). As a number of analysts have argued space and time are the product of common social processes that shape the interfaces of humanity and nature (Cronon, 1996; Mann, 2011).

These interfaces are inscribed in the history and characteristics of jurisdictional boundaries whose permeability depends on a place's position in the global political economy (Sassen, 2005; Bridge et al. 2013; Mezzadra and Neilson, 2012). Countries are the products of historical processes, whether imperialism or other forms of geopolitics, as well as domestic contestations (Frank, 1965; Grove, 1994; Marks, 2015). One of the characteristics of imperial countries is that they are better able to control their boundaries, compared to their formal or informal colonial spheres. Cities and subnational units are formally subject to domestic rules and politics but they are also differentially integrated into the world political economy (Bulkeley and Schroeder, 2011; Dicken, 2015; Lenschow et al., 2016).

These same historical relations obtain, much more explicitly, with respect to the second dimension – scope. An account that fully maps the scale of an activity may do so only with respect to particular stakeholders, processes and products (Gaventa, 1980; I. Young, 2000, 2006; Fraser, 2005). Focusing only on production or consumption, but not their historical articulations, highlights some elements of the political economy over others (Wiedmann et al., 2020). Electric and hybrid cars, for instance, are only a small portion of car production compared to sport utility vehicles. Transition plans that cover only some affected people or places fall in that category. Compensation or retraining may alleviate the distress of laid off workers but they may not extend to the community in which these workers are embedded (Mertins-Kirkwood and Deshpande, 2019). Or they may address the concerns of strategically placed workers and communities but not those in less strategic positions within the same global production network.

But our examination of scope should not be limited to those most vulnerable. It should also include those most powerful and responsible for the policies and practices that require a Just Transition (on limits to wealth see Robeyns, 2019; on consumption of the affluent see Wiedmann et al., 2020). A common corporate strategy, relying on structural power, has been the refusal to engage in policy debates until and unless the parameters of those debates have shifted in the direction capital prefers, as is the case with private regulation. The mere presence of those powerful and responsible is meaningless if their structural power is left unexamined and unregulated (Shamir, 2010, 2011; Moussu, 2020).

The discussion of scale and scope raises the question of what does the 'planetary' mean? Some analysts have suggested that it is different from the 'global' while others would consider using the two interchangeably (Pedersen, 2020; Biermann and Kalfagianni,

[4] Inclusiveness generally conveys a positive message. We feel that inclusion – in the form of recognition or participation-is variable, as are its outputs. Accordingly breadth, as used here, largely refers to inclusiveness as the 'coverage' of a just transition. Depth, in turn, refers to the degree or kind of justice envisioned by a JT.

2020; Kaldor and Selchow, 2020). This is not the question that we want to adjudicate. Rather we are asking whether planetary justice and injustice are subject to some kind of universalist (Malm and Warlenius, 2019) or aggregate forces, independent of social power and historical divisions of labour (Stevis and Assetto, 2001). Our view is that the planetary is historical, and that this requires the identification of the forces that shape it one way or another (Moore, 2019). Our approach is analogous to that which argues for a more historical and social examination of the Anthropocene (e.g., Lövbrand et al. 2015; Luke, 2015). Adopting such a relational strategy allows us to explore planetary justice and just transition more fully, something that is not possible if one adopts a universalist view that hesitates to allocate differential responsibility and obligation (on the differences between relational and gradational analyses see Wright, 2016).

Just Transition for All. With the above clarifications in mind what should a planetary just transition include? A great deal of the discussion and practice of Just Transition in recent years has focused on coal. Canada, for instance, has created a national task force to deal with the transition from coal in the whole of the country (Mertins-Kirkwood and Deshpande, 2019). Colorado has decided to set up a Just Transition Office to also transition from coal (Cohen, 2019). In both cases the policies leave out the major fossil fuel sources of energy – natural gas in Colorado and tar sands in Canada. At a time when coal seems to be losing ground in the USA, despite Trump's promises, natural gas is consolidating its dominance (Plumer, 2019). Just transition policies that do not address the whole energy sector, including energy users, are incomplete (for a study of JT that includes automobiles see Galgóczi (2019).

A PJT should also cover the renewable energy economy for at least three reasons. First, the renewable energy industry is not well known for its friendly approach towards workers while its siting practices often purposefully divide communities leaving those with less land and political access unable to influence siting (Cass et al., 2010; for a broader overview see Burke and Stephens, 2018). Second, the life cycle of the renewable industry raises major social and environmental concerns. Wind turbines are large industrial installations at the apex of extensive production networks that include mining, transportation, refining, manufacturing, installation and maintenance. There is no evidence that the mining of the minerals needed for wind turbines is taking place under better social and environmental conditions than does the extraction of fossil fuels nor is there evidence of any planning for properly completing their life cycle. The production of certain solar panels, for instance, presents serious occupational and health hazards while most solar panels have to be disposed as hazardous materials (Mulvaney, 2014). Finally, renewable energy is very much the subject of market dynamics, as well as geopolitical dynamics when treated as a strategic sector. Individual rationality breeds collective irrationality and, thus, overproduction and overconsumption - what some call the Jevon's paradox or the rebound effect (Polimeni et al., 2008).

The strong association of JT with climate policy also raises profound issues of scope. A planetary just transition should address the *total* environment. A significant range of practices and policies with immediate and massive impacts on workers and communities are not related to climate change. Their legitimation in terms of climate change – rather than as important issues in their own right – devalues the life concerns of both the humans as well as the ecosystems affected. For instance, nitrogen cycle disruption, ocean acidification, loss of biodiversity, plastics, toxics or urban pollution are all problems that affect humanity and nature across the globe (e.g., Biermann et al., 2016; Bennett et al., 2019). A planetary just transition that addresses the whole environment does not reject that specific challenges are more pressing at particular moments and for the largest swath of people and nature. But it also should not deny that other environmental or social harms may be the most immediate and existential for specific and large swaths of people and nature. Putting those transitions on the back burner is certain to breed opposition to urgently needed climate transition.

For historical reasons JT has been associated with the environmental transition but the need for it is not limited to the environment. Wars, migration, slavery, patriarchy, colonization, uneven development, innovations, automation, longer lives, and capital-intensive production, have also caused profound transitions. A total politics of planetary justice would have to consider just transition in all realms of life. Such a focus is necessary both in itself and for the sake of planetary environmental transition. A prominent Green New Deal proposed in the USA, for instance, promotes a green industrial policy along with universal health care (US Congress 2018). In the absence of a just transition for workers in the health sector it is not likely that there will be enough support for its green component – particularly since some of the strongest supporters of the GND are unions in the health sector.

In recapitulating, it is possible to envision a range of configurations of scale and scope (see Fig. 1). These configurations are not technical choices nor historical accidents. Rather, they reflect political conjunctures and contestations. For example, a decision to initiate a JT for coal workers – but not other fossil fuel workers – reflects the considerable power of the oil and natural gas industries. A PJT is not one that has planetary scale and scope from its very inception. That would certainly lead to immobilization in light of the range of tensions involved (Ciplet and Harrison, 2020). Rather, a PJT is one that opens, rather than closes, avenues towards more inclusion. JT from coal, for example, is more planetary if it addresses coal around the world – with the obligations that this implies for global policy and the North-South divide- and does not limit JT to coal. The key point here is that we should not assume that planetary scale is the same as planetary scope. Nor should we assume that a planetary transition that is broad in scope and scale is necessarily deep or ambitious. We now turn to that dimension.

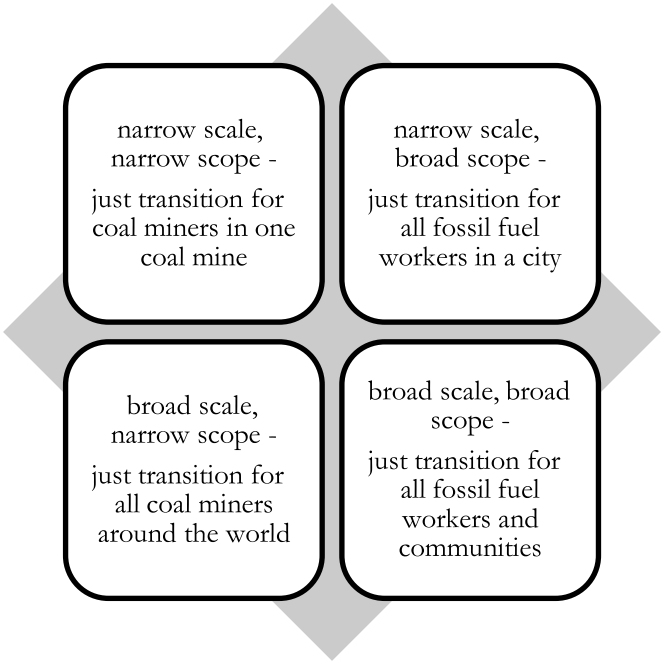

Fig. 1. Configurations of scale and scope: Degrees of inclusion.

The justice of planetary just transition

A planetary just transition may aim at fairness within the parameters of neoliberal capitalism or compensatory policies and capabilities under social liberalism (Piggot et al., 2019). Or it can aim at the structural reform (see Bond, 2008) or the transformation of the existing order (Sweeney and Treat, 2018). Stated differently, PJT views can vary not only in terms of their breadth or inclusiveness but, also, with respect to the depth of their justice claims (for an overview see Biermann and Kalfagianni, 2020). We examine the latter by focusing on how they balance justice between humans and justice between humanity and nature (Hopwood et al., 2005).

From Anthropocentrism to Ecocentrism. We start by asserting, along with many others, that humanity and nature are part of the same ontological totality (Grove, 1994; Cronon, 1996; Hornborg, 1998). Humanity does not simply affect nature, as if it were an external force, but it is part of nature. As a result, every human activity, including activities that we do not normally consider as having an environmental impact, reshape socioecological systems. But this assertion does not tell us enough about how humans deal with nature, a subject matter central to political ecology and environmental politics. As with other 'internal relations' (Ollman, 1976; Stevis and Assetto 2001; Moore, 2015) in which parts are not conceivable independent of the relationship – such as employer and employee, parents and children, individuals and societies, Global North and Global South – there is a great deal of historical variability and asymmetry in the dynamics of these relationships. To simply point out that society and nature are constituted within an internal relationship is to leave the impression that they both have equal agency (Stevis, 2000). This is not to say that nature is a 'passive' component of the society-nature nexus (Bennett, 2010; also Colle and Frost, 2010). It is to say, however that, as with some ecocentrists and biocentrists, erasing the differences between human and natural agency colonizes and anthropomorphizes nature and may well distract from the proper allocation of responsibility and obligation.

With that in mind a conventional means to capture the historical relations and attitudes towards nature, implicit or explicit, is in terms of where they fall in the anthropocentrism-ecocentrism continuum (Low and Gleeson, 1998; Shrader-Frechette, 2002; Hopwood et al., 2005; Clapp and Dauvergne, 2011; Schlosberg, 2013). At one extreme we can place approaches that see nature as a resource to be used until its depletion. Further along conservationists seek to replenish natural resources, whether for hunting or fishing, or other forms of extraction, such as logging. Once confronted with non-renewable resources, conservationists are likely to diversify and/or place their hopes in technological innovation. Weaker forms of ecological modernization share strong affinities with conservation around their shared belief in technological innovation. Stronger forms of ecological modernization introduce additional concerns, such as equity and some standing for nature (see Christoff, 1996; Jaenicke and Lindemann, 2010; but see Warner, 2010). Ecocentric approaches extend intrinsic value to nature although there are differences in how this takes place. Deep ecologists may do so by downgrading the standing of humanity while social ecologists seek a synthesis of society and nature, allowing for an exploration of the interfaces between social and ecological criteria and values (for brief overviews see Clapp and Dauvergne, 2011 and Hopwood et al., 2005).

Since the 1970s a line of thought has been deeply concerned about planetary stress, best expressed in *The Limits to Growth* (Meadows et al., 2004). Currently, the narratives of the Anthropocene (e.g., Lövbrand et al., 2015) and planetary limits are central to global policy debates (Rockström et al. 2009; Rockström, 2015; Raworth, 2012). Are these concerns evidence of a decisive ecocentric turn? We do not think that this connection is self-evident. While these approaches see the planet as a system that can collapse under the strain of human intervention this does not necessarily extend intrinsic value to nature. Rather, they may reflect alarm with the social and economic impacts of environmental collapse (Stern, 2006; Keith, 2013). Planetary justice, and PJT in our case, can very well be limited to the social injustices that planetary collapse or rapid change may engender, including the maldistribution of environmental harms and benefits amongst humans.

From Inegalitarianism to Egalitarianism. Strong egalitarian approaches – at the level of ideologies and world views – allow for the recognition and participation (voice) of all involved and affected, including those speaking for nature (Young, 2006). They also argue for the structural reform or transformation of existing power structures and institutions that privilege certain voices and certain choices (Just Transition Research Collaborative, 2018). It is one thing to go into a process that recognizes and includes all affected and all responsible, knowing that you can establish upper limits to the benefits and power of capital, and another to solely focus on crafting a compensatory safety net that does not temper and reduce its power.

Inegalitarian approaches, on the other hand, normalize unequal power relations. Political economies that give discretion to a benevolent leader are evidently inegalitarian. Similarly, political economies that extend broad but limited distribution, recognition and participation – such as the market – are also inegalitarian because core choices are beyond deliberation. The reasoning for supporting inegalitarian views may range from fully racist or biological criteria to a libertarian evocation of the 'freedom' of individuals to accumulate power well above that of others (Beckerman and Pasek, 2001; on libertarianism and planetary justice see Biermann and Kalfagianni, 2020). Where inegalitarian worldviews support environmental or ecological policies they are likely to do so via pricing mechanisms, including those of environmental services (see Lohman, 2009) or via exclusionary preservationism, as has been the case with national parks and preservation in much of the world (Macekura, 2015). On the other hand, more distributionally egalitarian societies, such as the USSR during parts of its history (Novokmet et al., 2017), are not necessarily more environmentalist.

The two dimensions of depth can help us produce a range of configurations of PJT views, with a number of similar views clustering together (see Fig. 2). Inegalitarian and anthropocentric views are likely to produce planetary environmental injustice while egalitarian anthropocentric views are likely to produce conventional planetary environmental justice – seen in terms of the distribution of environmental harms and benefits. Inegalitarian views that privilege nature – whether deep ecology, biocentrism or preservationism – will produce planetary ecological injustice, as would be the case with natural parks around the world, while egalitarian and ecocentric views are more likely to produce planetary ecological justice. Each configuration reflects particular contestations and power relations rather than a technical fusion of depth and breadth. As we suggested at the end of the previous part, a planetary just transition will not emerge fully formed, if at all. Our challenge, therefore, is to differentiate a JT that opens opportunities towards more social and ecological justice, from a JT that affirms the existing political economy and/or seeks to manage a crisis.

Bringing inclusion and justice together

Many of the debates over democracy or justice center around the existence of communities of faith and belonging (O'Neil, 2000; Robeyns, 2003; Fraser, 2005; Young, 2006; Olson, 2008; Dryzek et al., 2019; Biermann and Kalfagianni, 2020). Communitarians argue

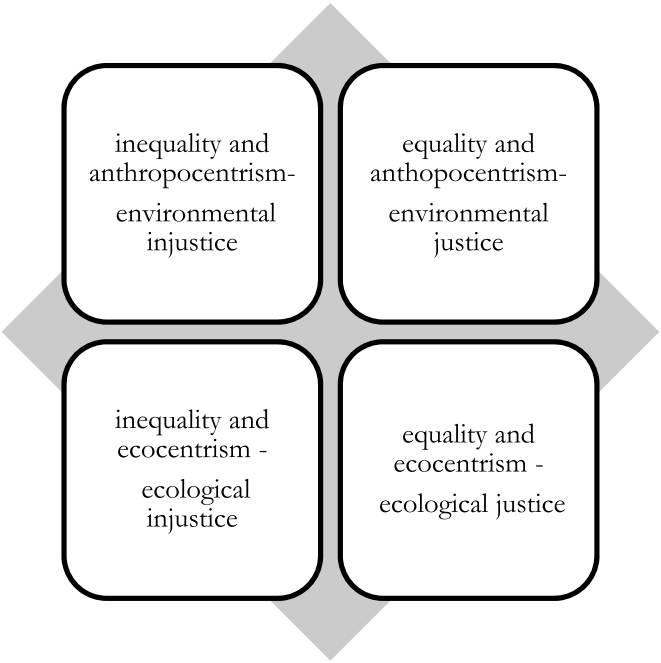

Fig. 2. Configurations of social and environmental worldiews: Varieties of (In)justice.

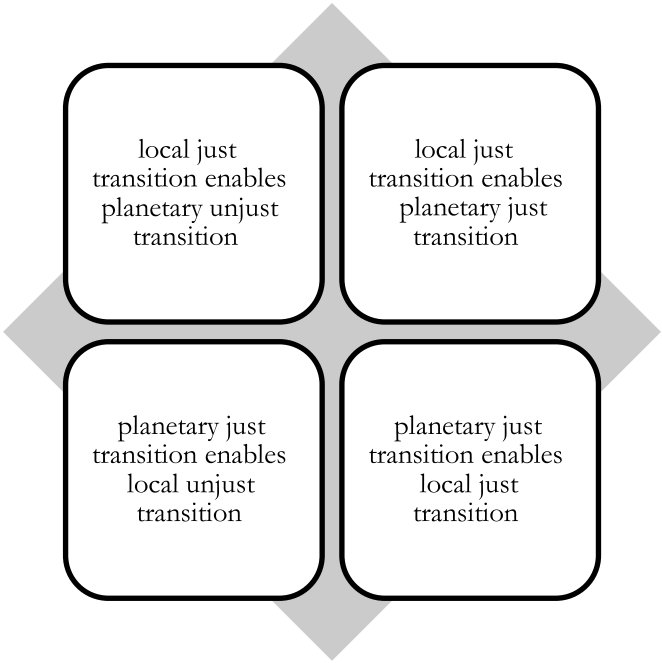

Fig. 3. Configurations of breadth and depth: The geography of (Un)just transitions.

that only societies with a common core and mission can truly aim for democracy and justice and, thus, that cosmopolitan views are misdirected (Kukathas, 2006). Cosmopolitans envision a global justice centered around individuals, regardless of nationality (Dryzek, 2012; Held and Patomaki, 2006). Others have sought to bridge this divide on the basis of a cosmopolitanism of democratic communities whereby the achievements of egalitarian societies provide the foundation for global egalitarianism (Eckersley, 2007). Our point is not to take sides in these debates but, rather, to point out that a full evaluation of the democratic and justice content of PJ would benefit by employing both breadth and depth variables to ensure that just practices with respect to one planetary issue are not purchased through injustice in other domains. The re-emergence of exclusionary nationalism (nativism), for instance, has highlighted how egalitarian policies, such as the social welfare state, can be appropriated in the cause of unjust and punitive agendas against immigrants or citizens with certain ethnic attributes (Forchtner, 2020; for varieties of historical nationalism see Mazower, 2013). In a world that is constituted by enduring historical divisions of labour every local policy has translocal impacts and every translocal or global policy is mediated by these divisions of labour.

We place the configurations of depth and breadth within these parameters (see Fig. 3). At one extreme we can very well have a local just transition that is inclusive of all local stakeholders but which externalizes harm by exporting its coal, while importing the minerals required for renewable energy, from places with lower social and environmental standards. These negative externalities are likely to lead to the global lowering of standards as each locality is striving for advantage (downward harmonization). Alternatively, a local JT that absorbs the costs of the transition, e.g., leaves coal in the ground and assists both the coal producers on which it depended as well as the producers of the minerals needed for renewable energy, can lead to collaboration and higher translocal standards.

A planetary just transition can also hide and aggravate injustice when it uses countries (or subnational units) as its metric of (in) justice without addressing internal inequalities and exclusions. This can be done explicitly through JT policies that are limited to citizens or to employment that is primarily male, e.g., coal miners but not office personnel in coal companies, mostly female. Or it can be done implicitly by limiting policies to formal employment, thus leaving out women and workers in the 'informal' and 'care' economies, largely women, immigrants and people of color (Mertins-Kirkwood and Deshpande, 2019; Tollmann et al., 2018; WEDO, 2016). As a result, the arguments of Southern elites that are based on national sovereignty may be useful in terms of pushing back against Northern imperialism but that does not make them just. When Brazil, for instance, calls for sovereignty over the Amazon it employs a strong argument against Northern governments who refuse to recognize the impacts of their continuing practices in deforesting the earth. On the other hand, the strengthening of that 'sovereignty' also facilitates the exploitation of Brazilian small farmers and indigenous people – many of them depending on forest resources – by Brazilian capital (Leroy, 2017).

This does not mean that Global North-Global South dynamics should be dismissed. Some current Green New Deal proposals, for example, have been criticized as a form of neocolonialism because they do not address their impacts, if implemented, on the world political economy and within countries, particularly in the Global South (Rehman, 2019). Rather, a PJT requires that we address this planetary divide in all of its complexity by promoting policies that address inequalities from the global to the local levels. A Just Transition cannot move us in the direction of a PJT if it is limited to the Global North (Satgar, 2018a, b, ; Hirsch et al., 2017; Rodriguez-Labajos et al., 2019). The inclusion of the Global South, diverse as it is (Ciplet and Roberts 2017) requires not only assistance from the Global North (Ranft et al., 2019) but a more profound reorganization of the world political economy away from the global divisions of labour that reproduce North-South inequality. Such a

reorganization cannot take place by itself but requires that unions, environmentalists and all egalitarian social forces, North and South, learn from each other and develop a politics of planetary solidarity.

Our approach to PJT is not intended to suggest that only the most inclusive and socioecologically just PJT is acceptable while every other JT falls short. Rather, it serves a dual purpose. First, to provide an analytical scheme that allows us to interpret and compare JT practices as taking place within translocal, global or planetary social divisions of labour – rather than as isolated practices involving localities, products, or firms. Second, it requires us to ask whether a particular JT affirms, manages, challenges or transforms our world in the direction of a comprehensive planetary just transition (Hampton, 2015; Sweeney and Treat, 2018; Just Transition Research Collaborative, 2018). The criterion here is not whether a JT is *ab initio* planetary but whether it contributes to building a PJT and, more importantly, what kinds of a PJT, a question to which we now turn.

The study and promotion of PJT

In light of the above how do we promote and study planetary justice and PJT? Can a planetary just transition be advanced solely through planetary policies or can it also be advanced via subplanetary ones? And should planetary just transition proposals be studied at the level of the whole planet or do we have tools that allow us to bridge and local and the planetary through systematic research – in the process evaluating the purpose of various policies?

Sub-planetary policies can very well advance and contribute to planetary (in)justice. In the same way that some local practices can lead to downward harmonization, by encouraging countries and subnational units to compete for capital by lowering their standards, other practices can lead to upward harmonization, by using local policies to promote higher translocal standards (Vogel, 1995; Doorey, 2010).[5] Such strategies of extraterritorial unilateralism are not without their risks because they are often based on a misguided nationalism that glorifies real or imagined national accomplishments while employing methodological nationalism in the midst of constitutive historical divisions of labour (Wimmer and Schiller, 2002). What we are suggesting here is that local and national policies are policies *within* the world political economy rather than separate from it.

How, and which, local or national policies can in fact lead to upward harmonization is one of the most fruitful and demanding areas of planetary democracy and justice research. What kinds of subplanetary policies can contribute to planetary justice in light of the claim that all policies – even the most local – are affected by and take place within the world-political economy. There is no guaranty that a well-meaning national or local policy will contribute to collective rationality nationally or globally. But we can argue that some policies are more likely to do so than others (Vogel, 1995; Barrientos et al., 2011; Selwyn, 2013) and that this is a fruitful research agenda. However, we need to underline that we recommend case studies whose analysis is embedded in and mindful of the historical and social contexts in which they take place (Muradian, O'Connor and Martinez-Alier, 2002; Cumbers et al., 2008; Coe et al., 2008; Gough, 2010; Rodriguez-Labajos et al. 2016; Givens et al., 2019). An analysis of the best decarbonization strategy that stops at the edge of a jurisdiction is not the kind of research that we are calling for. Certifying the quality of a product by focusing on its properties once delivered, while obscuring the associated production process, is an example of methodological nationalism.

Serious crises and transitions – whether 'social', such as the end of the Cold War, the Great Recession, the rise of nativism or the current pandemic, or 'natural', such as climate change, the proliferation of plastics or the impacts of monocultures – remind us that the most promising approaches are those that integrate macro and micro levels of analysis. One does not need to adopt a historical materialist approach to recognize that the depth and breadth of human activities are taking place within global social divisions of labour that change much more slowly than changes within them (Stephen, 2014; Nayyar, 2016; also Muradian et al., 2012). An evidence-based approach to the study of planetary just transition, or planetary governance, justice or power, will be well-served by differentiating between these two types of changes, however those may be operationalized. We believe that systematic research has made enormous strides since the 1960s and here we briefly outline promising research approaches while pointing out what we consider to be possible problems.

We agree that totalities, such as planetary politics or world-systems, have to be studied at that level. Global capitalism, geopolitics or global governance do have their own dynamics. A myriad studies of corporations, national strategies or regimes will not add up to an understanding of the totality's dynamics, as researchers recognize (Martinez-Alier et al., 2016; Loorbach et al., 2017; Temper et al., 2018). In our view the most promising analyses are those that allow us to foreground power relations as well as historicize that totality. Capitalism, geopolitics, global governance have histories – they are not ahistorical mechanical processes. Socio-ecological and sociotechnical systems analyses, for instance, recognize that we exist within totalities but have been slower in examining these totalities as the historical product of social power and contestation (Betsill and Stevis, 2016; Healy and Barry, 2017; Jenkins et al., 2018). This can also be the problem with some world-systemic research or neorealism in international relations when they omit the role of human agency and historical contingency (for efforts to bridge the two see Giddens, 1984; Cox, 1981). A promising strategy, in our view, is macrohistorical research that employs explicit socioecological criteria to trace the creation, persistence and modification of global socioecological divisions of labour (Bunker, 1985; Grove, 1994; Cronon, 1996; Hornborg, 1998, 2007; Marks, 2015; Malm, 2013; Moore, 2015). Such research is particularly necessary during this era of planetary and anthropocenic imaginaries, compounded by another cosmo-historical pandemic (Conniff, 2020).

Necessary as research on totalities may be, it is also partial. The global or the planetary does not operate in some ethereal space but, rather, through the landing in and the shaping of localities – at the same time that those localities shape the global or planetary (Dicken, 2015; Mann, 2011; Stavrianos, 1981; Frank, 1965). Over the last several decades social scientists have developed many analytical tools to study the micro and meso levels of the world political economy as integral parts of this totality. Micro level tools include life cycle analyses that can provide us with granular tracing of particular products but often leave out social and environmental politics (Scientific Applications International Corporation, 2006) and commodity chain analysis, even though it has been criticized for abandoning its early promise to help us map world-systems (Bair, 2009). Value chain analysis, when it moves beyond the capturing of economic value to examine the politics associated with it, can move us towards a meso level (Gereffi, 2014) while global production networks cover a broader scale and scope and clearly address meso level dynamics (Dicken, 2015). In general, proponents of GPNs are more aware of the

[5] For example, higher emission standards in California forced car companies to improve their emission standards across their fleets.This has been called the 'California effect' (Vogel, 1995).

historical divisions of labour and the significance of politics, although they admit that they need to do more with respect to contestation and politics (Levy, 2008). The promising approach of telecoupling (Lenschow et al., 2016) – whereby two places in the world are intimately connected- would be enriched if informed by GPN and global division of labour insights. Finally, perhaps the circular economy approach, if it integrates politics, power and justice can provide another meso scale analytical tool. It is not possible for every case study to explore all connections to the broader political economy. At the very least, however, it must reflect on the kinds of additional research that is needed to do so.

This approach can very much be applied to the study of planetary justice and just transition. For example, before inferring that the proliferation of planetary justice policies with respect to particular sectors or problems is evidence of an overall march towards planetary justice it would be preferable to explore the varieties of justice at play (Biermann and Kalfagianni, 2020). Similarly, national and subnational just transition policies may be evidence towards a planetary just transition but may also be evidence of what Williams (1989) called 'militant particularism' when every place fights for its own justice, regardless of its translocal impacts. It is for this reason that research on planetary just transitions - and planetary justice, in general - must pay attention to social relations across boundaries. It is not enough to demonstrate that people are connected by commodity chains or production networks. Such connections can well aggravate competition and predatory behavior. Thus, a research agenda that should be part and parcel of what we have discussed in this part is how social forces, particularly unions and egalitarian social movements, can foster strategies of planetary solidarity around a political agenda that promotes inclusion and justice between humans and between humanity and nature.

Closing comments

We started this article by pointing out that the strategy of JT has become ubiquitous during the last several years and it seems that it will continue to rise on the global agenda. JT proposals and policies are now evident at the level of specific production points, cities, subnational units, corporations and global policy. This proliferation fully justifies that we explore this increasingly contested concept so that, at the very least, we can differentiate and compare amongst proposals and policies. This is all the more necessary because the concept explicitly promotes high aspirations.

The analytical scheme we have proposed could well be used to discuss democracy and power – and perhaps other concepts. We are not adopting a particular approach to planetary justice, in general, and planetary environmental justice, in particular (for overviews see Dirth et al., 2020; Biermann and Kalfagianni, 2020). Rather, we outline criteria that, in our view, allow us to differentiate amongst competing policies and can help us adopt more just (and democratic) policies. In our view, such policies require the inclusion of all affected/connected, including nature, as well as those most responsible. Consequently, they require both the empowerment of the weak and the weakening of the powerful. The mapping of these connections, responsibilities and obligations can and has been increasingly explored by researchers that focus on various chains, production networks and global exchange and divisions of labour. While we recognize that totalities have their own dynamics we reject aggregate or universalist approaches that hide unequal responsibility for and obligation towards planetary inequality, consumption or environmental damage behind our common humanity.

On these grounds we argue that a Planetary Just Transition must be inclusive in terms of breadth and that it must be just to nature and society – not in an additive way but by recognizing the historical and ontological connections between the two. In that spirit, any PJT policies and practices that do not temper and eradicate social power relations cannot be just to either nature or humanity. We do not think that social egalitarianism will automatically include nature. But it does reduce the ability of some to have more of a voice and choice in those debates by virtue of normalized structures of power. This is not solely a normative research priority nor is it more normative than any other angle from which to explore PJT. Research that is attentive to how structures of power obscure alternative views and dynamics is more empirically grounded and is less likely to be surprised, whether by the collapse of the Soviet Union, the reemergence of the political right, or the social intensity of the pandemic.

CRediT authorship contribution statement

Dimitris Stevis: Conceptualization, Methodology, Visualization, Writing - original draft. **Romain Felli:** Conceptualization, Methodology, Visualization, Writing - review & editing.

Declaration of Competing Interest

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

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