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Introduction.

The strategy of “just transition” emerged in relation to the broader, if fitful, environmental transition that has been going on since the 1970s in the USA. Over the years it has morphed from a reactive to a proactive strategy while it has also expanded beyond the USA to other countries and to global union environmentalism (Rosemberg 2010; Rathzell and Uzzell 2013). Yet not all unions that have articulated transition strategies have cast them in terms of justice and there are good reasons to believe that comprehensive just transition strategies are more aspirational than pragmatic under most if not all types of capitalism. Indeed, the material reality of the global political economy (for instance the need to have a job in order to secure a livelihood) creates structural tensions, contradictions and limits to ecological actions by trade unions. Thus, the goal of this chapter is to highlight some key factors that must be taken into consideration if we are to better understand both just transition and the justice in transition strategies, and their limits. This is particularly pressing with respect to climate policies because they affect every aspect of the global political economy while raising profound questions of justice.

While it emerged in relation to the impacts of environmental policies just and ecological transitions are only one subcategory of transitions and, in fact, just transitions. For that reason it is worth pondering the implications of associating ‘just transition’ with the environment. It is also tempting to associate reactive strategies with declining sectors and proactive strategies with emerging practices. That, we think, would be an error as would be the assumption that proactive strategies are environmentally progressive and reactive strategies environmentally regressive. These are the themes we tackle first.

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We then argue that the study of just transitions or justice in transitions must be grounded in empirical research that delineates the actual people affected by particular practices and the dilemmas they face. Such an approach does not solve all possible problems but does help us avoid aggregate accounts at the level of whole countries or categories of people. Despite the fact that climate change is global, its sources, circulation, and impacts are not equally distributed, as policy makers and activists recognize; neither are the efforts made to mitigate it or to adapt to it.

Building on the above we propose an analytical scheme for fusing social and ecological justice. We then suggest that existing emancipatory transitions as well as a deeper commitment to social and environmental justice provide a strong foundation for treating nature with precaution and as if it has intrinsic value. We close our chapter by identifying some concrete reasons why unions pursuing transitions would benefit from research that explores the impacts of their transition practices across locales.

1. Just Transition and Justice in Transitions

**Beyond Nature.** Environmental transitions, whether involving climate or not, are not necessarily just. Indeed, environmental justifications can be used by the employer or the state to hide or dilute the political economic reasons behind plant closures or other economic restructuring. According to Timothy Mitchell (2011), for instance, transformations in the system of energy provision are the result of strategies by the state to better control labor’s power.

Yet, the use of the term “just transition” to refer to the transition to a sustainable world is both inspiring and limiting. It is inspiring because it recognizes that environmental transitions cannot externalize their social costs on the grounds that they are reaching for some transcendental goals. On the other hand there is a specificity—that came out of an effort to fuse the labor and environmental movements and defend against ‘job blackmail’ (Kazis and Grossman 1991[1982])—that singles out ecological transitions as possibly uniquely unjust processes.

But that is not to deny that ecological transitions can present specific challenges for workers as they do for communities (Barrett et al 2002; UNEP 2008; Lipsig- Mummé 2013). Nor to reject the possibility that environmental rules can lead to the demise of particular industries over time. But such outcomes are not limited to environmental policies. Other factors, such as subcontracting, offshoring, and capital-intensive production, can have even more profound impacts on work, workers and communities. So, environmental transitions are one set amongst many types of transitions that affect the life of workers and their lifeworlds. Furthermore, we need to recognize that some of these transitions are the result of worker’s actions and struggles, as well as attempts by capital and the state to counteract these actions (Herod 2001). So the concept of “just transition” ought to be broadened to include all those affected by transitions (e.g., Swilling and Annecke 2012; Newell and Mulvaney 2013).
The Justice in Transitions. Even though the concept of just transition emerged in the USA (e.g., Young 1998) it is not broadly used currently. One reason may have to do with the negative connotations of just transition for some influential unions in the non-renewables (Brecher 2012). Another has to do with the adoption of a proactive green industrial strategy by the most prominent union-environmentalist alliance –the BlueGreen Alliance (Gordon et al. 2013). For reasons that have to do with the liberal political economy of the country the BlueGreen Alliance (BGA) places a high premium on engaging those segments of capital and the state that are willing. In the absence of corporatist arrangements this can take place, to the degree that it does, by adopting a language that tempers questions of equity and highlights competitiveness – particularly with China (on BGA see Stevis 2014).

However, it would be inaccurate to say that the BlueGreen Alliance does not address questions of equity (D. Foster 2010). It does so by calling for better and greener employment, the relocation of supply chains back into the USA and various other proposals. The BGA has also called for just transition strategies with respect to particular sectors. Thus, it is fair to say that the BGA’s green industrial policy contains implicit and fragmentary elements of just transition. Like the BGA, other unions around the world have adopted, at least in principle, explicit or implicit just transition strategies that reflect variable approaches to socio-ecological justice. In Canada, for instance, Nugent (2011) argues that whereas the Canadian AutoWorkers entered into a neoliberal alliance with capital over greenhouse gases reduction, the United Steelworkers advanced a different agenda, one more concerned with a just transition and social justice.

Proactive and Reactive Transition Strategies. The poster child of just transitions is the transition from coal (Brecher 2012). Some communities survive only in association with coal mining, making changes in the production of energy potentially devastating. The North of England has suffered a radical onslaught on mining communities, from which it has not yet recovered (Hudson 2005). However, many mining communities in the Western USA have become thriving tourist towns. Similarly some brownfields and declining cities have been rejuvenated through innovative activities. A bitter reality here is that those most affected by these successes get the least out of them. Another bitter reality is that states and capital routinely reject creative proposals from unions and environmentalists. Yet, a third bitter reality is that unions frequently do not try to shape a proactive public agenda that goes beyond the immediate interests of their members.

In short, unions can respond to declining sectors and places reactively or proactively – they can be followers or leaders. Ultimately, we would argue, this choice rests on the political orientation and leadership of the unions involved rather than simply on positionality or resources (although, of course, these factors are crucial in shaping a response). There is no necessary connection between declining sectors and reactive strategies – or there should not be. Nor is there a necessary connection between proactive strategies and emerging sectors and places. U.S. unions, as well as unions in other parts of the world, have often been followers rather than leaders with respect to renewables.
Proactive strategies in response to emerging sectors are also not necessarily environmentally progressive. In fact they can be regressive by encouraging overproduction and overconsumption of energy and other resources. In this case labor unions enter into a partnership with capital in order to increase “competitiveness”, and externalize the effects of this new relation unto the natural environment and the local communities (by expanding consumption and pollution) and unto other workers elsewhere (by raising the production standard to which workers are submitted; cf. Taylor 2007). There is significant debate over the rebound effect – or Jevon’s paradox (Polimeni et al 2008; Goldstein et al. 2011). According to the argument increased efficiency without limits will result in more production and consumption and, thus, worse environmental outcomes. In recent years, many European trade unions (for instance in Belgium, Germany and Austria) have been able to build alliances with NGOs, capital and the state in order to secure “green” public investment for the retrofitting of houses. This has led to a steady increase in energy efficiency for heating, as well as a welcoming boost in employment in building and associated trades. Yet, whether this has translated into a reduction in overall energy consumption in these countries is debatable.

On the other hand, transitions in response to decline can be environmentally progressive by envisioning a transition within a steady state (Jackson 2011) or even a ‘de-growing’ economy (Kallis 2010). The world provides us with many instances of de-growth that can serve as opportunities for reusing and repurposing existing stock rather than extracting new stock. There are significant debates over de-growth –and the term may not be the most felicitous (van Der Bergh 2011; Bellamy Foster 2009). Yet, periods of actual de-growth – whether contemporary Greece or Eastern Europe in the 1990s, or urban shrinkage- are fertile grounds for exploring alternative ways of organizing the political economy and transitions (for example, Gibson-Graham 2006). This is part of the impetus behind the influential “transition town” movement in Europe, although we should caution against its generally labor and class-blind perspective. We also need to recognize that if these initiatives do not lead to transformation or even reforms of the broader political economy, they are bound to remain marginal and be easily rolled-back.

This is all the more necessary since unions need to address the objective of growth. Growth does not necessarily improve the lot of workers. Capital-intensive growth, for instance, routinely leads to unemployment and churning. And while some workers and their unions associate employment with growth it is employment stability and quality that workers seek (Materra 2009) – something that is not consistent with the kind of growth that capital has in mind. In that sense unions should align themselves with efforts at changing the metrics of the political economy in a manner that better reflects what actually happens (e.g., Stiglitz et al. 2009). More generally they should question the content of growth, whether “more” always means “better”. The inspiring “green ban” struggle of Australian building industry workers in the 1970’s provides an interesting example of alternative socio-ecological values that trade unions can promote to contest a purely quantitative growth (Burgmann 2000).

3. Tracing and Mapping Transitions.
Transitions vary in regards to time, casting longer or shorter shadows unto the future. And though it is difficult and risky to predict our long-term impact we have plausible hypotheses and are much more involved in the politics that affect our life cycles and those of our children. Transitions also have variable socio-spatial scales that reconfigure and connect specific places and people. It is not enough to say that rising lithium demand will increase the income of Bolivia. We also have to know which parts of Bolivia and which Bolivians.

The temporal dimension of transitions has practical implications. In the same sense that current choices can displace negative externalities across space they can also do so across time, a process poignantly captured by Rob Nixon’s (2011) notion of “slow violence”. While blatant externalizations are easy to recognize this is not the case for inadvertent externalizations. In some cases temporal negative externalities may be unintentional – a solution that seemed benign at a point in time proves to be disastrous in interaction with new factors. In other cases present constraints and calculations may lead to inferior choices in the hope that future technologies or concatenations of power will solve the problem. What, of course, are the most difficult cases are solutions that solve present inequities by displacing the costs across time. Carbon sequestration, geo-engineering and radioactive waste storage are such examples.

Political and economic geographers highlight the social constitution of scale – which also includes what we denote as scope (Castree et al 2004; Gough 2010). It is not adequate to say that we need to move from a local to a national to a regional and then to a global scale as if these scales are nicely nested within each other. Some actors (firms, generally) have more power than others (workers) in deciding the scale at which they want to organize their action, although they can also be forced to reckon, for instance, with solidarity across national borders or between regions. The scales of a particular activity have to be explored empirically in order to ascertain how particular places shape each other and the power relations involved (Sassen 2005). For instance, not all locations in a core country are similarly situated with respect to the production, circulation or consumption of fossil fuels or renewables.

Complementarily, an account that fully maps the scale of an activity may do so only with respect to particular stakeholders or affected parties (I. Young 2006; Fraser 2005), i.e., have limited social scope. Transition plans that cover only certain groups of people or places fall in that category. Compensation or retraining may alleviate the distress of laid off workers but they often do not extend to the community in which these workers are embedded. For both political and ethical reasons, just transitions have to take into account all the affected parties. On the other hand, we should recognize that not all actors have the same position, interest and value. The challenges of such a comprehensive approach are formidable but not necessarily impossible.

The relational and historically grounded examination of scale and scope is necessary because what may seem as just transitions at one scale may well be unjust or deleterious at another. In some cases such solutions may be simply predatory and, unfortunately, unions are frequently involved in such strategies (Gough 2010). In other cases such displacements may be the result
of successful local strategies of workers and communities desperately seeking to survive. In the absence of transnational networks and strategies such valiant and sincere efforts can well reflect militant particularism (Williams 1989; Harvey 1996) rather than a just transition strategy. In fact, just transition strategies have been developed precisely in order to avoid the situation in which workers, fearing for their jobs and livelihoods, become the “last defenders of the indefensible” (in Brian Kohler’s words).

**Upgrading and Downgrading.** There is a healthy debate amongst various approaches aiming at understanding these transnational linkages of spaces and people, e.g., global commodity chains, global value chains, global production networks (GPN) (Bair 2009; Henderson et al. 2002). The GPN approach probably best captures the universe of actors involved in shaping transnational bonds, and it is the most concerned with labor issues (Taylor 2007; Rainnie et al. 2013). But GPNs must be treated as specific sets of data intended to better understand the deeper rules of the world political economy rather than insulated and uncontested social spaces (Levy 2008). There are also a number of approaches that aim to trace the ecological lineages and impacts of various activities across space such as the ecological footprint (Wackernagel et al. 2006) and product life cycle assessment (Scientific Applications International Corporation 2010). A number of analysts have also examined unequal ecological exchange (Behrens et al. 2007) and the patterns of global social metabolism (Muradian et al., 2012). There are serious debates and concerns about all of these approaches but with the proper adjustments ecological assessments can be made part of the analysis or GPNs.

Whatever the tools may be, the comparative study of the upgrading or downgrading of whole countries is now complemented by studies of upgrading or downgrading across GPNs (Barrientos et al. 2011). To be meaningful from a sustainability point of view these studies have to take into account the social and ecological dimensions, as well as the economics. But, as analysts have pointed out it is quite possible that the upgrading of labor stops at the edge of the power built into labor relations and does not question the deeper inequities of these relations (Selwyn 2013). Similarly, the upgrading of the environment can stop short of challenging the power of the dominant producers. Corporate social responsibility can obscure power relations and legitimate limits to upgrading. In that manner the ‘economic’ becomes the element which sets the outer limits of all other priorities.

4. **Fusing the Social and Ecological Dimensions of Transitions**

Ecocentrist argue that that ecosystems, beings and places have some intrinsic value (on various approaches to nature see Low and Gleeson 1998; Schlosberg 2007). For some anthropocentrists this is a means to avoid social justice. We start by outlining the various positions in terms of justice to nature and justice to people. We then suggest that, in practice, it is possible to conclude that we should act as if nature had intrinsic value without adopting an ecocentric stance.

**From Instrumentalism to Ecology.** Many people consider the environment as a resource or a commodity or an opportunity to be used. This has been especially prevalent in the neoliberal
versions of weak “ecological modernization” which has dominated environmental politics since the 1990’s, and it is a trend which has been reinforced by the incredible development of market-based instruments, especially in climate policy. Who has access to a resource or a product can raise important questions of social justice—such as the rights of indigenous people to their lands and its resources or of workers to their jobs. For instrumentalists green products and innovations are just like any other products or innovations rather than a means to sustainability. Mitigation and adaptation become opportunities for accumulation and technological breakthroughs – as is the case with the various proposals for geo-engineering (Keith 2013). If nuclear energy is a guide then one can imagine some unions supporting geo engineering as it can provide some highly skilled jobs. Indeed some unions are pushing for the development and implementation of carbon capture and storage techniques, in order to avoid phasing out coal. One does not have to think about exotic ideas to realize that green production, particularly manufacturing and chemicals, are seen as opportunities for competitiveness (Gordon et al. 2013).

Environmental justice centers around the recognition that environmental harms and benefits must be shared more equitably. Questions of justice are not limited to whose land is appropriated or who gets employed. They also involve whose health and quality of life is affected. Mobilizations against the siting of hazardous facilities near or in poor communities gave rise to the environmental justice movement. Access to clean air and water have mobilized people who may not consider themselves environmentalists. Thus, it is possible for people to promote climate policies because they recognize that significant harms and benefits are at stake. More and more unions have recognized that climate change is occurring and that it raises important environmental justice challenges. However, some are deeply conflicted; on one hand they face an existential need for a transition, while on the other hand they may produce products that cause environmental injustice.

While environmental justice recognizes that environmental benefits and harms are real and maldistributed, ecological justice extends intrinsic value to nature. On that view, human activities should not be constrained solely by the maldistribution of harms and benefits that they may cause. They should also be evaluated in terms of their impacts on certain ecological parameters. While many ecocentrists extend intrinsic value to nature on moral grounds others do so on ontological grounds. Accordingly, ecosystems depend on certain biophysical processes which, if disrupted, will lead to the collapse of the ecological and, possibly, the social-ecological system (Folke 2006; Nelson et al. 2007). Some unions and union networks have engaged climate as an ecosystem - an ontological approach- whose balance is in peril. Already, talks about climate change are increasingly concerned with adaptation, how to live in a modified world. While social-ecological unions and networks are a minority within the global labor movement they are increasingly more assertive (Felli 2014). Elements of such an ecological approach to nature and justice can be found amongst Spanish, Australian, Argentinian but also North American unions (Rathzell and Uzzell 2013).

**From Allocation to Reorganization.** For laissez faire liberals, justice, or fairness as they would have it, is a matter of efficient and transparent allocation of environmental uses (Beckerman
and Pasek 2001). Allocation assumes the operation of certain quasi-natural rules –whether the market or innovational capacity- which allow the participants in that process to get their fair share without paying attention to the unequal relations amongst them. One of the key challenges facing the cap-and-trade policy is how to regulate and control the allocation of permits in a manner that will not disrupt the purposes for which they were conceived – mitigating climate change.

Distributive approaches to justice are more open to the adoption of measures that raise the floor for the weak and constrain the powerful (Okereke and Dooley 2010). For instance, equality of opportunity was historically associated with education and training while capacities require some material redistribution in order to enhance opportunities. A number of the provisions associated with global climate policy –such as REDD and the CDM- contain distributive elements in recognition of the common but differentiated responsibility compromise. A number of US unions, however, are very much concerned about competitiveness and argue that unless emerging economies are also constrained the US should move carefully. While demands that China, in particular, adopt climate policies are reasonable they are also used as an excuse for not adopting domestic climate policies. The argument of “carbon leakage” is a strong one, but is also too often self-serving for industrialized countries and their unions.

Redistribution refers to the shifting of benefits and burdens in a systematic way. Social democratic policies, such as those in Scandinavia, have done so to some degree even though these countries remain capitalist (Esping-Andersen 1990). Universal health care, full training and employment policies, free education, public housing and so on are profoundly redistributive policies. Their grafting onto largely capitalist economies can be more or less successful, as we know. A redistributive approach to environmental justice would compel major producers of harm – including unions in the global north- to push for policies that systematically shift the distribution of emissions. Such a strategy would require the global regulation of production networks – something that neither capital nor key states want. That unions and their allies cannot redirect the boat of environmental policy is testimony to their weakness. That many unions fully adopt the language of exactly those alliances with states and capital that are weakening them is an altogether different matter.

Finally, reorganization refers to the replacement of the foundational rules of the political economy, depending on the nature of that political economy (Gough 2010). Reorganization would not simply shift benefits and burdens after their production but would shift the capacities and rights to produce benefits and burdens. In the context of neoliberal hegemony, climate policies that are based on precaution, strive to rebuild the public domain and decommodify the ‘tools’ of climate mitigation and adaptation could be considered reorganizational. As Felli (2014) has argued there is noticeable variability amongst global unions and even more so amongst national unions (Rathell and Uzzell 2013). Although there remain radical labor unions around the world –and more may emerge- it is fair to say that most unions, especially in industrialized countries, are somewhere between distribution and redistribution rather than reorganization.
**Engaging the Other.** For some, bridging the social and ecological components of justice in an interesting theoretical exercise with little practical value. We agree with those who argue that this is a challenge worth addressing and that doing so can lead us to the adoption of principles of action that are good for both workers and the world in which we live (Bookchin 2002[1991]; Harvey 1996; Goodman and Salleh 2013). We suggest three reasons for this view. At the most general level, social justice aims to both empower the weak and weaken the powerful. The same forces that discipline and consume nature also discipline and consume humans. Deepening and broadening social justice can lead us to questioning the right of capital to act as it sees fit and outside democratic deliberation.

But demand for social justice can be particularistic. It can apply, for instance, to male workers while leaving women out. Or it can postpone dealing with nature until social issues have been addressed. The Soviet and Chinese experiences do not allow such mechanistic visions. The scope of social justice has been enriched through the recognition of women, ethnic groups or other hitherto excluded groups. It can be further enriched by internalizing environmental justice and, in our view, ecological justice. On that basis the distribution of environmental harms and benefits, while still anthropocentric, deepens and broadens justice by placing additional responsibility on the powerful. Doing so is a momentous step and thus it is bitterly opposed by them (Schrader-Frechette and McCoy 1993; Schrader-Frechette 2002). While ecocentrist can raise valid objections we propose that, in practice, this is a transformative step.

It has not been long since slaves or colonial peoples were not recognized as full humans. Women were invisible until much of the 20th century. And animals, while respected in some parts of the world where some people were not, have now become worthy of nurturing and even protection through criminal law. Placing slaves and animals next to each other challenges our contemporary sensibilities but it is true that slave owners often valued animals more than slaves. More directly, the history of the labor movement itself has been about the recognition of more and more types of work and workers by states and capitals – in short the ‘de-othering’ of workers. Additionally, recognized workers have had dramatic encounters with the ‘other’ within their ranks – whether in terms of gender, ethnicity or race and currently, in terms of making supply chains visible.

Both of these approaches – engaging the other and deeper democracy – are best served by the precautionary principle. The principle has been the subject of much debate (Kriebel et al. 2001; Sunstein 2002-2003; Carolan 2007). While it does involve a cost-benefit calculus it is a political kind of calculus similar to that promoted by ecological economists when they argue that it is possible to choose without prices and on the basis of values (Vatn and Bromley 1994). The political dimension of the principle cannot be considered as one amongst others. To treat indicators and standards as ‘tools’ is to obscure the politics they reflect (Lohman 2009).

More importantly, the precautionary principle places the burden of proof onto the producer (Schrader-Frechette and McCoy 1993). And, in fact, it does not have to be limited to the actions of the producer but may go as far as the producer’s choices and existence. In the case of
climate change, for example, we can have different types of mitigation and adaptation. Some mitigation techniques deal with the diffusion of emissions, others can prevent them and still others may keep the activity from taking place in a precautionary manner. The same applies to adaptation where geo-engineering provides us with an ideal reason for thinking in a precautionary manner. Yet the precautionary principle is not intrinsically conservative as it may precisely require action, and even wide-ranging socio-political transformations in order to ensure that environmental degradation does not take place. In this sense, we would argue, the necessity of a just transition can be deduced from the precautionary principle.

**Closing Comments: Why All This?**

Why should we care about tracing transitions and evaluating their justice quotient? We close by offering two reasons. The emergence and proliferation of neoliberalism has been accompanied by a diminution of democracy – sometimes through violent means and routinely through the downplaying of social and ecological values when contrasted to liberal economic values. Some states are resisting this trend, as are some political parties. However, a great deal of resistance has been consumed by fragmented interest-group politics at the global level similar to those in the U.S. Labor unions and environmentalists have generally been amongst the social forces that have resisted (or at least tried) to resist this neoliberal onslaught, yet they have often done it in isolation from each other. Adopting environmental values, then, is a way for labor unions to cross the divide of interest group politics while facilitating deeper engagements with willing environmentalists and other social forces.

But such a kernel cannot be limited to the global north or particular transnational spaces. Environmental transitions – whether just or not- are not only about the environment. They are also about the global political economy as have been the various other transitions throughout history. The divisions and inequalities within the global political economy go back in time and it is not our intention to suggest that contemporary inequalities are deeper or shallower than in centuries past. Nor is it our intention to argue that there were no global production networks or mechanisms of communication in the past. What we are suggesting is that there are some factors that need to be taken into account by contemporary labor unions.

First, global production networks and chains are reconfiguring space and place in ways that we are able to observe and study. Workers and unions can also reconfigure space and places throughout these chains. Capital’s preference is for continuous churning that undermines the ability of workers to organize. Some unions are content with such predatory behavior. For socially progressive unions in the historical global north this would be shortsighted. The new international division of labor has allowed workers and unions in the traditional global south – particularly amongst the BRICS- the capacity to affect the global place of workers and unions. And the same applies to workers in smaller economies, as well as in smaller firms, which happen to be important for particular production networks, e.g., Bangladesh in apparel. The dominance of global production networks by gigantic multinational corporations opens spaces for trade unions to organize globally (Cumbers et al., 2008).
If unions in the global north do not grab the opportunity to think of the global implications of their strategies and to form common agendas with other unions across the production chain the result will be a battlefield albeit over green products. Such collaboration should be long-term and should seek formal understandings with capital and states. The weakening of labor, particularly in liberal capitalist countries, makes this difficult but not impossible. Most importantly, transnational collaboration can multiply the influence of workers and unions.

Such engagements – among unions, among environmentalists and between unions and environmentalists - cannot be based solely on a division of labor amid the partners. Rather, unions must internalize environmentalism and environmentalists must internalize unionism. Not all unions and not all environmentalists will choose this road. Some, in fact, will fight against it. But leveraging the numbers and organizations of the willing is a necessary element of a realistic global counterhegemonic movement that moves beyond global interest group politics.
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