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EDITORIAL

Enabling a just transition

Alex de Ruyter and Gill Bentley

Centre for Brexit Studies, Birmingham City University, Birmingham, UK

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Just transitions: the debate

As the world faces the challenges posed by climate change, the concept of a 'Just Transition' (Newell & Mulvaney, 2013) has gained increasing traction in academic and policy debates in recent years as global efforts are made to attain Net Zero. Originally conceived by the trade union movement in the US in the 1980s (Young, 1998), in response to the impact of closures in traditional extractive industries such as coal mining on the workforce, the term 'Just Transition' has come to embrace workers in all sectors (industrial and extractive) that entail CO2 production and consequent labour market status in a zero-carbon economy.

More recently, the ILO (2015) advocate that a Just Transition should enhance environmental and labour objectives at the same time, in the pursuit of 'well-managed environmentally sustainable economies and societies, decent work for all, social inclusion and the eradication of poverty'. That is, a Just Transition addresses both climate (environmental) justice and social justice concerns (Snell, 2018) and is an essential element of the shift towards a more Just Society, in the sense that there are clear 'remediable injustices' which can be mitigated (Sen, 2009). As such, the trade union movement have been key proponents of the need to ensure that workers in polluting industries are offered clear pathways to secure jobs in a post-carbon economy. This has had some resonance in practice. IG Metall in Germany, for example, have been pro-active in ensuring that workers in the automotive sector have the necessary skills to obtain work in the production of electric vehicles, and that OEMs and firms in the supply chain collaborate to ensure that skills needs are integrated across production networks (Herrmann et al., 2020; Strötzel & Brunkhorst, 2019).

However, a more radical interpretation of change is that of a *Just Transformation* (Schlosberg et al., 2017). A Just Transition focusses on the experience of workers in polluting industries and is generally presented in terms of a necessary change in the techno-economic paradigm (e.g. Geels & Schot, 2007). However, the concept of a Just Transformation embraces wider societal change (and a necessary redistribution of power and resources between the Global North and South) to bring about 'equity, justice and inclusion at local, national and global levels' (see Bell, 2024, in this issue). The notion of a Just Transformation in turn links to wider debates around the extant crises in contemporary capitalism and the perceived failures of globalisation and the attendant

CONTACT Alex de Ruyter alex.deruyter@bcu.ac.uk

Washington Consensus model of development capitalism (Aulenbacher et al., 2019). Such notions of a crisis in the dominant mode of capitalism have long-standing roots, ranging from the Marxist dialectical materialist critique of the inevitability of collapse and replacement with communism, through to Schumpeterian notions of 'crisis' enabling opportunity and renewal in capitalist enterprises, via a process of 'creative destruction' (Schumpeter, 1950).

Perhaps the most magisterial account of the crisis of twentieth-century capitalism came from Karl Polanyi, in his seminal 1944 work, *The Great Transformation* (Polanyi, 1944), in seeking to explain how the market was insufficient to ensure the ongoing viability of the global capitalist system; and in turn emphasising the role of the State as the ultimate arbiter of economic and environmental stability (Polanyi, 1944). Indeed, for Polanyi (writing in the context of the 1930s Depression and the Oklahoma dustbowl in the US etc.), the state of the natural environment illustrated precisely the problems faced by a market economy with its emphasis on individual freedom of contract to tackle negative externalities that generally required collective (state) intervention. Writing in Chapter 15 'Markets and Nature', Polanyi (1944, p. 1184) observes that:

> even the climate of the country which might suffer from the denudation of forests, from erosions and dust bowls, all of which, ultimately, depend upon the factor land, yet none of which respond to the supply-and-demand mechanism of the market. Given a system entirely dependent upon market functions for the safeguarding of its existential needs, **confidence will naturally turn to such forces outside the market system which are capable of ensuring common interests jeopardized by that system** (Our emphasis).

These words today almost read as prophetic, and the parallels with the current period of global instability are striking, and certainly do call for a wholesale re-evaluation of the role of the State after 40 years of a (failed) neoliberal consensus that has sought to shore up inherently unstable capitalist institutions and has manifestly failed to adequately address climate justice concerns (Stephens & Sokol, 2023). Related to this has been the debate over the rise of the 'New State Capitalism' (see Whiteside et al., 2022; for a discussion), which purports a more active, interventionist role for government in driving industrial transformation (Whiteside et al., 2022). However, others go further and argue (echoing earlier Marxist criticisms) that the growth fetish underpinning contemporary capitalism is unsustainable, and moreover, that transition to a sustainable economic model is not possible under capitalism (Vandeventer et al., 2019). For such scholars, there is an urgent need to shift the climate justice away from the pursuit of growth to one extrinsically linked to 'de-growth' (Vandeventer et al., 2019) or at least one inimical to growth ('a-growth'). The de-growth thesis, as Trainer (2012) suggests, is that the nature and magnitude of the global sustainability problem is such that an ecologically and economically fairer society can only be achieved by replacing several of the fundamental structures and systems of consumer-capitalist society, with one that is truly transformative, based on 'some form of 'Simpler Way', centring on the enjoyment of non-affluent lifestyles within mostly small and highly self-sufficient local economies under local participatory control and not driven by market forces' (Schmelzer et al., 2022).

Meanwhile, the prospect of a transition to Net Zero by 2050 raises profound implications at a global level for manufacturing and extractive industries - and the communities that rely on them. However, class consciousness and a global shared awareness

of the need to address climate challenges is inhibited by a perceived North-South divide that has favoured identity politics over climate justice and particularly stigmatised migrants, and workers in the Global South in general. It has also been characterised by a persistent refusal of wealthy (sic US and Europe) countries to adequately finance mitigation of the worst effects of climate change; a so-called 'loss and damage fund' (Tooze, 2023) which has been espoused at successive COP conferences, to help those poor countries that can least afford it.

These tensions have been explored through the lens of the 'geography of discontent' (McCann, 2019; McCann & Ortega-Argilés, 2021), for example. In 'mature' industrial economies such as the UK and the US, manufacturing decline has cast a 'long shadow' (Bailey & de Ruyter, 2015; Beatty & Fothergill, 2017) and has been a non-trivial driver of regions being 'left behind' (Martin et al., 2021). Such issues were explored in the recent special issue of Contemporary Social Science on 'levelling up'.[1] As a result, communities that have faced the demise of major industries such as coalmining (Beatty et al., 2007) or major plant closures (Armstrong et al., 2008; Bailey et al., 2012) have experienced significant discontent (De Ruyter et al., 2021; Rodríguez-Pose, 2018) that has been captured in the 'identity politics' underpinning the election of Trump in the US and the UK Brexit referendum in 2016 (De Ruyter et al., 2021).[2] These grievances have been further fuelled by the sense of erosion of 'relative privilege' that (white) workers in traditional industries have felt, further inculcating hostility towards climate change mitigation measures (see Henry, 2024, in this issue). This discontent in turn can undermine a shift to Net Zero if governments seize on short-term political imperatives to delay or dilute measures to facilitate transition, as the current experience in the UK at the time of writing attests (The Guardian, 2023).

In contrast, in emergent economies, rapid industrialisation over the past 40 years has created environmental stresses and consequent economic and political challenges as they now face a more immediate challenge to transition their industries to Net Zero (Khan et al., 2019), than the 200 years accorded to Western countries following the Industrial Revolution. For less developed economies that nevertheless have significant mineral resources used in renewable technologies, particular issues have arisen in terms of exploitation and poor working conditions that go against the 'clean' or 'ethical' image of renewable technologies and hence undermine the notion of a Just Transition at a global level. For example, the Democratic Republic of Congo (DRC) was the source of 73% of global cobalt output in 2022 (Venditti, 2023); cobalt being an essential mineral in lithium-ion battery production. However, it has been well attested that 20% of cobalt production in the DRC comes from so-called 'artisanal mines', which often rely on child labour (Venditti, 2023), in direct contravention of ILO conventions.

What is evident then is that a transition to a Net Zero 'Green Economy', in itself, does not guarantee socially or spatially (i.e. North-South) just outcomes. Issues such as exploitation and short-term value extraction in poor countries highlight the problem of what critical scholars in the field refer to as Extractivism (Chagnon et al., 2022). The latter is perceived as an economic model of natural resource appropriation characterised by minimal value-added in the country of origin (Ye et al., 2019), usually in the Global South - though not exclusively (see Rainnie and Snell (2024, in this issue) for the case of Australia as an emergent lithium supplier, in its difficulties in securing value-added in EV production). This economic model is one in where mining and extraction are generally dominated

by multinational corporations (traditionally European and American, but increasingly Chinese in terms of the Electric Vehicle supply chain) that offer little in the way of upstream processing. Thus, whilst there may be short-term benefits from the foreign direct investment (FDI) provided into a poor mineral resource-rich country, the long-term consequences can be considerable, and negative: e.g. deforestation, contamination of water supplies and loss of food security (Mabey & McNally, 1999). Linked to this, Bell (2024, in this issue) draws on a fascinating case study from Mexico, and highlights the need to address any latent bias against the South in terms of the benefits and costs of transition by ensuring worker solidarity between North and South, thereby helping to 'decolonise' the concept of a Just Transition.

However, whilst major emergent economies such as China and India have benefitted enormously from development and FDI in manufacturing (Dicken, 2015), the imperative of sustainability and a reduced carbon footprint could lead to increased reshoring and renewed proximity manufacturing (Bailey & De Propris, 2014; Pegoraro et al., 2022), especially in the context of Carbon Border Adjustment Mechanisms being introduced in the European Union.

Moreover, increased tensions between the US and China have highlighted concerns around supply chain fragility in key sectors such as EV battery production, given the current dominance of China in this sector (and its stranglehold on the extraction of battery minerals, such as the cobalt mined in the DRC). Such concerns have fuelled efforts in the US and the EU to capture, or maintain key stages of EV production, as President Biden's Inflation Reduction Act (IRA) and the EU's European Green Deal attest. The IRA alone commits the US to spend $370 billion to 'lower energy costs for families and small businesses, accelerate private investment in clean energy solutions in every sector of the economy and every corner of the country, strengthen supply chains for everything from critical minerals to efficient electric appliances, and create good-paying jobs and new economic opportunities for workers', via a combination of tax incentives and investment programmes (The White House, 2023).

In a similar fashion, the EU's Green Deal commits it to spend approximately €600 billion on various measures to reduce net greenhouse gas emissions by at least 55% by 2030, as compared to 1990 levels (European Commission, 2023). Such measures in turn could result in significant shifts in the way that production is organised at a global level (Paterson, 2021). Consequentially, this could undermine the export-led growth that has characterised emergent economies to date (Kaplinsky & Morris, 2016).

Hence, the challenges posed by climate change necessitate understanding (and action) on a global level. For as Adam Tooze (2023), writing in the *Guardian* argues:

> As we run ever closer to the edge of the environmental envelope – the conditions within which our species can thrive – the development of the rich world systematically undercuts the conditions for survival of billions of people in the climate danger zone. They are not so much exploited or bypassed as victimised by the climactic effects of economic growth taking place elsewhere. This violent and indirect entanglement is new in its quality and scale.

This necessarily involves awareness of issues across countries, and consequent solidarity with the poorest communities, as the challenges raised in the pursuit of a just transition will vary across different parts of the world. As Paterson (2021) notes:

> trade relations, multilateral economic governance, the rise of the BRICs, or labor regimes, will all be transformed both as decarbonization of the global economy increasingly transforms what is produced, where, by whom, and by the need for new systems to adapt to sea level rise, extreme weather, the collapse of food production, or new waves of climate-induced migration.

In this vein, this special issue of *Contemporary Social Science* brings together a diverse range of perspectives across countries, from academics covering the humanities and social sciences in order to contribute to the ongoing debates about the issues relating to a Just Transition in relation to environmental and social justice at different spatial scales.

The comparative articles in this special issue highlight that transitions are inherently heterogenous, being dependent on a complex array of technological, economic, political, environmental and social factors, with a considerable degree of subjectivity. What counts as 'justice' in one place could differ from what counts as justice elsewhere. However, while transitions are often expressed in a uniquely local fashion, identifying commonalities and links across space and time can help us better understand what drives transitions, how they unfold socially, temporally and spatially, and who is disproportionately impacted. This in turn thus offers an opportunity to develop critical insights and best practices to support communities as they work towards more just, sustainable futures and thereby effect a truly Just Transition, or indeed transformation, at a global level. For as Robert MacIver, writing in the preface to Polanyi's (Polanyi, 1944, p. xi) classic treatise asserted:

> . . . . liberal formulas as 'world peace through world trade' will not suffice. If we are content with such formulas we are the victims of a dangerous and deceptive simplification. Neither a national nor an international system can depend on the automatic regulants. Balanced budgets and free enterprise and world commerce and international clearinghouses and currencies maintained at par will not guarantee an international order. Society alone can guarantee it; **international society** (our emphasis) must also be discovered.

Contributions to this issue: enabling a just transition

A number of the papers in this Special issue on enabling a Just Transition emphasise the need for collaborative approaches to developing a response to issues raised and problems caused by different types of transitions at different spatial scales. Rainnie and Snell (2024, in this issue) argue that there is a growing demand for a National Transition Authority to drive and coordinate transitions and that it is necessary to build alliances with key actors in particular environmental justice movements and seek international solidarity. For Rainnie and Snell (2024, in this issue) the key focus of an Authority would be to minimise the impact of power plant closures on workers and their communities through managing this transition and delivering on plans for the future prosperity of affected regions. Similarly, De Ruyter et al. (2024, in this issue) suggest that a National Transition Centre for Sustainable Employment be set up, to raise awareness of the challenge of transition, in this case in electrification and digitalisation in the automotive industry, and to develop measures to safeguard jobs, on similarly a collaborative basis. At the international scale Bell (2024, in this issue) argues the case for developing worker-led civil society solidarity across the Global North and Global South to develop global solidarity, as

agreed at the 2018 UN Climate Change Conference (COP24) in the Silesia Declaration on Solidarity and Just Transition.

The papers published in this special issue cover a range of themes on Just Transition, and provide a welcome addition to the literature about the topic and to provide lessons on how to enable a Just Transition that will realise socioeconomic and environmental justice. The first theme explores the conceptualisation of a Just Transition itself.

The conceptualisation of just transition; just transition or just transformation? And the exploitative relationship between the global north and the global south

Each of the authors of the 16 papers submitted to this Special Issue of CCS, begin their papers with a definition of Just Transition. However, this belies a deep conundrum underlying the notion of a Just Transition. Sayer (2002) terms it a 'chaotic concept', one that is politically very powerful but analytically so packed full of competing approaches and applications as to be practically useless. Nonetheless, there is a need to adopt a definition and to present an argument based on that definition and engage in the debate about what agency enables a just transition. As the ILO (2015) suggests, it should enhance environmental and labour objectives at the same time, in the pursuit of 'well-managed environmentally sustainable economies and societies, decent work for all, social inclusion and the eradication of poverty'. However, some authors argue that this is insufficient and nothing less than a fundamental transformation of economy and society is necessary to achieve social, economic and environmental justice. We can ask, does the push for de-carbonisation and social and economic justice demand a Just Transition or a Just Transformation? There is no definitive answer to that question, unless one adopts the standpoint of the 'degrowthers' who argue that unless there is a revolutionary change in the mode of production and consumption, there will be ecological and socio-economic conflagration (Trainer, 2012). Yet we do need an answer.

On this, Rainnie and Snell (2024, in this issue) point to the pursuit of policies to deal with global warming induced climate change. That is, where policy is concerned with 'transitions to a 'real zero' greenhouse gas emission economy, international justice is respected and the survival of future generations protected'. They are concerned that this argument detracts from the agenda relating to social and economic justice. In a case study of Queensland in Australia, they show that while strategy for a transition away from fossil fuel technology, including the closure of coal-fired power stations, to hydrogen energy production, is concerned with the impact of job loss on the regional community, it has been mainly concerned with what might be seen as 'green' (re)industrialisation efforts on the path towards a low-carbon future. As they put it,

> in engaging with an emerging and powerful view of regional development that combines Renewable Energy Industrial Zones, hydrogen hubs and public-private partnerships, JT is being replaced by notions of decarbonisation where the whole debate is couched in the language of decarbonisation, jobs, growth and regional development. More expansive and radical JT agendas have been left behind.

Despite the proposal for a Just Transition Authority, noted above, which involves corporatist collaboration, the input of Trade Unions, civil society and indigenous peoples in practice is limited. This, Rainnie and Snell (2024, in this issue) argue, represents a depoliticisation and undermines the value and power of the concept. They argue the

need to reclaim the Just Transition strategy from a simple campaign for jobs in a green growth agenda, to a campaign that advocates for public disinvestment from the fossil fuel and nuclear sectors, coupled with energy democracy and food sovereignty at the community level but also embraces Indigenous knowledges, perspectives and agency.

Similarly, Combariza Diaz (2024, in this issue) refers to the call for 'transitioning away from fossil fuels in energy systems' to question how far the call translates into phasing out the extractivist and rentier modes of exploiting and appropriating natural resources that have underpinned today's carbon intensive economy rather than the call being a 'just transition' to the same mode of natural resource exploitation; she suggests the call should be for a 'Just Transformation'. She turns to a case study of Columbia to question whether current actions to develop a green hydrogen (GH2) economy, argued to be the fuel of the future, could be seen as overcoming the extractivist and rentier dynamics, in which Global South countries have been immersed in the past or, alternatively, whether they represent a reindustrialisation oriented approach where use and distribution of benefits and burdens perpetuates extractivist practices. She argues that a transition forces a reassessment of the role of the state in the transition, and a re-thinking of the role of civil society (and more importantly of communities historically affected by the mining-energy sector). For her, democratising power within the State is essential as an enabling factor to a transformative mode of production.

However, recognising that the scale of GH2 projects and industries makes it difficult for their deployment to take a democratised community-based form, she stresses that despite attempts to implement more active participation of actors from affected territories in mining-energy planning in Colombia, structural barriers in accessing information limit its transcendence. She argues that without meaningful involvement of civil society, state participation alone may not guarantee a just transition.

In focussing on Mexico, where increases in lithium extraction will be necessary to enable the increase in the use of Electric Vehicles proposed for the Global North, Bell (2024, in this issue) also brings forward the point that there is an exploitative relationship in this exchange between the Global South and Global North. She contends that the main beneficiaries of the technology transition to electric vehicles will be the companies, governments and consumers of the Global North, but the costs will be borne by low-income communities in Mexico, and other Global South localities.

Thus it can be argued that the notion of a Just Transition can critiqued as a form of neocolonialism, potentially leading to the outsourcing of environmentally detrimental production or new forms of 'green' extractivism from the Global South (e.g. Okpanachi et al., 2022; Shehabi & Al-Masri, 2022; Zografos, 2022; Zografos & Robbins, 2020). This leads Bell to cite Stevis and Felli (2020) who have argued that profound reorganisation of the global political economy is required so that it no longer perpetuates divisions of labour that reproduce North-South inequality. For Bell, to enable transformation requires that unions, environmentalists and egalitarian social forces, North and South, learn from each other and develop a 'politics of planetary solidarity' (Bell, 2024, in this issue).

Also referring to the exploitative relationship between the Global North and the Global South, Schulte and Robinson (2024, in this issue) highlight that the global effort to reduce carbon emissions, driven by industrialised countries in the Global North, is increasingly perceived as an unfair imposition by countries in the Global South. Their study of wind turbine technology, which importantly contributes to the energy transition, demonstrates

that it has produced new players in energy systems. While Combariza Diaz (2024, in this issue) argues that the scale of GH2 projects and industries make it difficult for their deployment to take a community-based form, rather that funding is required by the State to support projects, Schulte and Robinson (2024, in this issue) suggest that financial citizen participation in wind farm projects is possible, yet the shape and degree of citizen participation is geographically variegated within countries.

They argue that institutional and regulatory frameworks are required but that these can be supportive or restrictive. In a multi-scalar perspective inspired by institutional theory, the authors explore the micro, meso and macro aspects of the development of frameworks for citizen participation in two case study areas, Germany and South Africa. Their findings highlight the importance of citizens' ability and will to create legal structures for inclusive collective action and their ability to access affordable investment capital through local banks and other financing arrangements. They suggest that, under the right institutional conditions, decentralised energy systems, such as small-scale wind farms, provide an opportunity for fostering emotive and economic ownership by citizens in the global north and south alike, enabling a Just Transition in energy production.

Role of trade unions

The next theme explored in this special issue focuses on the role of trade unions. Their role in the just transition process is foregrounded by the democratisation of efforts to devise strategies for a Just transition. Here unions are viewed as key agents of securing a just transition in the case of a change in production technology in industrial production. Indeed, as highlighted earlier, the trade union movement has been a key proponent of the need to ensure that workers in polluting industries are offered clear pathways to secure jobs in a post-carbon economy.

However, Lethbridge (2024, in this issue) points out that while increasingly the concept of a just transition is shaping labour's view of environmental as well as economic justice, the experience of trade unions working towards just transitions has been mixed. She says that the pursuit of workplace democracy and social dialogue is uneven in many sectors and reflects how trade unions lack legitimacy in shaping a future economy and society. Much action has built on the existing relationships that trade unions have had with their members, other trade unions and civil society organisations; that is, being passive, reacting primarily to management proposals and focusing narrowly on employment and working conditions (Pulignano et al., 2023), rather than on developing proactive strategies and proposals to influence and shape the ongoing transition, for example, in the automotive industry, a point made by Hancké and Mathei (2024, in this issue). A recent analysis of trade union environmental action suggests that a more radical approach is needed that will promote the long-term interests of labour in what has been described as the just transition.

Lethbridge argues that if trade unions want more transformative future strategies, where existing structures of economic ownership and politics are replaced by a transformation in production and consumption, underpinned by economic democracy, social ownership and extensive planning and cooperation, then trade unions need to develop democratic expertise. They need to undertake 'innovation and capacity building to

become effective environmental actors' (Snell, 2018, p. 554) to enable them to become 'agents of productive change' (Uzzell, 2022). Lethbridge (2024, in this issue) identifies an innovative 'Three Pillars' schema which could be used to inform trade union thinking and action. These are (a) critical analysis of current net-zero policies; (b) new green, industrial strategies supported by social infrastructure and (c) changing labour-environmental relationships. She includes a case study of the Public and Commercial Services (PCS) trade union, which shows that, by being 'organic intellectuals', two union officials have used a concern for maintaining jobs as a way of developing a wider vision of a just transition and campaigning for a new National Climate Service. It gives the union a seat at the table, and enables them to discuss what approaches enable a Just Transition.

Galgóczi (2019) had earlier identified that transitions vary according to industry and regional/ local contexts, in his examination of the transitions that the coal and car industries are making. Hancké and Mathei (2024, in this issue) pick up on this point and examine the responses and strategies developed by business, unions and governments to the electric turn in the automotive industry in Germany and France, Europe's main car-producing countries. They concentrate on the role of history and institutions in the determination of adjustment paths. Since institutions reflect specific histories, the transition to an electric vehicle production in the industry can take on different forms in different countries. They show that in both countries, governments play a supportive role, but they lead in France, and follow in Germany. There are also interesting differences within the countries.

German car companies have strong works councils which they argue are reluctant to engage in a rapid transition because this would devalue the assets of the workforce and endanger past investments in internal combustion-related technology (See Henry, 2024, in this issue for a discussion of 'Obstructionism'). The Trade Unions that organise the workforce in the wider industry in Germany are in favour of a faster transition as it will secure future employment. IG Metall, the main union, for example, is taking a very proactive role in developing a strategy for a just transition, in a corporatist approach with government, to minimise job loss in the transition. Meanwhile, VW has extensive re-training programmes to equip workers with skills necessary to work on electric vehicle production (see De Ruyter et al., 2024, in this issue for further elaboration of VW's approach).

The French electric vehicle (EV) industry, in contrast, is now a booming sector, after several decades of deep restructuring which resulted in massive employment losses. Its key short-term problem is to train enough workers to staff the rapidly expanding car battery industry. Unhindered by deep institutions and associated veto points that promote the Internal Combustion Engine (ICE) related technology paradigm, France has attracted large battery investments and developed a mass training system for EV production. Moreover, lacking a deeply rooted training system like the German training system, the industry has a relatively free hand in selecting and preparing its future workforce. The paper shows that, as the literature on path-dependent development theory has taught us, institutional structures shape the path to a Just Transition which includes a role for workers and Trade Unions.

Nowhere more has the right for a role for Trade Unions in a transition process been severely tested than in the case of the miners' strikes in the UK in the early 1980s, in regard to the closure of coal mines. While Boris Johnson declared the British should be grateful to Margaret Thatcher for having closed the British coal mines which gave the

UK 'a big early start' in the Just Transition [JT] process (Harrabin, 2021), at the time of the strikes, the closures were not seen in terms of a Just Transition, 'greening the economy in a way that is fair and inclusive as possible to everyone concerned, creating decent work opportunities and leaving no one behind' (International Labour Organisation, 2021). Nonetheless, the closures can be seen as embodying a transition, from coal to other forms of energy production. However, the closures can be seen as entailing a transition that was anything but just.

In this regard, Kaizuka's (2024, in this issue) case study of coal mine closures in the North of England, utilises multi-level perspective theory to flesh out the role of politics and policy in the transition. She argues that the closures were rationalised under Thatcherism as a response to the declining economic viability of coal (structural), and that policies for the closures were informed by neoliberal ideology (agency). The government's decision to close the coal mines were fuelled by the desire to reduce the influence of trade union power, the dispute with the NUM (National Union of Mine workers), then under the stewardship of Arthur Scargill, being confrontational. There were violent clashes between the police and striking miners.

While redundancy payments were offered, unemployment benefits were withdrawn, there was little help for miners to find new jobs, since job creation measures being developed by the National Coal Board were limited. Policy thus neglected critical aspects of JT such as long-term sustained support for retraining and a path towards alternative employment. The result was to push coal mining communities into long-term socio-economic deprivation creating 'left-behind' areas (Beatty et al., 2007, 2019; Rising et al., 2021). Kaizuka concludes that enabling a successful Just Transitions requires stronger private-public partnerships to develop policy responses, significant decentralisation, and reform in the vocational training system, a process in which workers and Trade Unions have a participatory role.

Just transition: deindustrialisation and re-industrialisations

The next theme explored in this special issue concerns just transitions at an industry scale. In particular, this theme relates to changes in production technology, such as digitisation and electrification in the automotive industry to attain a net-zero economy, which have resulted in concomitant job losses. The papers in this theme are rooted in critiques of how closures of major firms in key industries have been managed in the past such that they, as Kaizuka (2024, in this issue) above finds, with the closure of the coal mines in the UK, represent anything but a Just Transition.

The closure of the passenger vehicle industry in Australia in 2017 signalled the end of an important phase in that nation's economic history. Closures, including Mitsubishi plants, affected up to 100,000 employees, working across the Original Equipment Manufacturers (OEMs) and the supply chain, with impacts concentrated in two Australian states. Beer et al. (2024, in this issue) examine both the processes and the outcomes of these closures, making use of a *Just Transitions* lens, seen in terms of significant disruption to both individual workers and entire communities (Rainnie et al., 2011). Beer et al. (2024, in this issue) review the measures put in place to assist workers displaced by the plant closures. In doing so, they draw on data from three waves of a survey of retrenched workers.

While, as Beer et al. (2024, in this issue) argue, the process of transition for former employees reflected some sense of socio-economic justice, shaped by the distinctive characteristics of Australia's system of industrial relations, the ambition of its governments was to have as many affected workers find new employment as possible. Measures included: the provision of pre-closure information; counselling and job search preparation; major celebrations for high-profile shutdowns; post-closure job search and retraining assistance and regional development initiatives (Beer et al., 2024, in this issue). However, the re-employment objective was prioritised over quality of employment or the emerging skill needs of new and existing industries. The surveys of the retrenched found that that while former auto workers were able to re-establish themselves in the labour market, the management of this major change did not meet the expectations of a *Just Transition*, because too little attention was directed to the wider societal impacts of the closures. This links to work by Weller et al. (2024, in this issue) who explore this further.

Employment in the automotive sector is typically spatially concentrated and hence the impact of the transition to low-carbon technologies has profound subnational effects. While and Eadson (2022) highlight that the risk of a shift to a low carbon economy further entrenches spatial divisions of labour, they argue that it is important for Just Transitions to include a focus on 'skills, training and pathways to employment across supply chains'. The paper by De Ruyter et al. (2024, in this issue) thus examines the impact on workers throughout the supply chain in the automotive sector in the West Midlands in the UK, of a transition to an electric vehicle production system in the region. Suffice it to say that it appears that Tata, the owners of Jaguar, are planning to locate the gigafactory to produce lithium-ion batteries, in Somerset, which arguably undermines the scope for building an electric vehicle production system in the West Midlands. However, there is still a need to formulate labour market policies to deal with job loss in supply chain firms in the ICE sector which will ensue, when Jaguar switches over to EV production. Drawing on Standing's (1997) framework of the elements of Labour Security, the paper points out that labour market policy emphasis in the UK has been a raw focus on transition into 'any job', with 'quantity over quality' the driving force (Berry, 2014). However, the authors argue that a 'just' labour market transition requires addressing the issue of labour security, to include income, job and skill reproduction so as to avoid labour market precariousness. The latter is viewed as the outcome of the need for increased labour market flexibility and increased productivity, which is attendant on changes in production technology.

As such, this paper reports on lessons for supplier firms and workers in the West Midlands, in facilitating a 'Just Transition' in the automotive sector. The primary data collection consisted of a workforce survey in the UK of members of the Unite union (automotive section). The findings from the survey show that while a third of workers thought they had the skills to work on electric vehicle production, 85% had not received thus far any training to do so. This suggest that much needs to be done to equip workers with the requisite skills in order to effect a 'just transition' and enhance the elements of 'Labour Security', to include 'Income Security' for those who do lose their jobs (Standing, 1997). However, as De Ruyter et al. (2024, in this issue) argue, a focus on skills policy also needs to be embedded in a wider, place-based industrial policy framework, in order to alleviate the prospect of job losses and that lead to precarious employment for displaced workers. Policy implications are explored with suggestions for further research on skills needs

and the development of training provisions, to be conducted on a collaborative basis. This would, they argue, help to enable a just transition.

The fashion and textiles industry provides a case example of the pressing need for a just transition in what is argued to be one of the most environmentally and socially problematic contemporary industries. Pugh et al. (2024, in this issue) detail the current injustices in the industry, from both environmental and socio-economic standpoints. Dominated by the mode of 'fast fashion', this has led to growing volumes of post-consumer polluting waste. Production processes also produce emissions. In regard to social justice, the fashion industry displays human rights abuses, modern slavery, unsafe working conditions and negative health outcomes for workers (Haug & Busch, 2015; Peake & Kenner, 2020). Pugh et al. (2024, in this issue) argue the case for a just transition in the fashion and textile sector is clear on both environmental and social grounds (ILO, 2015, 2023).

They identify five key action areas that could lead towards a just transition towards a more sustainable fashion and textile industry: establishing limits; developing new indicators; promoting fairness; implementing just modes of governance; and creating new exchange systems. In proposing policy interventions in each of these five action areas they discuss how they could be put into practice. In doing so, based on participatory workshops with a range of 50 stakeholders from 32 international organisations, Pugh et al. (2024, in this issue) develop a novel theoretical concept for a more just version of the global fashion industry: the 'Wellbeing Wardrobe'. This draws on wellbeing economics and de-growth thinking applied to the contemporary fashion industry. It is one way in which transition could be guided to a more just and sustainable mode of capitalist production and consumption.

People-centred policies for a just transition

The special issue next turns to look at people-centred policies. A just transition requires attention to the provision of training and retraining programmes so that workers have the necessary skills that are a clear pathway to secure jobs in a post-carbon economy. While, as Ding and Hirvilammi (2024, in this issue) argue, the concept of a just transition has received increasing interest, including topical research on sustainable welfare states and integrative eco-social policies, analytical perspectives on labour market policy have been surprisingly weak and studies associating just transition with labour security considerations in welfare states are lacking (see also De Ruyter et al. (2024, in this issue) who also raise the issue of labour security).

In a synthesis of labour-related just transition literature, Ding and Hirvilammi (2024, in this issue) identify three intertwined approaches to labour market policies: a green jobs approach; a green skills approach; and a green compensation approach. Respectively, they accord with three forms of labour security: employment opportunities; skill reproduction; and income security (Standing, 1997). They argue that these three forms of labour security help constitute three pillars of just transition labour market policies. Addressing three pillars in a holistic fashion, the authors highlight that currently the pillars are unbalanced in just transition discussions. Additionally, a critical reflection on the role of economic growth in labour market policymaking is advocated, arguing that labour security unifies all three pillars. To steer labour markets towards a greener

future, more studies could focus on redefining green jobs, repurposing active labour market policy, and tackling the work-welfare nexus from an ecosocial perspective. Exploring the potential of job guarantees for promoting labour security without growth they argue is worthwhile as this could contribute to debates on how to enable a Just Transition.

Education and skills is further explored by Bianchi et al. (2024, in this issue) who focus on the role of education and skills transition to deliver a fair transition. They argue that, in particular, this requires the integration of education, access to labour market (jobs) and income fairness. They define just transition as a *triple* transition that requires digital and green shifts and, crucially, a competence and skill transition that transversally cuts across industries, jobs and professions. The paper contributes to the literature in introducing a definition of just transition that draws on key theories of justice, presenting a framework that theorises just transition by bringing together three dimensions of justice: namely distributive; procedural; and substantive justice. They apply this framework to explain the socio-economic impact of technology-pushed structural change on the future of work.

The paper turns to analyse the case of the Emilia Romagna region in Italy, which has implemented, particularly since 2010, an original holistic approach to industrial development policy including social and education policies. The conclusion of Bianchi et al. (2024, in this issue) is that within a national education framework tasked with pivoting the mix of necessary basic knowledge, regions have an important role to play by designing and implementing place-based education and training initiatives that are specific to the regional socio-economic characteristics. This will help enable a Just Transition, the authors argue.

Obtructionism: a sense of place

The next theme, on a growing awareness that the effects of decarbonisation are highly spatial and will impact regions differentially, is picked up by Norris et al. (2024, in this issue). However, their concern is rather different. They point out that old industrial regions are likely to be particularly affected and note that it is debatable how well equipped they are to engage with transition and for it to be just. Extant literature suggests that this will be highly contingent on the acceptability of this transition amongst old industrial communities, with a call to understand what and who will be impacted (Garvey et al., 2022). There is, however, they argue, a need for more granularity of evidence on how acceptability is formed and how it plays out in practice.

Taking the case of Port Talbot in the UK, Norris et al. (2024, in this issue) provide new insights into the interplay between place attachment and a 'just transition' in an old industrial region. They find that there is a strong community understanding of and support for decarbonisation but an equally strong perception of powerlessness to act. They find that there is an enduring sense of place attachment within Port Talbot but the lack of place-based consultation and engagement with the community means that there are no effective development strategies in place. Thus, it can be concluded that there is acceptability but without agency. Yet agency is required for a Just Transition to occur. As noted above, there are suggestions for corporatist working, as well as for the establishment of a Just Transition Authority in securing a Just Transition (See Rainnie & Snell, 2024, in this issue).

By presenting the case study of Wales (one of four devolved territories of the UK) De Laurentis et al. (2024, in this issue) proffer a view on how public sector reforms and a governance structure set up around the Wellbeing Future Generation Act (2015) is providing the potential for a conceptualisation of a regional Circular Economy, that takes into consideration resources, growth, future generations and places since it involves the co-production and co-creation of service delivery and the empowerment of consumers/service users.

They argue that programmes and policies for a circular economy are fast becoming key to regional, national and international plans for creating sustainable futures. They argue that Circular Economy approaches in Public Sector Organisations – to produce positive social change – require a nuanced attention to the context and circumstances in which such service delivery is implemented. However, they argue that public sector organisations foresee the Circular Economy as an opportunity to deliver not only on environmental gain but human health and well-being and, embodied by community empowerment, a concept that the community would support, enable a just transition.

The story of the interplay between place attachment and a 'just transition' in an old industrial region is different in Wyoming, which is the epicentre of the coal transition in the United States (Henry, 2024, in this issue). The coal industry is also critical for the state's economy, both in terms of jobs and a state revenue model dependent on federal coal leasing payments, mineral royalties and mining severance taxes. However, due to economic, regulatory and political pressures, coal demand is in permanent decline. The U.S. is currently on track to retire half of its coal-fired electricity generation capacity by 2026, just 15 years after it peaked in 2011. As Henry (2024, in this issue) points out, Wyoming faces an uncertain economic future. Despite the difficult path ahead, many Wyoming policymakers, industry officials, and residents express hostility towards the idea of transition. This often manifests itself in opposition to renewable energy through policies that double down on investments in fossil fuel energy, despite the increasing availability of resources and programmes to ease the burden of change, initiated by the Biden Administration since 2021. Henry terms this phenomenon 'transition obstructionism'.

While transition obstructionism is detrimental to residents across the state, the state's continued commitment to a flagging coal economy is harmful downstream in the fossil fuel lifecycle, particularly for communities historically marginalised along the lines of race, class and gender. His paper reviews recent efforts by state lawmakers and cultural organisations to actively disincentivise transition and prolong the fossil fuel economy in Wyoming. It then considers how transition obstructionism contributes to 'embodied energy injustices' both within and beyond Wyoming. It gives rise to the question of how a just transition in an extractivist industry can be enabled, in a situation where there is opposition to the transition to new forms of energy production.

Test of a just transition

The Special Issue shows that the term just transition is a chaotic concept. Nonetheless, the papers presented in this Special issue adopt a definition to present an argument about how to enable a Just transition. The question arises: how do we measure whether a just transition is achieved? Weller et al. (2024, in this issue) address this point. Their

paper outlines the components of a place-based Just Transition in which the management of closures extends spatially, beyond the usual focus on affected workers, to deliver interventions across affected communities with a view to minimising adverse impacts, creating new local opportunities and kindling hope for the future. It positions these interventions as integral to the change process, and not simply a *post hoc* compensation for the losers of change.

Weller et al. (2024, in this issue) identify six domains for policy action in this regard: pre-planning; coordinating change; managing plant closures; redeploying the labour force; redeveloping the local economy; and maintaining social cohesion. For each, specifying goals, targets, indicators and measures helps to reveal the magnitude of the interventions that will be required to achieve a place-based Just Transition and a test of whether a Just Transition is achieved. After providing broad estimates of the associated costs, their paper concludes that delivering a Just Transition is likely to require re-distributive funding.

Concluding remarks

The papers presented in this special issue of Contemporary Social Science offer a range of perspectives on the nature of a Just Transition and how it can be enabled. Papers are concerned with the idea that a Just Transition should enhance environmental and labour objectives at the same time, in the pursuit of 'well-managed environmentally sustainable economies and societies, decent work for all, social inclusion and the eradication of poverty' (ILO, 2015). That is, a Just Transition should address both climate (environmental) justice and social justice concerns (Snell, 2018). The papers suggest that enabling factors comprise: awareness and research on the characteristics of the transition; clarity over objectives; recognition of the impacts of transitions; the need for corporatist collaboration in the discussion of the issues and policy responses; involvement of workers, trade unions and people in the community as well as businesses and business organisations in the process; and government funding to ease the impact of the transitions on people and places, all in order to ensure transition enhances environmental and labour objectives at the same time.

It remains to be seen if meeting such objectives will address what feels like a headlong dive to global warming and a climate catastrophe are sufficient to achieve Net-Zero or, whether, as some argue, that what is needed is a 'Just Transformation' that involves a radical change in capitalist forms of production and consumption to address ecological/environmental and socio-economic inequities, especially in the case of exploitative relationships between the Global North and Global South.

Putting this special issue together has relied on a collective effort involving authors, reviewers, editors, Yellowback, the Academy of Social Sciences, and our publisher Taylor & Francis. Thank you to all of you. In doing this we hope we have stimulated a wider debate on enabling a Just Transition.

Notes

1. On recent debates on levelling up and 'left behind' places see for example: Fai and Tomlinson (2023); McCann (2023); Stansbury et al. (2023); Martin and Sunley (2023); Coyle and Muhtar (2023); Hildreth and Bailey (2024); and Connolly and Pyper (2023).

2. See the recent special issue on 'People, Places and Policies Beyond Brexit' including papers on the spatial and sectoral impacts of Brexit such as: Bailey, et al. (2023); Brownlow (2023); Hall and Heneghan (2023); and Bailey et al. (2023).

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No potential conflict of interest was reported by the author(s).

Notes on contributors

Alex de Ruyter is a professor at Birmingham City University and Director of its Centre for Brexit Studies. He brings a wealth of research experience and academic engagement in the areas of globalisation, regional economic development, labour market and social exclusion issues. He has published over 60 academic outputs in leading national and international economic journals and has been the recipient of research funding, including a grant from the British Academy for the research project on 'Enabling a just transition in automotive: evidence from the West Midlands and South Australia'.

Gill Bentley is a visiting senior fellow in the Centre of Brexit Studies at Birmingham City University and is a former lecturer at the University of Birmingham. She has published widely on economic development, policy and governance issues, at local, regional, national and EU spatial scales. Gill worked with Professor Alex de Ruyter and the team in 2022 on the British Academy-funded project about enabling a Just Transition to an electric vehicle production system.

ORCID

Alex de Ruyter http://orcid.org/0000-0002-7965-6445
Gill Bentley http://orcid.org/0000-0002-8798-8714

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