

Agents of transition or defenders of the status quo? Trade union strategies in green transitions

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Abstract

Green transitions create major challenges to union power in carbon-intensive economies as well as opportunities for the renewal of union power. This research asks why sometimes unions oppose or delay green transitions while other times unions are more open to green transitions and may even become strong transition supporters. In drawing on the Power Resource Approach, I argue that unions are neither natural opponents nor supporters of green transitions but instead engage strategically with green transitions. Unions' strategic choices to pursue oppositional, reactive, affirmative or transformative transition strategies is guided by an imperative to maintain or expand their power resources. The strategic choices unions make are influenced by several contextual conditions. In a comparative case study on coal transitions in South Africa and Germany, I identify the following contextual conditions: sectoral interests, organisational identity, internal structure, coalitions, political- and socio-economic environment, governance context and public discourse. Regarding each of these, I show how unions make strategic choices to protect or expand different power resources and become agents of transition or defenders of the status quo. This paper contributes to empirical research on drivers behind union transition strategies and offers an analytical framework to explain unions' strategic choices in green transitions.

Keywords

Green transition, just transition, union strategies, power resources, climate change

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Introduction

Decarbonising the economy creates major challenges for trade unions in carbon-intensive economies. To engage with the role of unions in green transitions means to counter a common misperception. Unions are neither natural opponents of environmental movements glued to one side of a jobs-versus-environment divide, nor are they natural allies of environmental movements. Instead, unions adopt a diversity of transition strategies ranging from reactive and defensive approaches that protect the status quo to proactive and supportive approaches that advance green and just transitions. Why is it that some unions are strong transition supporters while others remain cautious and again others even oppose green transitions?

Scholarly work has approached the role of organised labour in green transitions from various angles (see e.g. Morena et al., 2019; Rätzl and Uzzell, 2012). Early work described union transition strategies in terms of their vision, scope and strategy and developed typologies of union strategies (Felli, 2014; Goods, 2013; JTRC, 2018; Snell and Fairbrother, 2010; Stevis and Felli, 2015). Recent works have moved from the analysis of the 'how' to the 'why' of union transition strategies, identifying factors relevant for explaining union action in green transitions (Clarke and Lipsig-Mummé, 2020; Mildenerger, 2020; Stevis, 2019; Thomas and Doerflinger, 2020). Yet, a grounding of research in union theory and theories of collective action is largely absent (exceptions are Barca and Leonardi, 2018; Snell and Fairbrother, 2011). Furthermore, only a few works relate the debate on union transition strategies to the broader debate on union revitalisation (Hampton, 2018; Snell and Fairbrother, 2010). With this study, I contribute to the debate on the drivers behind different transition strategies and ground the analysis in the theoretical framework of the Power Resource Approach (PRA) that emerged from the union revitalisation debate.

The analytical procedure consists of three steps. The first step is identifying the transition approaches of different unions in drawing on a typology of union transition strategies. A second step is analysing the contextual conditions that influence union transition strategies. A third step is explaining the strategic choices unions make under these contextual conditions in terms of gains or losses of union power resources. In this way, this study moves beyond identifying factors that influence union strategies to a power-based explanation of why some unions under some contextual conditions are more inclined to oppose or delay green transitions while others under different conditions reinvent themselves in and through green transitions.

The empirical part is a comparative case study on the role of unions in coal transitions in Germany and South Africa. In Germany, unions heavily mobilised against an early phase out, though recently this united pro-coal union front has been eroding. In contrast, South African unions have been open to more radical transition ideas but have backstepped since the decommissioning of coal plants has begun. The comparative analysis brings to light various strategic approaches ranging from oppositional to transformative union strategies. The results show that union transition strategies are influenced, first and foremost, by sectoral interests as well as other internal conditions, such as organisational identities, internal structures and coalition partners and by external conditions, such as the

political- and socio-economic environment, governance context and public discourse. Taken together, these contextual conditions shed some light on why some unions under some circumstances choose to become agents of green transitions while others under different circumstances choose to defend the status quo.

Union power resources and green transitions

The analytical framework seeks to explain union transition strategies (dependent variable) by considering several contextual conditions (independent variables) under which unions make strategic choices to expand different power resources (intervening variables; Figure 1). Central to this framework is the PRA as an explanatory device to make sense of union strategic action in green transitions in terms of the gain or loss of union power. The PRA’s premise is that union power rests upon different power resources that unions mobilise to advance their interests (Schmalz et al., 2018). *Structural power* is the power of organised labour to slow down the valorisation of capital; it is ‘power that results simply from the location of workers within the economic system’ (Wright, 2000: 962). *Associational power* stems from the collective organisation of workers and depends on membership numbers, member participation, resource availability, efficient and flexible internal structures, internal cohesion and collective identities (Wright, 2000). *Institutional power* rests on the institutionalisation of gains from past labour struggles through the granting of legal and political rights and influence to organised labour

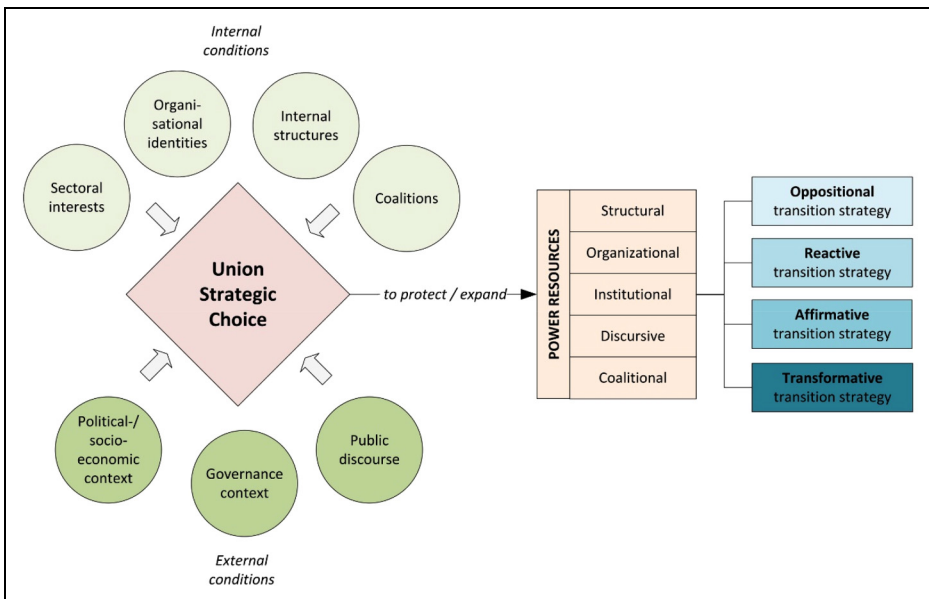


Figure 1. Analytical framework for explaining union strategic choices in green transitions.

through integration into social dialogue institutions (Dörre et al., 2009; Sweeney and Treat, 2018). A fourth power resource is *societal* or *social power* that results from anchoring union demands within broader society (Sweeney and Treat, 2018; Von Holdt, 2002). It encompasses *discursive power* from gaining broad public support for union demands and *coalitional power* from building coalitions with other social groups and organisations.

Labour scholars use the PRA to examine strategic choices available to unions for developing new power resources to revitalise unions in times of crisis. In the context of climate change, green transitions may provide new opportunities for renewing union power through building a green future around decent work (Hampton, 2018; Snell and Fairbrother, 2010). Unions may support green transitions because they see potentials to renew union power through green transitions or because they fear a loss of power from non-engagement with the transition debate. While unions may choose to develop new power resources through green transitions, they may also choose to protect existing power resources. Especially when green transitions pose threats to union power in carbon-intensive sectors that are union strongholds, unions may act cautiously or hostile to green transitions. As this study shows, unions are often caught in contradictory tendencies between defusing green transition pressures to preserve existing power resources and approaching green transitions as opportunities to build up new power resources. While not all union action is rational, intentional and strategic and choices are also influenced by contingency, ideology, culture and individual biographies, adopting the PRA and its premise that unions are strategic actors offers a powerful framework to explain the strategic choices that unions make in navigating these tensions.

Union strategies in green transitions

The concept of just transition offers strategic orientation for organised labour in navigating green transitions by bringing a labour perspective to the transition debate. The concept has acquired many different meanings and typologies have been developed that map the diversity of just transition strategies on a spectrum from defensive approaches protecting the status quo to transformative approaches for radical socio-ecological change (Felli, 2014; Goods, 2013; JTRC, 2018; Stevis and Felli, 2015; Stevis and Felli, 2020; Thomas and Doerflinger, 2020). Drawing on this work, I distinguish between oppositional, reactive, affirmative and transformative transition strategies. Unions that pursue *oppositional strategies* seek to protect existing jobs in fossil fuel industries and fend off the closure of carbon-emitting plants for climate reasons (Thomas and Doerflinger, 2020). They see green transitions as zero-sum games of jobs-versus-environment in which their role is to protect their members' job interests in threatened industries. They are rather silent on climate change and sceptical of the need for green transitions. In contrast, unions adopting *reactive strategies* do not deny the need for phasing out fossil fuels. Instead, they advocate for slow and gradual phase outs accompanied by just transition plans for affected members, communities and regions. Thomas and Doerflinger (2020: 390) describe these as 'hedging' strategies that 'do not directly oppose environmental regulations but attempt to shape regulations

to minimise their cost exposure'. This contrasts with unions that more readily support green transitions. In drawing on Fraser's distinction between affirmative and transformative justice, Stevis and Felli (2015) distinguish between affirmative and transformative union transition strategies. Unions pursuing *affirmative strategies* follow the paradigm of ecological modernisation of greening the economy within existing institutional parameters, i.e. 'greater equity and justice is sought *within* the existing economic system and *without* challenging existing hegemony' (JTRC, 2018: 13; emphases in original). Green growth¹ ought to create employment alongside environmental benefits and just transition plans ought to ensure that affected workers are retrained and redeployed in green sectors. This contrasts with *transformative strategies* that reject green capitalism and assume 'that the current political economic system is incapable of achieving the changes required to deal with the environmental challenge and must be opposed' (Goods, 2013: 17). This requires radically challenging power relations and institutional and economic structures. Transformative approaches attempt to gain public and democratic control over carbon-intensive industries to transform these into green industries that make socially and environmentally useful products (Rätzzel et al., 2010).

Contextual conditions influencing union transition strategies

Unions make strategic choices about which transition strategies to adopt in light of contextual conditions which refer to 'the particular set of conditions within which the action/interactional strategies are taken' (Strauss and Corbin, 1990: 96; Figure 1). Internal conditions encompass sectoral interests, organisational identities, internal structures and coalition partners. Firstly, *sectoral interests*, referring to the economic sectors in which unions organise, have been identified in the literature as a particularly salient factor (Clarke and Lipsig-Mummé, 2020; Snell and Fairbrother, 2011; Thomas and Doerflinger, 2020). As labour's fate in the treadmill of production is tied to the expansion of economic activity, unions' structural and associational power depends on the economic well-being of the sectors in which unions organise (Schnaiberg, 1980). Clarke and Lipsig-Mummé (2020: 363) state that 'union strategies depend very much on the sector, whether it is associated with greater or lesser carbon emissions and whether employment gains or losses are envisaged'. As high-carbon sectors decline and low-carbon sectors expand through green transitions, unions tied to high-carbon sectors are likely less supportive of green transitions than those in low-carbon sectors.

Secondly, the *organisational identity* of unions, which refers to unions' ideological orientation towards society, market, or class, shapes the strategic orientation of unions (Hyman, 2001). Ideology matters in how unions deal with 'the ongoing tensions ... between "vested interests" and "social justice"' in green transitions (Snell and Fairbrother, 2010: 422). We may expect that unions with a stake in politics beyond the workplace more likely become transition agents because it is in their ideology that the renewal of union power hinges on broader social change. In contrast, unions with a business union ideology and a mandate limited to collective bargaining about wages and working conditions see their power interests best served by protecting existing member interests. Furthermore, we can expect unions identifying as social partners to

remain close to governmental positions on green transitions to be able to exercise institutional power. Unions with social movement identities, in contrast, are more likely to pursue more transformative strategies to increase their societal power resources (see Barca and Leonardi, 2018).

Thirdly, unions' *internal structures* matter as well. This includes internal democracy and openness to member participation that establishes whether green transition demands can be articulated from below and inform union strategies (Thomas and Doerflinger, 2020: 395–396). This is complemented by whether union leadership expresses support for green transitions from above. Furthermore, the availability of resources and capacities defines the extent to which unions can dedicate resources to green transitions. Lastly, the degree to which coal is a central component of union members' culture and identity matters as well (Lewin, 2019). We can expect unions with strong internal democracy, abundant resources and collective identities not tied to coal to more likely support transitions.

Fourthly, the *coalitions* in which unions enter can influence union transition strategies. Unions may form alliances with civil society and social movements around green transitions to create coalitional power resources. As research shows, participating in labour-environmental coalitions usually strengthens environmentalist forces and perspectives within unions (Hultgren and Stevis, 2020; Soder et al., 2018). Inter-union exchanges and involvements in just transition initiatives of global union federations may also influence union strategies (Felli, 2014).

External conditions are the political- and socio-economic environment, governance context and public discourse. Firstly, the *political- and socio-economic environment* influences unions' responses to green transitions (Snell and Fairbrother, 2010; Stevis and Felli, 2015). Declining industrial employment, falling unionisation rates and the spread of precarious employment have eroded unions' structural and associational power in early industrialised countries. This makes unions cautious of green transitions that follow similar logics of capitalist restructuring. Galgóczi (2020: 371) points out that a particular challenge is that green transitions may lead to 'workplace level changes (that) often have the same pattern as of any other business reorganisation (downsizing and flexibilisation, etc)'. We can expect transition support to increase if unions see the potential for green transitions to counteract economic liberalisation. Furthermore, the specific conditions in sunset industries matter as well. In cases in which high-carbon industries have markedly better employment conditions compared to the rest of the economy, unions are more likely to take a defensive stance towards green transitions seeking to dismantle high-carbon industries.

Secondly, union strategies also depend on *governance contexts*, i.e. the industrial relations system, the role of the state and policy discussions on decarbonisation and just transition. The state may take on an active role that includes reaching out to unions in a state-led green transition or it may play a more limited role, shutting out unions from policy-making and enabling market-led green transitions. Snell (2019: 214) argues that a just transition 'depends upon an interventionist state committed to social partnership and union involvement in the transition process'. We can expect more union support for green transitions if just transition policy initiatives are on the table and the industrial relations system allows unions to exercise institutional power in the policy process.

Thirdly, union transition strategies are not formulated in a discursive vacuum but in the context of ideological battles over climate change and green transitions. As the *public discourse* on climate change intensifies, unions have incentives to become involved in the green transition debate to not lose discursive power by being perceived as climate laggards. We can thus expect unions to engage in transition debates more actively once the public debate has shifted towards the inevitable need for green transitions.

Method and data

I choose a comparative case study design with a qualitative methodology based on the in-depth analysis and comparison of two cases of labour-environmental conflict around coal transitions. This research design combines the advantage of the detailed study of a single case with the advantage of systematic comparison to identify patterns across cases and make tentative generalisations beyond single cases (Campbell, 2010). Because it is in transition conflicts that unions must make strategic choices, I choose conflicts about coal transitions as entry points to analyse union transition strategies. Unions included in the empirical analysis are unions closely tied to the coal sector and those involved in the broader energy sector. The selected cases are conflicts about coal transitions in Germany and South Africa. In Germany, unions heavily mobilised against an early phase out, though recently this united pro-coal union front has been eroding. In contrast, South African unions early on showed promising signs of supporting green transitions. Yet since the decommissioning of coal plants has begun, they have retreated to more defensive positions. These cases were selected because they take place in different settings and follow different trajectories. Such a most different comparative design has the advantage of bringing a wider range of contextual conditions into view and increasing the reliability of those cause-effect relationships present in both cases.

Case studies are multi-method and can encompass different techniques and data sources for triangulating results (Hague et al., 2016: 92). The primary data comes from 21 qualitative problem-centred interviews (Scheibelhofer, 2008) conducted in 2019 and 2020 with union representatives strongly involved in the coal conflict in Germany from the German Trade Union Federation (DGB), Industrial Union for Mining, Chemicals and Energy (IG BCE), United Services Union (Verdi) and Industrial Union of Metalworkers (IG Metall) and in South Africa from the Congress of South African Trade Unions (COSATU), South African Federation of Trade Unions (SAFTU), National Union of Mineworkers (NUM), National Union of Metalworkers of South Africa (NUMSA), United Association of South Africa (UASA), Solidarity and General Industrial Workers Union of South Africa (GIWUSA). Furthermore, I collected official communication from unions (i.e. press releases, reports and resolutions) on the coal debate from 2011 to 2020. Lastly, I consulted secondary literature on the role of unions in coal transitions in Germany and South Africa. I analysed the text corpus that contains interviews, documents and notes with a qualitative content analysis with the software MAXQDA (Schreier, 2012). With this method, I identified points in the material where union representatives explain why unions made certain strategic choices in the coal transition and I categorised these explanations according to the analytical categories developed above.

Coal transitions in Germany and South Africa

Germany is the world's sixth-largest carbon emitter, the largest consumer of coal in Europe and the largest producer of lignite worldwide with hard coal and lignite consumption levels of 222 million tons per year (European Commission, 2020; IDDRI, 2018b: 9). Between 2011 and 2019 the share of coal in the electricity mix went from 42.7 to 28.0% (Federal Environmental Agency, 2020). In the past, the two major coal regions have already gone through structural changes. In West Germany, hard coal mining, having lost its economic competitiveness in the 1960s, was gradually phased out, shedding 350,000 jobs between 1960 and 2000 with the last mine closing in 2018 (Galgóczy, 2014). In the German industrial relations system in which organised labour has significant policy-making influence, the IG BCE played an important role in negotiating social and transition plans (Abraham, 2017). Though largely considered a successful transition, the Ruhr region today nonetheless struggles with above-average unemployment rates, sometimes being labelled Germany's 'poorhouse' (JTRC, 2018: 20–22). In East Germany, deindustrialisation after German reunification in 1990 caused employment numbers in lignite mining to drop from 130,000 in 1990 to merely 20,000 by 2000 (Federal Environmental Agency, 2018: 13). This leaves few workers in the German coal sector today with around 25,600 direct jobs and 47,000 indirect jobs (RWI, 2018). Some of the transition challenges include regional economic dependence on coal, loss of jobs with a strong identity component, negative experiences with past structural breaks, dependence of energy-intensive industries on low-cost energy supply and vested interests of a coal regime encompassing political parties, provincial governments, municipalities, unions and energy corporations. Even though Germany is often regarded as an energy transition pioneer, the coal sector has remained mostly unaffected by energy transition policies for a long time. This began to change in 2015 when the government attempted to place climate levies on old coal power plants. Due to pressures from the coal regime including unions, the policy initiative was eventually defeated. In subsequent years, a growing climate justice movement that organised mass actions of civil disobedience in the coal regions put the coal phase out on the political agenda (Kalt, 2021). In 2018, the federal government launched the Commission for Growth, Structural Change and Employment (popularly known as Coal Commission), a multi-stakeholder social dialogue forum that included, among others, top-level union representatives. The commission recommended a slow phase out of coal up until 2038 accompanied by social plans for affected workers and plans for regional infrastructural and industrial development. Based on the commission's recommendations, in 2020 the federal government passed a phase out law and a transition law equipped with 40-billion-euro state funding. Subsequently, the phase out law has come under criticism for unnecessarily delaying the coal transition, for not being in line with Paris climate targets and for ignoring key recommendations of the Coal Commission (Heimann and Popp, 2020).

South Africa's economy is heavily reliant on coal power. Coal makes up 91% of total electricity production and 25–30% of liquid fuels consumption through coal-to-liquid technologies with total production levels of coal between 250 and 260 million tons per year (IDDRI, 2018a: 8). The heavy reliance on coal in an energy-intensive economy is

the primary reason for South Africa ranking as the 12th largest carbon emitter worldwide (European Commission, 2020). Since the Apartheid years, the vertically integrated state utility Eskom has been at the centre of a minerals-energy-complex that supplies mining and manufacturing industries with cheap electricity from coal mined by cheap Black labour (Fine and Rustomjee, 2018). Coal mines and plants are heavily concentrated in the Mpumalanga province that shows one of the highest air pollution levels worldwide (groundWork, 2018). Employment in coal mining has declined due to mechanisation from almost 140,000 workers in 1980 to around 77,000 workers in 2015 (IDDRI, 2018a: 11). Today, the coal sector faces several challenges such as the need for decarbonisation, declining electricity demand, load shedding, cost overruns at coal plants under construction, corruption and mismanagement at Eskom, and a 400% increase in electricity tariffs over the last ten years leading to increases in energy poverty (Climate Transparency, 2019: 4). In this context, the liberalisation of Eskom through the unbundling of generation, transmission and distribution has been put on the political agenda and is vehemently opposed by unions. The South African government aims to reach net-zero emissions by 2050 and launched the market-oriented Renewable Energy Independent Power Producer Procurement Programme (REI4P) in 2011. The REI4P has led to investments into renewable energy and has driven down initial high costs of renewable energy. Even though renewable energy is now the least-cost option, vested interests in the minerals-energy-complex keep coal production alive. The government's energy policy plans a net increase in coal power generation until 2025 with net reductions taking place later. At the same time, some old coal plants are already reaching the end of their lifespan and face decommissioning. The coal transition takes place in a socio-economic context marked by the triple challenge of an extremely high unemployment rate (currently 43.2%), high levels of poverty (around 60%) and one of the highest inequality rates worldwide (Statistics South Africa, 2021; World Bank, 2021). Apart from few low-key dialogue forums, there has been no coordinated governmental initiative for drafting a comprehensive just transition framework for workers and communities affected by the transition. This may change in the future with the establishment of the Presidential Climate Commission in late 2020 and the announcement of a multilateral just energy transition partnership with South Africa at the COP26 in Glasgow in 2021. As of today, South Africa ranks 106th out of 115 countries with a particularly low score on transition readiness in the Energy Transition Index of the World Economic Forum (2020).

Union strategies in coal transitions in Germany and South Africa

Both in South Africa and Germany, unions are important social and political forces. In Germany, union membership has fallen steeply since the 1990s and less so in recent years leading to a union density rate of currently 17% (ILO, n.d.). After a few mergers, the largest unions in Germany are now the metalworkers' union IG Metall, the service sector union Verdi and the mining, chemicals and energy union IG BCE

that are all part of the German Trade Union Confederation (DGB). Central to Germany's industrial relations system is a conflict partnership model in which unions act as intermediary organisations to reconcile capital and labour interests through policy coordination, collective bargaining and co-determination in ways that are often accompanied by conflicts (Müller-Jentsch, 1999). Yet, due to neoliberal globalisation and the weakening of union power, this industrial relations model has been unravelling. In South Africa, the unionisation rate is at 28% and the union landscape is much more fragmented with the metalworkers' union NUMSA and the mining union NUM being the largest and most powerful unions and COSATU the largest of the four federations. Emerging as part of the anti-Apartheid movement, Black unions in South Africa long followed a model of social movement unionism and successfully challenged the Apartheid system running on cheap Black labour. Labour relations in post-Apartheid South Africa integrated unions into a new class compromise. COSATU became part of the ruling Tripartite Alliance, the national dialogue forum National Economic Development and Labour Council (NEDLAC) was established, labour laws passed and labour rights enshrined. This has led to what Buhlungu (2010) calls a 'paradox of victory' for unions in which gains in institutional power went along with losses of associational power and growing distances to communities and social movements. In recent years, the Tripartite Alliance's neoliberal development path has heightened tensions within the labour movement and has contributed to NUMSA breaking away from COSATU.

Union transition strategies in Germany and South Africa range from oppositional to transformative. Initially, IG BCE pursued oppositional strategies. The union opposed climate levies on coal power and was sceptical of a climate-driven phase out. Over time, IG BCE shifted from an oppositional to a reactive strategy. It accepted the need for an early phase out yet attempted to delay the transition and cushion its effects on its members. This was done by arguing for the need for coal as 'a crucial bridging technology for the energy transition' (IG BCE, interview). DGB, Verdi and IG Metall tend toward more affirmative strategies that support the ecological modernisation of the economy. While segments within both Verdi and IG Metall would like to see their unions pursuing more transformative transition strategies, these positions remain marginalised. In South Africa, NUMSA was at the forefront of developing transformative transition strategies already in the early 2010s. In a resolution passed at its 2012 National Congress, NUMSA demanded a socially owned renewable energy sector 'made up of a mix of energy parastatals, cooperatives, municipal-owned entities and other forms of community energy enterprises'. COSATU pursued a similar strategy and adopted a climate change policy in 2011 that recognised that 'climate change ... is caused by the global private profit system of capitalism ... (and) requires a fundamental economic and social transformation to substantially change current patterns of production and consumption'. A few years later, COSATU's and NUMSA's transformative strategies have taken a backseat to more reactive strategies. Together with NUM and other coal unions such as Solidarity and UASA, NUMSA supports climate action in principle but remains sceptical of phasing out coal without accompanying transition plans and is adamantly opposed to privatised renewable energy. Faced in 2017 by Eskom's closure of coal plants without transition measures in place, NUM and NUMSA switched to oppositional

strategies to try to prevent job losses in the coal sector with NUMSA going to court to prevent Eskom from buying renewable energy from independent power producers. Recently, the newly founded SAFTU, which emerged out of the split within COSATU, has taken up earlier transformative approaches, supported by radical unions such as GIWUSA. In sum, a broad range of transition strategies has been adopted throughout the conflict in South Africa and Germany. Most commonly unions move back and forth between reactive strategies that minimise costs for the unions and their members and affirmative strategies that create new opportunities in green sectors. Outright opposition to the coal transition and more transformative approaches are less frequent.

Sectoral interests

There is a strong correlation between unions' sectoral interests and their approaches to green transitions (Table 1). In Germany, IG BCE has direct sectoral interests in coal mining and indirect sectoral interests as most of its membership is in energy-intensive chemical and steel industries that benefit from preferential access to cheap coal power. Verdi organises employees in coal power plants, though the share of members in the coal sector is very low compared to members in service sectors. In the renewable energy sector, the metalworkers' union IG Metall is strongest. In South Africa, NUM is the main coal union that organises Black blue-collar workers in coal mines and at Eskom, while Solidarity and UASA organise mainly *white* white-collar workers in the sector. NUMSA as well represents employees at Eskom and recently also ventured into coal mining. As a metals and engineering union, NUMSA also has sectoral interests in a renewable energy manufacturing sector.

Unions in the coal sector have incentives to oppose or delay coal transitions due to fears of losing members and associational power. Sectoral interests are especially important if unions organise along economic sector lines, as is the case with IG BCE and NUM that are closely tied to the coal sector. In contrast, unions in renewable energy are more likely to see potentials for recruiting new members through green transitions. Notably,

Table 1. Unions in energy and energy-intensive sectors in Germany and South Africa.

<i>Germany</i>	
IG BCE	Lignite mining, coal plants, chemicals, steel and manufacturing
Verdi	Coal plants, municipal power utilities, power transmission and distribution
IG metal	Wind and solar industries, metals, engineering, automotive
<i>South Africa</i>	
NUM	Coal sector, power utility, mining
NUMSA	Coal sector, power utility, renewable energy, metals, engineering, automotive, mining
Solidarity	Coal sector, power utility, mining, metals, engineering, chemicals
UASA	Coal sector, power utility, mining, automotive, engineering
GIWUSA	Engineering, chemicals

when unions organise in both sunset and sunrise industries, the interests of incumbents in highly unionised sectors tend to have greater weight. Incumbent interests make the shift from job-shedding to job-creating sectors difficult as one interviewee remarked regarding NUMSA's transition strategy: 'At the moment, the people who shape the union policy are those vested in the fossil fuel industry'.

Union identities

One axis along which union identities can be mapped is the tension between member interests and broader sociopolitical goals. On one end of the spectrum, unions with a narrow membership orientation, such as IG BCE in Germany and NUM, UASA and Solidarity in South Africa, tend to retreat to defensive positions and construct a dichotomy between jobs and environment in which 'bread-and-butter issues' come first. A SAFTU official notes that 'many in the unions' national offices are still seeing climate change as separate from the day-to-day struggles'. In addition, unions with a business union ideology that believe in market-led transitions creating green jobs see their power interests best served by adopting business-friendly transition approaches. As the president of Solidarity explains: 'We are a union with a Christian Democratic but also free market foundation. So, the thinking is: a lot of these climate initiatives are against capitalism, but we are linked to free markets. There is this ideological tension within the union. So, we cannot blame companies or capitalists because they create jobs'. On the other end of the spectrum, unions with a broader sociopolitical mandate more willingly take on the responsibility for tackling climate change. For instance, social justice-oriented unions and federations like NUMSA, COSATU and SAFTU see it within their mandate to educate their members on climate change and to link environmental justice to social justice: 'We have to do a lot of educating, starting with our shop stewards as well in terms of how we make it connect to people's day-to-day struggles. Because there's this dichotomy that's often made that poverty sits here and the environment sits there, and actually, they are linked' (SAFTU official). In both countries, unions with primary identities as membership organisations seek to protect associational power and engage more reluctantly and in pro-market ways with the green transition debate in contrast with unions who see themselves as broader sociopolitical actors exercising societal power.

Another tension exists between ideological orientations towards political institutions versus social movements. German unions traditionally see themselves as social partners and in that role were able to exercise institutional power in the Coal Commission. In South Africa, the institutionalisation of the labour movement began with the end of Apartheid with COSATU becoming part of the Tripartite Alliance and unions' inclusion into NEDLAC. In both Germany and South Africa, the integration of unions into social dialogue institutions has had a moderating influence on how unions approach green transitions. Unions that exercise institutional power and directly shape transition policies as social partners tend to not stray too far away from governmental positions on green transitions, i.e. they neither refuse the green transition debate nor insist on radical eco-socialist demands but rather support the green growth agenda of governments and

businesses in exchange for getting a seat at the policy-making table. The implications are that in times of weakening institutional power unions may only be able to marginally influence market-driven green transitions through social dialogue (Sweeney and Treat, 2018). A NUMSA official complains about the close ties between unions and government: ‘Any critique of that South African government is a critique of the partner’.

Some unions keep more of a distance from the state and corporations and are closer to social movements and communities. South Africa is often referred to as the birthplace of social movement unionism (Von Holdt, 2002). Black unions in South Africa, as part of a social movement that confronted the Apartheid state, have been instrumental in ending the Apartheid regime. Notwithstanding the post-Apartheid institutionalisation shift, some unions, such as NUMSA, SAFTU and GIWUSA, have retained part of their social movement identity. Instead of relying on social dialogue, social movement unionism attempts to build up societal power resources and challenge power relations so that a transformative just transition becomes possible (Sweeney and Treat, 2018). NUMSA, for instance, has been involved in community issues through campaigns against electricity price increases that burden low-income communities. Another example is SAFTU planning general strikes around climate justice together with climate activists. GIWUSA’s president argues: ‘In the struggle against climate change, in the struggle for the just transition, for the revolutionary transition we need, every strike that we have we must link to the issue of climate change’. Social movement identities are more conducive to pursuing societal power and transformative transition strategies in contrast to social partner identities that coincide with seeking institutional power and more moderate transition approaches.

Internal structures

Unions’ internal organisational structures matter as well and Hyman (2007: 203) argues that ‘strategic capacity in trade unions is a product of *both* leadership and internal democracy’ (emphasis in original). Firstly, the degree of internal democracy and openness to member participation determines if concerns about climate change and just transition can come up from below and inform union strategies. In South Africa, NUMSA’s transition approach has been substantially shaped by a worker-led participatory research group on energy and climate. In Germany, the platform of Unionists for Climate Protection within Verdi and Verdi’s youth wing were successful in passing union resolutions for a more ambitious green transition. One of the Unionists for Climate Protection poses the question: ‘Are there really debates between the apparatus and its members or is there a line that is decided at the top and handed down? I would say, there are some opportunities at Verdi but not at the IG BCE’. On the other hand, support from union leadership from above is important. For example, SAFTU’s general secretary Zwelinzima Vavi is a strong supporter of a transformative transition, with a SAFTU official reporting that ‘he is sold on the idea and I think it’s because of him that it engages SAFTU people in the debate’. Another example is NUMSA’s bottom-up green transition initiative that was made possible through support from above as one involved NUMSA official recounts: ‘You have to find a champion within the leadership. So I had long chats

with (name redacted), who was then president of the union, and he somehow became the champion of that'. When participatory union structures coincide with leadership support, green transition initiatives from below may shape union transition strategies.

Secondly, the availability of resources and capacities makes a difference to unions' ability to take on green transition issues. In 2011, COSATU dedicated resources to setting up an internal task force to build capacity and knowledge on the climate crisis which led to the development of COSATU's climate policy. Yet, resource constraints also limit COSATU's climate change work. A COSATU official explains: 'Capacity is another problem that we have in the labour movement. An environmental justice NGO (non-governmental organisation) will have somebody working on water, somebody working on mining and energy, somebody working on agriculture, somebody working on transport. Here, one person is working on all of these issues'. A Verdi official argues along similar lines that under resource constraints the union focuses on representing the immediate interests of its members: 'We are extremely constrained anyway in terms of personnel. So, we first must make sure that we keep our core business running ... And then the climate issues are always important but are additional issues'. In contrast, NUMSA's internal green transition process had been facilitated by the availability of financial resources: 'We were at that point flush as a union ... All of what we did in that time was funded internally. We never had any outside funding for that work' (NUMSA official). Although it never materialised, NUMSA at one point also debated using its investment arm to fund renewable energy projects. High resource availability allows unions to become involved in the green transition debate, whereas resource constraints make unions more likely to put climate issues on the back burner.

Thirdly, organisational culture and identity matter. Both in Germany and South Africa, coal mining has a central place in the cultural histories and identities of the labour movement so that we may speak of a 'coal heritage' (Lewin, 2019). Coal workers in Germany have strong collective identities and take pride in being coal miners. An IG BCE official stresses: 'It's not just a job, being a miner is a bit more'. A Verdi official explains further: 'These are people who have been working in the mines and plants in the second and third generation. Their fathers worked there. It's a mining tradition. Go to Rheinbraun, go to RWE, you'll have a good job, you'll contribute to our economy, you'll supply people with electricity 24 hours, seven days a week, also on Christmas Eve and so on'. As Black mineworkers and mining unions played a key role in anti-Apartheid struggles, their organisational memories and collective identities are closely linked to mining as well. A SAFTU official explains: 'It's not just about the tangible and hard costs but the actual culture that exists, how that culture has been perpetuated since the days of Apartheid and how you actually break that'. The deeper coal pervades organisational cultures and identities, the more the coal transition is perceived as threatening collective identities.

Just transition coalitions

Union transition approaches may be influenced by alliances with other social groups and organisations. In Germany, unions have been traditionally drawn more towards the state

and corporations than to NGOs and social movements. This is the case with IG BCE forming a 'productivity coalition' with the coal corporation Rheinisch-Westfälisches Elektrizitätswerk (RWE) (Windolf, 1989). As the regional IG BCE head in the Rhineland explains: 'In mining, in particular, there has historically been a very close relationship between employers and employees with co-determination procedures ... and that's why we didn't respond to these offers (from climate activists) to act together against the company. There have been offers. They wanted to show solidarity with us and fight together. But we did not want to'. With the growth of the climate movement, some tentative engagements with climate activists and environmental NGOs have been taking place. Yet overall, building alliances with environmentalists is not a top priority and often conflict prevails over cooperation. Labour-environmental relations in South Africa are of a different kind. Those unions in the tradition of social movement unionism have established just transition alliances from local to national levels with environmental NGOs, environmental justice organisations, community groups and global union federations. One of the most prominent examples of labour-environmental cooperations is the One Million Climate Jobs campaign that advocates for an eco-socialist just transition and the creation of more than a million climate jobs. Another example is SAFTU's involvement with the recently founded Climate Justice Coalition which aims to build a broad civil society alliance to advance a transformative just transition and a just green recovery from the Covid-19 pandemic. Unions in these alliances draw on coalitional power resources, such as reaching new audiences and getting policy expertise from environmental groups. A COSATU official reflects on how environmentalists helped to inform policy development in COSATU's climate change task force: 'Climate change was still a very new subject for the labour movement. So, the director at that time thought it would be good to have a reference group that comprised of environmental justice organisations and academics who've been working on climate change issues just to kind of assist the labour movement in the development of strategies'. Unions with close ties to environmental groups choose to build up coalitional power and become green transition supporters as they search for common ground between labour and environmental perspectives and coordinate their political strategies with environmentalists. As Satgar (2015) remarks, this 'hold(s) out the exciting prospect for strategic convergence around a red-green alliance'.

Political- and socio-economic environment

In South Africa, unions are wary of green transitions that follow the rules of neoliberal politics because of neoliberalism's track record of rampant unemployment, poverty and inequality. Specifically, the high unemployment rate is repeatedly cited as a key challenge for a just transition. UASA's president reflects that 'if we were not sitting with those high levels of unemployment, it would have made selling the just transition to a green economy so much easier'. Another interviewee states that 'if the employment situation can improve, it will also influence how people see the transition ... it will make the material conditions for this shift easier'. As the coal transition is perceived to follow a neoliberal model of jobless growth, unions are sceptical of transitions that may aggravate an already unfavourable situation. While the employment situation and

political-economic context in Germany are very different, German unions have been struggling with the erosion of labour rights and social security provisions and the rise of precarious work and low-wage sectors (Brinkmann and Nachtwey, 2013). Both in South Africa and Germany, unions are wary of coal transitions that follow patterns of economic and labour market restructuring that further erode unions' structural and associational power.

This is even more so as adverse conditions in the broader economy contrast with more favourable conditions in the coal sector. Although mechanisation, subcontracting and casualisation are widespread in the South African coal sector, it still offers 80,000 jobs with high unionisation rates and comparatively higher pay and better working conditions. Furthermore, as coal is a central pillar of the South African economy, unions have considerable structural power in the minerals-energy-complex. This has led to a 'double representation' of coal supporters by both a coal state and coal unions (see Mildenerger, 2020). As a NUMSA unionist explained, 'unions and fossil fuel workers can be part of a carbon lock-in and can facilitate it. And that is what is happening in South Africa'. In Germany, IG BCE has already lost substantial associational power due to the steep decline in coal employment over the last decades. As IG BCE's president states: 'We know what structural change looks like. There were 570,000 employees in 1960, a while ago, with an organisation rate of 100 per cent. 570,000 members who have subsequently retired or gone somewhere else means for a membership organisation like a trade union being weakened in its core business'. Nonetheless, IG BCE retains some power in a shrunken sector with the remaining 20,000 jobs having above-average pay, collective bargaining agreements and extensive co-determination rights. As their president argues: 'This is good old industry with good old conditions. That's the difference to many other sectors. It's not just anything, like an Amazon logistics centre. There's much more there, vocational training, job security and good pay'. In sum, coal unions are reluctant to give up their stronghold sectors in which favourable industrial relations and socio-economic conditions contrast with the deterioration of labour power in the broader economy.

While adverse political- and socio-economic conditions make some unions sceptical of green transitions, others warm up to the idea of a green transition as a way out of economic crisis. IG Metall views renewable energy as an opportunity to renew union power through organising strategies in this sector. NUMSA and COSATU as well recognise opportunities in green transitions to pursue alternative economic development paths that challenge the neoliberal economic model.

Governance and policy context

Union transition approaches are significantly influenced by green transition policy discussions and the role of the state in green transitions. Firstly, a state that creates political pressures to phase out coal is important. When the German federal government put the phase out on the policy agenda, unions became involved in the debate. As a DGB official explains: 'In principle, this whole topic of the coal exit has gained momentum in the political discourse. And because it was on the political agenda, there was of course the need

for us to deal with it'. This contrasts with the South African government's lack of political will to phase out coal which has made unions reluctant to get involved in the debate. As Solidarity's president puts it: 'If you look at our energy plan, there's still coal in that energy plan for the next 25 years ... So, in the absence of government having a clear policy direction from the top to say, this is where we're going, it makes our work much more difficult'.

Secondly, just transition policy initiatives matter as well. Since the German government initiated a social-dialogue-oriented just transition policy process, unions have more readily accepted the need for phasing out coal and have entered negotiations about the terms and conditions of a just transition to exercise institutional power. A Verdi official highlights the importance of governmental policy initiatives: 'We demand a clear transition framework from government ... If there is an appropriate policy framework in place, for example with retraining or compensatory payment to employees, then Verdi is the last to oppose the restructuring and downsizing plans'. In contrast, the lack of policy processes for developing comprehensive just transition plans in South Africa and the lack of channels for exercising institutional power makes unions more defensive. A NUM official justified his union's defensive position: 'There is nothing planned. There is no programme of retraining. What we see is they just want to dump workers and leave them there. That's all'. When in 2017 coal plants were decommissioned without just transition measures, unions responded with a resounding no. This threw a spanner in the works of pro-transition forces within unions and made immediate job concerns overshadow any attempts of working towards a green transition. As a COSATU official recounts: 'In this context of us workshopping, engaging, dialoguing and facilitating, if nothing in terms of the architecture that's required to take us from where we are to a just transition is being implemented, then it is obvious that when you hit us with Hendrina (a decommissioned coal power station) you're going to take us 50,000 steps back'. If just transitions plans are on the policy agenda and include compensation schemes, retraining programmes and alternative employment opportunities unions more readily consent to coal transitions and seek to influence their terms by exercising institutional power. In the absence of such plans, unions likely remain defensive.

Thirdly, whether renewable energy policies link environmental and employment benefits makes a difference in how unions view prospects for job creation. While the German energy transition is largely understood as a success story, since 2011 the solar manufacturing industry has collapsed and the renewable energy sector has shed more than 110,000 jobs (O'Sullivan and Edler, 2020). Furthermore, average salaries in renewable energy are lower than in the coal sector, employers engage in union-busting and collective bargaining agreements are rare. This has made unions sceptical of the promise of green jobs with decent employment conditions. The IG BCE's president complains: 'We have had 35,000 members in the solar industry and lo and behold, the industry is now in the hands of China, because no mechanism has been built into the renewable energy law to protect it'. In South Africa, the REI4P has expanded renewable energy production yet without facilitating the establishment of a renewable energy manufacturing sector. The bulk of renewable energy jobs are

short-term in the construction phase with only few long-term jobs in operation and maintenance (IPPPP, 2020). A NUM official explains the union's scepticism about renewable energy: 'In renewable energy, there are jobs only at the construction level, but when they run the plant, there are no jobs. We have visited most plants in the country and we find that most plants will employ around eight people at a time. It is lesser people with lesser jobs'. A former COSATU official argues that 'the renewable energy case has failed in terms of job creation, in terms of localisation and in terms of investment into the areas where the plants are'. Renewable energy policies that are not integrated into a broader green transition that creates decent jobs lower union support for green transitions.

Public discourse

As green transition debates intensify, unions are incentivised to enter those debates to lose discursive power by being perceived as climate laggards. The hegemonic discourse of the energy transition in Germany meant that pro-coal forces could not speak out against the phase out but instead tried to position coal as a 'bridging technology' for the energy transition. The rapid growth of the climate movement that shifted the public debate in favour of an early coal phase out shifted debates within unions as well. An example is Verdi's president who publicly supported the 2019 global climate strike. As one of the Unionists for Climate Protection explains: 'Verdi knows that if we turn our backs on this movement – there are so many young people behind it – then we won't have to show up at their doorsteps when they come into the world of work. Then they will say: "Me, Verdi member? After all the shit you've done"? That's the alternative. You won't get anywhere with young people'. While climate change is less prominent in the public debate in South Africa, this is beginning to change as climate impacts become more extreme and issues of just transition enter the debate. This assists those forces in the union that try to make climate change and just transition a priority. UASA's president recognises this discursive shift: 'If you started this talk about just transition 6 years ago, people would say: "what are you talking about?" Now, because more and more people are talking about it and more and more you see it in the news, this is changing. And I guess the more you talk about it, possibly you're lessening the resistance to that eventual change that will have to take place at some stage'.

Conclusion

Green transitions pose major challenges for trade unions in carbon-intensive economies. This research shows that unions neither naturally oppose nor enthusiastically support green transitions but adopt a range of different strategies. The comparative case study of the role of unions in coal transitions in South Africa and Germany brought to light different transition strategies ranging from oppositional to transformative. Which transition strategies unions pursue depends on the strategic choices made by unions to protect or

expand various power resources in the green transition. Unions make these strategic choices in response to a variety of contextual conditions.

Firstly, and arguably the most important determinant of union support or opposition to green transitions, is the extent to which green transitions impact employment in the sectors in which unions organise. Unions in fossil fuel industries try to protect existing power resources while unions in renewable energy see opportunities to create new power resources. In unions that straddle both sunset and sunrise industries, incumbent interests tend to have greater weight than pro-transition forces. Secondly, unions with ideological orientations towards social justice rather than a narrow membership and business union orientation are more supportive of green transitions. Unions that are close to political institutions see a chance to exercise institutional power by not straying too far from the green transition approaches of their social partners which often means affirming market-driven green transitions. This contrasts with social movement unions that may pursue more transformative transitions through building up social power. Thirdly, strong internal democracy, support from leadership, abundant resources and collective identities not tied to coal are conducive to starting internal debates on how to strengthen power resources through green transitions. Fourthly, unions may pursue alliances with environmentalists and take part in inter-union exchanges to build up coalitional power resources for a just transition. Fifthly, green transitions taking place under neoliberal political-economic conditions make unions cautious about potentials for new power resources and rather defend existing ones as neoliberal green transitions are expected to aggravate already unfavourable employment conditions. Sixthly, the existence of just transition policy initiatives and an interventionist state that allows unions to exercise institutional power as social partners make unions more prone to take part in just transition policy-making. Lastly, broader discursive shifts towards the need for decarbonisation incentivise unions to become involved in the debate to be able to exercise discursive power.

Examining unions through the lens of power resources helps to understand what motivates union transition politics. Instead of regarding green transitions as an obvious and easy route for union renewal, the analytical framework, encompassing power resources and contextual conditions, offers more nuanced views on the potentials, challenges and barriers for the renewal of union power through green transitions. This case study shows that it is social justice-oriented unions that are more likely to develop transformative transition strategies as they are more likely to confront power relations, pick up on the public climate debate, create coalitions with environmentalists and allow for participation from below. Further research may build on these results and use and refine the analytical framework to identify these or other contextual conditions that hinder or support unions becoming green transition agents.


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Note

1. The notion that ‘green growth’ can avert the climate crisis by decoupling economic growth from carbon emissions is heavily disputed (Hickel and Kallis, 2020).

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