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Title

Towards a theory of just transition:

A neo-Gramscian understanding of how to shift development pathways to zero poverty and zero carbon

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Abstract

As a global community, we need to understand better how a just transition can shift development paths to achieve net zero emissions and eliminate poverty. Our past development trajectories have led to high emissions, persistent inequality and a world that is fragmented across multiple contradictions. How can countries shift to development pathways that deliver zero poverty and zero carbon? In developing a theory of just transition, the article begins by reviewing a range of theoretical approaches from different traditions, building in particular on neo-Gramscian approaches. It applies and modifies core components of Gramsci's approach, building a neo-Gramscian theory of just transitions around concepts of ideology, hegemony, change agents and fundamental conditions. The theory suggests how coalitions of change agents can come together behind a just transition. The coalition needs to gain broader support, establish a new cultural hegemony in support of just transitions and be able to transform the fundamental conditions of the 21st century. The article briefly considers how this better understanding can be applied to the practice of shifting development pathways. The penultimate section reflects on limitations, including that a fuller development of a theory of just transition will require application for detailed concrete examples and a community effort. Together, we might address the multiple challenges of our present conditions to transition to development that enables human flourishing and a healthy planet.

Keywords

Just transition; neo-Gramscian theory; ideology; zero carbon; poverty eradication; development pathways; inequality.

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Towards a theory of just transitions:
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1. Introduction: background and gaps in theorizing just transitions

What are the fundamental challenges of a just transition? Rapid and deep climate action creates winners and losers, yet this action takes place in a world with persistent inequality. Just transition is a vision but needs to be more than that. In this article, I advance a theory of how coalitions of change agents can come together behind a just transition in order to transform the fundamental conditions of the 21st century. We need to understand better how a just transition can shift development paths to achieve net zero emissions and eliminate poverty.

A theory of just transitions needs to explain how to shift from high- to low-carbon development paths, while ensuring no one is left behind. The objectives of this article are, firstly, to advance a neo-Gramscian theory of a just transition and, secondly, to apply it in aid of a better understanding of shifting development pathways to zero carbon and zero poverty (ZPZC). The article builds on neo-Gramscian theory as applied earlier applied to climate change (see section **Error! Reference source not found.**).

The article postulates that a just transition is the ideological element around which a coalition of change agents coalesces. I return to Gramsci's core components of ideology, hegemony, material conditions and social forces [1, 2]. However, I modify the notion of material conditions for application in the 21st century, where some conditions are non-material and hence refer to fundamental conditions. That said, there are material bases to non-material conditions, as for example for information technology. Combining the modified components and elaborating their relationships is how I develop a renewed explanatory model, a neo-Gramscian theory of just transitions.

To pursue the second objective, I begin to apply the explanatory model to understanding how to shift development pathways. The shifting of development pathways has a normative direction, towards both zero poverty and zero carbon, signifying development and climate goals. It should be noted that more concrete applications of the explanatory model will require further and collaborative thinking. I aim to advance fundamental understanding in this article, which should ultimately be socially useful.

Having introduced the problem statement and its objectives, the article proceeds as follows. The remainder of this Introduction locates this article in previous theoretical approaches, explains why I choose to build on Gramsci's core components, and how I extend neo-Gramscian analysis of climate change to focus on just transition. The conceptual structure of Section 2 follows core components of Gramscian theory – ideology, fundamental conditions and change agents, making clear where these are modified. Section 3 combines these components and an understanding of their relationships into a renewed explanatory model. It is here that I advance a neo-Gramscian theory of just transitions. The section applies the theory to better understanding of how to shift development pathways. The penultimate section presents some limitations of this article, while the concluding section sums up, discusses implications and future research directions.

a. Background

A just transition seeks to address two of the foremost challenges of the 21st century, development and climate change. The global community has failed to end poverty in all its forms everywhere, as much as it has fallen short of an adequate response to the climate crisis – despite agreeing in 2015 on the Sustainable Development Goals [3] and the Paris Agreement [4] on climate change. These chronic crises are now compounded by the coronavirus crisis and the severe socio-economic impacts the response is likely to have. The concept of a just transition creates links between urgent action to address the climate crisis and while the chronic injustices of inequality and poverty. In this article, the focus of the just transition is on directly affected workers and also on broader communities. The global community has pledged that on its "great collective journey … no-one will be left behind" [3: para 4]. The implications for this normative statement are that justice must be understood in terms of distributional equity (fair outcomes) and procedural justice [5].

While the problems are well understood, the agenda on sustainable development has been too unfocused [6] and action on climate change has been too slow [7]. Given that these crises remain unresolved, we need to reflect why what has been done is inadequate. We need to reflect on our (in)action. In other words, we need to return to theory.

In this article, I develop and test a theoretical construct. The first step ("develop") is to advance a neo-Gramscian theory of a just transition. I do so by a) considering existing theory and constructs, both briefly considering a broad range of theoretical approaches and building on earlier neo-Gramscian theory applied to climate change; b) outlining how the explanatory model is tested; and d) indicating the contribution that this article aims to make.

b. Various ways of theorizing transitions

Sustainability transitions research sought "to conceptualize and explain how radical changes can occur in the way societal functions are fulfilled" [8]. The work of this community of practice over the last decade has identified several characteristics of sustainability transitions: multi-dimensionality and co-evolution; multi-actor process; stability and change; long-term process; open-endedness and uncertainty; values, contestation and disagreement; and normative directionality. Conceptual frameworks include a multi-level perspective [9], strategic niche management [10-12] and transition management [13, 14]. The focus on actors and institutions is cognate with the concept of change agents used in this article, though the latter also draws on a Gramscian notion of social forces. pointing to actors and transitions scholars themselves have identified gaps, including: "Social inequality, poverty and lack of access to modern services such as sanitation or education in low-income economies might be considered more important than global environmental rationales such as climate change" [15]. A stronger focus on social forces or changes agents, such as labour, is a gap that the present article aims to fill.

Transitions can be understood to be driven by focused on corporate, military and political elites, in C. Wright Mills seminar work [16]. The power elite in Mills' theory is about how elites divide or unite, writing in 1956 about US elites. More recently,
elite power in low-carbon transitions has been examined in a review drawing on several critical lenses, including "multi-level perspective, Michel Foucault, Antonio Gramsci, Anthony Giddens, Karl Marx" [17]. The authors conceptualise power and its different sources, with a specific focus on elites. They conclude that the power relations "are

asymmetrical but promisingly unstable", the promise being that just energy futures may be more possible [17]. While elites are important, a theory of just transitions needs to identify a broader range of change agents.

Cultural-historical activity theory (CHAT) seeks to explain the connections between human activity and what people have thought. Its roots in a focus on the human mind focuses its analysis at the level of activity.

Sharing roots in dialectics with Marxist approaches, the theory
 emphasizes the contradiction-driven character of activity, has developed methodologies for formative interventions and studied transformative agency [18]. The dialectical approach emphasises contradictions among key elements, which are compatible with the theory developed here. More recently, CHAT has been applied to 'runaway objects'[19] such as climate change and development connect large numbers of activity systems across national borders [18]. While I focus on contradictions, which might have led to adopting a CHAT approach, I focus on just transitions at a larger scale than the individual – in countries, aiming to apply an explanatory model across many countries.

Actor-network theory is a constructivist approach, that explains change in social and material conditions in relation to networks of relationships [20]. It puts all factors at the same level. Network analyses of discourse and advocacy coalitions have been explored in public policy literature [21]. Sabatier developed a framework to think about advocacy coalitions, showing ideas and beliefs are important for their formation [22]. Evidence-based policy making has been analysed mostly in relation to knowledge networks in industrialized countries; however, knowledge production in networks has begun to be studied in the context of climate and development policies in the global South [23]. Actor network theory, network analysis and frameworks for advocacy coalitions are useful elements to develop a theory, but also have limitations. They tend to explain (or even only describe) change *ex post*. The point of a theory of just transitions is to understand how change may evolve in future.

c. Neo-Gramscian theory applied to environment and climate change

My approach to advancing a theory of just transition is influenced most strongly by Antonio Gramsci [2], both as an inspirational theorist and in his injunction to practice pessimism of the intellect and optimism of the will. Gramsci's theory of ideology and cultural hegemony brought an important nuance to Marx's thesis that ideas are shaped by our material conditions, an insight that is as true now as when written in in the mid-nineteenth century [24]. It is a practice by which the ruling class exercises cultural hegemony. To reproduce or challenge cultural hegemony, a coalition of social forces must coalesce around key ideological elements [1].

Neo-Gramscian theory was applied to global environmental politics around the turn of the 21st century, with influential contributions by Paterson, Newell, Levy and Egan [25-28]. This literature brought a focus on the structural power of capital, Gramsci's concept of hegemony and attention to inequality to bear on environmental issues [29]. The focus for a just transition is more specifically on climate change.

Neo-Gramscian thinking has been applied to the analysis of climate change. Some have focused on specific aspects of climate change relating to gender [30], corporate strategy in negotiations [27], 'petro-hegemony' and climate justice [31], or certificates from forestry projects [32]. There is a cognate literature applying neo-Gramscian theory to the geopolitics

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of using information and communication technologies [33], the framing of global warming by media [34], and education in a globalised world [35]. Examining sustainable energy transformations, Stegemann and Ossewaarde [36] argue that includes "populist and post-truth tendencies" in the hegemonic discourse in the European Union and even in "environmental populist expressions". Within neo-Gramscian theories of climate change, just transitions are a particular focus, so far unexplored.

Others have combined Gramsci's concept of hegemony with Foucauldian governmentality to better understand climate governance [37, 38]. Newell has built on contributions to "different strands of literature from neo-Gramscian and historical materialist IPE and political economy more broadly" [39], focused on the role of the state, globalisation and multilateral institutions, and proposed new research agendas for Gramscian global political economy [40].

As outlined above, neo-Gramscian theory has been applied in several ways to environment and climate change. While building on these approaches, this paper develops a neo-Gramscian explanatory framework of just transitions. The literature reviewed here has not specifically focused on just transitions.

Existing studies have not focused on my scope of development and climate, with specific goals of zero poverty and zero carbon. My aim is to focus on a broader set of change agents than the state. The theory of a just transition advanced in this paper builds on the elements of ideology, material conditions and social forces, modifying them for the current context.

d. Applying neo-Gramscian theory to just transitions

The theory of a just transition advanced in this paper is neo-Gramscian. It uses key elements of neo-Gramscian theory. Section 2 elaborates ideology, hegemony, fundamental conditions and change agents. These four elements are grounded in the theory of Gramsci and neo-Gramscian approaches, as discussed in section 1 b and 1 c above. Of the four, one component of the theory is modified and one renamed: Gramsci's material conditions are updated to fundamental conditions, and I refer to change agents instead of social forces. The theory presented in section 3 frames the just transition explicitly as an ideological element. The relationships between these components are key to developing an explanatory model, a neo-Gramscian theory of a just transition.

Before outlining how the rest of the article proceeds to develop and apply theory, the approach is located within a paradigm and some uses of methods clarified.

The approach taken in this article can be understood as part of a paradigm of critical realism [41]. It is different in this respect to sustainability transitions research (e.g. as reviewed in Köhler [15]), which is more in the interpretivist paradigm. My aim is to apply an explanatory model, and I find Gramsci and neo-Gramscian theoretical constructs compelling. I seek to generate knowledge by updating existing neo-Gramscian theory (see section 3 c above) to present a renewable explanatory model, understand how entities (change agents in coalitions) can change structures (fundamental conditions). In this sense, my approach is a critical realist one, while the main theory I build on is Gramscian.

A note on language is that I use the terms transition, transformation and transformational change, without a sharp distinction. Hölscher et al [42] attribute the differences between the terms to their use in different research communities. Given their approach, I would tend to use transformation, but also follow Hölscher and colleagues in treating transition and transformation as not mutually exclusive. The article is focused on a just transition, and so this is the word mostly used.

Section 2a sets out ideology and hegemony as applied to the just transition, reflects on fundamental conditions in the 21st century (2b) and identifies change agents (2c). A neo-Gramscian theory of just transitions is presented in section 3 and is applied to thinking how to shift development pathways in section 4, noting that more granular applications of the theory require further research. In advancing a neo-Gramscian theory and applying it to the just transition, I make a nuanced claim to theoretical novelty and its application (section 4). Future research directions together with limitations of this article are elaborated in section 5.

2. Ideology, hegemony, fundamental conditions and change agents: Core elements of a neo-Gramscian theory to just transition

Theory provides analytical tools for understanding and explaining. In the community of practice of which I am part (researchers working on climate change mitigation and sustainable energy development), we use a wide range of analytical tools – but have no coherent theory. We need a theory of a just transition, in other words a better understanding of how to get from current conditions to human flourishing and a healthy planet. A theory will help to suggest how to shift development paths to ZPZC. For the reasons explained in the previous section, I apply neo-Gramscian theory to just transition. Core elements of this theory are ideology, hegemony, fundamental conditions and change agents. Each is elaborated in turn below.

a. Ideology, hegemony and just transition

Ideology in a Gramscian sense is the first of the three core elements. The following elaborates what is meant by ideology and a just transition.

i. Ideology

Ideology is used, in a Gramscian sense, as more than a system of ideas – those that are necessary to bring and hold together an alliance [1]. Ideology is held by a community or groups, most specifically an alliance of change agents. Ideology is not judged as true or false, but by its effectiveness in cementing a coalition of change agents. The term is used not in a pejorative sense, as irrational dogma that assumes that certain ideas are in error or dubious. The use of ideology here is broadly consistent with Gramsci and neo-Gramscian theoretical constructs.

Ideology is not just in the realm of ideas, but a practice carried out by institutions and individuals. The latter are Gramsci's 'organic intellectuals' but not the focus of my analysis. Ideology is what drives a 'cultural-social unity through which a multiplicity of dispersed wills, with heterogeneous aims, are welded together with a single aim' [1]. Social forces exercise cultural hegemony, gaining 'consent by means of political and ideological

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leadership' [1], that is by persuasion rather than force. Updated for the 21st century, I would say that ideological elements are the focal point for coalitions. When different change agents coalesce around an ideological element, they are able to challenge hegemony and persuade others of a new vision. I propose a just transition as the ideological element around which a coalition coalesces.

ii. Cultural hegemony

Not only does ideology bind an alliance together, but it also helps to achieve hegemony, with cultural hegemony being a central concept in Gramscian theory. Hegemony is closely related to ideology, indeed hegemony is also referred to as "organic ideology" [43]. A clear vision of a just transition and the values represented are important elements that mobilise support. The just transition is the core element that 'acts as the cement or cohesive force which binds together a bloc of diverse change agents' [1]. It enables an alliance to achieve hegemony.

Hegemony is power by persuasion, as distinct from dominance by enforcement or outright conflict. 'A hegemonic class, or part of a class, is one which gains the consent of other classes or social forces through creating and maintaining a system of alliances by political and ideological struggle' [1]. This contestation takes place in civil society, which is the "sphere in which hegemony is exercised" [1]. In 21st century terminology, one worldview replaces another, hence changes in values, norms and ideological elements that are seen as central are important to the process of change that is the just transition. A hegemonic 'bloc' or alliance does not create an ideology anew, but rearticulates ideological elements into a new world view. [43] The new world view will be contested, a point to which the article will return when explaining the process of gaining broader support (see section 3.c below).

iii. What are just transitions ?
But what is meant by just transitions? The concept of a "just transition" emerged in the North American labour movement in the 1990s [44]. The International Labour Organisation developed guidelines for a just transition, highlighting the needs of workers, create of decent work and green jobs [45].
The increasing attention to just transition in climate negotiations resulted the preamble of the Paris Agreement reflecting "the imperative of a just transition of the workforce and the creation of decent work and quality jobs in accordance with nationally defined development priorities" [4].

Just transitions differ across countries and local context, reflected in a growing literature considering for example, coal in Australia and South Africa, and land issues in Scotland [46-50]. In the South African context, descriptions of a just transition includes a broader economic and social targets, recognizing that fossil-fuel economy transformation impacts will affect across regions and the economy [51]. In this context, societal issues of poverty and inequality are a priority [48, 52-54]. The extent of impacts (positive and negative) means that a just transition should engage stakeholders and planning across the economy and society [52].

While definitions of a just transition vary, they consistently include core elements: investments in low-emission and labour-intensive technologies and sectors; assessment of employment and social impacts [53]; affordable access to energy services [55]; attention to 'legacy' sectors with retraining of workers; compensation to communities whose livelihoods are at risk in the transition; procedural equity through facilitated dialogue with affected

communities and stakeholders [44, 53]. 'Green jobs' are a key requirement of a just transition [56, 57], but these are not necessarily formal jobs, as the concept has been broadened beyond protection of workers to wider society [58, 59]. Sustainable livelihoods depend on new ownership models - for example social and community ownership of renewable energy [60]. Such models should form part of local economic diversification plans [61, 62]. A recent paper has reviewed the link of just transitions to the UNFCCC processes and presented recommendations for academic research in this domain [63].

iv. Just transition as an ideological element

Having reviewed the origins of the concept and its interpretation in different contexts, I turn to just transition as an ideological element. Just transition encapsulates the dimensions of both development and climate. A just transition is a process that shifts development pathways to achieve zero poverty and zero carbon. Ending poverty and eliminating carbon are chosen as two key goals, each from a broader set. In 2015, the global community agreed the Sustainable Development Goals (SDGs) including that poverty should be zero by 2030 [3: SDG Goal 1] and a long term goal that emissions should be in balance or net zero [4: Article 4.1]. SDG 1 is interpreted as eliminating absolute poverty, when I refer to zero poverty. Relative poverty may persist in an unequal world, though SDG 10 is to reduce inequality. The IPCC finds that CO_2 emissions needs to be net zero globally around 2050 to keep temperature below 1.5 °C [64], to meet one of the goals of the Paris Agreement [4: Article 2.1 (a)].

This article focuses on two specific goals, which signify broader concerns of development and climate. The suggestion is not to pursue only two goals (ZPZC) but multiple objectives. Broader terms such as "human flourishing and a healthy planet" [65] convey compelling visions but, I would argue, are too broad to mobilise change agents. The shorthand of ZPZC, I propose, is powerful in mobilising change agents by outlining specific goals of a just transition. I turn next to the second component, fundamental conditions

b. Fundamental conditions

How can our fundamental conditions be changed, transitioning from high to zero poverty and carbon? Fundamental conditions are similar to the Gramscian notion of material conditions, yet there are important differences in my theory. And the conditions at the end of the second decade of the 21st century are different from the past – some conditions are material, while others are not.

The fundamental conditions have been created by past development, with energy based primarily on fossil fuels and leading to high greenhouse gas (GHG) emissions. High-emissions development pathways have also led to high poverty, persistent inequality and other challenges reflected in the SDGs. The development paths which industrialised countries have followed cannot be the model for the future [66, 67]. Affected communities and workers will not support a low-carbon transition, if it creates more poverty and inequality than the high-carbon development path. Elites who have benefited from past development patterns may coopt a low-carbon development [17], using and bolstering their hegemony. This is the case globally and especially in countries dependent on fossil fuels for development. It is these fundamental conditions of high emissions, poverty and inequality that create the imperative of just transitions.

I postulate that there are multiple contradictions, not a single contradiction as in Marx's time, over ownership of the means of production [68]. There are conflicts between rich and poor; over identities defined by race, gender, sexual orientation; fanned by religious differences;

over ownership of technology and information [69]. The current cultural hegemony around growth has brought about multiple contradictions.

Many of the contradictions in the 21st century are material – over resources, class and others. The economies of the world are still characterised by a great divide between the have and the have-nots [70-72]. Income inequality is a persistent condition globally, a fundamental condition in many countries and threatens to widen post-COVID-19 [73].Thomas Pikkety makes a compelling argument that inequality of assets is the condition shaping our world more than income inequality [74].

Yet increasingly, contestation over information and data is increasingly important and furthermore the 'ultimate drivers' of transitions, such as values and needs, identities, knowledge and understanding, power structures and culture, are not material [75]. Ideology can now be shaped by information technology in ways that were not imagined in Gramsci's time. The prospects of networked artificial intelligence has potentially large implications on notions of work, and to a new fault-line of inequality – between humans and automation [76-78].

At the same time, planetary boundaries are being reached and breached [79]. As resources become more scarce, conflicts increase – about land, food, air, energy, water, desertification, drought and biodiversity [3]. There are competing and diverging mind-sets on how to relate to the natural environment: exploiting free resources, considering the Earth as living or managing to design with nature. A critical condition of the world in the 21st century is climate change. Climate science tells us that these impacts are a fundamental condition of our future world [80] and moral philosophy affirms that they are a matter of fairness [81-83].

We are living in an unequal world, fragmenting across multiple contradictions. Some conditions are material, others are not. Hence, I prefer the term fundamental conditions. A just transition may be the key element for a new cultural hegemony. A coalition of change agents can transform the current fundamental conditions.

c. Change agents

Change agents are social forces that bring about change. Change agents come from across the political economy, from civil society, business or government. These agents seek to change fundamental conditions. 'Actors' are other organisation, who potentially may become change agents. But first, I examine which change agents might support a just transition, without needing much persuasion?

Labour unions coined the term just transition and would be key in supporting a just transition. The call for a just transition emerged from the trade union movement, starting in North America and then taken up by the International Trade Union Confederation [44] and the International Labour Organisation (ILO) [44, 45]. The ILO adopted guidelines for a 'just transition for all towards an environmentally sustainable economy [which] needs to be well managed and contribute to the goals of decent work for all, social inclusion and the eradication of poverty' [45]. While some labour unions have supported climate action strongly, others have opposed shifts away from fossil-fuel to protect their members' interests. A nuanced understanding of the internal tensions and differences within the labour movement is as important as analysis of the potential for labour to support just transitions.

Social movements are key change agents, with the ability to change paradigms and the parameters of a debate [84, 85]. Social movements promoting development have experience of working multiple coalitions, yet with uneven success and needing further strengthening [85-89]. Some social movements have been highly effective in mobilisation. Examples include the Occupy movement highlighting the inequalities of the 1% across many countries; the Treatment Action Campaign which, through street pressure and legal strategy, made anti-retroviral drugs for HIV-positive people accessible and affordable [88]. Faith-based movements bring important moral perspectives to just transition [90, 91]. Extinction Rebellion, FridaysforFuture and other social movements explicitly in response to the climate crisis [59] are important change agents.
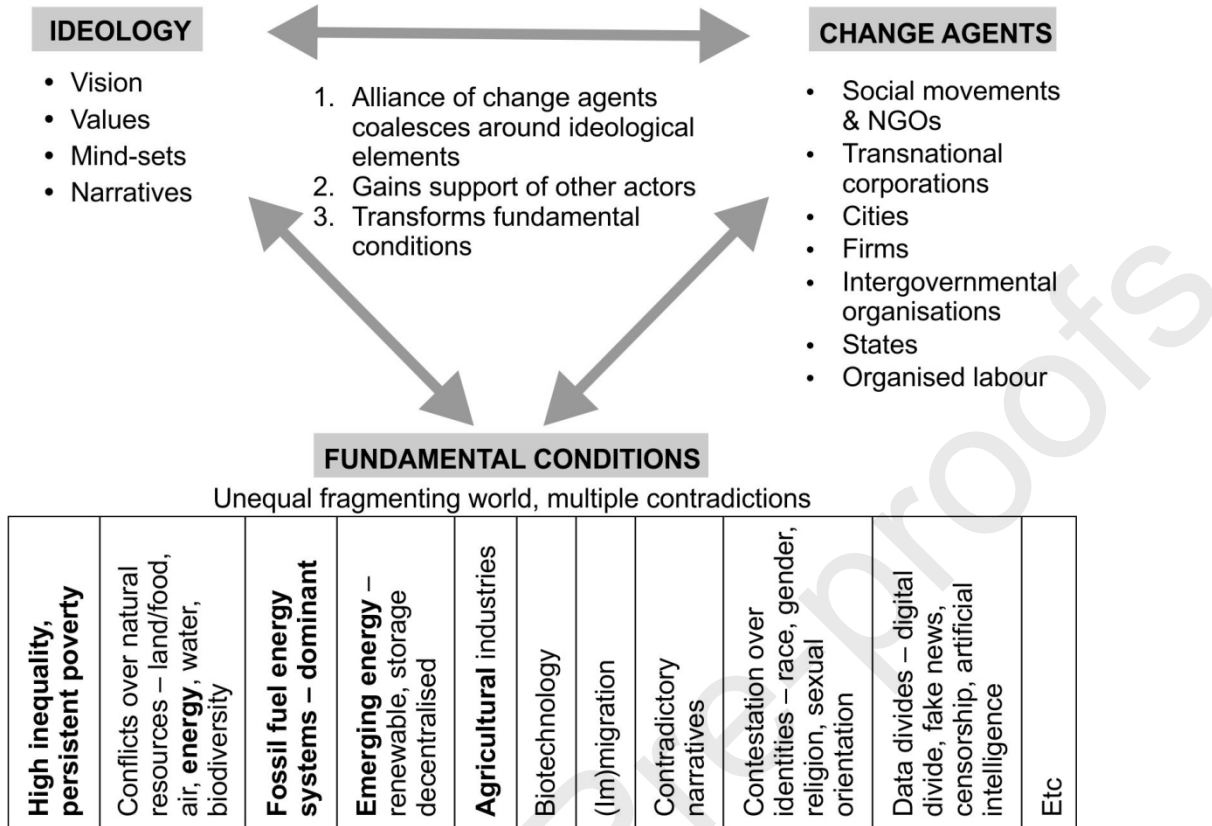
Cities are increasingly recognised globally as key actors in climate change and sustainable development. The Paris decision makes explicit reference to non-state actors [92] and SDG Goal 11 and New Urban Agenda highlight the key role of cities as actors implementing more sustainable development [3]. A global Covenant of Mayors committed to reductions of urban greenhouse gas emissions of 1.4 Gt per year by 2030 and 2.8 Gt by 2050 [93]. Cities are increasingly organised transnationally through the compact, C40, ICLEI Local Governments for Sustainability, United Cities and Local Governments and other networks. Many cities have skilled staff, budgets and institutional capacity for change. Further research is needed on how cities might relate to national governments and other change agents in a just transition.

Among business, there are different and even opposing views on just transitions, which require careful analysis. On the one hand, the renewable energy industry has an interest in just transitions, as the transition would favour its technologies. On the other hand, firms that have built their business models around coal and oil will have to be persuaded to change. Haas [94] suggests that there may be "passive revolution in a Gramscian sense", finding that some transnational energy corporations seek to continue dominance the new energy regime in Europe. Other companies may take a long-term view and develop new business models, or individuals within such companies may defect from the dominant narrative and support the just transition. Business alliances have formed about sustainable development and corporate social responsibility [95, 96], with the finance sector increasing promoting climate-related disclosure [97]. Patterns of investment will have to change to shift the trillions [98, 99] – from high to low emissions and reducing poverty.

The United Nations (UN) brings together governments to address global issues multi-laterally and the UNFCCC has long aimed to play a "catalytic role" [100]. Collective action among nation-states has led to some remarkable successes, for example on restoring the ozone layer. Inter-governmental organisations are key proponents of a just transition, notably through the UN General Assembly in its adoption of the SDGs [3], and the UNFCCC and its Paris Agreement [4]. The broader UN system includes UNDP, UNEP, IAEA, ICAO, FAO and other UN agencies focus on development and climate issues within their mandates. The ability of multi-lateral agreements to govern the activities of transnational companies is limited [101]. However, if the catalytic role of conventions like the UNFCCC can be strengthened and cooperation with non-state actors improved [102], multilateralism can be a core part of building a broad, global alliance for a just transition.

3. A neo-Gramscian theory of just transitions

The core elements were outlined in section 2, providing the building blocks of a renewed explanatory model. But how do ideology, change agents and fundamental conditions fit together, in order to develop a neo-Gramscian theory of just transition? The relationships

IDEOLOGY

- Vision
- Values
- Mind-sets
- Narratives

1. Alliance of change agents coalesces around ideological elements
2. Gains support of other actors
3. Transforms fundamental conditions

CHANGE AGENTS

- Social movements & NGOs
- Transnational corporations
- Cities
- Firms
- Intergovernmental organisations
- States
- Organised labour

FUNDAMENTAL CONDITIONS

Unequal fragmenting world, multiple contradictions

| High inequality, persistent poverty	Conflicts over natural resources – land/food, air, **energy**, water, biodiversity	Fossil fuel energy systems – dominant	Emerging energy – renewable, storage decentralised	Agricultural industries	Biotechnology	(Im)migration	Contradictory narratives	Contestation over identities – race, gender, religion, sexual orientation	Data divides – digital divide, fake news, censorship, artificial intelligence	Etc

between these core elements are elaborated in this section, as well as the broad strategies and specific tactics that shift development pathways to realise a just transition.

a. A renewed explanatory model:

Figure 1 shows core elements of the theory – ideology, change agents and fundamental conditions. Applying neo-Gramscian theory, the explanatory model advanced here is that an alliance of change agents coalesces around an ideological element – the just transition – and gains support of others, establishing a new hegemony, and is able to transform these fundamental conditions. Combined, these elements and the relationships between them are a renewed explanatory model.

Figure 1: Theory of a just transition built on the relationships between ideology, change agents and fundamental conditions

Figure 1 includes three propositions. First, change agents coalesce around the just transition as an ideological element. Secondly, the alliance gains support from other actors. Thirdly, having established hegemony, the alliance with this broader support can transform fundamental conditions, shifting development pathways to achieve ZPZC. Each of these propositions is elaborated below, together with strategies.
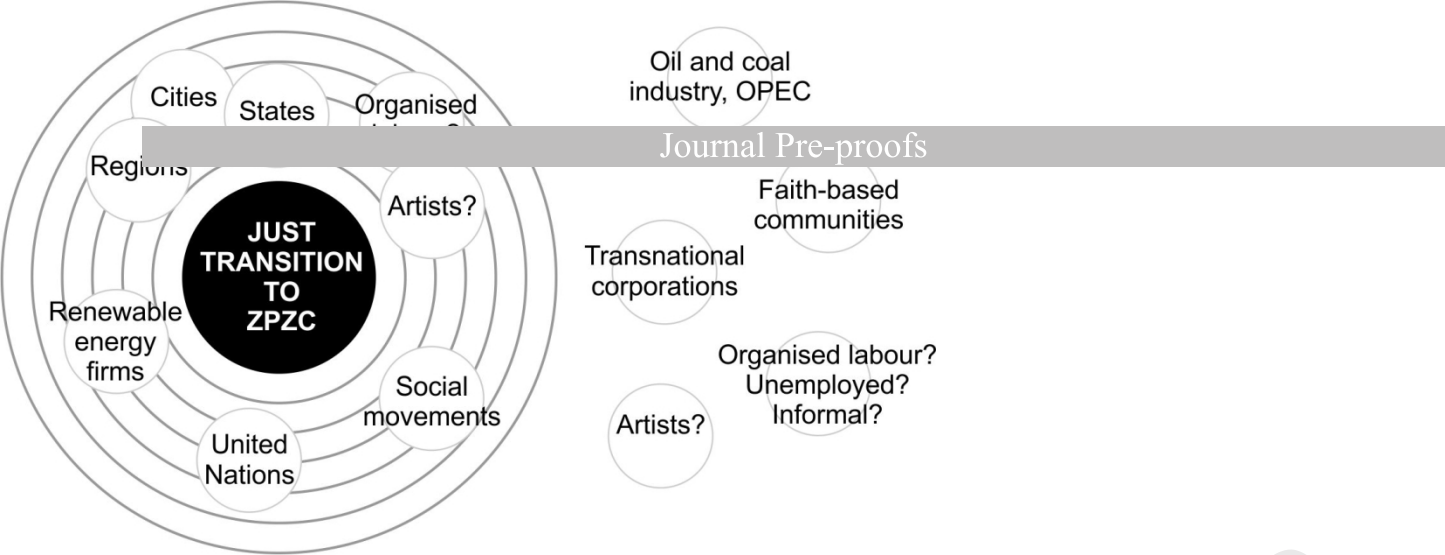
b. Change agents coalesce around the just transition

A first proposition in Figure 1 above is that an alliance of change agents coalesces around an ideological element, the just transition. Support for a just transition is likely to come from labour unions, social movements, non-state actors, some firms and international organisations. These change agents were identified in section 2.c above. How do these change agents coalesce around the just transition?

The just transition serves as a unifying principle for an alliance. Figure 2 illustrates change agents coalescing around a just transition. As an ideological element, the just transition pulls change agents together. The alliance is cemented by a common world-view – or what Gramsci called an 'organic ideology' [2]. Analogous to Gramsci's notion of a 'war of position' [1], a wide range of change agents unites around a just transition. The objectives of the just transition are depicted as ZPZC, adding concrete goals to the vision.

Figure 2: Change agents coalesce around a just transition

The just transition as an ideological element is also important in norm-setting. The concept of a just transition is broad, combining visions of human flourishing and a healthy planet and sub-elements appealing to a wide range of change agents. The breadth of the vision allows different change agents to support the overall vision. It is a vision addressing both climate and development.

Change agents actively join the alliance based on their support for a just transition. The alliance is broad as shown in Figure 2, with examples of various categories of change agents from government, business, labour and civil society. When a social actor joins the alliance supporting a just transition, it is defined as a change agent. Actors outside the alliance, shown in Figure 2 above outside the concentric circles are referred to as just 'actors'.

Within each category of change agent, there are different organisations. Different change agents may hold different values – as long as these include support for a just transition. Different members of the alliance may have other concrete objectives, which is not an obstacle as long as all support the concrete objectives of a just transition, ZPZC. The alliance can accommodate differences and tensions between goals – some members may be broadly

campaigning for development or climate goals. Ultimately, the just transition requires cooperation across a very wide range of actors. The breadth of the alliance requires organisation of broad front politics (discussed further in section c below).

Note that categories are not uniquely placed. For example, firms in the renewable energy industry are fully supportive the alliance, while those based on fossil fuels are likely not – hence the former are placed within the concentric circles in Figure 2 and the latter outside. Organised labour has been a major change agent and indeed the labour movement coined the term 'just transition', but today many people are unemployed, depend for livelihoods on the informal sector, and artificial intelligence is redefining the future of work. Organisations of workers, the unemployed and the informal sector are shown occupying positions both within alliance and also outside.

Alliances can be built at different spatial scales, from local to global. The predominant focus of just transitions has been at national scale, though there are international linkages and specificity to sub-national contexts. At the national scale, examples of alliances in related but different contexts include miners in the Ruhr area of Germany [103] to communities dependent on coal on the Highveld in South Africa's Mpumalanga province [104, 105].

An inter-national alliance can coalesce around the concept of a just transition. The International Labour Organisation has developed *Guidelines for a just transition* that might be applied in different contexts, and generally highlight the needs of the workforce and the creation of decent work and green jobs as part of any just transition [45]. The "imperative of a just transition" is recognised in the preamble to the Paris Agreement [4]. At the COP24 climate conference in Katowice in Poland, some Heads of State adopted the 'Solidarity and Just Transition *Silesia Declaration'* reiterating that these imperatives require "the creation of decent work and quality jobs" (HoSG, 2018). While important in setting norms and building solidarity, action to transform fundamental conditions will take place at local scale. What the material and social basis of such an alliance might be depends on the change agents who lead the processes of just transitions. Some might be led by social movements, while others might be initiated by elites.

Building an alliance requires political, cultural, socio-economic, moral transformational collective leadership by an alliance. Forming an 'organic ideology' is practical work, carried out by institutions, with collective leadership by some individuals – not necessarily the leaders of organisations, Gramsci's 'organic intellectuals'.   Such work is carried out by institutions and some individuals, but fundamentally ideology is created by a community or group. The politics of building alliance is critical for collective action on sustainability and development [106]. This work of applies both to forming an ideology with those who support the just transition, and to persuading others thereby gaining hegemony.

c. Gaining broader support

A key question is how broader support for a just transition can be built. How does a multi-actor, multi-issue alliance come together in support of a just transition, organising globally for local action? Building an alliance of core change agents is a necessary but not sufficient condition for change at the pace and scale required for a just transition.

To be able to change fundamental conditions, it is essential that the alliance gains support from other actors. In Gramsci's terms, the alliance needs to establish cultural hegemony,

building support through persuasion. A second strategy is essential, to gain support, including of those whose worldview would not incline them to support a just transition. Otherwise, other actors coalesce around retrogression, defending a narrative of growth. At least some supporters of the currently hegemonic narrative need to change over their support to a just transition. If the alliance can replace the currently hegemonic ideology with a just transition, it can transform fundamental conditions of development and climate. Here again, tensions between different goals can be accommodated among different goals – as long as there is broader support for the ideological element of a just transition. The new world-view represented by the just transition will be contested.

Four tactics are suggested as part of the strategy of building broader support are setting a direction with a meta-narrative of just transition, organising broad front politics, using communications smartly and thinking about instruments to build cooperation.

Firstly, the meta-narrative of the just transition sets a clear direction, while remaining broad enough to have wide appeal. What is the story that is compelling for more than a relatively small group of environmentalists? In developing the narrative of a just transition, the alliance should appeal to a broad set of moral foundations [107]. Narratives that frame a just transition in terms of a range of ethical arguments, values and mind-sets are important [108, 109].

Gramsci made it clear that cultural hegemony is not established by force, but is a relation 'of consent by means of political and ideological leadership' [1]. Similarly, the vision of a just transition is not imposed on others; rather, other actors need to be engaged so that at least some of them become change agents. As such, the process of a just transition will be complex and messy, not linear. Even when the just transition becomes a widely accepted world view, it will be contested (or in Gramscian terms, there will be counter-hegemony).

The meta-narrative of a just transition will be contested. There are competing narratives advanced by the fossil fuel industry, agri-business, populist movements and certain presidents that climate change is a hoax and that the benefits of growth will trickle down. Hence the just transition must, on the one hand, set out a clear alternative, while it must also have broad appeal. Various factors might push those who would resist a just transition (including litigation, moral claims, activism), while push factors might include the potential for human flourishing, and avoiding the risk of economic instability [110].

Secondly, organisation is needed in the form of broad front politics. This is the short answer to the questions 'what types of politics can make the numerous energy and climate policies we discuss achievable?' [111]. Organisation is needed to build the coalition of change agents (see section b above) and broad front politics needs to mobilise those actors who might not strongly support the just transition – but at least need not to oppose it. In Gramsci's terms, this is a 'war of position – 'this strategy of building up a broad bloc of varied social forces, unified by a common conception of the world' [1]. The war of position is distinct from open conflict, the 'war of movement'. The war of position is a political and ideological struggle, in which the alliance builds influence and consent, developing a counter-hegemony to the currently existing. It is conducted across all civil society, not only in the economic sphere [1]. Broad front politics applies to change agents within the concentric circles in Figure 2 above and to gaining support from actors outside the circle. The following elaboration refers to both aspects.

In the Trump era, Noam Chomsky has pointed out that individuals live in an 'atomized society lacking the kinds of associations (like unions) that can educate and organise' [112]. That is a crucial difference between today's despair and the generally hopeful attitudes of many working people under much greater economic duress during the Great Depression of the 1930s [112]. Without associations like unions or social movements, little is done to educate and organize. What is needed particularly are organisations that play a catalytic role in forming alliances, around multiple issues. Broad front politics is needed, able to organise multiple change agents across several contradictions, in pursuit of a just transition. Much as in Gramsci's time, 'there must be a 'cultural-social unity through which a multiplicity of dispersed wills, with heterogeneous aims, are welded together with a single aim' [1].

Broad-front politics includes multiple change agents, each organised around another issue but coming together around a just transition. Different members of a broad front will be organising climate goals, others for inclusive development and so on. Together, they will be organising a 'war of position' and creating a counter-hegemony. Some examples of broad front on various issues exist.

A broad front has been organised among national governments through the UN and then through partnerships; organised sectorally or thematically. Cities are increasingly organising transnationally. Social movements are often local, but with examples like Habitat for Humanity or the Climate Strike showing international organisation for local action; other successes of social movements have been cited above. Organising in the past included social relations 'embodied in a great variety of organisations and institutions including churches, political parties, trade unions, the mass media, cultural and voluntary associations' [1]. Each organisation need only contribute to an aspect of the just transition.

What is new compared to a broad front in Gramsci's times is that a broad front for a just transition must engage multiple issues. While articulating a common and public good, the just transition, the aim of organising is not to fight one other class or group, but to enable cooperation. There is some experience of coalitions across movements supporting labour and environmental issues [113] and thinking about the role of bridge-builders for energy transitions [85]. The meta-narrative of just transition is what cements the alliance together. The structure of a broad front is an overall group with sub-groups, pursuing a just transition which everyone can support.

Persuading those outside of the alliance to support or not oppose the just transition will be helped by a meta-narrative that appeals to broad set of arguments. Such narratives should be based on all, or at least several, of five foundations of morality, which Haidt identifies as: 1) harm /care; 2) fairness / reciprocity; 3) in-group loyalty; 4) authority / respect; and 5) purity / sanctity [107]. He shows that 'liberals' favour the first two, while conservatives use all five foundations. A just transition needs to be framed around the purity of the atmosphere and of taking right action; support from many groups; authority of leaders at many scales, principles and institutions; leaving no-one behind; and sharing both burdens and benefits of the just transition fairly.

This approach is consistent with the argument advanced by Scoones, Leach and Newell [114], who argue that local innovation processes are "frequently motivated by a mesh of socio-cultural and livelihood concerns, and understandings of ecology and sustainability – that diverge from the narrow notions of 'green' and 'economic benefit' encompassed in most

technocentric green economy discourses". The framing of the just transition is significantly broader, but thereby also contains internal tensions.

Thirdly, in order to draw in a wide range of actors, specific messages about the just transition are communicated to different audiences. The overall vision of a just transition remains the same, but it is articulated differently to various audiences. Different actors will 'hear' the narrative of a just transition in different ways, relating them to their existing world-views [115]. The types of information and feedback that are most effective in influencing actors in support of a just transition need to be considered, similar to a question in energy research [111].

Persuasion to introduce behavioural change is more effective if it addresses motivation at individual levels and structural transformation. Klinsky [116] among others has argued that more attention should be paid to the central importance of psychology in relation to equity and climate change. Perceptions of justice matter in negotiations among countries, in that equity will only enable ambition "if Parties, despite different views, 'perceive each other as being members of the same moral community'. Psychological positions on fairness are shaped by underlying ideas about what the problem is, which in turn relate to interests, interpretations of the geopolitical context, and perceived power" [116]. Analytical challenges are complex, including many theoretical approaches, often focused on specific decisions, varying in formality and often not explaining change clearly [117]. Nevertheless, behavioural change is salient in individual agency and wider systems of practice [118], and an important part of developing communication tactics.

The alliance connects to the specific issues of different sub-groups and to actors outside the alliance. Given that the just transition combines a wider range of objectives, addressing multiple contradictions, it is only necessary that actors support the vision of a just transition. They may also support other objectives, not shared by other members of the alliance. It is here that tailored messages can be developed. As long as the actors find a common interest in the just transition, this is sufficient.

Fourthly, instruments to build cooperation should be further explored. Cooperation between countries through multi-lateralism needs to be complemented by transnational organisation of cities, social movements and other change agents. Development and climate change require collective solutions – yet in the latter, a key problem is the risk of free riders. Some existing instruments might benefit from altruistic punishment, where actors punish others who are free riding, though it is costly for those punishing and yields no material gain. It has been shown that 'cooperation flourishes if altruistic punishment is possible, and breaks down if it is ruled out' [119]. We need to construct systems that increase cooperation, take into account different moral arguments. If these cannot be integrated into a meta-narrative, instruments like altruistic punishment may increase cooperation.

d. Transforming fundamental conditions: Shifting development paths to achieve zero poverty and zero carbon

The previous sections have explained how an alliance coalesces around the ideological element, the just transition, and then gains broader support. With this support, the just transition becomes hegemonic – it is common cause and common sense. The cultural hegemony of a just transition would mean that there is broad support to pursue a vision a vision of human flourishing and a healthy planet, goals of zero carbon *and* zero poverty,
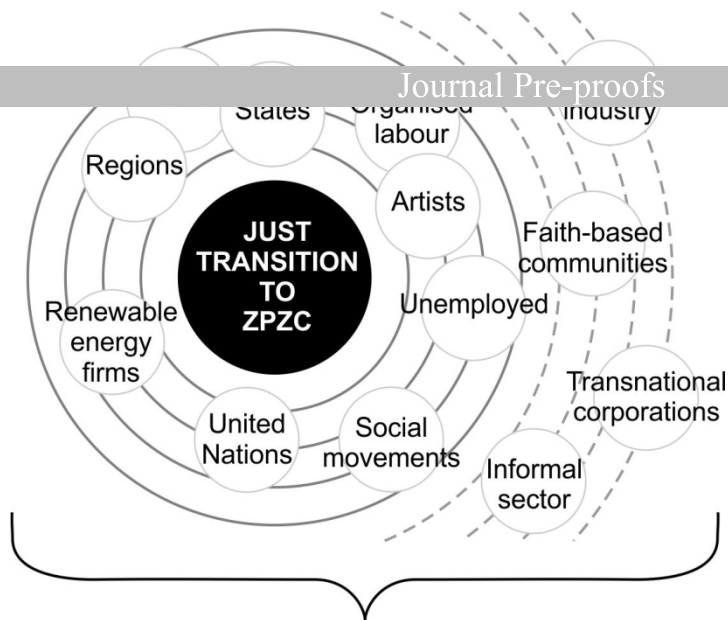
TRANSFORMS FUNDAMENTAL CONDITIONS

Zero poverty and inequality → human flourishing

Zero carbon and impacts → healthy planet

through inclusive and equitable development, as signified in Figure 3. Establishing a counter-hegemony enables the transformation of fundamental conditions. So, consider the situation illustrated in Figure 3, in which an alliance has coalesced around the vision of a just transition and, having gained sufficient support, is able to transform fundament conditions.

Figure 3: Just transition: fundamental conditions transformed by alliance with support

Figure 3 shows the alliance coalesced around a just transition and the objectives of zero poverty and zero carbon (ZPZC; on the left-hand side). The dotted line on the right-hand side indicates that the alliance has established a new cultural hegemony, with sufficient support from other actors.

Yet the question remains: How is the just transition to be achieved? Achieving the objectives of the just transition requires shifting development pathways. It is by shifting development paths from the past and current direction to ones that can achieve ZPZC.

Figure 4 shows illustrative paths from a situation of high poverty and carbon to ZPZC. Zero poverty is achieved by inclusive development. Equitable development aims at reduced inequality. Climate-resilient development avoids the worst impacts of climate, leading to loss and damage and makes possible a future world of zero impacts. Development becomes lower-carbon and around mid-century reaches zero carbon globally. Zero poverty and inequality lead to human flourishing.
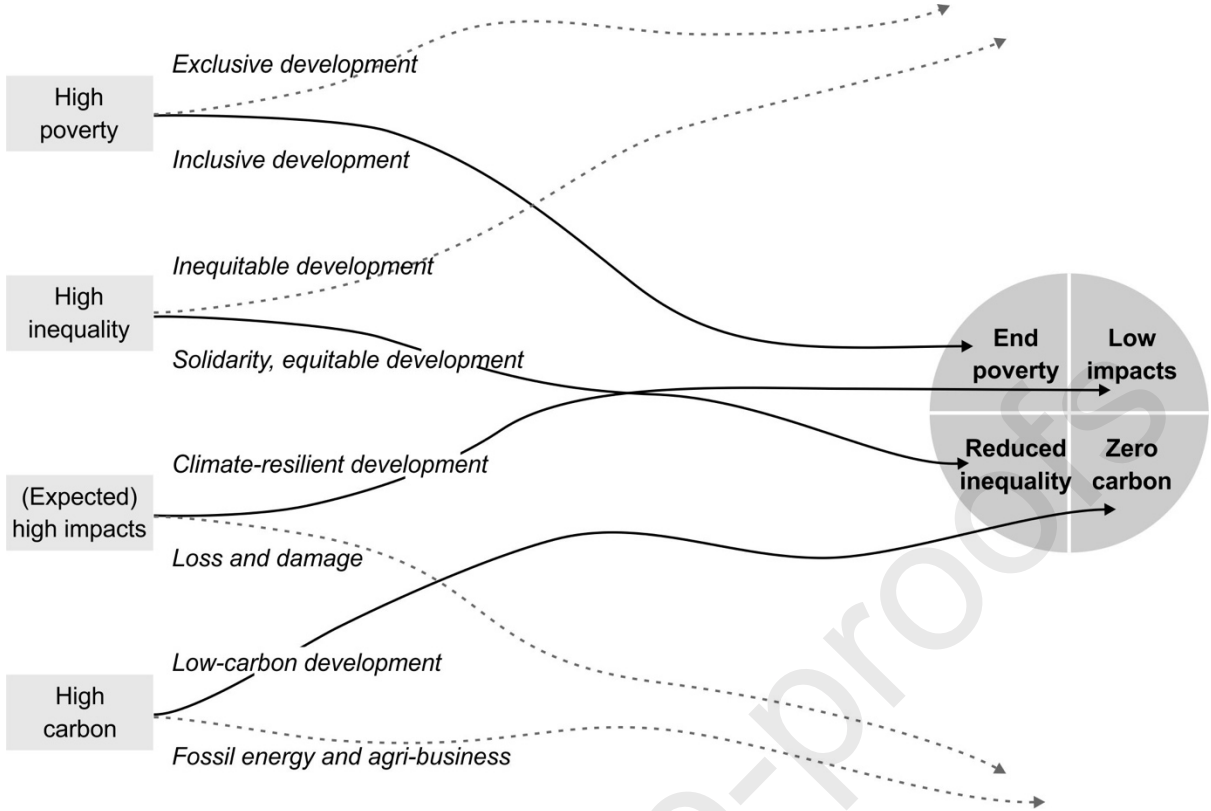
Figure 4: Shifting development paths to transition from high to zero poverty and carbon

These development pathways are shown by the solid lines converging on the circle illustrating zero poverty and carbon – as well as low impacts (aided by zero carbon) and reduced inequality (in the absence of poverty, though that does not imply zero inequality). The pathways indicate a different quality of development to the previous pathways shown in dotted lines. In high-level overview, Figure 4 illustrates how a focus on development paths opens up a broad range of policies and actions, enabling transformational change across multiple objectives.

Each of the paths can be further unpacked; for examples, inclusive development could be the goal of a national development plan, a dedicated strategy for poverty reduction and specific to a sector, for example, eliminating energy poverty. The lowest dotted line in Figure 4, as another example, illustrates that the past pathways, based on fossil fuels for energy development and agri-business leading to rapid deforestation was high carbon. An energy development pathway needs to shift to renewable energy sources and transform patterns of land use, if we are to reach zero carbon. Transforming such fundamental conditions requires fair sharing of energy and natural resources, agriculture sustaining livelihoods and decentralised power.

Shifting development pathways is not only a techno-economic exercise. Many of these changes relate to the "ultimate drivers" [75] (see section 2.b above). The mind-shift to 'living well with less' (rather than more) is illustrated for energy – using less energy, more efficiently, mostly renewables leads to a good life for all. The energy system transitions to decentralised power, both technically for electricity systems and politically with energy democracy.

Shifts development pathways are determined by many decisions of multiple actors, but this does not mean they cannot be managed. Major socio-technical transitions in the past have been unintentional , such as the transition from coal to oil. By contrast, many social changes have been purposeful – from the abolition of slavery to women's suffrage to decolonial movements, to name a few. Such transitions were not managed by governments, but entailed profound shifts in visions of what human flourishing means.

Furthermore, Scoones [106] has argued that "transformations cannot be managed or controlled, but must draw on an unruly politics, involving diverse knowledges and multiple actors". Habib points out that movements can rapidly shift the parameters of what is possible, though others need to sustain the gains through policy and institutions [84]. A just transition requires adaptive management [120], which is not likely to be in the hands of any single change agent, and may be guided more or less by the state, in different contexts.

Further research is needed to understand how to shift development pathways. The IPCC framed six high-level enabling conditions that can be applied to shifts in development paths: governance, behaviour and lifestyles, innovation, enhancing institutional capacities, policy and finance [121]. Shifting development paths requires longer time horizons, systems thinking, adaptive management, and integrated decision making in community planning [122].

4. Limitations and future research directions

This article proposes a neo-Gramscian theory of just transitions. I have elaborated core components of ideology, hegemony, change agents and transforming fundamental conditions,

combined them into an explanatory model and applied this to a better understanding of how to shift development pathways to zero carbon and zero poverty. This section qualifies this claim by acknowledging limitations, as well as pointing to areas that would benefit from further thinking.

The first of the two objectives of this article, as set out in the Introduction, is to advance a neo-Gramscian theory of a just transition. The article is not the first to apply Gramsci and neo-Gramscian theory to environment and climate change (see section 1.c). I build on existing theoretical constructs, applying them to the just transition as an ideological element, and modified components which I call change agents (social forces) and fundamental rather than material conditions (as elaborated in section 2). Change agents coalesce around the concept of a just transition, and establish a new cultural hegemony.   Combining these elements and their relationships does provide a renewed explanatory model, a new conceptual framework. While I have presented such a theoretical framework in section 3, I make a limited claim to theoretical novelty, neither entirely creating new, synthesizing multiple nor or fully testing existing theory [41]. The article thus claims a modest but also precise contribution in advancing existing neo-Gramscian theory – its application to just transitions.

Even then, in writing a single paper, I can at best provide a theory of just transitions for further discussion in the community of practice. A theory that makes sense only to me is no use at all. The fuller development of a theory of just transitions will require a community effort.

The second objective of this article was to apply the theory to our understanding of shifting development pathways. This objective has been pursued in section 3, yet achieved at an abstract level, illustrating how shifting development pathways to be more inclusive, equitable, climate-resilient and low-carbon can achieve ZPZC. Further research is needed to apply the theory in particular contexts, each with their specific political, social, economic and environmental context.Given the understanding of the coalition of change agents, with broader support, driving such a change, I argue that this is a non-trivial application. This seems to me consistent with the theoretical nature of this article, and adequate for a single article. Yet the limitation is clear, only a few examples are offered, without providing in-depth case studies. Further research is needed to understand more concretely what shifting development pathways entails. Applying the explanatory model to more granular case studies would be a useful direction for further research.

5. Conclusion

This article proposes a theory of just transitions, in order to tackle the challenges of development and climate. A just transition is needed to shift from past development paths that brought us to a world of high carbon, poverty, inequality and impacts and carbon, to ones that achieve zero poverty and carbon.

The article posits a just transition as an ideological element. Building on neo-Gramscian theory, this ideological element acts as a unifying vision, around which an alliance of change agents coalesces. The 21st century is characterized by multiple contradictions, some of which around material interest and others non-material, hence I modify Gramsci's material to fundamental conditions. I explain the relationships between these elements – ideology,

change agents, hegemony and fundamental conditions – and advance a neo-Gramscian theory of just transitions.

The implications of the theory are that just transitions require coalitions of change agents coalescing around an ideological element –the just transition. The meta-narrative of a just transition brings together a range of change agents into alliances, which might initially include cities, social movements, some firms and countries, UN agencies and others. The meta-narrative has broad appeal, allowing multiple organisations organising on multiple issues to uniting behind a just transition. A just transition requires organising broad front politics and finding ways to cooperate with others. This establishes a new world-view, or in neo-Gramscian terms, cultural hegemony. Yet there is contestation over just transitions and potential for counter-hegemony.

The programme of a just transition alliance would focus on shifting development paths. The quality of development becomes inclusive, equitable, climate resilient and low carbon. This points to a just transition providing a basis for a new social contract, ensuring human flourishing and a healthy planet.

While the objectives of this article are theoretical, I hope it will contribute to make difference in the world, across many countries and communities. . Good theory should help us reflect on our practice, and transform our world for the better. In this spirit, I will seek to engage many other intellectual, in the academy and Gramsci's organic intellectuals. Together, we might address the multiple challenges of our present conditions to transition to development that enables human flourishing and a healthy planet.

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