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Article

Transition: Revisiting a Troubled Concept in the Age of Climate Change

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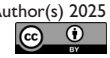

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Abstract

This article examines the concept of transition as it is employed in climate-change discourse, drawing lessons from earlier usage in the context of post-communist change. Approaching the green transition as both an analytical and a political concept, the article explores the intentions to which it responds, the assumptions that come with it and the extent to which these are well founded. As the article argues, the concept of transition carries an alluring promise of peaceful change that can be guided to completion by elites. Underpinning this, however, is a misleading image of linear movement towards a new state of equilibrium, the political effect of which may be to weaken the cause of climate-change mitigation and the democratic institutions on which it depends.

Keywords

climate change, energy transition, just transition, green transition, transitology

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Forging a political response to human-made global warming has widely come to be phrased as a problem of *transition*. Policy-makers, scientists, NGOs and others frame the challenge as the pursuit of a green transition, while variants such as the *just* transition are used to highlight its normative aspects. In adopting the concept of transition, these actors employ a term with a broader history. Over recent decades in particular, the concept has been used to describe a variety of expected or sought-after societal changes, notably the consolidation of liberal democracy and the market economy in countries emerging from communism. This article examines the implications of framing climate politics as a problem of transition, drawing on what we can learn from applications of the term elsewhere.

Transition is a future-oriented concept, evoking a presumed endpoint to be approached as well as something to be left behind (Hölscher et al., 2018). Today as before, one source of its apparent appeal lies in presenting a model of change that can be steered from above. The green transition evokes a drawn-out process under the control of elites, clear in its

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destination and receptive to expertise. It promises to build common ground between those of differing views, as it solicits agreement on particular policies without agreement on wider principles. Furthermore, that a transition is bracketed in time means the measures applied can be seen as temporary and goal-specific, making action more palatable to the sceptical. In a context of fragile and even waning commitment to climate-change mitigation, the concept also offers the comforting suggestion of a resilient process, able to withstand the recalcitrance of those who would stand in its way.

As will be argued in the following, the same features that make the concept of transition attractive bring a variety of questionable assumptions, ones that become clearer as we set today's usage in comparative context (cf. Cosovschi and León, 2025). As the transition paradigm has been absorbed into climate politics, it has consolidated a simplified take on the problems faced. At the heart of this is the idea of movement towards a new state of equilibrium. A concept that evokes a condition to be left behind and one to be arrived at casts the present as an interlude of temporary disruption. It pictures an old order in steady retreat, and a new one on the path to consolidation. Presenting the trajectory of change as time-bound and largely set, it brackets out the wider social and political conflicts liable to upset the process or prolong it. By focusing attention on a particular set of goals and indicators, in this case to do with energy sources and climate pollution, it also risks narrowing the range of outcomes to which actors are alert.

As the article's final section argues, not only does this generate some misleading expectations, but it can weaken the political cause. While nothing is determined by concepts alone, they can reinforce certain habits of practice and thought, ones that in this case jeopardise projects of climate-change mitigation. By suggesting the adequacy of temporary and targeted interventions, the transition framework risks obstructing more radical measures. As the longer history of transition discourse underscores, it tends to pair with a technocratic approach, one that channels pressure for change in an approved direction. Treating the goals of change as predetermined, and the present as but an interlude of disruption, invites an instrumentalist outlook that ranks ends over means and devalues efforts to build public support for the policies sought. Practices of justification are likely to suffer, and social dissent can be expected. Conceived as a process under the control of elites, transition offers little to fall back on when political will falters or the project gets corrupted.

It was on grounds such as these that the concept fell out of favour among those studying post-communist change, sparking calls in the early 2000s for 'the end of the transition paradigm' (Carothers, 2002). As the article concludes, there is good reason to seek the end of this paradigm in the context of green politics. While there may be settings and purposes to which it is well suited, the climate predicament is not one. Other ways of envisaging the future are needed. Arguably what climate change demands is better grasped with the concept of transformation, understood as an ongoing process of perpetual reinvention that makes no assumption of stable, predetermined and irreversible change and that elicits the involvement of the wider public.

The Green Transition in Context

Over the course of several decades, the concept of transition has become increasingly central to how problems of climate change are conceived and acted on. At least since the 1981 United Nations Conference on New and Renewable Sources of Energy, global authorities have spoken of the need for countries to move towards 'new and renewable'

sources of energy (United Nations, 1981). The concept of an 'energy transition' emerged as the principal way to express this, though the term predates climate concerns. Originally pioneered in the 1950s by advocates of nuclear energy (Basosi, 2020: 5; Fressoz, 2024: 142ff.), it achieved wider resonance in the West with the oil crises of the 1970s. Concerns about energy availability, sparked by OPEC's moves to limit supply, suggested the need to look beyond fossil fuels. As US President Jimmy Carter – one of the concept's early adopters – made clear (Carter, 1977), an energy transition was in the first instance a geopolitical project, aimed at reviving national sovereignty so as not to 'live constantly in fear of embargoes'. As a project of substitution, it was intended to echo earlier supposed shifts in energy production from wood to coal and later to oil.

As the prospect of global warming started to attract attention in the 1980s, so too did the ecological rationale for transition. Studies of the greenhouse effect highlighted the potentially drastic consequences of human emissions on Earth's atmosphere (Weart, 2008: 146ff.), and landmark interventions in green politics such as the Report of the Brundtland Commission (United Nations, 1987) embraced the concept of transition as a way to understand what should follow. 'The period ahead must be regarded as transitional from an era in which energy has been used in an unsustainable manner', argued the report (Brundtland Commission [United Nations, 1987: 142]), with the task being to find 'a generally acceptable pathway to a safe and sustainable energy future'. Concerns for growth had to be paired with those of public health and protection of the biosphere: 'our common future' depended on 'a steady transition to a broader and more sustainable mix of energy sources' (Brundtland Commission [United Nations, 1987: 162]). The Intergovernmental Panel on Climate Change (IPCC), formed in 1988, would give this emerging discourse an institutional home and consolidate its uptake in the scientific community. Whereas environmental consciousness had often been phrased in backward-looking terms (e.g. 'conservation'), the emergence of the transition paradigm heralded a decidedly forward-looking focus, whereby success would be bound up in change. Transition, on this understanding, would entail reforming particular sectors of the economy, with improvements in energy efficiency, the discontinuation of certain industrial practices, technological innovation, bringing down the costs of renewables and the public regulation of harmful practices. This remains the heart of what the 'energy transition' describes today (e.g. United Nations, 2023: COP28 press release). In its core meaning in the environmental context, we may say that the concept of transition describes planned movement away from a reliance on hydrocarbons towards alternative sources of energy, increasingly seen as serving the goal of carbon neutrality.

Alongside this core understanding, the concept of transition has acquired further meanings in climate discourse, notably with the addition of modifiers such as 'just'. As many have observed, moves towards renewable energy raise normative questions about who should bear the costs. The idea of a *just* transition extends the focus beyond energy itself to include efforts to address inequalities of wealth and power (Wang and Lo, 2021). Initially promoted by national trade unions in the 1990s (Stevis et al., 2019), the concept was taken up by the International Trade Union Confederation a decade later to describe 'the shift towards a more sustainable society' that could 'sustain jobs and livelihoods for all' (International Trade Union Confederation (ITUC), 2009: 5). It entered the mainstream with its appearance in the preamble to the 2015 Paris Agreement (United Nations, 2015: 2). More recently, the International Labour Organisation (ILO) (2023) has characterised a just transition in terms of 'greening the economy in a way that is as fair and inclusive as possible to everyone concerned, creating decent work opportunities and leaving no one

behind' (cf. United Nations, 2022). Among the practical considerations are employment and labour relations, investment in skills, the rights of indigenous groups, animal welfare, distributive justice and compensation for past harms.

As the concept of transition has expanded to accommodate these wider concerns, an increasingly popular umbrella term since the 2010s has been the 'green transition'. Sidestepping possible tensions between a focus on energy and justice, the formulation allows broad agreement on the structure of the challenge faced, while permitting competing interpretations of its functional and normative demands. The European Commission, for instance, has used the concept of the green transition to cluster together a range of issues to do with energy, gas emissions, sustainability and employment (European Commission, 2024). While its commitment to the project is open to question, the Commission has stated its goal as 'to make Europe climate neutral by 2050', tying decarbonisation goals to broader themes of investment and growth. Consolidating green-transition discourse has been the rise of 'green transition expertise' (Frandsen and Hasselbalch, 2024), understood as a set of epistemic networks spanning governments, NGOs, corporations and think-tanks, often shaped by those with a background in finance and economics. As with the 'energy' and the 'just' transition, the 'green' transition has some distinct features of lineage, but it has proved to be of general appeal, bolstering the place of transition in the climate lexicon.

If there is a common thread of meaning to these varieties of transition discourse, it is the notion of moving from one set of social arrangements to another. Transition describes a process of leaving something behind and approaching something new (Hölscher et al., 2018: 1; cf. Brand, 2014: 249). This, we may suggest, is an ineliminable feature of the concept (Freeden, 1996: 62ff.). Precisely what constitute the points of departure and arrival can be a matter of ambiguity or disagreement. Often there may be an asymmetry, such that one is depicted with greater clarity than the other. Sometimes, a focus on the *process* of transition crowds out discussion of either – as has arguably been the case with the 'just' transition (Johannson, 2023: 235). But we may treat it as central to the concept that it evokes a movement from one condition to another. This feature comes through clearly in the definition offered by the glossary of the IPCC (2023) Sixth Assessment Report (2021: Working Group 3, Annex 1, p.1816), which states that a transition is 'the process of changing from one state or condition to another in a given period of time'.

One way to understand a concept better is to consider how it has been used in other contexts. As noted, those who draw on the concept of transition in the contemporary ecological context adopt a term with a wider history. In different times and places, people have reached for this vocabulary to describe expected or desired change. Conceptual historians trace its lineage back to Enlightenment theories of progress, where it emerged as part of efforts to periodise history and convey the course of human development as it would continue into the future (Petrov, 2015). The tendency would become central to the socialist tradition, where it supported efforts to evoke a world beyond capitalism and to identify the sequence of stages through which societies would pass towards communism (Guilhot, 2002). More proximate to this article's focus are the ways in which the concept of transition was employed towards the end of the twentieth century, not as part of a consciously elaborated theory of history, but so to capture particular paths of anticipated change. Emerging while transition talk in the climate context was still in its infancy, these late-twentieth-century usages shaped the concept's main connotations at the turn of the millennium.

Here, one may speak of two waves of transition discourse in particular. First, the concept found widespread appeal in the 1980s as part of the study of democratisation. With authoritarian regimes in Iberia and Latin America falling over the course of the decade, the term was popularised as a way to indicate what should replace them (O'Donnell et al., 1986). Transitions to democracy became a central object of study and prescription. Second, and ultimately dwarfing this usage, was the ascent of the concept of transition in the 1990s as a way to conceive the political economy of the post-Cold War era. Here the concept was applied especially to changes taking shape in Central and Eastern Europe after the end of communism, to describe movement towards a liberal market order (Kopeček and Wcislik, 2015). Transition studies experienced 'a surge in momentum and prominence' (Cosovschi and León, 2025: 3; Schmitter, 2010: 17). Embedded in institutional processes, and sparking a broad epistemic community that spanned public and private institutions under the heading of 'transitology', this paradigm established the concept of transition as a central feature of the international political landscape.

As the most recent and extensive deployment of transitions thinking to political economy beyond the climate context, this 1990s' case makes for a logical point of comparison. It offers insight into the appeal and the limitations of this framework as deployed in near-coterminous conditions by a similar set of actors.[1] To be sure, as the concept of transition is adopted in climate politics, the context differs in some notable ways. In the 1990s, this was a concept applied to the periphery – to countries away from the political and economic core of the West. These states were understood to be 'catching up' with the democratic and capitalist achievements of the core. Through international organisations and trade agreements – to do with the IMF, the World Bank and the European Union – their shifts were being managed from the outside: the transition paradigm was a way of directing their politics from afar. In the climate context of the present, transition is something which also the core is to undergo: there is no vanguard to follow. It is a process to be negotiated by state officials and regional institutions, acting with discretion and improvisation. Moreover, here the term has been used with added urgency. The transitions of post-communist Europe were to be enacted with speed, but where progress was slow this was assumed to be of primary concern to those countries themselves: they would simply be 'left behind'. In the climate context, by contrast, transition is to happen against the clock: it is shaped by the timescales of climate science and the political deadlines these give rise to.

Yet despite this heterogeneity of contexts, there are important continuities in how the concept of transition functions. The most basic of these should already be apparent: 'transition' is much more than a tool of observation. Like many political concepts, it has functioned as a category of both *analysis* and *practice* (Brubaker and Cooper, 2000: 4–5), being invoked by observers and actors alike. Its application in the 1990s was underpinned by the policy prescriptions of the IMF and World Bank (the 'Washington Consensus'), as well as by institutional processes such as those associated with EU accession. Such authorities were central to the definition of what it meant to be 'in transition', how long the process could be expected to last and at what point it could be considered complete. Typically the concept was used both in a descriptive sense, to highlight the shape of a process said to be unfolding, and in a directive sense, to identify what effective policy-making should be seeking to achieve. While scholars might seek in the concept of transition a resource for social science, it has always been shaped by actors with a stake in the game (Cosovschi and León, 2025: Introduction). More than just an epistemic device, it is an object of political concern.

This dual character of the concept deserves emphasis because it tends to be overlooked in the case of the green transition. Motivated by the goal of intellectual precision, a number of studies have examined how scholars deploy the concept and the underlying processes they seek to describe (Chappin and Ligtvoet, 2014; Moore et al., 2021). Such studies capture the term as a category of *analysis*, but largely neglect it as a category of *practice*. They usefully indicate how a coherent and consistent application of the term might look, but miss the stakes of its adoption by motivated actors. Just as in earlier historical contexts, a fuller understanding requires us to look beyond its academic applications to consider its adoption in public discourse and public-facing expertise. Closest in spirit to the following treatment is Jean-Baptiste Fressoz's analysis of the place of the concept in periodising the use of energy (Fressoz, 2024). As the author observes, 'transition' has become a central pillar of stage histories of material development, disguising in the process the interdependence of energy sources. Writing as an historian, Fressoz gives us powerful reason to question transition as a framework for appraising the past, but leaves more to be said concerning its adequacy for approaching the future. As we shall see, much of the concept's analytical and political significance lies in shaping understanding of what is yet to happen, be it a matter of hope or expectation (cf. White, 2024a).

While a systematic overview of the concept of transition is clearly beyond the article's scope, the intention in what follows is to highlight a few key points about the concept's appeal in this forward-looking sense, informed by its wider adoption in the 1990s and 2000s, so as later to explore the analytical and political implications of its application to climate change.

The Promise of the Transition Paradigm

As I argue in the following, in the basic idea of transition as a movement from one social condition to another, there are some recurring temptations and pitfalls. To conceive change in these terms is to make a significant choice, and we can sensitise ourselves to what is at stake by making connections with how the concept has been used in other contexts. Methodologically, it can be taken as axiomatic that while the same concept can be used in a diversity of ways, this variety is nonetheless bounded, allowing one to reflect on connotations that span a variety of semantic settings (Freeden, 1994). As a general principle of interpretation, we may assume that a concept responds to habits of thinking and practice that predate it, but also that it serves to consolidate, naturalise and refine them.

At the most basic level, the appeal of the concept of transition would seem to lie in its capacity to name a project of change that can be a point of consensus for those of differing commitments. It names an overall direction of travel while bracketing the details of the policy choices this may entail. That a wide variety of social interests can apparently align themselves in principle with a green transition, from the developers of new technologies to the representatives of trade unions, from governments in the global North to those in the South and a host of transnational institutions, is testament to its capacity to act as a shared discursive reference-point. Albeit that the transition may mean different things to different actors – as regards transition from and to what, by what means and so on (Johannson, 2023: 233) – its promise is to build a broad coalition of support for action on climate change. A degree of ambiguity can be constructive, helping to avoid issues that might splinter support. This discourse-organising function, however, is one that many concepts can play – *climate-change mitigation* and *sustainability* would be examples in

this context. To understand the particular reasons for which actors may be drawn to the concept of transition, we need to reflect on its distinguishing features.

One way to better understand the concept's appeal is to distinguish it from another model of change – that of rupture. At least since the revolutions of the eighteenth century, this notion has been central to the western political imaginary, expressing a radical break with the existing system pursued within a relatively short timeframe. Traces of this outlook can still be found in strands of anti-capitalist ecological thought, extending the tradition of revolutionary socialism. Yet to speak of 'transition' is in many ways to reject the model of rupture (Cosovschi and León, 2025: Introduction; Delanty, 2021). Whereas revolution may suggest bloodshed, transition promises to be *peaceful*. It is a controlled form of change, unlike its more abrupt and unpredictable counterpart. As the 1981 UN Conference on energy emphasised (United Nations, 1981: 3), the move towards renewables was to be construed as 'an orderly and peaceful' process, while recent statements reaffirm that it should be 'just, orderly and equitable' (COP28).

Furthermore, transition permits the possibility of *incremental* and *gradated* change. Whereas rupture suggests two discrete systems (Unger, 1998: 22), the old in place until the new is revealed, transition avoids these connotations. It directs attention away from a decisive set of events to a longer process of evolution. As socialists such as Otto Bauer were already arguing in the early twentieth century, even if rupture might be an adequate template to describe political change, it was ill-suited to describe those deeper social changes that required time to emerge (Bauer, 1976 [1919]). Changes in public attitudes, or in the structure of economic activity, are developments that take years to unfold, especially if they are to last. In the climate-change context, a focus on a drawn-out process pairs well with the profound shifts in energy production that are necessary. Faced with the urgency of action, a more gradated model of change also has political appeal. Whereas rupture sets an all-or-nothing standard, inviting the risk of inaction until the time is ripe, a transition can be started as soon as there is the will within policy-making institutions.

One of the core features of the concept of transition, implied by this incremental structure, is that it describes change that can be *steered by elites*. This was a key source of its appeal for thinkers of democratisation and economic reform in the 1980s and 1990s. To speak of transition was to speak of a kind of change that could be managed (Arthur, 2009; Guilhot, 2002: 338). Transition was change from above, in the hands of political leaders, civil servants and technocrats rather than more radical and unpredictable movements from below (Arthur, 2009: 339). Unlike the model of rupture, transition need not suppose the emergence of a revolutionary actor, making it attractive to those who doubt such a thing exists or are wary of where it can lead.

In the contemporary context of climate change, transition functions likewise to describe a process that can be steered from above (Brand, 2014: 249; Hölscher et al., 2018). Its appeal here is likely to be a combination of felt necessity and preference. It has long been feared that climate change is a second-order issue for the general public (e.g. Holden, 2002), too long-term in its effects and too complex to have popular resonance. Its uneven short-term effects, and their dispersal across national boundaries, also query the capacity of a popular subject to form. At the same time, keeping the process one step removed from democratic politics promises a more orderly and predictable process. That the concept of transition implies a predetermined endpoint, with a delimited number of 'pathways' towards it, gives it particular utility for those wanting to steer change in a favoured direction.

That a transition represents a continuum of change, and a process that can be steered from above, invites practices of *continual monitoring*. Whereas the idea of rupture promises clarity and ease of interpretation – it is either complete or is yet to come – a transition needs to be tracked. It demands empirical indicators and criteria of success, thus lending itself to a scientific perspective. One may note in this regard the proximity between the discourses of economic transition in the 1990s and neoliberal ideas of economic science, as well as between discourses of democratic transition in the 1980s and an emerging science of 'transitology' and institutional design (Arthur, 2009: 343ff.). Likewise in the ecological context, where climate-change mitigation has been a strongly 'scientised' project from the beginning (Hulme, 2023: ch. 2), the scope for continual monitoring pairs well with the centrality of expertise in the identification of problems and solutions. We may already note here a possible tension between the expansion of 'transition' to include wider economic and justice concerns beyond energy itself and a desire to reduce it to certain quantifiable metrics so as to better track it.

A corollary of the desire to manage change from above is that the concept of transition implies a transferable *template*. That it can be tracked in the form of empirical indicators means it can be used to develop a set of standards to which multiple states can be held, as societies in transition, and in reference to which their decisions can be negotiated and shaped. Those using the concept typically speak of a transition 'model' or 'paradigm', as a context-independent construct, a coordinating device with which to guide the interventions of many actors and set them on the right path. This makes it especially suited to the transnational realm, offering a way to shape policy-making across numerous political units and to exert pressure on them from afar. Transition can act as a coordinating concept because it promises abstraction from the particularities of a given setting.

A final point to observe concerns the implications of a process that is bounded in time. While a transition may be a more drawn-out affair than a rupture, it nonetheless carries with it the expectation of a moment of completion. This comes through in the IPCC's aforementioned description of a 'process of changing from one state or condition to another in a given period of time'. The suggestion is that the managing of change is a temporary or exceptional act, ultimately to be discontinued. The effect is to make the prospect of government intervention – in the market, in society more generally – more palatable to those who might otherwise be sceptical. In the 1990s, the remaking of post-communist economies was led by institutions publicly committed to the laissez-faire economics of the Washington Consensus. While neoliberalism has always entailed more regulatory activism than this suggests, the fact that efforts to manage change could be cast as time-limited undoubtedly helped assuage the cognitive dissonance arising. The same holds for the democratisation processes of the 1980s and 1990s, whose democratic credentials were themselves vulnerable to challenge. Markets and democracies might have to be made, but later one could expect them to sustain themselves.

The green transition would seem to find some of its appeal on similar grounds. While the heyday of laissez-faire aversion to the state may be in the past, it remains the case that climate change threatens to demand a level of state activism many would shrink from. Redesigning energy systems alone requires substantial investment in infrastructure and subsidies for renewables – global costs of up to $9tn p.a. by some estimates (Financial Times, 2024) – even leaving aside wider questions of justice and redistribution. To present these costs as 'transitional' is to suggest that the end is in sight, that their phasing out can be expected in due course. The World Economic Forum is one body to have emphasised

that while energy costs will rise in the short term, one can ultimately expect spending to fall. The 'pain' is but temporary (World Economic Forum (WEF), 2022).

If these connotations of the concept of transition explain some of its enduring appeal, a critical appraisal needs to consider more closely the things that come with them. As I argue, the same features that make the concept alluring bring a variety of dubious assumptions. Certainly, 'transitology' can be done to a level more accomplished or less so. Pioneers of the framework as applied to Latin American politics in the 1980s tended to be more sensitive to the variety of transformations in progress, and the potential for their interruption or reversal, than those who took up their ideas for the study of post-communism in the 1990s (Schmitter, 2010). Reflexivity was lost over time. But in many ways the pitfalls were there from the beginning, bound up in the structure of understanding implied. It is not for nothing that the enthusiasm for transition studies faded in the 1990s as observers started to grasp the mismatch between its expectations and events on the ground (Cosovschi and León, 2025: Introduction). In the first instance these dubious suppositions are analytical, as the next section will explore. As the section thereafter will argue, they are also political in their effects, since framing social change as the passage from one stable state to another has implications for what kinds of authority should lead the process.

Some Questionable Assumptions

As we have noted, one of the distinctive features of the concept of transition is the directional sense it carries. A transition implies leaving something behind and moving towards a terminus broadly known in advance. Even if the conditions to be left behind and approached are not always spelt out, the concept nonetheless suggests linear movement, a process with a beginning and an end. As Fairclough and Wodak (1997) observed in a discussion of its application to Central and Eastern Europe in the 1990s, transition construes change 'as a passage from a well-defined point of departure to a unitary and well-defined destination' (cf. Carothers, 2002; Petrov, 2015). It requires isolating a given outcome as expected or desired, and de-emphasising others that might interfere with movement towards it. It is, after all, hard to picture multiple transitions at once: the term suggests a dominant trajectory.

That such a perspective could be unduly simplifying is something that became increasingly clear during the liberalising projects of the 1990s. Widely observed was the persistence of the social hierarchies of the communist period and of sceptical attitudes towards the democratic process (Cosovschi and León, 2025). Changes at the level of political institutions – party pluralism, regular alternations of power and other indicators of the kind tracked by Freedom House or by the EU's Copenhagen Criteria – were not backed by the consolidation of a supporting ethos. Countries such as Hungary, viewed at the time as success stories of change, would later be reappraised as cases of failure (Herman, 2016). The discourse of transition, by focusing attention on elite-level change and by cultivating the expectation that older forms would be superseded, helped to disguise the continuities in play.

There are good reasons to reckon with these continuities in the context of climate change too. Can one safely suppose that an older order is in retreat? Studies of global energy usage in the modern era suggest we should talk of energy *additions* rather than transitions, since older sources such as coal and wood have persisted. Moreover, new sources of energy are apt to *increase* the use of older ones, insofar as they encourage

overall consumption to go up (York and Bell, 2019). One should be wary of assuming that greater adoption of renewables means fossil fuels will be left behind – historically, at least, the story is one of 'more and more and more' (Fressoz, 2024). Yet it is this expectation of discontinuation that the notion of transition encourages. Rather than things changing in form or combining with new elements, it implies their receding into the past. While empirical analysis can of course correct such misconceptions, the concept establishes default expectations that are apt to mislead.

That transition suggests the transience of existing arrangements is clear enough: less obvious perhaps is that it also suggests the stability of what lies ahead. This though would seem to be logically implied by the idea of movement from one condition to another. It would make little sense to isolate a trajectory of change towards a particular end-state if the latter were understood to be itself in transition to something else: a degree of stability has to be assumed. The concept describes a process whose destination is a state of *equilibrium*.

Again, this comes through clearly in the 1990s/2000s literature on 'transitology', where transition is evoked as a movement from one 'self-enforcing' (Przeworski, 1991: 26) state to another, towards 'a new, post-transitional equilibrium' (Elster, 1999: 499). Certainly, the influence of rational-choice theory accentuated this emphasis. Rational choice was one of the conduits by which ideas of punctuated equilibrium made their way from biology to economics and political science (Prindle, 2012), making the central focus of research how to identify arrangements of stability. For those influenced by this tradition, social systems contain multiple points of equilibrium in which forces are balanced and self-perpetuating, and they can be expected to have settled on one of these points, or to be in a process of movement from one to another (Ordeshook and Shepsle, 1982; Tieben, 2009). The transition paradigm of the 1990s coincided with the high point of rational-choice thinking. But the connection between the concepts of transition and equilibrium is deeper than any one theoretical approach. To evoke a movement from one state to another is unavoidably to emphasise the relative stasis of what marks the end of this process.

As critics of equilibrium analysis in the social sciences have observed, such expectations are generally misleading (Medearis, 2001). Social systems tend to be subject to persistent instability. One reason this is so is that they rest on the ideas, values and attitudes of human agents, things prone to change over time and likely to engender conflict. One of the shortcomings of the discourse on transition to liberal democracy and the market economy in the 1990s was to cast these as conditions that would be stable and irreversible once achieved, overlooking their volatility and dependence on social consensus (Arthur, 2009: 362ff). The concept of 'backsliding' would need to be invoked to describe a process that could apparently be undone. Clearly, some arrangements may be more unstable than others – democracy under neoliberalism may be especially precarious – but the point applies more widely. Whereas the idea of social equilibrium implies a system that is self-restoring in the face of disturbances, the reality is that societies tend to be persistently in flux for reasons internal to their structure.

Enduring volatility is likely to be especially true of social systems in the climate-change context. The 'green transition' has been pursued in a world shaped by markets and the profit motive. Uncertainty about the commercial attractiveness of renewables creates volatility in the investment and pricing process, staved off only with large state subsidies (Christophers, 2024: 191ff.). Progress is reliant on the maintenance of a costly policy, one that provokes contestation from both the political right (for its impact on public finances) and the left (for socialising the risks of investment). Given that authorities are already

seeking to withdraw these subsidies, there can be little guarantee that the process will be continued, or indeed that existing gains will be maintained. The falling cost of renewables may suggest an inexorable transition is underway, but this change is heavily dependent on political will, and thus on the outcome of enduring contests for power (Christophers, 2024: 7).

Moreover, to speak of a transition between two points of equilibrium may be a plausible simplification where there are stabilising institutions one can point to – those of the domestic state, for instance, or those associated with a global hegemon. Both were present in the processes of liberalisation in the post-Cold War period, and while such institutions may be insufficient for the achievement of equilibrium, they are certainly supporting factors. It is much harder to evoke some kind of equilibrium-to-come in the climate context, where there is a dearth of global institutions coextensive with the scale of the challenge, and where the tendency seems rather towards a multi-polar world. Even just shifts in the global energy supply are hard to conceive as movement towards a new equilibrium in the absence of organising institutions. Different points of departure as regards existing patterns of energy consumption, combined with economic and geopolitical rivalries, mean green adaptations are likely to be persistently uneven across space, and the condition of progress on decarbonisation in one region may be enduring fossil-fuel use in another (Gellert and Ciccantell, 2020: 196ff.). Even short of violent international clashes, there are many opportunities for differences of viewpoint and interest to upset the trajectory of change. The concept of transition, with its suggestion of linear movement, of a trajectory sustained once embarked on, obscures these patterns of enduring conflict.

The potential for lasting upheaval is all the greater if energy-related shifts cannot be isolated from wider societal change. Talk of a green transition, even when sensitive to justice-related questions, often implies that the substitution of energy sources need not interfere with the wider structures of power within which they are embedded. The European Commission has treated the concept as though compatible with existing priorities of market competitiveness (European Commission, 2024). Yet the fossil-fuel economy is underpinned by the lobby groups, production practices, property relations, growth expectations and habits of living with which it emerged, and it is by no means clear that energy can be addressed without addressing these too (Newell, 2019; cf. Berglund and Bailey, 2023). That contemporary change needs to be pursued with a rapidity for which there are few historical precedents further adds to the disruptive potential (Solomon and Krishna, 2011). Such is in line with the 2018 IPCC report and its statement that the serious pursuit of decarbonisation 'would require rapid, far-reaching and unprecedented changes in all aspects of society' (Intergovernmental Panel on Climate Change (IPCC), 2018). The more radical the change required, the more profound and enduring the conflicts it is likely to produce – as contemporary retrenchment again suggests. Any fundamentally different arrangements that emerge as part of a project of climate-change mitigation – whether growth-sceptic, eco-socialist or otherwise – are likely to do so in a world that remains committed to other models too, against which they will be pitted in competition.

In the context of climate change, there is also environmental instability to contend with. There is little reason to be confident that today's natural systems will reach a condition of equilibrium, even if actions to limit global heating are successful. Tipping-points in the atmosphere resist confident prediction ex ante, and hence the measures required to avoid overstepping them can only be approached as matters of probability. Even should climate change be successfully addressed, other environmental problems loom – for

example, to do with biodiversity. Restoring land and marine ecosystems degraded over decades will also require social transformation, warns the UN, above and beyond the measures adopted to address climate change (United Nations, 2020). Today's great challenges are open-ended, whereas the concept of transition suggests a process with an end.

Clearly these points do not exclude treating future equilibrium as a regulative ideal, something aimed at in the knowledge that it will never quite be achieved. Such ideals can offer useful points of orientation for analysis and coordination and a way to signal priorities (Hay, 2020; Prindle, 2012). To the extent that transition is defined narrowly in energy and decarbonisation terms, its target is quantifiable and progress can be empirically tracked. But to the extent it becomes a more encompassing concept – as arguably it must, if the socio-economic changes needed to support these shifts are factored in, and as notions of the 'green transition' already imply – the prospect of completion needs to be viewed with great caution. The expectation of equilibrium as the normal condition, punctuated by occasional shifts of limited duration, seems highly questionable in today's climate context, just as in the political-economic shifts of the 1990s.

William Riker, one of the first to explore the potential of equilibrium analysis for the social sciences, expressed the point succinctly: 'Disequilibrium, or the potential that the status quo be upset, is the characteristic feature of politics', and 'there are no fundamental equilibria to predict' (Riker, 1980: 443). There may be times when equilibrium makes for a convenient heuristic, but only when adopted as a conscious and provisional choice rather than as a presupposition of the analytical framework.

Political Implications

Assumptions of a directional structure of change, of equilibrium as the normal state of affairs and of periods of upheaval as sharply time-bound or 'transitory' – in the first instance, these raise problems that are analytical. They present a picture of change that may often be misleading. But transition, as emphasised, is a concept with practical as well as analytical aspects. A full appraisal needs to consider what happens when these assumptions filter into the thinking and policy-making of authoritative actors. As will be suggested here, there are some challenging political implications, both for climate-change mitigation and for other goods such as democracy. Even when the concept is hitched to a broadly desirable policy agenda, it can set traps for those who embrace it.

Note first what is implied by the expectation of equilibrium to come. Politics organised around the idea of transition operates in anticipation of a moment of completion. As observed, this promise of a *temporary* initiative may be a part of the concept's allure. What such a perspective discounts though is the possibility that any advances made will need to be defended indefinitely against those who would seek to undo them, as well as against practices of corruption that would undermine them from within. The elusiveness and precariousness of an emerging new order is one of the lessons of the post-communist transitions of the 1990s and is likely to be even more true of green initiatives that must fight *against* rather than in alliance with powerful economic interests of the global core. To suppose a time-bound process may be complacent. Certainly an expansive notion of transition that includes justice concerns is likely to meet crosswinds, but even one more narrowly defined in terms of energy and emissions is likely to be obstructed to the extent that it seeks meaningful change. As events since Trump's return to the White House in January 2025 suggest, the climate-policy commitments of states and corporations are likely to be contested unremittingly, and steps 'forward' are anything but irreversible.

Talk of transition, with its suggestion of steady progress towards a consensual goal, is liable to underplay the obstacles faced.

Consider the notion of 'carbon neutrality', often cast as the ultimate goal of climate-change mitigation. In keeping with the imagery of transition, it expresses an apparently well-defined endpoint, and one whose status as a durable equilibrium is implied by the focus on the date by which it is hit (e.g. 2050). It is predictably embraced as such by independent authorities (European Commission, 2024), also by central banks (European Central Bank (ECB), 2024). But this mapping of the future conceals a good deal of politics. Some forms of neutrality are more desirable than others. Notoriously, neutrality can be achieved in a merely formal sense by the displacement of emissions in time and space, with offsetting techniques that do not fully compensate for the gases released, or by practices that do reduce emissions but continue to degrade the environment in other ways (Kachi et al., 2020: 3–4). Only *certain kinds* of neutrality make a genuine contribution to climate-change mitigation – ones based on reducing emissions, keeping them down and ensuring other aspects of the situation do not deteriorate as a consequence (IPCC, 2018). This is a far more demanding agenda: it entails major choices of policy, a clash with established interests and no promise of equilibrium. To evoke a linear trajectory to net zero, including to versions of net zero that do not require polluters to fundamentally change their behaviour, is to give the misleading impression of a technical, uncontentious and manageable process, edging towards completion. Where such a perspective does not deny conflict outright, it projects it forward to a later date – to when a new order has been established and divisions of opinion can be safely engaged once more.

Certain democratic concerns about the concept of transition may already be provoked by its strongly directional character. There is a technocratic thrust to this way of thinking, insofar as it evokes change engineered along a single axis (Arthur, 2009: 339). When transition is the order of the day, the question for debate becomes 'how fast?' as opposed to 'where to?' This 'TINA' aspect was one of the major concerns about the neoliberal transitions of the 1990s (Carothers, 2002: 7). In the form of the Washington Consensus, these made links between a range of political choices – from economic policy to constitutional structure – and presented them as a single package for adoption (Séville, 2017). With transition understood as a transferable template of good governance, pressure could be deployed with apparent legitimacy on those identified as 'laggards'. Moreover, despite the suggestion of a process delimited in time, the concept's elasticity meant the transition frame could be applied for an indefinite period.

Is such an outlook a handicap in the climate-political context? Clearly, these concerns will be more or less pronounced based on the substance of the change in question. A green agenda, especially a plausibly 'just' one, is a cause that many will rightly embrace. The question is whether the transition paradigm, with its suggestion of a set trajectory, is not a counter-productive framework. One risk is that the project becomes vulnerable to a narrow interpretation. Critics observe how a reductive focus on a few key measures of policy success can displace a broader assessment of progress in the round – how a preoccupation with decarbonisation targets (Asayama et al., 2019; Hulme, 2023) or the price of renewables (Christophers, 2024: xxx) can exert a limiting effect on the political imagination. It is just this tendency which the transition paradigm encourages, by mapping the future in terms of monitorable advance towards a de-contested end. The most quantifiable goals are likely to win out, and political choices accordingly narrowed.

A second, arguably more fundamental, risk is that the sense of a determined trajectory weakens efforts to build public support. The expert knowledge needed to monitor and

steer a transition invites concentrating decisions in the hands of elites acting independently of the wider society. Public opinion can turn against policy made in such ways. Recall the fragility of post-communist change in Central and Eastern Europe, construed largely in terms of procedural indicators and directed by national and supranational elites (Herman, 2016). One of the wider lessons of the period was the way a top-down process guided by formal criteria can be undone by a public that has not bought into it. The same would seem to apply to a process left in the hands of 'green transition experts' (Frandsen and Hasselbalch, 2024). For a project of far-reaching change, rarely is it enough to rely on existing social preferences as articulated by representatives and stakeholders. The goal must be to lead a deliberative process that builds new constituencies of support for a dynamic process, altering perceptions of interest and identity along the way (White, 2024b, 2025: 5). To do this requires public engagement and persuasion, tasks to which networks of experts are typically ill-suited.

Note how the notion of a time-bound process reinforces this top-down approach. The thought of an endpoint within touching distance can make weakly democratic methods seem more palatable, on the understanding that they are task-specific and need only be temporary. The idea of a transitional period that is but an interlude between two points of equilibrium invites the willingness to use whatever methods seem able to expedite the process.[2] What has been written of the concept of the 'climate *emergency*' – that it encourages recourse to political exceptionalism and the prioritisation of ends over democratic means (Hulme, 2023; cf. Fiorino, 2018; McHugh et al., 2021: 31–2) – would seem to be a risk also attached to the concept of transition itself. That risk is all the greater if the idea of an equilibrium-to-come is misleading – if the problems at hand are open-ended rather than transitory.[3] If there will not be a moment when the 'transition' is complete, there will not come a moment when it seems apposite to discontinue whatever questionable methods are deployed in its service.

As transition becomes quasi-permanent, expectations of a completable process are likely to weigh heavily. The stronger the belief in stability-to-come, the harder it is to contend with the persistence of flux. One possible outcome is the redoubled willingness to use top-down methods in a bid to keep things on track. But there is also the prospect that the project is abandoned, or is prematurely declared complete. With climate mitigation reduced to a focus on quantifiable indicators, it is not hard to imagine authorities jettisoning considerations of justice and distribution so as to salvage some notion of a successful transition. And if public support for a deeper transformation has not been enlisted, this quiet disengagement will be easier. Retrenchment will provoke less resistance. If transition means a process kept in the hands of elites, it implies not only their control over how it is done but also their capacity to discard it when it no longer appeals.

These risks would seem to be inherent in conceiving social change as a technical process steered from above, marked by a beginning and end. These are expectations that can, of course, be formed with or without the concept of transition, but the latter serves to consolidate and naturalise them. And it is hard to see how these presuppositions can be avoided while retaining the concept of transition. While the meaning of concepts evolves and can be influenced, these aspects are deeply ingrained. Actors of good intention may still cleave to the concept – because it is well known, gives them a role, gives green concerns some visibility or offers hope of bending change towards justice – but these difficulties are unlikely to fade.

The preferable alternative, one may conclude, is to cast climate-change mitigation as an open-ended project with no pre-set destination and no presumption of pending completion.

Such a perspective helps to reckon with enduring conflicts, power asymmetries and reactionary pressures and is more in tune with methods that are democratic rather than technocratic or authoritarian. It highlights the logic of forms of political organisation that are sustained rather than transitory – political parties and educational institutions, for example, or mechanisms of participatory governance (Fischer, 2017). Once one drops the expectation of a predetermined trajectory, there is more space for practices of justification and efforts to mobilise public support in a debate over political options. If climate-change action has been hampered by depoliticisation (Invernizzi Accetti, 2021), such a shift looks an important corrective. One of its merits is to keep in view the questions of principle that underlie policy – who should own energy infrastructure, for instance, and with the expectation of what kinds of reward. As the scholarship on emergency government suggests, what is at stake in public policy is easier to gauge when it is treated as an open-ended commitment rather than a temporary means to a determined end (Heupel et al., 2021; White, 2019). From both a functional and a normative perspective, in other words, climate policy stands to benefit from a less-rigid approach than the concept of transition allows.

Conclusion

Transition is a concept that has long recurred in modern politics, acting as a bridge between analysis and prescription. It has been deployed to describe changes ongoing, but also to shape what is expected or hoped for in the future. As a category of practice as well as analysis, it pays to approach it with a view to its political implications. In the contemporary application of this terminology to climate politics, its key function is to present the process of change as 'manageable', that is, susceptible to assessment and control. As I have argued, the price of doing so is high. The concept invites dubious assumptions about how change is temporally delimited, based on leaving behind an older order and moving towards a new equilibrium. This overlooks the way old problems can linger and how societies are shaped by consistently changing preferences and enduring conflicts for power. Earlier periods of putative transition did not result in a stable endpoint called 'democracy' or 'the market', and this is likely to be only more true when the desired ecological transition must fight *against* established economic interests rather than with them. If climate-change mitigation is to proceed on a surer footing, it needs to be framed as a project that continues indefinitely, fragile in its successes and in need of public input.

Such an approach is more in keeping with a concept like *transformation.* This is the term that many of those critically reflecting on post-communist change in 1990s Europe ultimately came to adopt (Carothers, 2002). As the misleading implications of transition became clear, many found in this alternative a more flexible and open-ended resource. 'We become more circumspect about such notions as *the transition to capitalism* or *the transition to a market economy*' wrote two scholars of the time (Stark and Bruszt, 1998: 83), 'alert to the possibility that behind such seemingly descriptive terms are teleological constructs in which concepts are driven by hypothesised end-states. [. . .] Thus, in place of *transition* (with the emphasis on destination) we analyse *transformations* (with the emphasis on actual processes) in which the introduction of new elements takes place most typically in combination with adaptations, rearrangements, permutations and reconfigurations of already existing institutional forms'.

The connotations of transformation are distinctive. Relative to a model of change such as rupture, it retains some of the advantages of transition, keeping focus on a drawn-out process rather than a sudden, event-based shift. But denoting a change in shape rather

than a movement from one condition to another, its geometry is different from transition. A transformation can be perpetual, without the suggestion of a beginning and end. The concept is consistent with the lingering in some form of existing structures and need not imply an equilibrium-to-come. While transformation can describe a completable process, it can also describe continual change and enduring conflict. Nor must it suggest a single direction, being consistent with change that is multidimensional and susceptible to revision. It is well suited, in other words, to the more durable and democratic methods that climate-change mitigation would seem to demand. While reactionary forces would no doubt seek to redefine it in more limited terms, they would have their work cut out; in the case of transition, by contrast, much of that work has already been done for them.

It remains the case that the model of transition is embraced for a reason. It keeps political and technical elites in charge of the process. It promises a way to control change so as to make it palatable, predictable and time-bound, and possible to discontinue when it threatens to interfere with other goals. If one motivation for the concept's popularity in the latter twentieth century was to marginalise those committed to more radical forms of change, its adoption today reflects a touch of the same. Paradigms are embraced because they suit interested actors and are maintained long after observers have questioned their worth. The democratic reasons to step back from the concept of transition are at the same time reasons to expect its retention – at least for as long as climate-change mitigation is still valued at all. The effect is a distorted understanding of the challenge. 'Transition' suggests a process whose end is in sight. The ecological project is by contrast open-ended, and one should be wary of concepts that obscure this.

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Notes

1. Direct influence between the two cases need not be assumed for the present argument (indeed, the greater the interaction, the more one might expect to see a learning process yielding greater circumspection of usage). It can be noted though that the two discourses do intersect, for example, in the Kyoto Protocol (1997), where the category of 'countries that are undergoing the process of transition to a market economy' is used, along with similar concerns about market-making (emissions trading) and market deepening, or in IPCC (1995; 2001) reports (e.g. 'Second Assessment Report', 1995 and 'Third Assessment Report',

2001), where 'transition' is used both in the climate and post-communist sense. Furthermore, the central place of the economics profession in 'green transition expertise' (Frandsen and Hasselbalch, 2024) suggests a plausible mechanism of cross-pollination. For one institution's effort to integrate these discourses into a single account, see the website of the European Bank for Reconstruction and Development: https://www.ebrd.com/home/who-we-are/ebrd-values/ebrd-transition.html

2. As one example of where exceptionalism can lead, consider the suggestion (2010) of the late climate scientist James Lovelock that, in view of climate change, it 'may be necessary to put democracy on hold for a while'. https://www.theguardian.com/science/2010/mar/29/james-lovelock-climate-change.
3. Raising these concerns in connection with the 'war on terrorism': Manin (2008).

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