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Decolonizing the Past and Confronting Climate Change Futures: Bringing the State Back In

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Abstract: Macro-social theory has been on the wane. There are various reasons for this, but among the consequences of this gap is that an urgent social problem – climate change – has received little attention and is poorly connected to existing theories. This problem, in turn, is tied to the fact that the transition to modernity is no longer central to social theory. Instead, a recent focus has been on how the “rise of the West” is predicated on dominance over “the rest.” This essay addresses both problems, arguing that the transition to modernity is still central, but that a second transition, the post-war “great acceleration” and how it led to an “age of limits,” should be equally central. The essay traces the transformation of nature and its impact on the climate through these two transitions, and argues that responsibility for addressing the consequences of climate change will increasingly mean tracking the connections, and lack of connections, between the Global North and South.

Keywords: globalization; imperialism; state capacity; climate change; decolonization

1 Introduction

The current dearth of macro-social theories can partly be ascribed to the fact that classical social theory took the break with modernity as foundational. But that break is no longer regarded as central; if there are periodizations at all, they have taken different starting points, such as replacing “the rise of the West” with the dominance over “the rest” (this terminology is dated but, as we shall see, it is an appropriate shorthand while the argument is developed). A second problem is that the break of the rise of the modern West pivoted on the industrial revolution but left out the impact of climate change. But while climate change was a result of the industrial revolution, the watershed of its major impact only came later during the post war period, and broader awareness this impact came later still, in the 1990s. Still,

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the origins of the ability to transform the environment can be tied to modernity and the advent of technoscience. And the origins of both technoscience and of the industrial revolution began in one part of the world, Western Europe, yet its major consequences came later, including how economic growth expanded across the planet and shifted the geography of the impact of this growth. Climate change now means that the world has become an interdependent whole, though in terms of periodization, the thinking is still in terms of a world which, during the post-war and post-Cold War periods, has been split into the rivalry between democracies and authoritarian states or between great powers. These shifts have produced new divides between more powerful parts of the world and their domination over others unlike the earlier divide of the dominance of the West over the rest. The purpose of this essay is to rethink modernity and its resulting asymmetries, which also allows for an update of social theory in the light of the coupling between decolonization and climate change, which have been largely neglected at the macro-level.

This essay proceeds as follows: first, it details the problems of periodizing social change and how “modernity” needs to take into account how the Western rise and the rest were – and are – interrelated. This includes identifying the causes and consequences of modern colonialism and imperialism, especially in a post-colonial era. These consequences put the focus squarely on state capacity, which is central not only to the course of modernity in the Global North and South but will also play a central role in the coming phases of societal development and tackling climate change. The essay will therefore detail next how the main break *within* modernity is not just related to postcolonialism or geopolitics but rather mainly to climate change, ushering in an age of limits in the post-war period which is defined by increasingly harder constraints on economic growth with knock-on effects on political development. This periodization also allows a rethinking of the role of technoscience, how it was central to the dominance of the West over “the rest” in terms of political subjugation, but how it has now become instead a tool which must itself be steered by states to tackle climate change mitigation. Finally, there are a number of implications of the argument for social theory and its reorientation towards the Global South: how the primary forces shaping societal development are shifting from geopolitics and economic growth to the constraints of climate change and its effects – a boomerang effect of natural forces onto the social world which requires state-led technoscientific steering to cope with them.

2 Periodizing Social Change

There is widespread agreement, as in the recent book by Bhambra and Holmwood (2021), that both classical and contemporary social theorists ignored non-Western

societies. The authors argue that a more encompassing historical analysis is essential to overcoming the limits especially of classical sociological theory. However, the book does not offer such an alternative historical account. Likewise, Meghji points to the gap in social theory whereby coloniality and the climate crisis have both been ignored in Western sociology, but he argues that epistemology and ontology – the “coloniality of knowledge” (2021, 139) – are key to rectifying this gap. Yet as we shall, the historical patterns of how (scientific) knowledge has transformed the natural environment are clear and require systematic exposition rather than new epistemologies. Put differently, colonialism, imperialism and racism were not central to classical social theory, with DuBois and world-systems theory among the few exceptions. In contemporary social theory, “intersectionality” deals at least with race, but that theory is mainly developed in relation to the contemporary U.S. Thus we are left with classical social thinkers and their focus on modernity, with much left out, or more recent social thinkers such as Bourdieu and Foucault, who do not provide macro-comparative-historical sociological insights into climate change (but see Loyal and Malesevic 2020, which contains a chapter on Gellner and Mann, discussed below).

Periodization around the question of modernity has thus become problematic. Davies asserts that “the period of human history when European people could confidently characterize themselves as ‘modern’ lasted barely a hundred years, from the upheavals of the 1870s to those of the 1970s” (2022, 15). That periodization can be challenged: Osterhammel (2014), for example, puts bookends around the long 19th century which ended with the First World War, and Hobsbawm’s (1995) short 20th century ends with the end of the Cold War. The truth in Davies’ observation is nevertheless that the confidence of the belief in “modern” progress has waned. But the reasons for this have not been pinpointed: true, expectations of continued rising living standards have faded. More recently there has also been much discussion about the erosion of democracy (Przeworski 2019), ending its expansion. But arguably the main reason for the decline in the belief in progress is the wider anticipation of crisis due to climate change, which has only come into view since the 1990s and which has not been integrated in theories of social change.

Before we move to climate change, it needs to be mentioned that there could also be a somewhat different periodization in terms of politics, since the high point of Western confidence was the aftermath of the collapse of the Soviet Union. This led to announcements of new global orders and “the end of history” (Fukuyama 1992). More recently, geopolitical rivalry has come back into focus and the idea has taken hold that China is taking the place of the Soviet Union in the competition with the U.S.; an idea that is prominent in international relations scholarship but not among social theorists. But while political periodization may turn on major events or turning points, analytically, social theory needs a broader grasp of societal development. So an account is needed that takes into account not just politics or geopolitics, but rather

the dynamics of social systems or the interplay among institutions or “the sources of social power” (Mann 1986). A common denominator among these options is to talk about different social powers or orders or systems and the relations between them. Most social thinkers, including Mann (though he adds a fourth, military power), Gellner (1988), Luhmann, Habermas, and others, distinguished between political, economic, and ideological or cultural power or systems – or “social orders,” a more Weberian language (Schroeder 2013). These distinctions are made not only in accounts of these social thinkers (Loyal and Malesevic 2020) but also in attempts to synthesize them (Poggi 2016; Lukes 2021).

A full discussion of societal orders is beyond the scope here, but their main features can be sketched. First, the economic order has become market dominated and so consists of disembedded exchange relations. Mann has a similar idea when he says economic power is “diffuse.” And while there are challenges to “free” markets, there are few alternatives, as with China’s statist economy which is mainly but not entirely market-based. Second, nation-states continue to be the strongest “power-containers” (Giddens 1987) in the Global North. And as a third societal order, a standard account would posit culture or ideology. But this leaves out the most important part of modern culture in relation to climate change, technoscience, and its transformation of the natural environment. “Technoscience” is not a common term, but it has been widely adopted in science and technology studies (see Collins 1999; Schroeder 2007) to point to the fact that it is not scientific knowledge per se, but the practices of technology which have spread around the world, and been used to dominate the natural environment. As Collins puts it, “the world that once existed only in the immediate vicinity of certain European scientists has now expanded around the globe. That Western technoscience works, in Polynesia or Brazil, does not have to be treated as an abstract epistemological question; it is an empirical, sensuously material, practical pattern of how far certain networks have expanded” (1999, 28). Technoscience, too, particularly in the form of climate change and its dysfunctions, is a diffuse and territorially unbounded pattern. Technoscience, like markets, thus constitute a less strongly territorially bounded source of power and a diffuse pattern of rationalization (Schroeder 2019) whereas nation-states are bounded.

If these starting points can help us to understand some of the main trajectories within modernity – we will need to refine them later – they do not detail how the technoscientific transformation of nature has led to global change faced by all states and economies, which is that a warming planet threatens the future of economic growth and political stability. These are some rough building blocks, and one addition is needed: the modern period saw the expansion of citizenship rights, from civil

to political through to social (though not necessarily in that order), an idea developed by Mann (1988) building on T. H. Marshall. But this expansion, extending rights and deepening them, has stalled, at least in Western democracies, since the 1970s. There was an era of unprecedented economic growth in the Global North, the “Golden Age,” which lasted into the mid-1970s. But that era has given way to one in which economic growth has encountered limits, which has also meant that social rights (health, education, and welfare) are more difficult to afford. The end of this “golden age” also coincided with early environmental warnings, which have since led some economists (Raworth 2017) to call for a complete rethinking of the idea of unfettered growth. Still, the problem of climate change only moved onto the agenda in a serious way during the 1990s and early 2000s, and it is has still not made it into mainstream social theory, though there is a specialist history and sociology of the environment (for example, Radkau 2014).

So, within modernity, there have been breaks, which include this “Golden Age” of unprecedented economic growth which also overlapped broadly with the peak period of decolonization after the Second World War. Some would say that the period of decolonization ended with the end of apartheid in South Africa in 1994 or the handover of Hong Kong in 1997. In relation to climate change, however, this was also the period of a “great acceleration” (McNeill and Engelke 2016) in economic growth and so of climate change impacts. The “great acceleration” of climate change began in the 1950s, but it was not recognized that the unprecedented levels of economic growth and how they spread across the globe were unsustainable until the 1990s. The profoundness of this break (or set of breaks) has been overshadowed by the end of the Cold War. Yet now, with the Cold War fading and a rivalry between the U.S. and China looming, the persistence of the competition between authoritarian and democratic states for more than a century is coming into view.

What social thinkers have often overlooked, however – Crone is among the exceptions – is the destabilizing role of technology, and how the whole of modernity ushered in unsettled social relations from the start, with open-ended growth and unstable (in the sense of not traditionally sanctioned) political and cultural relations, as opposed to the religious systems in pre-modern societies sanctioning stability: “the industrial world is unstable ... because it *wishes* to be unstable, the expansion of cognitive, technological, and economic boundaries being its aim” (1989, 196). But if, during the post-war period, the stable legitimation of contemporary governments has rested on open-ended growth or consumerism (Gellner 1979), that also makes any curbs on economic growth potentially less than stable. So some break within modernity and after the “golden age” – to an age of limits (Schroeder 2013) – has set in.

3 Modern Asymmetries

Against this backdrop of periodizations, we can come back to social theory: One social theorist, mentioned earlier, who provides a possible solution to linking the “rise of the West” to “the rest” of the world is Michael Mann; namely, by focusing on the leading edge of power (Mann 1986). Mann also avoids the economic reductionism of world-systems theory whereby there is a spatial division of labor between the Western capitalist “core” and “the rest” or the periphery or semi-periphery which is exploited. Mann’s theory does not rule out exploitation, but its exercise can also be based, for example, on military power: a major illustration is how the U.S. currently comes close to half of all military spending and it is alone in having bases across the globe (Mann 2023). This exploitation or the reliance of the rise of the West on the rest will be discussed shortly, but to anticipate, world-systems theory fits poorly with China’s and India’s recent rise. A different problem for world-systems theory is that some would see China’s belt and road initiative as economic exploitation – though others see it as a form of development aid. And there is also a poor fit because China is not a new imperial power by the yardstick of military capabilities. In either case, the belt and road initiative can be seen as China’s state-led strategy to globalize (Ye 2020).

The downside to focusing on the leading edge of power is that it endorses a “stage” or “evolutionary” view insofar as some societies have become more powerful than others, and Mann insists on the transition to modernity. This “downside,” however, may be inescapable: a transition in one direction or a developmental arrow *seem* to exclude a structure of exploitation and imply catch-up. But what if the exploitative effect of the core on the periphery is out of synch rather than constantly yoking two parts of the world together – even as their geographies change? That would make sense of a world in which there has been relative economic decline of “the West” even while the military power of the U.S. has kept its pole position and the power of economic regions as shifted. This combination, however, excludes an evolutionary view with an economically determined evolution – though it can keep in place a transition to modernity while not ruling out that progress can be curbed after a certain stage of modernity.

Going beyond the evolutionary leading edge or a systemic economic perspective leads us to Kohli’s (2019) arguments about “imperialism and the developing world” which focuses on economic development: it may be, he argues, that there were initially economic motivations on the part of imperial powers and so economic consequences for their imperial control over other nations. But the end effect of British and American imperialism (his two cases, and the main Western “modern ones”) was to leave some nation-states with less state capacity or autonomy. This weaker state capacity, in turn, has resulted in less capacity for societal development:

the more colonized, the less effective states became, and “only fully sovereign and effective states,” he says, “have succeeded in leading poor countries toward prosperity in the modern world” (2019, 419). And while Kohli makes this argument for Britain and the U.S., his arguments apply more widely (Chang 2002). For our purposes, the key is that Kohli’s account includes the domination of the West over the non-West, at least for the major modern powers in the Global North.

We will return to state capacity or autonomy shortly, and can keep in mind in the meantime that this is the main result of the domination of the West over the rest (in recent times, speaking of domination of the Global South by the Global North would also be appropriate) for the major modern imperial powers. Are there other power asymmetries or relations between societal orders that need to be considered for our periodizations within modernity? One approach is to examine the primacy of the different sources of social power (to speak with Mann 2013: see esp. 430) or of social orders (Schroeder 2013), as here. Mann, of course, includes military power as one of his four “sources,” but this is arguably less shaping within (though not by) the Global North since the end of the Cold War, and orthogonal to new climate change realities. And political power, as mentioned, continues to be nationally caged. Markets and large economic asymmetries that “escape” political power persist. That leaves ideological power, where India and China, to name just the great powers, have asserted a “rightful rise” in view of unjust pasts (Miller 2021).

These ideas of “rise” also alert us to the fact that there are competing political models and so rival models for societal development. China’s idea of a harmonious world order and authoritarian party-state have yet not “travelled” well, or produced an alternative to market economies, but for now stable authoritarianism competes with democracies. India arguably falls into the democratic Western or Northern camp, though during the Cold War it also leaned to a statist alternative beyond the Western ambit of economic development. It is therefore unknown how much a rightful rise yields “soft power” or other alternatives for societal development, but liberal and democratic triumphalism has faded, especially in an age of limits when a social model of encouraging unencumbered high growth is becoming increasingly problematic. Apart from rival models of societal development, it is not clear if ideas of universal human rights remain tied to particular societal models, though affinities to liberalism and democracy are clear.

In any event, primacy points to a major shortcoming of contemporary social theory: the increasingly inescapable primacy of climate change has not yet become part of any social theory. Giddens incorporated climate change into an account of “radicalized modernity” (1990), which also built on ideas from Beck (1992) about the increasing role of risk in society. This idea of risk relates to human-made unpredictable forces such as environmental pollution and nuclear energy disasters like Chernobyl and leads people to become unsure about progress in advanced

industrial society, becoming more reflexively aware of its dangers. Giddens developed these ideas in writings on climate change (2009), though he was mainly interested in the politics around the issue and in the environmental movement. This focus on politics also applies to Urry (2011), who added ideas about how awareness of nature had changed dramatically with “high carbon” consumer lifestyles, but like Giddens, Urry concentrated on the social aspects of climate change rather than the technoscientific transformation of the natural environment.

Latour has tried to dissolve the boundaries between modernity and what has gone before, and simultaneously to dissolve the boundaries between nature and society: he says that “we have never been modern” (2012) and wants to do away with hierarchical relations between the natural and social worlds. But Malm (2018) has criticized this view for its lack of realism: the domination of nature implies hierarchical relations, which are asymmetric. Further, he argues, there is a decisive modern break: “the driver of climate change is a type of society – the fossil economy – which did not exist before the nineteenth century” (2018: 76). In short, what Latour (and Beck and Giddens, and Urry) do not theorize, though Malm does, is the transformation of nature *per se*, and how this leads to increasing constraints on social change.

Nor does social theory have anything to say about how technoscience is accelerating or how it can mitigate climate change: technoscience is not simply an “ideological” source of power since it transforms the environment, including growing problems and potential solutions. Whichever sources of power have primacy or howsoever societal orders interrelate, there is no room for the growing impact and increasing primacy – bar a major course correction – of environmental change at all! That plays havoc with periodization: As we have seen, there is a new departure since the post-war great acceleration, and a new age of limits since the mid-1970s, and potentially a boomerang effect from the future whereby fewer actions now increase the impacts to come. As Malm puts it, “we will not get less nature and more society as temperatures rise, but rather the other way around” (2018, 77). But a measure and timing of these boomeranging social costs is difficult: when does the damage to economic growth or cost of lives lost due to climate change reach a threshold that ushers in yet another new period? Social theory faces uncertainty here, even as the growing primacy of the technoscientific transformation and its effect on climate change comes to define contemporary societal development.

These theoretical building blocks can accommodate the past asymmetric domination of the South by the North and its legacies, as long as this domination includes a periodization of when this domination rose, peaked, and declined. These asymmetries have, as we have seen, left strong legacies, but with a rising India and China, for example, it is unclear how the lack of state capacity still leaves an

imprint that shapes societal development. All this can be put differently: to escape theories based on systems, evolution and nation-states, the analytical alternative proposed by Mann (and Schroeder 2013) is that the various social orders are orthogonal (2012, 5). This allows that the sources of social power or the relations between societal orders follow different temporalities: markets and technoscience and states' capacities are not in synch. Note that this conceptualization does not thereby make social change irreducibly complex; quite the reverse: the international order of states and great powers, the continued extension of markets, the intensification of technoscientific control over the environment, and the capacity of states – all have clear temporal and geographical boundaries and mechanisms (apart from, as mentioned, the future effects of climate change and how much they rebound or “boomerang,” which is not yet known). Each of these shifts in social orders also has clear periods such that, whichever other periodizations are adopted, the onset of modernity and the post-war age of limits constitute two breaks for all four sources (where military power is included, as for Mann) or three orders (economic, political, and technoscientific related to environmental change, see Schroeder 2013); in this sense, they can be synchronized even if they are orthogonal. And while the transition to modernity has often been discussed, the onset of the age of limits is a break, first, because the inexorable extension of citizenship rights by the state has stalled, second, because continuous economic growth has become subject to destabilization, and third, the transformation of nature by technoscience has begun to boomerang on the social order. What is out of synch here is the geopolitical (or military) order, which experienced a shift with the end of Cold War and now consists of a growing U.S.-China rivalry. That post-Cold War transition is a shift rather than a break, however: more fundamental is the break that has ushered in “limits” in all three orders.

The link between modern imperialism and modernity (or the “great divergence” or the “rise of the West or of Europe” question as it was known) has so far been addressed by means of globalizing great powers à la Mann and imperialism à la Kohli. This still leaves an open question: is the modern Western economic “take-off” or “rise” separable from domination over the non-West or Global South? The answer depends on an opposition between what Belich dubs the externalist view – industrialization only because of colonialism – versus internalists who argue that industrialization was self-propelled. Belich, like this author, argues that the evidence supports the internalists (2022, 424–25). And to this author's knowledge, the externalist case has not been put forward in a testable way, whereas internalists have put forward a number (15) of causes and tried to assess them (Gellner 1988, 158–70). Furthermore, while current global history and social science may have shifted to examining connections, entanglements, and intersections between North and South

and between the various social orders, analytical distinctions and openness to evidence outweigh these if the aim is cumulative knowledge as opposed to a proliferation of connected or entangled or similar perspectives.

Is race, nevertheless, as DuBois argued, the main fault line of a modern North/South conflict? There has of course been a long debate about race versus class (and gender). If class is increasingly less foregrounded as a *driver* of social change even as inequalities are growing in many parts of the world, then, it seems that DuBois' idea about the color line defining social conflict globally could be put into the foreground (even if DuBois' own ideas in his later life returned him to an orthodox Marxist position, see Lewis 2009). But DuBois did not anticipate that a world-wide anti-imperialist and anti-colonialist movement would strengthen over the course of the 20th century. This movement sought to undo a racialized hierarchical international order but petered out after the heyday of post-war national liberation struggles in the 1970s (Getachew 2019). What remains are thus more diffuse efforts to counter various international hierarchies. And in relation to race, the worldwide U.S.-led civil rights movement of the 1960s continues this legacy.

Savage (2019) claims that conflict over the racist legacy of imperialism is now playing out in elite institutions. Perhaps. But anti-racist conflict has been part of a broader wave of 20th century struggle of social movement politics vis-à-vis the state seeking to expand citizenship rights, which have waxed and waned. In the U.S., for obvious historical reasons (the combination of slavery, settler colonialism, and informal empire is unique), two racial orders remain counterposed and central to political development, now with mainly domestic sources (Smith and King 2020). Elsewhere in high income democracies, racism still has its roots in Anglo-settler states, but also plays a role, for example, in conflicts over Western European immigration. Yet as in the U.S., this conflict is centered on the state and citizenship rights, as with European populist welfare chauvinism. And there are, of course, other forms of racism: Indian contemporary racism is anti-Muslim, with roots in a backlash against Muslim imperial domination, though anti-colonialism also still plays a role. Racism in contemporary China has recently been less buffeted by internal and external forces (apart from Japanese imperialism) whereas its anti-colonial legitimacy-seeking is based on restoring China at the center of the world after the century of humiliation. As Bettencourt has shown (2013), racism has had a number of florescences in modern history. Thus race should be seen as one among a number of inequalities, which also include gender, in the struggle for deepening and broadening citizenship rights vis-à-vis the state (Mann 1988). Ethnic or racial divisions play out in various ways in different parts of the world (for the U.S., see Emirbayer and Desmond 2015), but strengthening ethnic and racial diversity by means of citizenship rights is an underlying driver.

The ideal of providing ever deepening and broadening rights is subject to growing state capacity. This is a measure that applies both to authoritarian and liberal- or social-democratic political systems. Where these systems diverge is over civil and political rights, which liberal and social democracies prioritized, as against “national” liberation which prioritized providing social rights, as in China, or as with caste groups in India (though civil and political rights came too with independence). Yörük et al. (2022) have differentiated further, developing a typology in which social citizenship rights (welfare) are a response to social movement protest, placing China and India in the same category of “populist regimes” in contrast with more “institutional,” “neoliberal,” and “residual” types.

Responsiveness of the state and its rulers to peoples’ movements for rights is thus a common yardstick across the two types of political systems; the difference is that legitimacy is provided via collectivities or collectivism in the one case and competition of plural entities in the other (again, India has both). Various rights emerge in this struggle vis-à-vis the state in either case, which require trade-offs. Shoring up existing rights against globalizing forces has recently come to the fore in politics, hence the rise of protectionism (Suesse 2023).

These protectionisms have an economic dimension as well: “Xi Jinping thought” promotes taming the “disorderly expansion of capital” (Reuters 2022). Narendra Modi favors expanding “traditional” Hindutva rights and national economic control (Nassemullah 2017). In Europe anti-immigrant parties seek to exclude outsiders and leftists seek to keep out globalizers. Likewise in the U.S. where an economic property-based and “productivist” ethos marks out the “land of the free” for those that thrive in market-based economies but also adopts economic nationalism to preserve this way of life. The trade-offs between various types of rights in this ideological variation reflect the paths of societal development. They also relate to the economic resources available from levels of growth to support social rights – but these have become more limited after the Golden Age in the Global North. It is somewhat different in China and India; but both, and other major powers in the Global North, will increasingly hit buffers due to climate change and how it rebounds or constrains economic growth and so ultimately the expansion of social rights. State capacity is uneven, and economic resources balanced against the need to counteract climate change, increasingly a major constraint.

4 Climate Change and Bringing State Capacity Back In

No matter what solutions to these trade-offs among citizens or consumers, or in markets or innovation, emerge to tackle climate change, state capacity (or autonomy,

the two can be used interchangeably here) – foremost in relation to energy infrastructure and energy uses – will be required as a *sine qua non*. That is because the energy infrastructure needs to pivot dramatically, which cannot be left to individuals and markets alone. Hence state capacity is the main factor for more stable and more economically sustainable growth, and with it deeper and broader social citizenship rights. Another, technoscientific, requirement, is open knowledge, but unlike in economically or geopolitically sensitive areas, open scientific knowledge in relation to climate change is unlikely to be an issue. Inasmuch as continued economic growth which has provided state legitimacy becomes increasingly problematic, and sustainable growth replaces it, new tensions will arise for the state as the likely need for curtailed economic growth conflicts with growing demands for social rights.

With this, we can return to global asymmetries: If the main legacy of colonialism and imperialism, regardless of the economic impact, are weak states among the former colonies or imperial peripheries, then for the sake of climate change, this should lead to – not economic assistance, but aid to strengthen states. There are of course debates about the best ways to support development, but here the point is simply that greater state capacity will be required to enable states to address climate change and cope with its consequences – even if markets and consumerism are the main “drivers” of climate change and will also need to be curbed. This last point seems a contradiction: less growth is needed within all societies or states, but the aim should be to strengthen states for more growth? But it is “sustainable growth” that requires state capacity, and this must be imposed on market actors and consumers (they are unlikely to self-impose it sufficiently). Rich and strong states should be a model here and help weak and poor states. There are also some new asymmetries: help relates to past injustices and is also required regardless of them, because help for weak states will mitigate climate change regardless of past patterns of exploitation.

At this point we can go back briefly to the past relations between the West/North and Rest/South: Headrick (2012) has argued that technology enabled the West to conquer “the rest.” More specifically “large technological systems” (Hughes 1987), often infrastructures, were central to this conquest. Now these must be reoriented to minimize their negative impact. Of course other changes such as reducing consumption can contribute too. But moralizing about reducing flying (though again, that will be one part) will be less effective than taking a scientific and technological approach: identifying, in Hughes’ language, the reverse salients or bottlenecks in the large technological systems that provide – to stay with his military language – the “most bang for buck,” except in reverse, to reduce the effects of large technological systems and maximize the sustainable livability of the planet. How that relates to the past in terms of the obligations for who should do most and least is a separate political issue which is orthogonal to technoscientific maximization of mitigation efforts or the minimization of impact.

Put differently, technoscience allowed for the domination over peoples, but domination over nature during the rise of modernity was a different endeavor, the consequences of which were not known at the time. In the meantime, this domination over nature has become worldwide, no longer co-extensive with the domination of “the rest” by the West, though there are new geographical asymmetries. Now, technoscience continues to allow domination over nature, but the consequences are known and need to be minimized – a reversal. In short, again, there is no linear or synched effect of technoscientific power and its relation to colonial or imperial conquest and its conquest over the natural environment. Hence there needs to be a paradigm shift in thinking not just about economic growth but also about technoscience – no longer control over the natural environment, but also how to make this control less intensive, and a reorientation from the maximal manipulation of the natural environment to minimize the impact of this manipulation.

Recently it has been argued that some high-income countries are now able to “decouple” economic growth from higher carbon emissions, though that is a controversial idea (Ward et al. 2016); in other words, on a per country basis, it may be possible to have high growth rates and no longer add to the world’s growing carbon emissions. However, this decoupling applies to the territory of single countries; in other words, it does not count emissions from products or services they import. If decoupling would hold true, however (in other words, including exports and imports), then the world could be divided into those that can and cannot decouple. In the future, as in the past, there will be a disjuncture between countries that are responsible for emissions versus those that are vulnerable to its effects. Hence, for example, the creation in 2022 of a “loss and damage” fund to address this disjuncture at COP27 (see <https://www.un.org/en/climatechange/cop27>) to help states that suffer the effects of climate-change by the richer countries that can most afford it. It can be noted in passing that despite how the fund focuses on geographies affected by extreme climate events, payments to and from this fund relies on the capacities of nation-states. In any event, this disjuncture puts into sharp relief the very large asymmetries between states and the historical and geographical shifts in how they address climate change impacts.

Efforts to mitigate climate change effects are undertaken by international bodies, foremost the IPCC and UN. But again, action relies on commitments from the great powers and the capacities of states. This is a discontinuity from the concerts of great powers in the past, during the heyday of colonialism and imperialism, and up to the Cold War and beyond to U.S.-China rivalry, insofar as a) these international bodies include representations from all states, and b) they do not advance the interests of single great powers but rather of the globe. Still, even if these global bodies are needed, the driving forces behind them will be great powers and capacious states. And the idea of capacious states also goes beyond Lieven’s argument

(2020) that addressing climate requires a “realist” (in the international relations sense) promotion of self-interest from within major nations (though that is a worthwhile argument) – in two ways: one is that it avoids the “presentism” of his realism, the other is that it avoids how he puts the interests of nations first, without regard to their obligations and effects.

This points to another discontinuity: states cope with the consequences of climate change, but they were not singly responsible. Malm (2016) blames rapacious capitalism and imperialism, but great power competition or capitalism per se did not bring about the rise of mass consumerism and the large technological systems, foremost energy, on which rests. In other words, these were the unintended – and unanticipated – consequences of economic growth. Still, how to address climate change effectively will eventually force all states to cooperate via a combination of great powers and capacious states pushing efforts beyond their borders and cajoling the rest, though strong and rich states can do so proactively while those more affected will be reactive since they lack the state capacity to do otherwise. In all cases, political leaders and citizens will see that effectiveness requires action wherever effects are strongest in containing growth within planetary boundaries (Rockstroem 2009), which will ultimately outweigh putting national interests first. Before this happens, however, there will also be backlash reactions among anti-technocratic and populist citizens and parties and movements that prioritize pulling up the draw-bridges in the face of climate change. And again, those most affected by climate change may be left to react without the protections of the state.

Here, again, we can remind ourselves that we will get more of nature (Malm 2018, 77). The geography of the early break of the “great divergence” or the dominance of the West which intensified with industrialization has shifted but the shift can be periodized and located. The inflection point, as we have seen, was a dual one in the post-war period: decolonization on the one hand, and the great acceleration in terms of impact on the climate on the other. Decolonization has led to a divide between economically dependent countries without state autonomy in the Global South (Africa, Latin America, Middle East, and parts of Asia) versus those with autonomy (the Global North plus China, with India and its weaker state capacity). But in terms of the great acceleration, there has been a flip in the last 50 years in climate change impact: whereas up until the 1970s, the U.S. and Europe were responsible for the vast bulk, 70 percent, of global CO₂ emissions, since then, their contribution has declined to less than a third while Asia in particular has risen. The historical cumulative contribution to CO₂ emissions is of course lopsided towards Europe and the U.S., but in the last half century, their contribution has stayed the same and even declined somewhat in absolute terms (<https://ourworldindata.org/co2-emissions#co2-emissions-by-region>).

The rise and domination of the West over the rest will thus increasingly be retroactively reinterpreted – and so shoehorned, as it were – to focus on the historic and ongoing contribution to climate change of the high income North and its high consumption levels as against those in the Global South. Further, the question will become which countries or regions contribute most to mitigation, and whether democratic or authoritarian states are in a better position to do so. It does not follow from this shoehorning that the technoscientifically transformed environment had primacy in the past, but at least since in the post-war period – unrecognized, and later recognized as such – this potential primacy has been gaining, though when transforming the environment will come to have singular primacy or whether this can be avoided is not known. This foreseeable pattern also reveals where structural openings (or agency, if that is preferred, or openings in the opportunity structure – not just in politics, but in all orders) is located: The pressures from below, also in the Global South, for continuous economic growth that provides rising living standards, will impact tensions within and between nations which will, in turn, impact responsiveness among democracies and authoritarians to their peoples. Legitimacy via continued economic growth is being replaced in high-income countries with legitimacy via economic security within national bounds, and legitimacy in nations worst affected by climate change may also come to mean physical security vis-à-vis nature.

The climate “shoehorn” should not be exaggerated: there will be adaptation to extreme weather and catastrophic conditions by means of shifts in the economy, including new technologies, and by means of political repression or new political cleavages. The main lines of social conflict will increasingly be around climate change consequences, and especially focused on what nation-states must do in light of their role. These lines are barely visible at the moment, and it is difficult to predict when (but not that) this structural constraint will increasingly be imposed. Uncertainties remain about how quickly the environment is being changed by techno-scientific transformation. And other lines of social conflict will continue in the meantime; especially social movements seeking to expand citizenship and especially social citizenship rights. But these are increasingly zero sum conflicts within nation-states, and climate change will affect the struggle over rights – including how this struggle is seen through the lens of domination in the past and the capacity of states to provide economic – and physical – security.

This links between the past and future of climate change and national politics is thus not straightforward. The link would be more straightforward if the ascendancy of the West over the world would continue to be responsible for climate change. But again, the Western share of emissions (and the share of global production and consumption causing it) are shrinking relatively. Now it could of course be argued that the power of technoscience, born in the West, is ultimately responsible for the

transformation of the environment. True, but this means attributing Western industrialization directly to the Western technoscientific revolution, which in this author's view is correct (Schroeder 2007; see also Mokyr 1990), though Western colonial and imperial control rested on technoscientifically enabled coercion. The unique Western origin of technoscience remains debated (Hobson 2004), as is the "internalist" dynamic of the industrial revolution, as mentioned. But technoscience now works globally, which relativizes the importance of its origins. Finally, calculations about the origins of climate change and contributions to mitigation must take into account not just legacy contributions to carbon emissions but also ongoing and likely future contributions.

5 Conclusions and Implications

The great divergence and modernity still deserve to be at the center of explanations of macro-social development and the cause of this divergence should be located "internally." The break within this periodization to an age of limits allows for both a new departure in societal development and for incorporating the addition of climate change as a new determinant of social change. The domination of large parts of the Global South, at least for Britain and the U.S., as Kohli argues, had economic motives, even if the success of this domination was based on military and technoscientific advantage. Modernity is not only associated with progress but equally with the onset of an instability that has lasted to the present day, and with it a new source of instability after the break within modernity which is reshaping all social orders globally. Hence too there is continuity within the modern social orders regardless of the great variation of the primacy of social forces within it – even if there is at least one major discontinuity or break within modernity. Great power conflict continues to produce shifts within the global arena, but social theory cannot do without the nation-state as the main unit of analysis because of the varieties of states and their capacity to respond to civil society (different among authoritarians versus democracies) and how they shape politics. National politics increasingly comes up against resource constraints in this responsiveness in an age of limits. But state capacity or autonomy, no matter the varieties of capitalism or market economies, is also the key to efforts, led by great powers but also dependent on the concerted efforts of states, to counter the effects of climate change. Domestic sources of political support are required for this effort. This series of linked solutions will be too neat for many – and too complex for others, like Marxists and evolutionists – but the alternative apart from state capacity to reshape economic growth (and how it is distributed to provide social rights) is state-directed technoscientific innovation.

The implications are that the varieties of societal development or the societal orders within them can be periodized, with the great acceleration of post-war worldwide consumerism casting a long and ever more inescapable shadow of global warming from the future over the present. It can be foreseen that, in addressing climate change, apart from technoscientific solutions, the increasing urgency of the problem may bring calls for greater economic protectionism or protectionism for rights within states (which overlap), forces that can already be seen in the resurgence of populism. The identification of these growing tensions allows for calculations of trade-offs. And although this account is complex, it still identifies clear patterns and the primacy of certain causal forces. Interestingly, these causal forces and calculations of trade-offs can be seen as a paradigm shift for technoscience; from maximizing its ability for transforming the environment to minimizing it (or minimizing its harmful impact). But for implementing this paradigm shift, strong states will be required. Strong states include the push of the two leading powers, China and the U.S., where domestic political legitimacy, including sufficient autonomy and capacity, will be needed. These points may be common sense, but they narrow the options and allow weighing them. And they also, as we have seen, depart from “climate realism” (Lieven 2020). Weighing options includes a realistic assessment of what scientific and political and politically-relevant elites, social movements, and citizens promoting mitigation, can achieve, alongside the forces and a tightening cage ranged against them.

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References

- Beck, U. 1992. *Risk Society: Towards a New Modernity*. London: SAGE.
- Belich, J. 2022. *The World the Plague Made*. Princeton: Princeton University Press.
- Bettencourt, F. 2013. *Racism: From the Crusades to the Twentieth Century*. Princeton: Princeton University Press.
- Bhambra, G. K., and J. Holmwood. 2021. *Colonialism and Modern Social Theory*. Cambridge: Polity.
- Chang, H. J. 2002. *Kicking Away the Ladder: Development Strategy in Historical Perspective*. London: Anthem.
- Collins, R. 1999. “The European Sociological Tradition and Twenty-First-Century World Sociology.” In *Sociology for the Twenty-First Century: Continuities and Cutting Edges*, edited by J. Abu Lughod, 26–42. Chicago: University of Chicago Press.
- Crone, P. 1989. *Pre-Industrial Societies*. Oxford: Blackwell.
- Davies, W. 2022. “Destination Unknown.” *London Review of Books* 44 (11): 15–18.
- Emirbayer, M., and M. Desmond. 2015. *The Racial Order*. Chicago: University of Chicago Press.
- Fukuyama, F. 1992. *The End of History and the Last Man*. New York: Simon and Schuster.

- Gellner, E. 1979. "A Social Contract in Search of an Idiom: The Demise of the Danegeld State." In *Spectacles and Predicaments: Essays in Social Theory*, 277–306. Cambridge: Cambridge University Press.
- Gellner, E. 1988. *Plough, Sword and Book: The Structure of Human History*. London: Collins Harvill.
- Getachew, A. 2019. *Worldmaking after Empire*. Princeton: Princeton University Press.
- Giddens, A. 1987. *The Nation-State and Violence*. Cambridge: Polity.
- Giddens, A. 1990. *The Consequences of Modernity*. Stanford: Stanford University Press.
- Giddens, A. 2009. *The Politics of Climate Change*. Cambridge: Polity.
- Headrick, D. R. 2012. *Power over Peoples: Technology, Environments, and Western Imperialism, 1400 to the Present*. Princeton: Princeton University Press.
- Hobsbawm, E. 1995. *Age of Extremes: The Short Twentieth Century 1914–91*. London: Abacus.
- Hobson, J. M. 2004. *The Eastern Origins of Western Civilisation*. Cambridge: Cambridge University Press.
- Hughes, T.P. 1987. "The Evolution of Large Technological Systems." In *The Social Construction of Technological Systems*, edited by W. Bijker, T. P. Hughes, and T. Pinch, 51–82. Cambridge, MA: MIT Press.
- Kohli, A. 2019. *Imperialism and the Developing World: How Britain and the United States Shaped the Global Periphery*. Oxford: Oxford University Press.
- Latour, B. 2012. *We Have Never Been Modern*. Cambridge, MA: Harvard University Press.
- Lewis, D. L. 2009. *WEB Du Bois: A Biography*. New York: Henry Holt.
- Lieven, A. 2020. *Climate Change and the Nation State: The Case for Nationalism in a Warming World*. London: Penguin.
- Loyal, S., and S. Malesevic. 2020. *Contemporary Sociological Theory*. London: SAGE.
- Lukes, S. 2021. *Power: A Radical View*, 3rd ed. London: Bloomsbury.
- Malm, A. 2016. *Fossil Capital: The Rise of Steam Power and the Roots of Global Warming*. London: Verso.
- Malm, A. 2018. *The Progress of This Storm: Nature and Society in a Warming World*. London: Verso.
- Mann, M. 1986. *The Sources of Social Power, Vol. 1: A History of Power from the Beginning to AD 1760*. Cambridge: Cambridge University Press.
- Mann, M. 1988. "Ruling Class Strategies and Citizenship." In *States, War and Capitalism*, 188–209. Oxford: Basil Blackwell.
- Mann, M. 2012. *The Sources of Social Power, Vol. 3: Global Empires and Revolution, 1890–1945*. Cambridge: Cambridge University Press.
- Mann, M. 2013. *The Sources of Social Power, Vol. 4: Globalizations, 1945–2011*. Cambridge: Cambridge University Press.
- Mann, M. 2023. *On Wars*. New Haven: Yale University Press.
- McNeill, J. R., and P. Engelke. 2016. *The Great Acceleration: An Environmental History of the Anthropocene Since 1945*. Cambridge, MA: Harvard University Press.
- Meghji, A. 2021. *Decolonizing Sociology*. Cambridge: Polity.
- Miller, M. C. 2021. *Why Nations Rise: Narratives and the Path to Great Power*. Oxford: Oxford University Press.
- Mokyr, J. 1990. *The Lever of Riches – Technological Creativity and Economic Progress*. Oxford: Oxford University Press.
- Naseemullah, A. 2017. "The Political Economy of Economic Conservatism in India: From Moral Economy to Pro-business Nationalism." *Studies in Indian Politics* 5 (2): 233–47.
- Osterhammel, J. 2014. *The Transformation of the World*. Princeton: Princeton University Press.
- Poggi, G. 2016. *Forms of Power*. Cambridge: Polity.
- Przeworski, A. 2019. *Crises of Democracy*. Cambridge: Cambridge University Press.
- Radkau, J. 2014. *The Age of Ecology*. Cambridge: Polity.
- Raworth, K. 2017. *Doughnut Economics: Seven Ways to Think like a 21st-Century Economist*. London: Random House.

- Reuters. 2022. <https://www.reuters.com/world/china/chinas-xi-vows-stronger-antimonopoly-efforts-healthy-capital-market-2022-04-30/>.
- Rockström, J., W. Steffen, K. Noone, Å. Persson, F. S. I. Chapin, E. Lambin, T. M. Lenton, et al. 2009. "Planetary Boundaries: Exploring the Safe Operating Space for Humanity." *Ecology and Society* 14 (2), <https://doi.org/10.5751/es-03180-140232>.
- Savage, M. 2019. *The Return of Inequality: Social Change and the Weight of the Past*. Cambridge, MA: Harvard University Press.
- Schroeder, R. 2007. *Rethinking Science, Technology and Social Change*. Stanford: Stanford University Press.
- Schroeder, R. 2013. *An Age of Limits: Social Theory for the 21st Century*. Basingstoke: Palgrave Macmillan.
- Schroeder, R. 2019. "Weberian Social Theory: Rationalization in a Globalized World." In *The Oxford Handbook of Max Weber*, edited by S. Whimster, and L. Scaff, 151–66. Oxford: Oxford University Press.
- Smith, R. M., and D. King. 2020. "White Protectionism in America." *Perspectives on Politics* 19 (2): 460–78.
- Suesse, M. 2023. *The Nationalist Dilemma: A Global History of Economic Nationalism, 1776–Present*. Cambridge: Cambridge University Press.
- Urry, J. 2011. *Climate Change and Society*. Cambridge: Polity.
- Ward, J. D., P. C. Sutton, A. D. Werner, R. Costanza, S. H. Mohr, and C. T. Simmons. 2016. "Is Decoupling GDP Growth from Environmental Impact Possible?" *PLoS One* 11 (10): e0164733.
- Ye, M. 2020. *The Belt Road and Beyond: State-Mobilized Globalization in China: 1998–2018*. Cambridge: Cambridge University Press.
- Yörük, E., I. Öker, and G. R. Tafoya. 2022. "The Four Global Worlds of Welfare Capitalism: Institutional, Neoliberal, Populist and Residual Welfare State Regimes." *Journal of European Social Policy* 32 (2): 119–34.