

Figurations of socio-ecological decline: The climate crisis as a process of de-civilisation

Abstract

Climate change is one of the most important pieces of evidence for what is currently discussed as 'the Anthropocene', the age of human domination of the planet. At the same time, it poses a real threat to the survival of human civilisation. This article draws on Norbert Elias's theory of civilisation to describe this threat as a process of de-civilisation. To this end, the core analytical dimensions of (de)civilisation processes used by Elias – the state's monopoly on the use of force and control of emotions – will be modified and expanded. Mechanisms and interrelationships of socio-ecological processes will be identified that could bring about the possible collapse of human civilisation in a scenario of severe climate change, combined with a significant decline of social and political adaptive capacities. The emergence of populist narratives and movements is reconstructed in terms of the internal dialectics of the civilisation process that can accelerate this collapse. Finally, the article addresses the question of whether and how re-civilisation could avert collapse and complement the in fact only halved Anthropocene.

Keywords: Civilisation process, de-civilisation, climate crisis, collapse, populism

Acknowledgments

This paper is based on the following publicly funded research projects: 'High-End Scenarios – National Adaptation Options in the Event of Very Strong Climate Change', funded by the German Environmental Research Agency (UBA), Research Grant No. (FKZ) 3719 48 102 0; and the 'Transdisciplinary Network for Conflict Research and Management (LoKoNet)', funded by the German Federal Ministry for Research, Technology and Aeronautics (BMFTR), Research Grant No. (FKZ) 01UG2201A.

1. Introduction

Human civilisations around the globe have been developing under a rather stable climate, known as the Holocene, occurring at about 12,000 years back from now (Blümel, 2009). With the recent exceeding of the global mean temperature of 1.5 °C, anthropogenic climate change has exceeded a critical threshold beyond which 'dangerous climate change' begins, defined by the 1992 UN Framework Convention on Climate Change (UNFCCC) and its concretisation in the 2015 Paris Climate Agreement. Given the speed of human-induced climate change and

* Fritz Reusswig (fritz@pik-potsdam.de), Potsdam Institute for Climate Impact Research (PIK) & futurlogik, Germany

Wiebke Lass (wiebke.lass@pik-potsdam.de), Potsdam Institute for Climate Impact Research (PIK), Germany

the massive consequences it has for humans and ecosystems, it can no longer be ruled out that the future will also herald the demise of the human species. Climate change could prove to be humanity's 'endgame' (Kemp et al., 2022). This is particularly true when there are actors and tendencies within society that actively oppose effective climate policy or sustainable development at large. Modern populism can be interpreted as such a force – even if it is by no means the only driver.

In this article, we pursue the thesis that anthropogenic climate change has the potential to destroy human civilisation. The concept of civilisation used here is based on that of Norbert Elias (2000), but at the same time advocates substantial changes and extensions. These modifications are necessary in order to take account of the changed civilisational realities of the 21st century. Even during Elias's lifetime, his book was the subject of controversial debate. The main points of criticism concern the question of the scope of his findings (do they only apply to Western Europe or can they be generalised?) and the question of de-civilisation (was German National Socialism a minor setback of historical progress, or are important driving forces already inherent in the process of civilisation itself?).

Therefore, in the next chapter (Chapter 2), we explain the nature of our recourse to Elias and the modifications we consider necessary. We then use this expanded concept of civilisation to reconstruct the de-civilising effects of climate change. We see this risk above all in the case of particularly severe (high-end) climate change (Chapter 3). Subsequently, we would like to work out the de-civilising potential of modern populism, which – at least in many of its variants – appears as a project of decidedly anti-climate societal and political agenda (Chapter 4). Despite all the criticism of populism, however, our argument is that it should not be overlooked that the climate crisis has so far been caused by social driving forces other than populism. Populism carries the risk of (dramatically) exacerbating these, but it also offers opportunities – sometimes against its will – to halt the process of de-civilisation. If we seize these opportunities, we can, according to our concluding thesis, save modern civilisation from a self-inflicted downfall in high-end climate change (Chapter 5). However, we will only succeed in doing so if we continue to develop human civilisation. The core prerequisite for this is the restructuring of the core institutions of civilisation in the sense of a further substantial ecologisation of both their structural and individual dimensions. Only by 'threading' nature into civilisation can we succeed in overcoming the self-destructive tendencies of the modern Anthropocene and move from a halved (humankind is a dominant influence destroying the environment) to a true Anthropocene (humankind is able to live within planetary boundaries) (cf. chapter 5).

2. (De-)civilisation expanded

There are various reasons for drawing on Norbert Elias's work to interpret the de-civilising potential of anthropogenic climate change, which we would like to

briefly outline here – without claiming to be exhaustive or to be Elias philologists. First, Elias attempts to overcome the dualism of individual and society by thinking in terms of interdependencies and figurations, which can better account for the complexity of the phenomenon of climate change than individualistic or collectivist approaches. Second, Elias attempts to overcome the dualism of structure and process in a historical sociology or sociological historiography that makes long-term processes analysable in a common framework. On the one hand, he uses figuratively specified general models or mechanisms (e.g., the ‘monopoly’ or ‘king mechanism’) to explain specific historical phenomena. On the other hand, he also places current structures in a dynamic historical context and attempts to explain their emergence (Albert, 2013). That fits well with a reconstruction of the *longue durée* of human civilisation history, but also with thinking in scenarios and models, as is typical in climate research. Thirdly, long before the ‘affective turn’ in the humanities and social sciences (Clough & Halley, 2007), Elias regarded the interplay of individual affect control and the development of social institutions (mainly: a state monopoly on the use of force) as two core mechanisms of the process of civilisation. Neither the current climate crisis nor the rise of populist movements and forces can be adequately understood without reference to affective-emotional resonance spaces interplaying with political processes and decisions. Fourthly, Elias considers the tension between engagement and distancing, which we believe is necessary for a critical scientific engagement with the climate crisis (Linklater, 2019).

In his book on civilisation (2000), Elias argues that the monopoly on violence and the control of emotions, in their interaction, are the two central processes that have shaped (Western) European civilisation since the end of the Middle Ages. The debates surrounding this diagnosis already suggest that it is necessary to go further here for reasons inherent to the social sciences. The two main criticisms are Eurocentrism and a lack of dialectics in the concept of civilisation (Bogner, 1989; Kallis, 2020; Pepperell, 2016; Treibel et al., 2000). In addition, it is necessary to go beyond the two factors defined by Elias in order to actually raise the concept of civilisation to the required descriptive and normative levels (Senghaas, 2002; 2004). In particular, Elias’s narrow focus, according to which engagement is ultimately defined by proximity and affective bonds, must be corrected (Drucks, 2011; Quilley, 2020). Normative orientations themselves imply a certain degree of (cognitive) distancing and critical reflection on one’s own preferences, which makes it possible to critically examine not only ways of life, but entire civilisations (Jaeggi, 2018). However, this immanent critique is also necessary because there are good reasons to consider the project of European civilisation contradictory and incomplete for social and ecological reasons, as long as its hegemonic universalisation goes hand in hand with the destruction of its own foundations of life – and those of others.

Our proposal is therefore that the core elements of the civilisation process in Elias must be clarified or corrected internally and expanded both internally (socially) and externally (ecologically). In the context of peace and conflict studies, Senghaas

has suggested to extend Elias' dimensions of the civilisation process, leading him to suggest a 'civilisatory hexagon'. This approach served as a source of inspiration here and was modified for the present context. In the following, we outline the clarifications (1,2), the internal (3–6) and the external (7) expansions.

- (1) *State monopoly on the use of force.* For Elias (as for Hobbes and Weber), the monopolisation of physical force by the state is also a core dimension of the civilising process. But this is at best a necessary condition (Graeber & Wengrow, 2021), and by no means a sufficient one. History has shown too often that the modern state can also use its means of force against individuals and groups in society. Additional institutional safeguards are needed here to prevent the state from becoming an instrument of violence and oppression (Acemoglu & Robinson, 2019).
- (2) *Affect control.* As important as it is for the process of civilisation to bring aggressive feelings in particular under the control of the subject, it remains unclear whether this also applies to all affects and emotions. Here, too, the further history of the 20th and 21st centuries has shown that affect control can also be associated with specific pathologies (Bösel, 2023). Particularly with regard to anthropogenic climate change, a certain lack of affect can be observed in view of the objective risks, which is also normatively problematic (Barker, 2025; Slaby, 2023). Non-dualistic concepts of affectivity are needed here (Fuchs, 2024). In our view, the guiding principle for civilisation would therefore be a differentiated and expressive culture of affect (Bösel: 'affect ecology') instead of mere affect control.
- (3) *Rule of law.* Critical civilisation research cannot be satisfied with the emergence of a state monopoly on the use of force as a civilisational achievement. Since the concept of the rule of law ('*Rechtsstaat*' in German) began to develop at the beginning of the 19th century – and was only politically established much later (Böckenförde, 1976) – it does not play a major role in Elias's work. But it is only its constitutional constraints that prevent the state's monopoly on the use of force from being turned against its citizens. The rule of law includes human and civil rights, the separation of powers, legal protection by the courts, and the legality and predictability of administrative action (Dreier, 1991).
- (4) *Democracy.* In order to be considered a step forward for civilisation, the state must not only monopolise power, it must also submit it to the people as sovereign. Only when those affected by the law are also its authors can law and justice prevail. The rule of law and democracy are mutually dependent and enable each other (Habermas, 1998). From our point of view, it can remain open for the time being whether a liberal, republican, or radical theory of democracy is advocated here to ensure this (Machin, 2022; Sartori, 1987).
- (5) *Public sphere, civil society, knowledge.* Civil societies are irreducibly pluralistic or are at least able to deal constructively with plurality and conflict. There is

opposition, but no enmity (Mouffe, 2013). The party that is defeated in a democracy (the opposition) must have the opportunity to publicly promote its views. A democratic culture of debate and conflict gives rise to political and social innovation. In addition, environmental concerns have a better chance of being heard by those in power if civil society movements take them up. A civilised public discourse gives voice to rationality (Wesche, 2014) and seeks scientific expertise where it is needed by the sovereign to make informed decisions – without ignoring uncertainties and expert disputes (Pamuk, 2021), and without slipping into an expertocracy (Lucky, 2023).

- (6) *Social justice*. Although the concept of (social) justice is also notoriously controversial, we consider it necessary in order to give the civilisational process a normative orientation. This includes the protection from hardship, poverty and hunger as well. Social inequality can be conducive to a prosperous economy within certain limits, but large inequalities in income and wealth eventually undermine political equality in democracy (Ali & Caranti, 2021).
- (7) *Ecology and planetary boundaries*. In Elias's work, as in many social science theories, nature primarily comes into play as an object of domination for the purposes of reproduction and civilisation (Elias, 2001). Unlike when Elias's book on civilisation was published, we are now confronted with a multitude of ecological crises on all scales (UNEP, 2019). Human civilisation has entered a stage where its future reproduction has become uncertain due to the transgression of various ecological thresholds, sometimes termed 'planetary boundaries' (Richardson et al., 2023; Rockström, 2025). From a critical social science perspective, the planetary boundaries concept ultimately refers to social processes and conditions that are forcing humanity to leave a safe operating space and are leading to an ecological crisis with a catastrophic core (Brand et al. 2021). It seems imperative to us that any discussion of the process of civilisation must include this interplay between social and ecological dimensions of human development. Planet Earth must be considered in its own materiality and temporality as a co-acting force of humans (Chakrabarty, 2019; Clark & Szerszynski, 2020; Schroer, 2022). This inclusion must take place in all the dimensions of the civilisation process mentioned so far, for example in the sense of ecological democracy or an ecological extension of property rights (Biermann, 2022; Heidenreich, 2023; Wesche, 2023).

Since the ecological dimension is orthogonal to the others, and since humanity has already exceeded the planet's 'safe operating space' in some areas in a self-endangering manner, it is no longer possible to speak of civilisational progress – regardless of how appropriate or inappropriate the notion of progress might be from a purely inner-social point of view (Jaeggi, 2025). Against this background, the related concept of an Anthropocene seems to be structurally flawed. It had been originally developed by the atmosphere chemist and Nobel prize winner Paul Crutzen in the

early 2000's in order to propose a new geological epoch: one dominated by the impact of human activity on planetary systems. These impacts include anthropogenic climate change, biodiversity loss leading to mass extinction, and the ubiquity of microplastics in terrestrial and marine ecosystems. While the geologic community until now rejects to officially recognise the concept, it has been stimulating a lot of debate both in the natural and the social sciences (Hickman et al., 2018; Wallenhorst, 2023). The vivid debates about the question of timing (when did the Anthropocene start?) are closely related to the question of its causation and ultimate social drivers (with candidates such as capitalism, colonialism, fossilism, masculinity, modernity...). Our major caveat, however, refers to the *effects* of the Anthropocene or the diagnosis of its current *status*. It is described as human (capitalist, fossilist...) *domination* of planet Earth's ecosystems. But this 'domination' is in fact deeply failing in a very specific sense, leading to widespread depletion of resources, overuse, degradation and, in many regions, destruction of ecosystems. It is true that these negative to disastrous environmental outcomes have not been intended by social actors – in a similar way as social order is a consequence of individual actions without being its intentional result, as Elias tirelessly repeats. But this is exactly the reason why 'domination' is the wrong term. Too many unintended and potentially disastrous 'side-effects' of this 'domination' have accumulated, still more very critical ones are still to come, e.g. the so-called 'tipping points' of the Earth system, triggering irreversible detrimental dynamics at the planetary scale (Rockström et al., 2025). To pick up on a thought by Walter Benjamin: We may 'master' nature, but we do not master our mastery of nature (Feenberg 2011). As long as 'anthropos' (whatever concrete social agent might reside under this umbrella term) undermines its mere future existence by 'mastering' nature, the 'Anthropocene' is just a halved form of domination – and a form that can be characterised as a de-civilisation process in the (expanded) sense of the term introduced by Elias.

3. High-end climate change as de-civilisation process

Despite all the binding climate targets agreed, anthropogenic climate change is continuing. In the (new) record year of 2024, the global mean temperature exceeded the 1.5 °C limit agreed in the Paris Climate Agreement of 2015 as the lower limit of just tolerable climate change for the period towards the end of the 21st century (Hausfather, 2025). Global greenhouse gas emissions have been rising steadily to date, occasionally interrupted by brief phases of economic or political crises, such as during the 2020/21 COVID-19 pandemic (Friedlingstein et al., 2025).

It is therefore not surprising that fear of the consequences of climate change has increased worldwide in recent years (Clayton, 2020), often combined with grief over the loss of or massive damage to landscapes, or a longing for the restoration of their former state (Albrecht, 2019). Doomsday scenarios are booming, not

only in the world of science fiction (Davidson, 2023). Collapsology, deep adaptation (Bingaman, 2022; Monios & Wilmsmeier, 2021), prepperism (du Plessis & Husted, 2024) and the post-apocalyptic environmental movement (Malmqvist, 2024) are similar phenomena in this context. Parallels to religious apocalypticism are unmistakable (Flannery, 2024), which also offers points of reference for possible ways out and rescue attempts (Mackenthun, 2021; Milner & Burgmann, 2020). In a way, the images and stories presented there represent a necessary corrective to the complicated, complex, abstract and emotionally unengaging scenarios of climate science. Especially as climate research has under-researched high-end climate scenarios (Kemp et al., 2022).

3.1. Can societies collapse?

In particular, if we take the mainstream social sciences as an example, the interplay between the systemic risks of climate change and the internal dynamics of social systems over a longer period of time is under-researched. The social sciences are ill-prepared to deal with such issues because the study of disasters and disintegration processes is not part of the core sociological canon. Although there is a sociology of disasters, it is leading a rather marginal existence in the concert of hyphenated sociologies (Clausen, 1994). And even in the major theoretical drafts, considerations of social decay are not at the center, as sociology since its beginnings has generally been concerned with explaining the emergence, preservation and further development of social order, not its decay. Since the focus was on emancipation from nature, natural factors were excluded from the legitimate realm of sociological explanation. Analogous to the return of the repressed, they are now coming back into focus through the back door of climate impact research and transdisciplinary research on socio-ecological systems (e.g. Jørgensen et al. 2024). Civilisational crises and collapses represent a real possibility of a modernity that cannot get a grip on its own natural conditions (Böhnert et al., 2025; Neckel, 2021).

But is there any ‘causal influence’ of nature on social actors and systems? And can’t societies protect themselves from the negative consequences of climate change by learning and adapting? It is not necessary to postulate a direct causality between physical and social systems in order to be able to conceive the detrimental impacts of climate change. Societies have a logic of their own that makes the direct causal impact of climate change on social systems a borderline case that can occur at the very end of an ecological catastrophe, when a social system no longer has any degrees of freedom. Nature and natural systems normally have an indirect, mediated effect on social systems. Responses to climate change will reflect the specific internal social dynamics of societies in complex and multiscalar ways (Gronenborn et al., 2020; Naylor et al., 2020). Environmental impacts do not determine social systems, but are received by them as an irritation and processed according to internal system rules (Luhmann, 1996) or generative mechanisms (Archer, 2015). The environment limits the degrees of freedom that the system has and within which it can make

decisions. Nature generates social resonance (Rosa, 2019), it does not cause something quasi-mechanically in a social system. But as materially and energetically open systems, societies depend on natural processes and resources. Their socio-ecological metabolism enables their internal functioning. The materiality of the human body, the physical infrastructures and the technology of societies thus offer a variety of entry points for socio-ecological interdependencies. And the degree of sustainability of social reproduction and production determines whether, how and for how long social systems can exist in a finite and ecologically interdependent world. History shows that civilisations can undermine their own livelihoods and extinguish themselves via the ‘detour’ of an ecological catastrophe (Diamond, 2005; Tainter, 1988). While one might be tempted to argue that past civilisation collapses as results of climatic changes have been rare, looking at the past may be a poor guide to a future outside the stable climate of the mid-Holocene (Xu et al., 2020). The globalising modern civilisation has made itself dependent on global ecosystems and resources, whose inherent logic and limits thus co-determine its future.

Societies can know and anticipate all of this. They can learn from mistakes, they can try to adapt in order to become more resilient, i.e. to be less affected by ‘external’ shocks or to recover better afterwards. However, learning and adaptation do not happen ‘just like that’ or equally in all societies, but under system-specific conditions. If, for example, discourses are determined by hegemonic social actors and interests so that consensus or dissent pathologies arise, this results in certain learning blockages or forms of authoritarian, defensive, ideological or regressive learning (Miller, 2002). According to Miller, consensus pathologies exist when only state authorities or certain privileged groups are allowed to provide legitimate knowledge as learning content in a society. Dissent pathologies occur when certain views are declared ‘taboo’ or certain arguments are rejected only because they come from certain groups. The rejection of the bearer trumps the examination of the argument. This means that the quality of public discourse, which is internally linked to the civilisational facets of democracy and the rule of law, determines a society’s ability to learn. We will come back to this in connection with the de-civilising potential of populism.

The same applies to adaptation to climate change. Adaptation requires awareness of the problem and requires efforts – including financial resources. The more severe the expected climate change impacts, the more expensive adaptation becomes. In addition, incremental adaptation (the gradual increase of already established measures, such as raising dykes) is not sufficient in the case of severe climate change. It is rather transformative adaptation that is then required (e.g. renaturation of river or coastal areas) (O’Brien et al., 2012; Warner et al., 2019). However, even transformative adaptation can reach its limits in the event of very severe climate change (Siders et al., 2019). The IPCC (2023) distinguishes between hard and soft limits to adaptation. Soft adaptation limits occur when possibilities exist in principle but are not available to the affected actor here and now, hard limits

exist where measures are fundamentally insufficient to avoid/substantially mitigate intolerable risks. High-end climate change leads societies first to the soft, but then to the hard adaptation limits. In such cases, the only solution is for humans to withdraw from particularly exposed regions (e.g. resettlement away from the coast). However, such a retreat is not a simple event, but a complicated and lengthy process (keywords here are property relations and compensation issues), which involves conflicts and requires lengthy planning – and can therefore also fail, e.g. if public planning is understaffed, underfinanced, or legally not capable enough.

The decisive factor here is the *adaptive capacity* of a society. This is determined by social and political factors that are closely related to the core civilisational dimensions we outlined in Section 2, such as the degree of social cohesion and trust in a society, horizontal and vertical policy coordination, among other things (Reusswig et al., 2026). Most integrated climate models assume that adaptation can take place and mitigate potential damage. However, adaptive capacity itself can be subject to societal restrictions, and it can negatively be affected by climate impacts (Bostrom, 2019; Callahan, 2025; Serdeczny et al., 2024; Sharma, 2023). Not least for this reason, adaptation measures themselves have a kind of ‘half-life period’, beyond which they become prohibitively expensive, ineffective and/or socially unacceptable (Haasnoot et al., 2021). Air conditioning systems, for example, reduce heat mortality. Entire regions such as the southwest of the USA could not have been populated as they are today without air conditioning (and long-distance water and energy supply) after the Second World War. With rising temperatures and heatwaves, the demand for electricity for air conditioning systems will increase – for the USA alone by 13–15 % with global warming of only 2 °C (Obringer et al., 2022). However, the demand for cooling buildings will increase, especially in developing and emerging countries already affected by heat – despite the fact that the poorer classes will not be able to afford air conditioning (Davis et al., 2021). This will increase both heat mortality and the demand for electricity in the countries affected. In view of their generally more fossil-intensive energy mix, this leads to a massive increase in CO₂ emissions, additionally driving climate change (Colelli et al., 2023). Given the relatively poor condition of the electricity grid infrastructure in countries of the Global South, a sharp increase in electricity demand for cooling during hot spells brings with it the risk of power outages (Sherman et al., 2022). These and other limits to adaptation grow more severe when one considers other compound and interconnected risks. For example, international trade has been proposed as an adaptation option in the context of food security. Possible reductions in agricultural production in one area may be compensated by surpluses in other ones. But globally synchronised production shocks compromise such trade networks by damaging crops in major breadbasket regions worldwide at the same time (Kornhuber et al., 2020), making it difficult to compensate one area’s losses with surpluses from another. Resulting massive food price increases would hit the lower and the middle-

income groups more seriously, once again indicating that existing social inequalities are major climate risk amplifiers.

3.2. High-end climate change as de-civilisation process

If it is not possible to reduce anthropogenic greenhouse gas emissions to zero very quickly, a further increase in the global mean temperature can be expected. By the year 2100, this would mean an increase of around 3 °C compared to pre-industrial levels in the event of a medium increase in emissions, and additional 4–5 °C in the event of a very strong increase (IPCC, 2023). In the event of severe climate change, we argue, societies will more or less quickly reach hard adaptation limits, especially if they are unable to build or maintain a sufficiently strong adaptive capacity for internal or external reasons, including learning restrictions. At the end of this more or less rapid process of de-civilisation is collapse.

We define civilisation collapse as the loss of societal capacity to maintain essential reproductive and governance functions, especially maintaining security, the rule of law, and the provision of basic necessities such as food and water (Steel et al., 2022). Civilisation collapses in this sense could be associated with a loss of self-control, civil strife, violence and widespread scarcity, and thus have extremely adverse effects on human welfare. Climate change induced de-civilisation also includes the undermining of social justice and the challenging of democratic institutions. It is important to conceive civilisation collapses as processes, not (only) as events. And it is also important to highlight the fact that societies as well as individuals and organisations according to their conditional autonomy, do have degrees of freedom to modify their institutional settings (e.g. by political changes or individual behavior changes). Collapse is thus a possible trajectory, but not an inevitable necessity. Collapse as a socio-ecological figuration will most probably unfold in typical stages, including the subsequent stages of irritation, crisis, first breakdowns, major system-wide dysfunctions, more or less (chaotic) managed retreat to the complete removal of a specific civilisation. Whether or not the remaining population will be able to build up a new civilisation remains open.

Collapses can be wider or narrower in spatial scope, so one can consider not only different phases, but also different patterns over time. Detrimental climate impacts will be limited at first, leading to local collapses: climate change causes collapse in specific, vulnerable locations while civilisation elsewhere is largely able to adapt to climate impacts or at least can cope with it. In a next phase, urban- and sometimes even national-level collapses become widespread, but some large urban centers and national governments still exist in less affected regions. ‚Less affected‘ does not mean ‚intact‘. Given the level of climate change that has been reached at that point, even these still existing and more or less functioning centers experience negative climate impacts such as persistent water and food scarcity, labor productivity losses or more heat-related deaths. This phase – one might term it a semi-broken or

fragmented world – will be a very volatile and contradictory one, generating a lot of conflicts between more and less affected regions or civilisations.

To give an example: Currently only 30 million people live in areas with an annual mean temperature (AMT) of more than 29 °C – extremely hot areas, covering only 0.8 % of the Earth's land surface, primarily in the Sahara Desert and the Gulf region. Under a high climate change scenario (SSP3–7.0 emissions), these extremely hot places will expand, and by 2070 about 2 billion people are expected to live in these extreme environments, by then including regions such as Pakistan, parts of India, South-East Asia or the northern parts of South America. This will most probably increase the pressure for both internal and international migration – which is supposed to grow by about 400–500 % by the end of the century due to increasing droughts alone (Smirnov et al., 2022).

But while large portions of people from the global South will probably try to migrate to the North, the economies of the Northern countries will also be affected by direct and indirect climate impacts on their economies. Under a high-end climate change scenario, economic damages could lead to a reduction of per capita income of about 40 % by 2100 – with higher damages in the Southern hemisphere (Neal et al. 2025). Given the central role of economic growth to modern societies these numbers indicate a massive assault to material wellbeing and legitimization of political order.

With higher levels of global warming tipping points of the Earth system might occur, such as rapid collapse of Antarctic ice sheets, releases of methane from permafrost or forest diebacks (Rockström, 2025; Steffen et al., 2018; Winkelmann et al., 2022; Wunderling et al., 2024). They might combine with negative social tipping elements. Spaiser et al. (2024) have identified five of those tipping elements that, induced by climate change, do negatively affect the internal 'fabric' of society, impeding on a society's adaptive capacity: anomie, radicalisation and polarisation, displacement, conflict and financial destabilisation. Societies more vulnerable to climate change are likely to experience such negative social tipping points earlier, but this will inevitably have knock-on effects globally. As the consequences of climate change intensify, societal trust, cooperation, and altruism may erode due to increased competition for scarce resources, displacement of populations, and other climate-related challenges. The risk to civilisation is not from direct climate impacts alone but rather those impacts occurring together with dysfunctional social feedbacks and other destabilising factors. This holds especially for violent conflicts and war. Already in the recent past (1995–2020), environmental scarcity due to climate change has driven small-scale conflicts within countries, while geopolitics and environmental scarcity have also led to internationalised intrastate wars (Buhaug & Uexkull, 2021; Ko et al., 2024). Wars in turn do have negative side-effects on the natural environment, carbon emissions, and public budgets (Crawford, 2022; Nazir et al., 2025).

At this point, a global collapse of civilisation is conceivable: most large urban areas across the globe and most nation states are confronted with enormous climate impact damages and resource scarcities (food, water, habitable zones, productive soils...), leading to a massive erosion of statehood (Kareiva & Carranza, 2018; Xu et al., 2020). Adverse climate change impacts, especially on food production, may cause political conflict and dysfunction that undermines capacity for adaptation while leading to actions, such as bans on food exports, that spread destabilisation and hasten collapse (Beard et al., 2021; Richards et al., 2021). Once the harmful effects of biophysical system failures accumulate to the point where they directly endanger the immediate lifeworld of citizens forcing states to respond one can assume states to be endangered as well. They would be overwhelmed with demands to cover mounting and uninsurable damage costs in the face of a shrinking revenue base and social unrest. It is then no longer 'only' democracy that is in danger, it is the rule of law and the state monopoly of use of force. As many places and regions are affected, help from others can no longer be found, leading to hopelessness, widespread fears, desperation and anger. Scapegoats will be looked for – and found. The chains of commercial, emotional and cognitive interdependence shorten. The internalisation of social norms does no longer find anchoring points in society, and collapsing affect control leads to violent action. Social order can, at the end of this process, no longer be provided by the state, and the Hobbesian war of all against all is re-opened. New (or rather: old) forms of social order may establish, e.g. a feudal or tribal system (Clark 2020). However, given the disruptive and unstable character of reproduction in a situation of global collapse, all new forms of social order will remain intrinsically unstable (Kaven, 2020; Scheffran et al., 2025).

It is difficult to say how long this process of climate change-induced de-civilisation will take. Depending on the efforts and successes of climate policy worldwide, it may not even come to that. But the first steps have already been taken. In the next section, we would like to take a closer look at a social driving force that is already triggering decivilising effects today and – if it retains its character and continues to increase its global influence – could make a decisive contribution to the collapse of civilisation in the face of climate change: populism.

4. The de-civilising potential of populism

Elias views the process of civilisation as an objective and purposeful event (albeit not intended by anyone), but he also reckons with counter-forces and setbacks – for example with regard to German National Socialism (Elias, 2013). Despite his detached observer stance, Elias often describes processes of de-civilisation as a relapse into 'barbarism' (Linklater 2020). It cannot be denied that this underestimates the ambivalences and internal contradictions of the civilisation process itself (Arnasson, 2022; Dépelteau et al., 2013; Kallis 2020). The internal contradictions and counter-tendencies of modern civilisation must therefore be addressed more

strongly than in his book on civilisation when looking at the destructive consequences of climate change. It is helpful to consider ‘neighboring’ authors such as Horkheimer and Adorno (Bogner 1989) or Zygmunt Bauman (Catlin, 2022).

Against this backdrop, the rise of populist parties, movements and attitudes lends itself to doing better justice to this concern of strengthening the ‘dialectic of enlightenment’ in the process of civilisation. Initial attempts to explain populism with recourse to Eliasian figures of thought are available (e.g. Voelz, 2022), but do not address the climate crisis and do not take sufficient account of the ambivalences of populism. We use the term populism to describe parties and movements, but also ideologies, discourses, strategies for gaining power or the attitudes of individuals. Despite all the differences, many attempts to define populism converge in that there are two core dimensions that characterise it: Criticism of elites and anti-pluralism (cf. Heinisch et al., 2021; Kaltwasser et al., 2017; Oswald, 2022; Stockemer, 2019). The first core element, elite criticism, consists of the distinction between the ‘good’ or ‘morally pure’ people and an aloof, corrupt (political) elite that has abandoned the common good, essentially serves its own interests and ‘sells’ this as a policy with no alternative. The mass media, often also characterised as ‘bought’ (‘lying press’), are described as vicarious agents who manipulate the people with their ideologically distorted news. The populist critique of elites focuses almost exclusively on the political and media elites and does not derive its standards from universalisable principles, but rather from an assumed power to interpret what is presented as the ‘true will of the people’ or the will of the ‘moral majority’. The second core element of populism, anti-pluralism, consists of the distinction between an equally good ‘we’ and the ‘others’, whereby the ‘others’ are not simply the corrupt elites, but refer to an internal differentiation in the empirical (electoral) people – thus addressing not the vertical (hierarchical), but the horizontal (egalitarian) level. For regardless of the assumption of a ‘morally pure’ people, according to this perspective there are always groups in society that have divergent attitudes and interests – and on whose approval the ruling elites can often rely. The people are therefore victims of an alliance between the political establishment and social minorities, and the sovereignty of the people is threatened not only by the establishment, but also by ‘cultural strangers’. Depending on the political orientation, these others can be migrants, ‘wealthy urban ecologists’, ‘feminist activists’, ‘do-gooders’ of all kinds, ‘international finance capital’ or the ‘Jewish world conspiracy’. There are different varieties of populism, such as left-wing and right-wing, and there are transitions between right-wing populism and far-right positions. It should also be noted that populist parties can change their goals and argumentation patterns depending on whether they are in opposition or in government. Populism can also strengthen democratic forces and institutions, mostly against its will (Caiani & Graziano, 2021; Jones & Menon, 2024; Koch, 2024; Tushnet, 2019). In section 2, we have expanded the concept of de-civilisation to include additional dimensions. Taking up this extension, the following de-civilising effects of populism can be identified:

- (1) *State monopoly on the use of force.* The power-political advantages of the state monopoly on the use of force are attractive to all political currents and forces – except perhaps for anarchism, which, however, hardly plays a role in today's political world. The various populist parties and movements at least strive for state power (Weyland, 2024). Along the way, this can also lead to the mobilisation of extra-state violence, as the examples of Bolsonaro and Trump show (Ignatieff, 2022). Populism in power usually expands the power of the executive and uses the state's monopoly on the use of force to combat unpopular parties and social movements. To do so, they can rely on forms of political tribalism, combining a Manichean worldview that defines politics as the ultimate war between 'good' and 'evil'; anti-pluralism; and authoritarianism that empowers the leader of the tribe via unconditional trust. Tribalist leaders, while talking about the 'people' as a homogenous concept, use divisive social identity categories and strategies, fueling antagonism and hostility between political ingroups and outgroups (Krekó, 2021).
- (2) *Affect Control.* Populism is an affective strategy that combines emotional integration of 'the people' with affective antagonistic othering. Populist actors use performative styles of proximity in order to construct intimacy to 'the people' and thus offer an affective community (Abellan, 2025). This emotional setting not only reconnects people to their 'good old' and 'normal' fossil lifestyles, but also reinforces their feeling of togetherness with like-minded people together with an increased self-efficacy perception (Eversberg et al., 2024; Spissinger, 2024). A computer-based analysis of the AfD discourse on climate change found that negative emotional terms and phrases are very often used by party officials, and that anger is the dominant emotion, followed by fear, sadness and disgust. Positive emotions, such as enthusiasm, joy, pride or hope only occur when anti-climate policies are referred to (Stede & Memminger, 2025). Affective polarisation can undermine trust, social coherence and the functioning of democratic institutions (Scherer, 2022), especially if reinforced by social media (Arguedas et al., 2022; van Krieken, 2024). In any case, populism as a strategy mobilises affects like discontent, anger, and fear in order to fight 'the establishment' (Tietjen, 2023), thus attracting voters that experience a lack of control over one's own life (Heinisch & Janesberger, 2024). Their emotional reaction towards 'the establishment' is measurably very negative (Schumacher et al., 2022). Populism can thus contribute to an affective mobilisation that leads to the targeted dismantling of self-control vis-à-vis governments and social groups branded as enemies, including open abjection, de-humanisation, and self-justified use of physical violence (Gaufman & Ganesh, 2024).
- (3) *Rule of law.* The political ideology of populism advocates a strong and rigid version of popular sovereignty and clearly opposes the checks and balances of liberal democracy. At best, populists accept the rule of law in a very formal sense (legal form of political action) (Adamitis, 2021; Krygier et al., 2022).

Populism in power tends to strengthen the power of the executive in order to weaken the (political) opposition and reduce restrictions on the rule of law; this applies in particular to right-wing populism, which dominates in Europe (Tushnet & Bugarič, 2021), but also to left-wing populism, which is prevalent in South America (Carrión, 2022). Populism in power particularly restricts the rights of independent constitutional courts and uses various strategies to bring them into line with the government (Kovalčík, 2022). The rule of law ensures that state power is not directed against the people and especially the current minorities – and that the exercise of state power is civil. By undermining the rule of law, populism is working to de-civilise the exercise of state power (Frankenberg & Heitmeyer, 2025).

- (4) *Democracy*. Other than fascism, populism is not only a 'legitimate child' of modern democracy, it also defends democracy, promising to re-new it by taking it back from the corrupt elites in the name of 'the people' (Kaidatzis et al., 2024). But it is exactly the populist configuration of the people as a (socially, ethnically...) homogeneous and 'moral' majority that brings it into conflict with democracy. Despite its pledge for a revival of real democracy, populism's ontology and cosmology are incompatible with democracy, based on pluralism and a non-essentialist definition of the 'majority' (Müller, 2016). Empirical studies on European populist parties in power reveal that various outcomes are possible once populist parties have gained power after democratic elections: radicalisation, compromise and moderation, splintering, or loss (Calani & Graziano, 2022). But this is mainly an effect of the political environment, not of an internal evolution of the populist ideology. Populism in power has a tendency toward autocracy that is inherent in populist governance logic. This may manifest itself 'only' in democratic backsliding or regression, that is, in a deterioration of the quality of democracy, but it can also lead to autocratisation (Muno & Pfeiffer, 2022; Peruzzotti, 2017). Empirical studies show that populist voters are highly supportive of forms of unconstrained majoritarian rule (Zaslave & Meijers, 2023). They also often show higher correlations with racist, xenophobic and anti-democratic attitudes (Zick et al., 2023). Populism thrives on a politics of enemies. It takes the crisis it provokes as a proof of the need for its authoritarian prescription. It is a major challenge to the survival of democracies today (Mounk, 2018; Runciman, 2018; Ziblatt & Levitsky, 2018).
- (5) *Public sphere, civil society, knowledge*. Due to its specific form of framing the political majority and the Manichean duality of 'good' and 'evil', populism is against a pluralist public and an open debate – despite its rhetoric in defense of freedom of speech. This has led to a clear preference of populists for social media and their echo chamber-like reinforcing of prejudices and fake news (Gerbaudo, 2024). Populism is also challenging science, deeming the common sense of 'ordinary people' superior to the knowledge of 'academic elites' (Eslens-Ziya & Girogi, 2022; Mede et al., 2024). Populists in many countries are major

drivers of climate skepticism and denialism. Again, the social media offer a well-suited space for anti-climate hate speeches and other forms of emotional arousal (Hochacka et al., 2025). By undermining the rationality of the public discourse and by de-legitimising science, populism with its irrationalism contributes to the de-civilisation of modern societies.

- (6) *Social Justice*. Populists usually frame their fight against the political elite as a fight for more justice. And many analysts trace populism back to growing (economic) inequalities (Gradstein, 2024). However, populism has at least a mixed effect on social justice. While left-wing populists tend to be more inclusive, right-wing populists are more exclusive, often supported by labor market insiders, and usually adopt neo-liberal ideological set pieces together with welfare chauvinist stances (Greve, 2021). The anti-pluralist ideology leads populists to fight against institutionalised rights of social (minority) groups, mostly framed as ‘cultural wars’ (Moran & Littler, 2020). Next to this direct political influence, populist parties, especially if in government, do also have indirect detrimental effects on social justice issues. In a populist environment, firms divert resources away from broad-based corporate social responsibility (CSR) (Hartwell & Devinney, 2023). In sum, the populist effect on social justice seems clearly negative with respect to right-wing populism.
- (7) *Ecology and planetary boundaries*. The populist ideology is clearly oriented against environmental policies and against environmental movements. While it may be accompanied by some aspects of right-wing versions of nature protection, its major thrust lies in the fight against environmentally motivated social transformations (Buzogány & Mohamad-Klotzbach, 2022; Huber et al., 2021; Küppers, 2022). This is the reason why especially climate change policies and climate science are under heavy attack by populist actors (Haas, 2024; Reusswig et al., 2022; Singha & Singha, 2024; Selk & Kemmerzell, 2022; Sommer et al., 2022). Populism in power tends to dismantle environmental policies and expand extractivism, even to the degree of establishing sacrifice zones, and it actively fights environmental as well as indigenous movements (Ofstehage et al., 2022). Populism can be seen as the current spearhead of ‘green backlash’ (Bosetti et al., 2025). By downplaying the global ecological crisis and by actively fighting environmental movements and policies, populism is a major driver of de-civilisation in times of the Anthropocene.

Fletcher (1995) has identified three criteria for de-civilisation processes: a shift from self-control to constraints by others, secondly a decay of social standards of behavior and feeling, and thirdly a decrease of mutual identification. The potential of populism to de-civilise modern societies contributes to all of them. Nevertheless, it would be misleading to blame populism for the current environmental crises. Some of these crises arose long before populists came to power. It is also important to refrain from equating the attitudes of voters for populist parties with the parties’

programs or the positions of their leaders. Populist positions can be found to a greater or lesser extent among voters of all parties, and even among voters of populist parties, climate-progressive attitudes can be identified (Dannemann, 2024; Zick et al., 2023). Populism is therefore, at least to date, more a symptom than a cause of the process of ecological de-civilisation. But in the same way as the complex global phenomenology of populism asks for a complex theoretical explanation (Diehl & Bargetz, 2024), one should refrain from attributing it to a single underlying cause or social driver, e.g. capitalism, globalisation, or post-democratic tendencies in modern society.

5. Civilising the Anthropocene in a multipolar world

Speaking of 'de-civilisation' does not imply to assume a current high level of civilisation. Given the high degree of environmental degradation and the future risks associated with it, we would hesitate to call our current state a 'civilised' one. For the same reason we would term the Anthropocene as a Half-Anthropocene at max (Reusswig 2022). Our 'Half-of-the-Anthropocene' diagnosis considers that, undoubtedly, human civilisation has reached a historical level of conquering planet Earth and manipulating its structures and flows that no former civilisation has ever achieved. Modern technology, 'modern' energy, modern organisational and political structures do have, together with economic growth, led to an unprecedented height of mastering nature. But at the same time humans have not managed to establish a mastering of their mastery over nature. We are good in controlling nature, but we are bad in controlling the way we do it. If selling five slices of cheese is possible only by transforming the world's oceans into plastic dump sites that destroy large and essential ecosystems, then there must be something wrong with our civilisation. Viewed from an Eliasian perspective, civilisation is lacking self-reflection and self-control.

Elias himself, although not being an ecological thinker, has highlighted how the process of civilisation and the control of nature are connected:

„Control of nature, social control and self-control form a kind of chain ring; they form a triangle of interconnected functions which can serve as a basic pattern for the observation of human affairs. One side cannot develop without the others; the extent and form of one depend of those of the others; and if one of them collapses, sooner or later the others follow” (Elias, 2001, 138f.).

Although populists do fight environmentalism, don't they have a point in criticising modern societies? Their angry rejection of crisis narratives and doomsday scenarios – can it not also be interpreted as an affective defense against the subtle experience of loss of control that is expressed in them? Their emotional accusations against corrupt and selfish elites – aren't they even remotely accurate? Their call for more democracy in the face of technocratic politicians entrenching themselves behind alleged practical constraints – does it not resonate with justified criticism? The problem of populism would thus not be its emotional energy, the upswing of

wrath, but rather its channeling into wrong directions based upon ideological shortcomings.

But how can the 'right' direction be achieved? We have started this article by stating that Elias's theory of civilisation could be used in order to analyse socio-ecological de-civilisation processes, but only if we modify and expand the analytical dimensions used by Elias. Ecological collapse can thus be reconstructed as a figuration of de-civilisation. While safeguarding against populist appropriation, the expansion of the dimensions of civilisation is also narrowing the candidates that might pass a 'civilisation test'. This seems to further reinforce the accusation of Eurocentrism leveled already at Elias's original version. We can only offer a few preliminary attempts as an answer to this question:

- In view of Europe's (and North America's) historical ecological 'guilt' – for example in terms of greenhouse gas emissions – as well as the West's still great economic and political importance for the 'rest of the world', it is an indispensable duty of the West to do its 'homework', reduce its own planetary footprint and thus fundamentally demonstrate that civilisations are capable of ecological self-limitation. This is all the more so as self-distancing, self-criticism and self-doubt are part of the core of Western civilisation – including the often associated, partly romantic, partly colonialistically coded exaltation of foreign civilisations (e.g. in Tacitus or Rousseau) (Gordon, 2017).
- Incidentally, this also means that the project of Western civilisation is unfinished in many respects. As mentioned, the West itself is not yet sufficiently civilised if it does not succeed in guaranteeing economic prosperity and social justice without long-term ecological self-endangerment. There has been much talk of the collapse of historical civilisations. But it should not be forgotten that a large number of non-European civilisations have managed to ensure their reproduction largely in harmony with nature – well beyond romantic transfigurations (Anderson, 1996; Mackenthun, 2023).
- Even without assuming the unilinear development of the world, it can be assumed that the principles of Western civilisation have also been and are being adopted and incorporated – modified – in other civilisations, at least in part. Western consciousness has been split between a dominant universalistic perspective that sees civilisation as a Western civilisation encompassing the whole world, and a pluralistic perspective that sees Western civilisation (variously defined) as coexisting with and interacting with other civilisations (Cox, 2001). Especially when one assumes a multiple modernity (Eisenstadt, 2002), similarities and mixtures can be found that suggest accepting the Elias criteria, as expanded by us, at least as (e.g., functionally equivalent) nuclei for entirely unique spellings of civilisational processes. The concept of eco-civilisation, for example, recently put forward by the Chinese government as a model for China's industrial

development, provides a good basis for discussing the ecological dimension of civilisation between the West and China (Xiao et al., 2023; Zhang & Fu, 2023)

Civilising tendencies may take centuries to build up, but they can be undermined much faster (Mennell, 2002). Civilising and de-civilising tendencies can occur simultaneously in particular societies, and analysts must discern the relative weight of each (Mennell & Goudsblom, 1998). The currently ongoing rapid climate change undermines the very civilisational process that has brought it about. Social and political trends such as populism operate as risk-multipliers. Having emerged from the Western model of democratic civilisation, these tendencies cannot be 'othered'. If they lead to a 're-barbarisation' (Elias), their de-civilising potential stems from the civilising process itself (Kochi, 2023). But there is no automatism of decline built into the civilisation process, its contradictions do offer entry points for change and restructuring. Change and restructuring themselves are, as Elias and many other social scientists have taught us, non-intended systemic effects of intentional actions of individuals, groups, and organisations. It is thus important to identify these actors that support change, to understand their motives, intentions, strategies, and limitations (Engels et al., 2024). In addition, it is also important to think about possible intervention points (issues, framings, windows of opportunity, spaces...) that would broaden a possible coalition of actors for a social change towards a more sustainable civilisation – both at a national and an international level. This will imply to move beyond a single, restricted notion of a sustainability transition and open up the debate in the spirit of a plurality of sustainable futures (Lauer et al, 2025). Finally, given the reality of an increasingly (politically) relevant populism together with the fact of a variety of populisms and populists (Jones & Menon), it will be necessary to win back at least parts of the populist electorate, not only by new narratives, but also by new, democratic emotional underpinnings (Hillje, 2025).

Taken all together it is not by less, but by more civilisation, that we can hope to escape from collapse (Esjing, 2022; MacKay, 2017). A renewed civilisation will have to include nature in order to complete the halved Anthropocene we are living in. It could utilise the 'populist moment' not only in order to defend, but to critically expand the current state and fabric of civilisation. Elias, among others, can be a very helpful theoretical companion to this endeavor.

References

- Abellan, A. (2025). *Performing the People: Affective and Discursive Strategies of Populist Proximity*. Preprint. Research Square. <https://doi.org/10.21203/rs.3.rs-6829941/v1>.
- Acemoglu, D. & J. A. Robinson (2019). *The Narrow Corridor: States, Societies, and the Fate of Liberty*. London etc.: Penguin Press.
- Adamidis, V. (2021). Democracy, populism, and the rule of law: A reconsideration of their interconnectedness. *Politics*, 44(3), 386–399. <https://doi.org/10.1177/02633957211041444>

- Albert, G. (2013). Figuration und Emergenz. Zur Ontologie und Methodologie des Ansatzes von Norbert Elias. *Kölner Zeitschrift für Soziologie und Sozialpsychologie*, 65(2), 193–222.
- Albrecht, G. A. (2019). *Earth Emotions: New Words for a New World*. Ithaca, NY: Cornell University Press.
- Ali, N. & Caranti, L. (2021). How much economic inequality is fair in liberal democracies? The approach of proportional justice. *Philosophy & Social Criticism*, 47(7), 769–788. <https://doi.org/10.1177/0191453720987865>.
- Anderson, E. N. (1996). *Ecologies of the Heart. Emotion, Belief, and the Environment*. Oxford: Oxford University Press.
- Archer, M. S. (Ed.) (2015). *Generative Mechanisms Transforming the Social Order*. Cham etc.: Springer.
- Arguedas, A. R., C. T. Robertson, R. Fletcher & R. K. Nielsen. (2022). *Echo chambers, filter bubbles, and polarisation: a literature review*. Oxford: Reuters Institute. DOI: 10.60625/risj-etxj-7k60. <https://reutersinstitute.politics.ox.ac.uk/echo-chambers-filter-bubbles-and-polarisation-on-literature-review>.
- Arnason, J. P. (2022). Civilisation, Culture and Power: Reflections on Norbert Elias's Genealogy of the West. In A. Bogner & S. Mennell (Ed.), *Civilisations, Civilising Processes and Modernity – A Debate. Palgrave Studies on Norbert Elias (175–201)*. Cham: Palgrave Macmillan.
- Barker, K. (2025). Anaesthetic Worlds of Denial: 'Sleepwalking' Through Climate Change. In J. Glückler, M. Garschagen & R. Panitz (Ed.), *Placing the Future (75–96)*. Cham: Springer.
- Beard, S. J. et al. (2021). Assessing climate change's contribution to global catastrophic risk. *Futures* 127, 102673.
- Biermann, F. (2022). The future of 'environmental' policy in the Anthropocene: time for a paradigm shift. In G. Hayes et al. (Ed.), *Trajectories in Environmental Politics (68–88)*. London: Routledge.
- Bingaman, K.A. (2022). The End of the World As We Have Known It? An Introduction to Collapsology. *Pastoral Psychol*, 71, 753–767. <https://doi.org/10.1007/s11089-022-01026-y>
- Blümel, W.D. (2009). Natural Climatic Variations in the Holocene: Past Impacts on Cultural History, Human Welfare and Crisis. In H.G. Brauch et al. (Ed.), *Facing Global Environmental Change. Hexagon Series on Human and Environmental Security and Peace*, (103–118), vol 4. Springer, Berlin, Heidelberg. https://doi.org/10.1007/978-3-540-68488-6_5.
- Böckenförde, W. (1976). *Staat, Gesellschaft, Freiheit. Studien zur Staatstheorie und zum Verfassungsrecht*. Frankfurt am Main: Suhrkamp.
- Bogner, A. (1989). *Zivilisation und Rationalisierung. Die Zivilisationstheorien Max Webers, Norbert Elias' und der Frankfurter Schule im Vergleich*. Opladen: Westdeutscher Verlag.
- Böhnert, M., Hornisch, M. & Rink, A. (Ed.) (2025). *Apokalypse und Apathie. Handlungs(un)fähigkeiten in der Klimakrise*. Bielefeld: transcript.
- Bösel, B. (2023). *Die Plastizität der Gefühle. Das affektive Leben zwischen Psychotechnik und Ereignis*. Frankfurt/New York: Campus.
- Bosetti, V., Colantone, I., De Vries, C.E. et al. (2025). Green backlash and right-wing populism. *Nature Climate Change*, 15, 822–828 (2025). <https://doi.org/10.1038/s41558-025-02384-0>
- Bostrom, N. (2019). The vulnerable world hypothesis. *Global Policy*. 10, 455–476.

- Brand, U. et al. (2021). From planetary to societal boundaries: an argument for collectively defined self-limitation. *Sustainability: Science, Practice and Policy*, 17(1), 264–291. <https://doi.org/10.1080/15487733.2021.1940754>.
- Buhaug, H. & Uexkuell, N. v. (2021). Vicious Circles: Violence, Vulnerability, and Climate Change. *Annual Review of Environment and Resources*, 46, 545–568. <https://doi.org/10.1146/annurev-environ-012220-014708>.
- Buzogány, A. & Mohamad-Klotzbach, C. (2022). Environmental Populism. In M. Oswald (Ed.), *The Palgrave Handbook of Populism*. (321–340). Palgrave Macmillan, Cham. https://doi.org/10.1007/978-3-030-80803-7_19.
- Caiani, M. & Graziano, P. (2022). The Three Faces of Populism in Power: Polity, Policies and Politics. *Government and Opposition*, 57(4), 569–588. doi:10.1017/gov.2022.4
- Caiani, M. & Graziano, P. (Ed.) (2021). *Varieties of Populism in Europe in Times of Crisis*. Abingdon/New York: Routledge.
- Callahan, C.W. (2025). Present and future limits to climate change adaptation. *Nature Sustainability*, 8, 336–342. <https://doi.org/10.1038/s41893-025-01519-7>.
- Carrión, J. F. (2022). *A Dynamic Theory of Populism in Power. The Andes in Comparative Perspective*. Oxford/New York: Oxford University Press.
- Catlin, J. (2022). Bauman, the Frankfurt School, and the tradition of enlightened catastrophism. In J. Palmer & D. Brzeziński (Eds.), *Revisiting Modernity and the Holocaust: Heritage, Dilemmas, Extensions* (199–218). London: Routledge. <https://doi.org/10.4324/9781003120551>
- Chakrabarty, D. (2021). *The Climate of History in a Planetary Age*. Chicago, IL: University of Chicago Press.
- Clark, N. (2020). (Un)Earthing Civilization: Holocene Climate Crisis, City-State Origins and the Birth of Writing. *Humanities*, 9 (1), 1. <https://doi.org/10.3390/h9010001>
- Clark, N. & Szerszynski, B. (2020). *Planetary Social Thought: The Anthropocene Challenge to the Social Sciences*. Cambridge etc.: Polity.
- Clausen, L. (1994). *Krasser sozialer Wandel*. Opladen: Leske + Budrich.
- Clayton, Susan (2020). Climate anxiety: Psychological responses to climate change. *Journal of Anxiety Disorders*, 74, 102263. <https://doi.org/10.1016/j.janxdis.2020.102263>.
- Clough, P. T. & Halley, J. (Eds.). (2007). *The affective turn: Theorizing the social*. Durham: Duke University Press.
- Colelli, F.P., Wing, I.S. & Cian, E.D. (2023). *Air-conditioning adoption and electricity demand highlight climate change mitigation–adaptation tradeoffs*. Scientific Reports 13, 4413. <https://doi.org/10.1038/s41598-023-31469-z>.
- Cox, R. W. (2001). Globalization and Civilizations and the twenty-first century. Some theoretical considerations. *International Relations of the Asia-Pacific*, 1(1), 105–130. <https://doi.org/10.1093/irap/1.1.105>
- Crawford, N. C. (2022). *The Pentagon, Climate Change, and War. Charting the Rise and Fall of U.S. Military Emissions*. Cambridge, MA: The MIT Press.
- Dannemann, H. (2024). Populism and Anti-Populism in Climate Politics: Conflict Line, Contingent Relation, or Tacit Alliance in Climate Obstruction? *Politische Vierteljahresschrift (PVZ)* (2024). <https://doi.org/10.1007/s11615-024-00581-8>

- Davidson, J.P.L. (2023). Two cheers for collapse? On the uses and abuses of the societal collapse thesis for imagining Anthropocene futures. *Environmental Politics*, 32(6), 969–987. <https://doi.org/10.1080/09644016.2022.2164238>.
- Davis, L. et al. (2021). Air conditioning and global inequality. *Global Environmental Change*, 69, 102299. <https://doi.org/10.1016/j.gloenvcha.2021.102299>.
- Dépelteau, F., Passiani, E. & Mariano, R. (2013). Ariel or Caliban? The Civilizing Process and Its Critiques. In F. Dépelteau, T. S. Landini (Ed.), *Norbert Elias and Social Theory* (41–59). Basingstoke: Palgrave.
- Diamond, J. (2005). *Collapse: How Societies Choose to Fail or Succeed*. New York: Viking Press.
- Diehl, P. & Bargetz, B. (Eds.) (2024). *The Complexity of Populism New Approaches and Methods*. London/New York: Routledge.
- Dreier, R. (1991). *Recht – Staat – Vernunft. Studien zur Rechtstheorie 2*. Frankfurt am Main: Suhrkamp.
- Drucks, S. (2011). Normativität bei Norbert Elias. In J. Ahrend, R. Beer, U.H. Bittligmeier & J. Gerdes (Ed.), *Normativität. Über die Hintergründe sozialwissenschaftlicher Theoriebildung* (157–187). Wiesbaden: VS Verlag.
- du Plessis, E. M. & Husted, E. (2024). Prepping as implicit activism: risk, danger, and post-capitalist imaginaries in prepper literature. *Social Movement Studies*, 1–25. <https://doi.org/10.1080/14742837.2024.2349568>
- Eisenstadt, S. N. (Ed.) (2002). *Multiple Modernities*. London: Routledge.
- Ejsing, M. (2022). The arrival of the Anthropocene in social theory: From modernism and Marxism towards a new materialism. *The Sociological Review*, 71(1), 243–260. <https://doi.org/10.1177/00380261221106905>.
- Elias, N. (2000). *The Civilizing Process*. Malden & Victoria: Blackwell.
- Elias, N. (2001). *The Society of Individuals*. London & New York: Continuum.
- Elias, N. (2013). *Studies on the Germans*. Dublin: University College Dublin Press.
- Engels, A. et al. (2024). Hamburg Climate Futures Outlook 2024. Conditions for Sustainable Climate Change Adaptation. Bielefeld: Transcript.
- Elsen-Zyia, H. & Giorgi, A. (Ed.) (2022). *Populism and Science in Europe*. Cham: Palgrave Macmillan.
- Eversberg, D. et al. (2024). *Der neue sozial-ökologische Klassenkonflikt. Mentalitäts- und Interessen-gegensätze im Streit um Transformation*. Frankfurt/New York: Campus.
- Feenberg, A. (2011). The Liberation of Nature? In A. Biro (Ed.), *Critical Ecologies. The Frankfurt School and Contemporary Environmental Crises* (339–354). Toronto: University of Toronto Press.
- Flannery, F. (2024). Why We Must Stop Saying ‘Climate Apocalypse’: Symbols, Religious Social Memory, and Effective Climate Action. *Zygon: Journal of Religion and Science*, 59(1), 195–219. DOI: <https://doi.org/10.16995/zygon.11610>.
- Fletcher, J. (1995). Towards a Theory of Decivilizing Processes. *Amsterdams Sociologisch Tijdschrift*, 22(2), 283–296.
- Frankenberg, G. & Heitmeyer, W. (Ed.) (2025). *Autoritäre Treiber eines Systemwechsels. Zur Destabilisierung von Institutionen durch die AfD*. Frankfurt/New York: Campus.
- Friedlingstein, P. et al. (2025). Global Carbon Budget 2024. *Earth System Science Data*, 17, 965–1039. <https://doi.org/10.5194/essd-17-965-2025>.

- Fuchs, T. (2024). *Verkörperte Gefühle. Zur Phänomenologie von Affektivität und Interaffektivität*. Berlin: Suhrkamp.
- Gaufman, E. & Ganesh, B. (2024). *The Trump Carnival. Populism, Transgression and the Far Right*. Berlin/Boston: de Gruyter.
- Gerbaudo, P. (2024). Digital Populism. In Y. Stavrakakis & G. Katsambekis (Ed.), *Research Handbook on Populism* (506–515). Cheltenham: Edward Elgar.
- Gordon, D. (2017). ‘Civilization’ and the Self-Critical Tradition. *Society*, 54, 106–123. <https://doi.org/10.1007/s12115-017-0110-4>.
- Gradstein, M. (2024). Social Status Inequality and Populism. *Journal of Comparative Economics*, 52(2), 434–444. <https://doi.org/10.1016/j.jce.2024.02.001>.
- Graeber, D. & Wengrow, D. (2021). *The Dawn of Everything: A New History of Humanity*. New York: Farrar, Straus and Giroux.
- Greve, B. (Ed.) (2021). *Handbook on Austerity, Populism and the Welfare State*. Cheltenham & Northampton, MA: Edward Elgar.
- Gronenborn, D. et al. (2020). Inherent Catastrophes? Social Dynamics and External Forcing in Early Neolithic and Modern SW Germany. In F. Reide & P. Sheets (Ed.), *Going Forward by Looking Back: Archaeological Perspectives on Socio-Ecological Crisis, Response, and Collapse* (333–366). New York: Berghahn.
- Haas, T. (2024). On the links between climate scepticism and right-wing populism (RWP): an explanatory approach based on cultural political economy (CPE). *New Political Economy*, 29(3), 464–477. <https://doi.org/10.1080/13563467.2023.2275017>.
- Haasnoot, M.; Lawrence, J. & Magnan, A. K. (2021). Pathways to coastal retreat. The shrinking solution space for adaptation calls for long-term dynamic planning starting now. *Science*, 372(6548): 1287–1290. DOI: 10.1126/science.abi6594
- Habermas, J. (1998). *Between Facts and Norms. Contributions to a Discourse Theory of Law and Democracy*. Cambridge, MA: The MIT Press.
- Hartwell, C. A. & Devinney, T. M. (2023). A Responsibility to Whom? Populism and Its Effects on Corporate Social Responsibility. *Business & Society*, 63(2), 300–340. <https://doi.org/10.1177/00076503231163536>.
- Hausfather, Z. (2025). *State of the climate: 2025 on track to be second or third warmest year on record*. Carbon Brief, 29 July 2025. <https://www.carbonbrief.org/state-of-the-climate-2025-on-track-to-be-second-or-third-warmest-year-on-record/> (last accessed: 2025, July 22).
- Heidenreich, F. (2023). *Nachhaltigkeit und Demokratie. Eine politische Theorie*. Berlin: Suhrkamp.
- Heinisch, R. & V. Jansesberger (2024). Lacking control -analysing the demand side of populist party support. *European Politics and Society*, 25(2), 266–285. DOI: 10.1080/23745118.2022.2150027.
- Heinisch, R., Holtz-Bacha, C. & Mazzoleni, O. (Ed.). (2021). *Political Populism. Handbook of Concepts, Questions and Strategies of Research*. 2nd Edition. Baden-Baden: Nomos.
- Hickman, T. et al. (Eds.). (2018). *The Anthropocene Debate and Political Science*. London: Routledge.
- Hillje, J. (2025). *Mehr Emotionen wagen. Wie wir Angst, Hoffnung und Wut nicht dem Populismus überlassen. Ein Plädoyer für eine demokratische Emotionskultur*. Munich: Piper.

- Hochachka, G., Wise, M. & Regan, W. (2025). 'Sensemaking' climate change: navigating policy, polarization and the culture wars. *npj Climate Action*, 4, 43. <https://doi.org/10.1038/s44168-025-00240-7>.
- Huber, R. A., Maltby, T., Szulecki, K. & Četković, S. (2021). Is populism a challenge to European energy and climate policy? Empirical evidence across varieties of populism. *Journal of European Public Policy*, 28(7), 998–1017. <https://doi.org/10.1080/13501763.2021.1918214>.
- Ignatieff, M. (2022). Democracy Versus Democracy: The Populist Challenge to Liberal Democracy. In A. Velasco & I. Bucelli (Ed.), *Populism. Origins and Alternative Policy Responses* (35–52). London: LSE Press.
- IPCC (Intergovernmental Panel on Climate Change) (2023). *Climate Change 2023: Synthesis Report. Contribution of Working Groups I, II and III to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change*. Geneva: IPCC. doi: 10.59327/IPCC/AR6–9789291691647.
- Jaeggi, R. (2018). *Critique of Forms of Life*. Cambridge, MA: Harvard University Press.
- Jaeggi, R. (2025). *Progress and Regression*. Cambridge, MA: Harvard University Press.
- Jones, P. & Menon, A. (2024). Varieties of Populists. Paths to Power and Implications for Regime Stability. In M. Bernhard, A. Kreppel & C. de la Torre (Ed.), *Still the Age of Populism? Re-examining Theories and Concepts* (68–89). London: Routledge.
- Jørgensen, P. S. et al. (2024). Evolution of the polycrisis: Anthropocene traps that challenge global sustainability. *Philosophical Transactions of the Royal Society London (B)*, Biological Science, 379 (1893): 20220261. <https://doi.org/10.1098/rstb.2022.0261>.
- Kaidatzis, A. et al. (2024). How Populism Affects Constitutional Law. In: A. Kaidatzis et al. (Ed.), *The People's Constitution. The Populist Transformation of Constitutional Law?* (3–28). Cham: Springer. doi: 10.1007/978–3–031–71889–2_1
- Kallis, A. (2020). 'Counter-spurt' but not 'de-civilization': fascism, (un)civility, taboo, and the 'civilizing process.' *Journal of Political Ideologies*, 26(1), 3–22. doi.org/10.1080/13569317.2020.1825278.
- Kaltwasser, C. R. et al. (Ed.) (2017). *The Oxford Handbook of Populism*. Oxford: Oxford Academic.
- Kareiva, P. & V. Carranza (2018). Existential risk due to ecosystem collapse: Nature strikes back. *Futures*, 102, 39–50.
- Kaven, C. (2020). Die Ordnung des Zerfalls Verlaufsformen im Angesicht ökologischer Krisen. *Soziologie und Nachhaltigkeit*, 2, 49–64.
- Kemp, L.; Xu, C., Depledge, J.; Ebi, K. L.; Gibbins, G.; Kohler, T. A.; Rockström, J.; Scheffer, M.; Schellnhuber, H. J.; Steffen, W. & Lenton, T.M. (2022). Climate Endgame: Exploring catastrophic climate change scenarios. *Proceedings of the National Academy of Sciences (PNAS)*, 119(34) e2108146119, <https://doi.org/10.1073/pnas.2108146119>.
- Ko, J., Lee, H. F. & Leung, C.K. (2024). War and warming: The effects of climate change on military conflicts in developing countries (1995–2020). *Innovation and Green Development* 3(4), 100175. <https://doi.org/10.1016/j.igd.2024.100175>.
- Koch, C. M. (2024). *'The People' vs. the Liberal International Order. Varieties of Populism & the International Politics of Democratic Legitimacy*. Oxford: Oxford University Press.

- Kochi, T. (2023). Authoritarian Populism, Democracy and the Long Counter-Revolution of the Radical Right. *Contemporary Political Theory*, 22, 439–459. <https://doi.org/10.1057/s41296-022-00611-3>.
- Kornhuber, K., Coumou, D., Vogel, E. et al. (2020). Amplified Rossby waves enhance risk of concurrent heatwaves in major breadbasket regions. *Nature Climate Change*, 10, 48–53. <https://doi.org/10.1038/s41558-019-0637-z>.
- Kovalčík, M. (2022). The instrumental abuse of constitutional courts: how populists can use constitutional courts against the opposition. *The International Journal of Human Rights*, 26(7), 1160–1180. <https://doi.org/10.1080/13642987.2022.2108017>
- Krekó, P. (2021). Populism in Power. The Tribal Challenge. In J. P. Forgas, W. D. Crano & K. Fiedler (Eds), *The Psychology of Populism. The Tribal Challenge to Liberal Democracy*. (251–269). London/New York: Routledge.
- Krygier, M., Czarnota, A. & Sadurski, W. (Ed.) (2022). *Anti-Constitutional Populism*. Cambridge/New York: Cambridge University Press.
- Küppers, A. (2022). ‘Climate-Soviets,’ ‘Alarmism,’ and ‘Eco-Dictatorship’: The Framing of Climate Change Scepticism by the Populist Radical Right Alternative for Germany. *German Politics*, 33(1), 1–21. <https://doi.org/10.1080/09644008.2022.2056596>
- Lauer, A. et al. (2025). Beyond Green capitalism: Global scenarios for fast societal transitions toward sustainability. *Environmental Innovation and Societal Transitions*, 56, 100981. <https://doi.org/10.1016/j.eist.2025.100981>.
- Linklater, A. (2019). Process Sociology and Human Emancipation: Involvement and Detachment Reconsidered. *Human Figurations Journal*, 8(1). https://norbert-elias.com/wp-content/uploads/2023/11/HF_vol8-n1-3.pdf
- Linklater, A. (2020). *The Idea of Civilization and the Making of the Global Order*. Bristol, UK: Bristol University Press.
- Lucky, M. C. (2023). Knowledge-Making in Politics: Expertise in Democracy and Epistocracy. *Political Theory*, 52(3), 431–458. <https://doi.org/10.1177/00905917231199495>
- Luhmann, N. (1996). *Social Systems*. Redwood City, CA: Stanford Press.
- Machin, A. (2022). Climates of democracy: Skeptical, rational, and radical imaginaries. *WIREs Climate Change*, 13(4), e773. <https://doi.org/10.1002/wcc.774>.
- MacKay, K. (2017). *Radical Transformation: Oligarchy, Collapse, and the Crisis of Civilization*. Toronto: Between The Lines Book.
- Mackenthun, G. (2021). Sustainable Stories: Managing Climate Change with Literature. *Sustainability*, 13, 4049. <https://doi.org/10.3390/su13074049>.
- Mackenthun, G. (2023). Planters of Doom and Playful Gardeners. Determinist and Possibilist Narratives of Mankind. In G. Mackenthun & J. Dosch (Ed.), *Subversive Semantics in Political and Cultural Discourse* (181–225). Bielefeld: transcript.
- Malmqvist, K. (2024). Avoiding the hope of avoiding collapse: collapsology and non-hope as an emotional practice of conviction. *Social Movement Studies*, 24(5), 554–571. <https://doi.org/10.1080/14742837.2024.2321131>.
- Mede, N. G., Schäfer, M. S. & Metag, J. (2024). Cognito populi – Vox populi: Implications of science-related populism for communication behavior. *Communications*, 49(4), 645–668. <https://doi.org/10.1515/commun-2022-0059>

- Mennell S. (2002). The Other Side of the Coin: Decivilizing Processes. In T. Salumets (Ed.), *Norbert Elias and Human Interdependencies* (32–49). Toronto: McGill-Queen's University Press.
- Mennell S. & Goudsblom J. (Ed.) (1998). *Norbert Elias: On Civilization, Power, and Knowledge*. Chicago: University of Chicago Press.
- Miller, M. (2002). Some Theoretical Aspects of Systemic Learning. *Sozialer Sinn*, 3(3), 379–422. doi:10.1515/sosi-2002-0302.
- Milner, A. & Burgmann, J. R. (2020). *Science Fiction & Climate Change. A Sociological Approach*. Liverpool: Liverpool University Press.
- Monios, J. & Wilmsmeier, G. (2021). Deep adaptation and collapsology. In F. J. Carrillo & G. Koch (Ed.), *Knowledge For The Anthropocene*. Cheltenham, UK: Edward Elgar. <https://doi.org/10.4337/9781800884298.00023>
- Moran, M., & Littler, J. (2020). Cultural populism in new populist times. *European Journal of Cultural Studies*, 23(6), 857–873. <https://doi.org/10.1177/1367549420960477>
- Mouffe, C. (2013). *Agonistics. Thinking the World Politically*. London: Verso.
- Mounk, Y. (2018). *The People vs Democracy: Why our Freedom is in Danger and How to save it*. Cambridge, MA: Harvard University Press.
- Müller, J.-W. (2016). *What is Populism?* Philadelphia: University of Pennsylvania Press.
- Muno, W. & Pfeiffer, C. (2022). Populism in power – A comparative analysis of populist governance. *International Area Studies Review*, 25(4), 261–279. <https://doi.org/10.1177/22338659221120067>.
- Naylor, A. et al. (2020). Conceptualizing Climate Vulnerability in Complex Adaptive Systems. *One Earth*, 2(5), 444–454. <https://doi.org/10.1016/j.oneear.2020.04.011>.
- Nazir, M. et al. (2025). From conflict to a climate future: Unraveling the nexus between warfare and environmental degradation. *Sustainable Futures*, 9, 100525. <https://doi.org/10.1016/j.sftr.2025.100525>.
- Neal, T. et al. (2025). Reconsidering the macroeconomic damage of severe warming. *Environmental Research Letters*, 20(4), 044029. <https://doi.org/10.1088/1748-9326/adb58>.
- Neckel, S. (2021). Im Angesicht der Katastrophe. Der nahende Zusammenbruch des Erdsystems und die sozial-ökologische Transformation. *Blätter für deutsche und internationale Politik*, 2, 51–58.
- O'Brien, K., et al. (2012). Global environmental change II: From adaptation to deliberate transformation. *Progress in Human Geography*, 36, 667–676. <https://doi.org/10.1177/0309132511425767>.
- Obringer, R. et al. (2022). Implications of increasing household air conditioning use across the United States under a warming climate. *Earth's Future*, 10, e2021EF002434. <https://doi.org/10.1029/2021EF002434>.
- Ofstehage, A., Wolford, W. & Borras, S. M. (2022). Contemporary Populism and the Environment. *Annual Review of Environment and Resources*, 47, 671–696. <https://doi.org/10.1146/annurev-environ-012220-124635>
- Oswald, M. (Ed.) (2022). *The Palgrave Handbook of Populism*. Cham: Palgrave Macmillan.
- Pamuk, Z. (2021). *Politics and Expertise*. Princeton, NJ: Princeton University Press.
- Pepperell, N. (2016). The unease with civilization: Norbert Elias and the violence of the civilizing process. *Thesis Eleven*, 137(1), 3–21. <https://doi.org/10.1177/0725513616638480>.

- Peruzzotti, E. (2017). Populism as Democratization's Nemesis: The Politics of Regime Hybridization. *Chinese Political Science Review*, 2, 314–327. <https://doi.org/10.1007/s41111-017-0070-2>.
- Quilley, S. (2020). Elias in the Anthropocene: Human Nature, Evolution and the Politics of the Great Acceleration. In J. Pereira & A. Saramago (Eds.), *Non-Human Nature in World Politics. Frontiers in International Relations* (111–139). Charm: Springer. https://doi.org/10.1007/978-3-030-49496-4_7.
- Reusswig, F. (2022). Ganz normale Katastrophen. Biodiversitätsverlust, Klimawandel und Covid-19-Pandemie als Anthropozän-Krisen. In L. Berger, H.-W. Frohn & C. Schell (Eds.), *Biodiversitätsverlust, Klimawandel und Covid-19-Pandemie. Zum Verhältnis bestehender Krisenlagen* (21–44). Bonn: Bundesamt für Naturschutz.
- Reusswig, F. et al. (2026). High-end climate change risks for Germany. Adaptive capacity between incrementalism and transformative adaptation. Accepted by GAIA.
- Reusswig, F., Lass, W. & Bock, S. (2022). Populistische Narrative der Energiewende und die Zukunft der Demokratie. In J. Zilles, E. Drewing & J. Janik (Eds.), *Umkämpfte Zukunft. Zum Verhältnis von Nachhaltigkeit, Demokratie und Konflikt* (183–202). Bielefeld: transcript.
- Richards, C.E., Lupton, R.C. & Allwood, J.M. (2021). Re-framing the threat of global warming: an empirical causal loop diagram of climate change, food insecurity and societal collapse. *Climatic Change*, 164, 49. <https://doi.org/10.1007/s10584-021-02957-w>.
- Richardson, K. et al. (2023). Earth beyond Six of Nine Planetary Boundaries. *Science Advances*, 9 (37): eadh2458. <https://doi.org/10.1126/sciadv.adh2458>.
- Rockström, J. (2025). Diagnosing earth's tipping points: where we stand in the Anthropocene. *Frontiers in Public Health*, 13, 1653860. doi: 10.3389/fpubh.2025.1653860.
- Rosa, H. (2019). *Resonance: A Sociology of Our Relationship to the World*. Cambridge etc.: Polity.
- Runciman, D. (2018). *How Democracy Ends*. London: Profile Books.
- Sartori, G. (1987). *The Theory of Democracy Revisited*. Chatham, NJ: Chatham House.
- Schad, M. & Sommer, B. (2025): Socioecological transformation and conflict. Arenas, topics, and dimensions. In H. Knoblauch, V. Sommer & B. Pfetsch (Eds.), *Spatial Conflicts and Conflictual Spaces* (309–329). London/New York: Routledge.
- Scheffran, J. et al. (2025). Tipping cascades between conflict and cooperation in climate change. *Earth System Dynamics*, 16, 1197–1219. <https://doi.org/10.5194/esd-16-1197-2025>.
- Scherer, K. R. (2022). Emotions, social coordination, and the danger of affective polarization. *Cognition and Emotion*, 36(8), 1458–1463. DOI: 10.1080/02699931.2023.2181315
- Schroer, M. (2022). *Geozozoologie. Die Erde als Raum des Lebens*. Berlin: Suhrkamp.
- Schumacher, G., Rooduijn, M. & Bakker, B.N. (2022). Hot Populism? Affective Responses to Antiestablishment Rhetoric. *Political Psychology*, 43, 851–871. <https://doi.org/10.1111/pops.12832>.
- Selk, V. & Kemmerzell, J. (2022). Retrogradism in context. Varieties of right-wing populist climate politics. *Environmental Politics*, 31(5), 755–776. <https://doi.org/10.1080/09644016.2021.1999150>
- Senghaas, D. (2002). *The Clash within Civilizations. Coming to Terms with Cultural Conflicts*. London: Routledge.

- Senghaas, D. (2004). The Civilisation of Conflict: Constructive Pacifism as a Guiding Notion for Conflict Transformation. In A. Austin, M. Fischer & N. Ropers (Ed.), *Transforming Ethnopolitical Conflict*. (25–39). VS Wiesbaden: Verlag für Sozialwissenschaften (VS).
- Serdeczny, O. et al. (2024). Climatic risks to adaptive capacity. *Mitigation and Adaptation Strategies for Global Change*, 29, 10. <https://doi.org/10.1007/s11027-023-10103-3>.
- Sharma, D. C. (2023). Climate disasters challenge health infrastructures in India. *The Lancet*, 402, 279–280. [https://doi.org/10.1016/S0140-6736\(23\)01512-X](https://doi.org/10.1016/S0140-6736(23)01512-X).
- Sherman, P., H. Lin & M. McElroy (2022). Projected global demand for air conditioning associated with extreme heat and implications for electricity grids in poorer countries. *Energy and Buildings*, 268, 112198. <https://doi.org/10.1016/j.enbuild.2022.112198>
- Siders, A. R. (2019). Adaptive capacity to climate change: A synthesis of concepts, methods, and findings in a fragmented field. *WIREs Climate Change*, 10(3), 1–18. <https://doi.org/10.1002/wcc.573>.
- Singha, S. & Singha, R. (2024). Populism and Climate Change. In: Chennattuserry, J. C., Deshpande, M. & Hong, P. (Ed.), *Encyclopedia of New Populism and Responses in the 21st Century* (583–588), Springer, Singapore. https://doi.org/10.1007/978-981-99-7802-1_445
- Slaby, J. (2023). Structural apathy, affective injustice, and the ecological crisis. *Philosophical Topics*, 51(1), 63–84. <https://www.jstor.org/stable/48776804>.
- Smirnov, O. et al. (2022). Climate Change, Drought, and Potential Environmental Migration Flows Under Different Policy Scenarios. *International Migration Review*, 57(1), 36–67. <https://doi.org/10.1177/01979183221079850>.
- Sommer, B. et al. (2022). *Rechtspopulismus vs. Klimaschutz? Positionen, Einstellungen, Erklärungsansätze*. München: Oekom.
- Spaiser, V. et al. (2024). Negative social tipping dynamics resulting from and reinforcing Earth system destabilization. *Earth System Dynamics*, 15, 1179–1206. <https://doi.org/10.5194/esd-15-1179-2024>.
- Spissinger, F. (2024). *Die Gefühlsgemeinschaft der AfD. Narrative, Praktiken und Räume zum Wohlfühlen*. Opladen etc.: Barbara Budrich.
- Stede, M. & R. Memminger. (2025). *AfD-CCC: Analyzing the Climate Change Discourse of a German Right-wing Political Party, Proceedings of the Fourth Workshop on NLP for Positive Impact (NLP4PI)*, p.163 – 174. <https://aclanthology.org/2025.nlp4pi-1.14.pdf>
- Steel, D., DesRoches C. T. & K. Mintz-Woo (2022). Climate change and the threat to civilization. *PNAS*, 119(42), e2210525119. <https://doi.org/10.1073/pnas.2210525119>
- Steffen, W. et al. (2018). Trajectories of the Earth System in the Anthropocene. *Proc. Natl. Acad. Sci. U.S.A.*, 115, 8252–8259.
- Stockemer, D. (Ed.) (2019). *Populism Around the World. A Comparative Perspective*. Cham: Springer.
- Tainter, J. A. (1988): *The Collapse of Complex Societies*. Cambridge: Cambridge University Press.
- Tietjen, R. R. (2023). The Affects of Populism. *Journal of the American Philosophical Association*. 9(2), 284–302. doi:10.1017/apa.2021.56.
- Treibel, A., Blomert, R. & Kuzmics, H. (Ed.) (2000). *Zivilisationstheorie in der Bilanz. Beiträge zum 100. Geburtstag von Norbert Elias*. Wiesbaden: Springer.
- Tushnet, M. (2019). Varieties of populism. *German Law Journal*, 20, 382–389. doi: 10.1017/glj.2019.27.

- Tushnet, M. & Bugarič, B. (2021). *Power to the People. Constitutionalism in the Age of Populism*. Oxford/New York: Oxford University Press.
- UNEP (United Nations Environment Program) (2019). *Global Environment Outlook 6*. Nairobi: UNEP.
- van Krieken, R. (2024). The Age of Anger and Social Media: Elias, Technology, Civilizing/Decivilizing Processes and Ressentiment. *Theory, Culture & Society*, 41(7–8), 19–39. <https://doi.org/10.1177/02632764241299767>
- Voelz, J. (2022). Reading Populism with Bourdieu and Elias. In A. Franke; S. Mueller; S. Sarkowsky, K. (Ed.), *Reading the Social in American Studies*. Palgrave Macmillan, Cham. https://doi.org/10.1007/978-3-030-93551-1_10.
- Wallenhorst, N. (2023). *A Critical Theory for the Anthropocene*. Cham: Springer. <https://doi.org/10.1007/978-3-031-37738-9>.
- Warner, K. et al. (2019). Characteristics of transformational adaptation in climate-land-society interactions. *Sustainability*, 11, 356. DOI: 10.3390/su11020356.
- Wesche, T. (2014). Hegel und die Demokratie. In H. Rosa & K. Vieweg (Ed.), *Zur Architektonik praktischer Vernunft – Hegel in Transformationen* (135–156), Berlin: Duncker & Humblot.
- Wesche, T. (2023). *Die Rechte der Natur. Vom nachhaltigen Eigentum*. Berlin: Suhrkamp.
- Weyland, K. (2024). Populism as a political strategy. In Y. Stavarakis & G. Katsambekis (Ed.), *Research Handbook on Populism* (154–165). Cheltenham, UK: Edward Elgar.
- Winkelmann, R. et al. (2022). Social tipping processes towards climate action: A conceptual framework, *Ecol. Econ.*, 192, 107242, <https://doi.org/10.1016/j.ecolecon.2021.107242>
- Wunderling, N. et al. (2024). Climate tipping point interactions and cascades: a review, *Earth Syst. Dynam.*, 15, 41–74, <https://doi.org/10.5194/esd-15-41-2024>
- Xiao, R. et al. (2023). The development of ecological civilization in China based on the economic–social–natural complex system, *Ambio*, 52, 1910–1927. <https://doi.org/10.1007/s13280-023-01937-x>
- Xu, C., T. A. Kohler, T. M. Lenton, J. C. Svenning & M. Scheffer (2020). Future of the human climate niche. *PNAS*, 117, 11350–11355.
- Zaslove, A. & Meijers, M. (2023). Populist Democrats? Unpacking the Relationship Between Populist and Democratic Attitudes at the Citizen Level. *Political Studies*, 72(3), 1133–1159. <https://doi.org/10.1177/00323217231173800>.
- Zhang, J. & Fu, B. (2023). Eco-civilization: A complementary pathway rooted in theory and practice for global sustainable development. *Ambio*, 52, 1882–1894. <https://doi.org/10.1007/s13280-023-01902-8>.
- Ziblatt, D. & Levitsky S. (2018). *How Democracies Die*. New York: Crown Publishing.
- Zick, A., Küpper, B. & Mokros, N. (Ed.) (2023). *Die distanzierte Mitte: Rechtsextreme und demokratiegefährdende Einstellungen in Deutschland*. Bonn: J. H. W. Dietz Verlag.