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Book reviews editor

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Note from the editor

Climate change and contested (economic) futures

Anita Engels

This is the second of three issues of the Newsletter that will be dealing with the topic of climate change. The first issue has spurred lively comments – from surprise about the plethora of topics and perspectives that economic sociology has to offer on climate change, through a perceived need to engage more in public (economic) sociology, to the idea of creating a European network of economic sociologists working on climate change. Reaching out to invite new authors for the next issue was a great pleasure and brought me interesting new insights.

My own work in the past months has been dedicated to the first version of the Hamburg Climate Futures Outlook, which will appear sometime in the spring of 2021. For this Outlook, which is

planned to appear annually, a large number of scientists from various disciplines¹ try to get to grips with the question of how plausible it is that the Paris climate goals will be achieved by 2050. What are the realistic chances that a deep decarbonization of society will have taken place by then, leading to a net-zero greenhouse gas emission state of the world? Economic processes play a decisive role in finding an answer to this bold question, and economic sociology offers a good lens to look at the transformative (or inhibitive) power of (financial) markets and the highly convertible face of capitalism at large.

I am grateful for the contributions to this Newsletter, which explore important aspects of these economic processes in an ever-

changing yet conspicuously stable society. The contributions highlight relevant perspectives on climate change, namely questions of mitigation, adaptation, and compensation. They look at central aspects such as re- and devaluation, collective sense-making of crises, risk management, insurance regimes, and the geographies of voluntary carbon markets. This Newsletter issue emphasizes the contested nature of the climate futures that we envision in the present and that will be constitutive for the climate future we will experience in the years to come. In other words, the contributions to this issue demonstrate that economic sociology is at its core about social conflicts and dynamics of contestation.

The first contribution is provided by Véra Ehrenstein (University College London) and Alice Valiergue (Maison des Sciences de l'Homme du Pacifique, MSHP; Center for the Sociology of Organizations, CSO). For this article, the two authors have drawn on many years of fieldwork and empirical data on the voluntary markets of carbon offsetting. Their text highlights how these peculiar markets link, for example, reforestation initiatives in Kenya and filtered water in India with carbon-intensive activities of private consumers or corporate actors in Europe and North America. The authors suggest that the study of these markets can contribute to a broader and more critical reflection in economic sociology on the rise of private governance and voluntary regulation through the construction of new markets embedded in public policies and moral discourse. For sure, these markets are contested, especially because proponents try to constitute them as “concerned markets” which align economic activity with some aspects of the common good, in this case climate change mitigation and local development. The authors also highlight the selective geography drawn by the development of such markets and show how actors who are constructing them look particularly for locations that are “not-just-yet-sufficiently-developed.” The text provides a historic perspective on how voluntary offsetting has been constructed as a market in the context of early UN climate negotiations, developed a life of its own by being adopted as part of corporate sustainability management practices, and from there has repercussions back on the UN framework itself.

A more programmatic paper comes from a team of authors who meet regularly in the scientific network “Towards a society of valuation?” funded by the

German Research Foundation (DFG). Thomas Frisch (University of Hamburg), Stefan Laser (Ruhr University Bochum), and Sandra Matthäus and Cornelia Schendzielorz (both from the Humboldt University of Berlin) discuss the general contributions that valuation studies can generate when applied to the topic of climate change. Valuation studies is an interdisciplinary field that critically reflects the plurality of valuation practices, with close links to and some overlap with economic sociology. The text uses the example of

Anita Engels is Professor of Sociology at the University of Hamburg. She has worked on the topic of climate change since the mid-1990s, when she graduated from the University of Bielefeld. Initially she applied the perspectives of STS and the sociology of science to climate research, climate discourses in society, and science-policy interfaces. After finishing her doctoral thesis in 1999, she switched to the perspective of economic sociology and worked on carbon markets. She did empirical research on companies in the EU Emissions Trading Scheme and later on the emerging Chinese carbon markets. Her research covers the whole spectrum from basic research to transdisciplinary methodologies such as Real World Laboratories. Currently she conducts a long-term qualitative panel study on high-emitting companies in high-emitting countries, asking if, why, and how fast companies are entering pathways towards deep decarbonization. The study is built on a cooperation between colleagues from sociology, sustainable finance, business studies, and law. Anita Engels co-directs the Hamburg Cluster of Excellence Climate, Climatic Change, and Society (CLICCS, DFG EXC 2037) and the German-Brazilian Klimapolis Laboratory at the University of São Paulo. anita.engels@uni-hamburg.de; [Twitter: @Engels_Klima](https://twitter.com/Engels_Klima)

decarbonization to suggest a number of fruitful research questions on processes of de- and revaluation, e.g., in the context of climate-related risks, economic value in a decarbonized economy, and recent proposals of a “New Green Deal.” The authors come to suggest three analytical perspectives within valuation studies that are of particular relevance for the study of climate change and its intersections with economic themes: investigating the processuality and performativity of valuation practices, unraveling the material embeddedness of value, and engaging with the contested nature of particular valuations.

The third contribution is by Lisa Suckert and Timur Ergen (both from the Max Planck Institute for the Study of Societies, Cologne). They use the example of the first oil crisis in 1973/74 to show how crises can be an engine of socioecological transformation if and to the extent that they develop a capacity to discursively open up the future – in this historic case, to a state-led restructuring of modern society’s energy supply systems, particularly in the field of renewable energy. The authors rely on extensive archive material to reconstruct the “crisis”; however, drawing on economic sociology’s emphasis on imagined futures for bringing about socioeconomic change, they focus on how perceiving a crisis involves engaging with alternative futures and contesting established expectations.

They highlight collective sense-making that is generated in multilayered interpretative struggles. The outcomes were numerous experiments with alternative structures of modern energy systems – the technological, institutional, and ideational linkages of many can be found also in the current contested attempts to restructure energy systems in response to climate change. These reflections on past crises and on how crises can open up the future lead the authors to draw two conclusions for the question of climate change: first, radical transformation in response to climate change depends on whether it is collectively interpreted as a “veritable” crisis; second, it is important to analyze the multilayered conflicts that emerge around the collective sense-making of the causes, consequences, and remedies of climate change.

David Levy (University of Massachusetts, Boston) and Nichole Wissman-Weber (University of San Diego) present a case study on the organization of climate adaptation in Boston which reveals the contested nature of emerging risk management regimes. Being a harbor city, Boston is a highly relevant case for adaptation to urban climate risks, as the city is recognized as fourth in the US in terms of value-at-risk, a perception which has placed adaptation policies high on the agenda of local agencies. Based on observations of meetings and interviews with a range of actors, the authors identify competing imaginaries touching on questions such as which actors and what frames are engaged in the planning and decision-making processes; what conflicts arise regarding risk management mechanisms and priorities, for example, between resilience and economic growth; and who will benefit from climate adaptation resources. The authors identify in the Boston region an emerging risk regime that they call *progressive-instrumentalist*, which has as its central promise the reconciliation of economic growth and resilience through technical analysis, consensus around scientific assessments, multi-stakeholder governance, business and financial innovation, and creative urban design. This analysis goes hand in hand with the earlier case presented by Ehrenstein and Valiergue, as it also points to the call for a more collaborative approach by business and government that mobilizes and adapts regulations, markets, and private capital.

Finally, Rebecca Elliott (London School of Economics and Political Science) turns our attention to what happens when neither mitigation nor adaptation seems possible, as is the case when dramatic losses oc-

cur and are attributed to climate change via sea level rise, floods, or wildfires. In many cases, compensation happens – *if it happens* – via disaster relief or foreign aid. Climate activists also try to push for climate litigation as a means of making energy corporations or other carbon emitters responsible for anticipated or past damages. Elliott introduces the topic of insurance as yet another way of providing compensation. She emphasizes that the issue of compensation via insurance raises questions that are typically dealt with in the context of the moral economy of climate change: What kind of losses and whose losses are compensated, but also what are the limits of compensation? How can a sense of security, an emotional connection to home and place, be compensated by monetarized values? These questions hint at perspectives typical for economic sociology such as commensuration, economization, and valuation as examples of economic practices that come into play if insurance for climate damages is offered. Similar to the authors before, she also links these topics to the question of contested boundaries between public and private, state and market, and to processes of imagining future markets or market-like technologies and arrangements that unfold performativity in the present.

Mitigation, adaptation, and compensation thus all have economic processes at their core, they require economic practices, and they all involve the construction of specific climate futures. Even if the many resulting regimes or “solutions” appear technical and a-political in the end, they go through a long process of contestation and conflict. Dealing with climate change is, above all, a political struggle rather than a technical application of neutral instruments, and it touches upon the relation between the public and the private, the role of the state, and different versions of moral economies. Economic sociology is well-equipped to make these conflicts about climate futures visible and comprehensible.

Endnote

- 1 The group works together in Hamburg in the Cluster of Excellence “Climate, Climatic Change, and Society (CLICCS)” (DFG EXC 2037; see <https://www.cliccs.uni-hamburg.de/>).

Studying a (contested/ concerned) market in the making

Voluntary offsetting, from UN climate talks to corporate sustainability departments

Véra Ehrenstein and Alice Valiergue

Since the 1990s, carbon markets have been embraced as a policy tool to address climate change. As mentioned by Anita Engels in her editorial to the previous Newsletter, the design of emissions trading markets, where companies buy and sell allowances, requires significant work from legislators and regulators. In economic sociology, carbon markets tend to be associated with the idea of a “government by markets” (Ansaloni, Trompette, and Zalio 2017) and the task of the sociologist is to attend to the interplay between market dynamics and political decision-making (Engels 2006; Mackenzie 2009; Ehrenstein and Neyland, forthcoming). We propose here to expand the study of carbon markets by looking at the way in which “voluntary” offsetting operates. To participate in this market, you can visit the website of an offsetting organization, where a calculator helps you quantify how much carbon dioxide (CO₂) you release into the atmosphere in a year, from the energy needed to heat and light your home to your car mileage and air travel. The interface then allows you to make an online payment in exchange for a certificate, usually re-

ferred to as a carbon offset or carbon credit. You might be offered different projects to buy emissions reductions from, for example a “reforestation initiative in Kenya,” “community projects” financing efficient cook-stoves and filtered water in India and Uganda, or a rather generic “portfolio of activities in the Americas” (from websites specialized in carbon footprint). Our aim in this piece is to explore some of the ways in which studying voluntary offsetting can contribute to a broader reflection in economic sociology on the rise of private governance and voluntary regulation based on the construction of new markets.

Public authorities do not directly regulate the voluntary carbon market, even though, as we shall see, its existence is the result of some form of policymaking at the international level. Demand for voluntary offsets mostly comes from corporate buyers. These are large companies in the energy, banking, and consumer goods sectors, headquartered in Europe, North America, and Australia. Compared to other commodities like oil, cotton, or specialty coffee, this global market is tiny, both in value and volume. It is also saturated with moral controversies. Critics argue that this market does not address the sources of greenhouse gas emissions, but allows carbon offset sellers to make money off the climate crisis as they undertake a highly speculative economic activity, with detrimental consequences (especially in the case of forestry projects where land grab can take place, Bisserbe 2011; Yee 2016). From that perspective, it is a “contested market” (Steiner and Trespeuch 2019; Valiergue 2019). But if we look at carbon market proponents, they might describe voluntary offsetting as a “concerned market” (Geiger et al. 2014), a market where sellers and buyers align an economic activity with a certain understand-

Véra Ehrenstein currently works as an Associate Lecturer (teaching) in the Geography Department at University College London. Véra holds a PhD in Science and Technology Studies from the Center for the Sociology of Innovation, Ecole des mines de Paris. Her research explores climate politics and policy-making in a variety of sites, from the United Nations’ COP meetings, to forest governance in Central Africa, to emissions trading in the European Union. Her publications include *Can Markets Solve Problems? An Empirical Inquiry into Neoliberalism in Action* (with Daniel Neyland and Sveta Milyaeva, Goldsmiths Press, 2019). vera.ehrenstein@ucl.ac.uk

Alice Valiergue carried out her PhD research on the carbon offset market at the Center for the Sociology of Organizations (CNRS-Sciences Po Paris). She is now a postdoctoral researcher at the Maison des Sciences de l’Homme du Pacifique and taking part in a research project on the consumption of methamphetamines in French Polynesia and the way it is addressed by the public authorities. alice.valiergue@sciencespo.fr

ing of the common good, namely here reduce greenhouse gas emissions and contribute to local development. Our intention is not to evaluate this market and

add to existing critiques. Instead, we want to understand where this market comes from, how it has evolved, and what the practices of sellers and buyers of voluntary offsets are.

This piece draws on the research we did on carbon offsetting at two different moments in the short history of this market. Véra Ehrenstein examined the turbulent development of carbon offsetting as an international market-based policy within United Nations (UN) climate talks since the early 1990s. She carried out fieldwork primarily between 2010 and 2012 and followed the negotiations regarding whether reducing deforestation and increasing reforestation in the Global South should be allowed to yield marketable offsets – what has come to be referred to as REDD+. Her research also included a case study of a reforestation project implemented by a local social enterprise in a Central African country and ethnographic observations within the country's environment ministry as it prepared for regulating future offsetting projects in the forest sector. Alice Valiergue focused on the emergence and consolidation of the voluntary offsetting market, in parallel to UN negotiations, from the late 2000s onwards. Her fieldwork took place between 2013 and 2015, when she interviewed a large number and diverse range of market participants in France, the UK, Germany, the Netherlands, Belgium, Switzerland, and the United States (e.g., companies and non-governmental organizations developing projects and/or selling offsets; corporate clients, auditors, standardization bodies, think tanks, public authorities, and consultants). Her research also included case studies of three projects – clean cook-stoves, filtered water, and forest conservation – developed in an East African country. We both engaged in extensive documentary research as well, to collect the vast documentation through which carbon markets are given effect, regulated, and contested. Bringing together these multi-sited research projects provides insights into a market in the making. Our approach is to study voluntary offsetting as an ongoing collective doing (Callon 2009).

From compliance to voluntary market and back

To understand the emergence of voluntary offsetting, we need to turn to its model: the Kyoto Protocol agreed by almost all the world's nations at the UN climate talks in the late 1990s. The Protocol committed the so-called developed countries to meet greenhouse gas emissions targets. "Flexibility mechanisms" were established to facilitate their task. In particular, the

Clean Development Mechanism (CDM) allowed for projects implemented in a country with no obligations under the Protocol (in the Global South) to claim emissions reductions, which could be bought and used to comply with the emissions targets (in the Global North). A UN bureaucracy was put in place to operate the CDM, regulate the selection of projects, ensure that national governments in host countries authorize them, and certify the production of carbon offsets eligible to compensate for emissions released in buyer countries. The UN treaty and the rise of compliance offsetting contributed to making climate change a concern for a wider range of businesses, in Europe, North America, and Australia. In places, such as the United States, which dropped out of the Kyoto Protocol, interest in voluntary offsetting was strong, partly in anticipation of potential future legislation. More generally, for many Euro-American consumer-facing firms, reducing greenhouse gas emissions became synonymous with sustainability. In the mid-2000s, emissions reporting started featuring pre-eminently in corporate responsibility strategies and demand for voluntary offsets grew.

A critique frequently articulated in the press, when voluntary offsetting started developing as a potentially lucrative business, concerned the unregulated nature of the market. The dismissive term "carbon cowboys" came to be widely used to refer to organizations and individuals "looking to make a quick buck" (Harvey 2007), committing violence to acquire land and forest resources, selling fake offsets, or running scams targeting the elderly (in the United Kingdom, for example, multimillion pound scams occurred; Levene 2011; BBC News 2013; Press Association 2013). In response to such a bad press, business associations (representing corporate offset buyers), offsetting companies, and non-governmental organizations collaborated to set up voluntary certification systems. The CDM provided the blueprint. The Verified Carbon Standard, now known as "Verra" and now the most widely used scheme, literally built on the CDM by de facto accepting its "methodologies" and accredited auditors (more on this later). Borrowing the procedures of the UN bureaucracy was expected to lend credibility to the voluntary standard.

The interplay between business initiatives and UN regulation does not end here. Controversial subjects in the diplomatic arena could find a place within the voluntary carbon market. Private regulation based on standards consolidated the idea that contested environmental solutions can be partially contained. Our research showed that forest projects (planting trees to store carbon or protecting a piece of forest at threat of deforestation) are a good illustration of this (Ehrenstein 2018a). They have been extremely popular in the

offsetting market (“people love it,” to quote an offset seller quoted in the press, Davies 2007) and relentlessly opposed. Their controversial nature dates back to the early 2000s and the UN climate talks. As negotiators were negotiating the rules of the CDM, they disagreed on the possibility of selling emissions reductions from planting trees and protecting forests. Arguments were made about the uncertainty surrounding the estimation of carbon storage in living things, non-permanence (a fire can destroy the vegetation and release the carbon into the atmosphere), leakage (a piece of forest might be protected but the deforestation threat would have moved elsewhere), and concerns about national sovereignty over a strategic resource (particularly strong in Brazil). As a result, the CDM only authorized afforestation and reforestation projects. A couple of years later, a coalition led by the delegations of Papua New Guinea and Costa Rica suggested a new UN mechanism that would provide “incentives” for “reducing emissions from deforestation and forest degradation in developing countries” (REDD+). It revived debates about forest conservation projects. In the end, the mechanism did not fully materialize, partly because no consensus was reached on whether it could be financed through offsetting (Ehrenstein 2018b). This, however, did not prevent conservationists and offsetting companies from branding “REDD” offsets, and some jurisdictions, like California, have considered integrating these credits into their carbon market legislation.

Counterfactuals, costs, geographical consequences

To keep carbon cowboys at bay, certification schemes, such as Verra and like the CDM, require expertise and paperwork. Project developers must complete a 50 to 100 page-long form, where the envisioned activity is detailed: duration, location, type of project, technology used, baseline, projected emissions reductions, organizations involved, groups of people affected, etc. A key requirement is to project and anticipate how things will happen. In the case of a reforestation activity, this includes predicting the growth rate of the planted trees and their carbon storage capacity. A “virtual forest” is brought about on paper, where a scenario with the project is compared to a baseline without the project in a “counterfactual display” (Ehrenstein and Muniesa 2013). What is sold in the offsetting market is a quantity of CO₂ equivalent that has *not* been emitted. To compute such a number, offset producers must imagine what would happen if their project were not implemented, estimate how much greenhouse gas

emissions would be released, and that is the baseline. The performance of, say, tree planting is calculated on that basis, by subtracting the quantity of carbon stored in the vegetation that the plantation is replacing. To compensate for emissions elsewhere, emissions reductions must be “additional.” It must somehow be demonstrated that without the market offering the possibility to sell carbon credits, the activity would not have been carried out (e.g., because without the income from the sale it would not be a viable business proposition). The language used to describe the baseline scenario is value-laden. In one of the reforestation projects we studied, the current savanna land cover, the baseline scenario, was described as “degraded” due to the regular spread of fire, a component of a well-functioning savanna ecosystem. In this same project, the tree planting activity had to be defined as reforestation. The developer and the consultants hired to complete the paperwork were not able to find sufficient proof that in 1960 the area was not covered with trees. They only had a satellite image from the late 1980s. Consequently, the activity did not fit the afforestation category, even though it seemed unlikely that there had been a forest there in the past. By valuing trees and the carbon they store, the “methodologies” used to calculate offsets simultaneously devalue other ecosystems, here savannas which are reduced to “degraded” land that is to be reforested (for a similar point see Collard and Dempsey 2013).

Paperwork and expertise are costly. Complying with the requirements of certification schemes often involves feasibility studies, further adding to the cost. In an afforestation/reforestation project, for example, planting experiments with different tree species might be undertaken. In a cook-stove project, laboratory tests would be conducted with different stoves to assess their fuel efficiency – the offsetting rationale here is that improved stoves reduce fuel consumption and CO₂ emissions. Another cost incurred throughout the project is monitoring, that is, the actions taken to measure the climate performance as well as other impacts (cf. the co-benefits below). In a cook-stove project, field agents would interview participant households about their use of the clean stoves and record the data on smartphones. In a reforestation project, staff would be trained to measure tree diameters and use software to estimate the plantation’s carbon storage. Offset producers then also need to pay for audits. Flying auditors from Europe to spend a few days on site, in Central or Eastern Africa for example, is how third-party verification usually works. Finally, offsets must be stored on registers managed by firms specialized in financial services, an additional cost borne by offsetting firms. Based on our estimates, the cost of running the activity (e.g., manufacturing and distrib-

uting cook-stoves; buying seedlings and planting trees) might represent half the total cost of production of certified offsets. Anticipating these expenditures and the prices at which future credits might be sold, cost calculations inform investment decisions. This tends to draw the attention of carbon offset producers towards certain locations. Places ranking high in terms of “country risk,” where projects are expected to be associated with high costs, are sometimes chosen. For example, the Democratic Republic of the Congo hosts a few offsetting projects, even though it provides a rather challenging implementation environment. But its status as “postwar” makes it worth trying, as any initiative there will have “a huge social impact,” argued a retailer who was buying offsets from an agroforestry project and had already resold them to an agribusiness multinational. Our research, however, suggests that the development of the voluntary carbon market produces a more selective geography, where preferred locations can be described as *not-just-yet-sufficiently-developed*.

Offset producers draw the contour of the tacit category of not-just-yet-sufficiently-developed, when they consider where to invest, by taking into account a series of characteristics, e.g., local industry relevant to the project, business environment, reliable infrastructures, political security, and available statistics. For example, the CEO of an offsetting company explained why they changed their mind about a clean cook-stove project in Niger as follows: “No one had ever manufactured improved stoves there.” To calculate certifiable emissions reductions, the stoves must be standardized. The energy performance of a single stove can then be multiplied by the number of stoves used in a project. The corresponding emissions level is then compared to what would happen with the use of traditional stoves. Before giving up on Niger, the CEO even considered importing stoves from China. While the idea sounds surprising, its impact in terms of CO₂ emissions was not the reason why it was abandoned. Instead, the developer mentioned the costs, risks, and hassle associated with long-distance transport (ceramic stoves break easily) and concerns over the arbitrariness of customs controls. In the geography of offsetting, East Africa appears, in contrast, ideal for such entrepreneurial activities. Offsetting organizations that are active there evoked several reasons for choosing the location: stoves could be manufactured at a low cost locally, infrastructures like electricity and transport are (more) reliable, and the region has a dense economic network. Such a geographical effect, as well as the ecological hierarchy evoked earlier, are two aspects of the market that deserve more research.

Buying an imagery

Carbon offset producers and retailers sell their products wrapped up in communication materials. Offsets have increasingly been associated with bundles of local positive consequences called “co-benefits.” One might argue that what is traded in the voluntary market is an imagery. The portfolio manager of a retail company listed the following range of useful communication supports: “It can be a story of a family or a video, or it’s an impact report and quantification.” The market being under constant public scrutiny, communication is sensitive, and profitable, territory. In the literature, it has been suggested that voluntary offset buyers “want to feel a connection,” and while “carbon is so abstract,” offsetting projects can be “colourful and personable,” involving “real people” (manager of an offsetting organization quoted in Lovell and Liverman 2010, 266). But this connection is a mirage as, on the contrary, it is great distance that allows the win-win “spectacle” – offsets are good for the climate and the poor – to be successfully performed for clients kept ignorant of the messy details (Canavagh and Benjaminsen 2014). Even when they get to see the activities “on the ground,” a performance is staged. Therefore, despite an apparent diversity of offsets, the stories and iconography representing the projects and their co-benefits use a limited range of stereotypes (Lehmann 2019). Cook-stoves projects, for example, are usually described as benefitting poor women in charge of their households. Testimonials displayed online by certification schemes attest to that: “Using the stove has made a big difference to our households. It does not emit smoke and is very light, which enables us to move it from one location to another as we wish. Smoke used to bother us a lot, irritating our eyes, chests, and making our kids sick. Now you wouldn’t know where was one cooking as there is no soot nor a lot of ash.” The quote from “Nadia, a Shagra project beneficiary in North Darfur”¹ (another “postwar” location) is illustrative of the storytelling, and stereotypes, deployed to sell offsets, which is reminiscent of the marketing of Fair Trade, organic, and *terroir* products (e.g., coffee, see West 2010; on “fair carbon” see Howard et al. 2015).

Thinking of offsets-with-co-benefits as emissions reductions associated with stories and visuals led us to turn to the buyers. Companies’ sustainability departments are well aware of greenwashing accusations and seldom do they purchase offsets just to improve their corporate image. But they do buy an imagery. Offsetting is useful to obtain more leverage internally. Corporate sustainability officers tend to have a high hierarchical position but without the financial means

to do their job (Carollo and Guerci 2018). Offsets help them draw attention internally to environmental issues, and communication supports were said to be particularly useful in this respect. They give flesh to climate mitigation. Internal seminars can be organized where images of African women forced to walk far to get wood might raise awareness among executives, so that “they understand it is important for the company to invest in the environment,” explained a sustainability officer. Executives are expected to make the case to shareholders. Offset sellers are sometimes invited to narrate the local challenges addressed by the offsetting activity from which the company buys emissions reductions. Promotional films are screened, Q&A sessions facilitated. For sustainability departments, buying offsets-with-co-benefits appears to be an effective awareness-raising tool, whether it is to target shareholders, executives, or employees. It introduces the idea that greenhouse gas emissions have a cost. Within companies, carbon credits and their stories might then lead to doing more and further internalizing the externality. Offsetting organizations can expand their services into setting an internal carbon price or assigning emissions reduction targets to departments. Besides supporting a discourse of corporate morality (Shamir 2008), our work indicates that in some cases buying offsets helps empower sustainability departments. Offsetting, therefore, is not always solely a cost-minimization strategy to offshore climate action – “a spatial fix” of capitalism (Bumpus and Liverman 2008).

Conclusion

Let us consider as economic sociologists how to respond to a question often raised about carbon markets: Should I offset my emissions? Recent newspaper articles ask the same question (e.g., in *National Geographic*, Gibbens 2019; *The Guardian*, Vidal 2019; *The New York Times*, Mock and Tabuchi 2019). In a morally charged language, the journalists acknowledge that voluntary offsetting is hard to navigate. Advice is given on how to do it properly: by buying certified offsets. Our research has highlighted three dynamics that help position this answer within a broader (critical) perspective. First, being seen as a legitimate business, selling valuable products, is precisely the effect offsetting organizations have sought to have. One sees here how “concerned” markets and “contested” markets are two sides of the same coin: critiques and disputes that render the market contested are a concern for market agents who do not want to be dismissed as carbon

cowboys nor accused of greenwashing. To address criticisms, concerned market agents try to further legitimize their activity by selling and buying morality (co-benefits and associated imagery). Secondly, and relatedly, appearing to be morally good relies on ever more certification. New standards are created to address emerging concerns (e.g., the Climate, Community & Biodiversity [CCB] Standards, which aim to guarantee that offset producers support, or at least consult with, people that might be affected by their activity). The development of the voluntary offsetting market develops other markets, for certification, audits, and expertise. Buying emission reductions results in financing the auditing and consultancy industry and many long-distance flights (cf. the high cost of certification). Finally, voluntary offsetting is intertwined with climate legislation and compliance carbon markets. While we saw that, in the mid-2000s, nascent private certification schemes imitated the UN offsetting mechanism, the trend has now reversed. For new market-based climate legislation, building on existing voluntary standards is an attractive option to quickly become operational. But, ultimately, the value of offsets still depends on the priority that public authorities give to climate change. More than a decade ago, the financial crisis and the economic recession had detrimental impacts on voluntary offsetting. The 2020 coronavirus pandemic might have a similar effect on both compliance and voluntary carbon markets, especially as a couple of years ago a new international regulation of aviation emissions was agreed, and it was envisioned that it would provide a large demand for offsets in the near future (a hybrid of compliance and voluntary market). If economic times are enduringly bad, companies in other sectors could also cut their sustainability expenditures, including offsets. The compensatory, low-involvement logic of offsetting might be blamed for undermining the urgency of addressing climate change. But if businesses, and people, continued to willingly bear a cost to offset their emissions, despite economic gloom, it may help make it more of a priority. So, should you offset your emissions? Well, that remains an open question.

Endnote

- 1 <https://www.goldstandard.org/projects/fuel-efficient-stoves-north-darfur-women>, last accessed June 6, 2020 (page discontinued).

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It's worth the trouble. On valuation studies and climate change

Thomas Frisch, Stefan Laser, Sandra Matthäus and Cornelia Schendzielorz

Studying climate change through the lens of valuation

This article introduces the field of valuation studies and illustrates the theoretical and methodological potential it offers for analyzing climate change. Valuation studies (VS) is still an emerging, yet fertile research field that explores valuation practices and value orders as critical sites of social (trans-)formation (Lamont 2012). Valuation here can be defined as “any social practice where the value or values of something is established, assessed, negotiated, provoked, maintained, constructed and/or contested” (Doganova et al. 2014, 87). In the last decade, VS has consolidated as an interdisciplinary field of study that critically reflects the plurality of valuation practices. The field shares many features with economic sociology and brings together several researchers with such a disciplinary background. However, the status of economic valuation practices – in particular its relation to competing value orders, economies of worth and practices as, for example, civic order of worth and practices (Boltanski and Thévenot 2006) – is a controversial point of discussion in the field.

Investigating valuation practices helps to attune to the economic processes that are at the core of the climate crisis, and to exploit one particular avenue economic sociology has to offer to unpack climate change (Engels 2020), namely to define valuation practices as the object of the study. The strength of the valuation perspective becomes apparent when examining, for example, the enduring persistence of a fossil fuel-based economy, which – besides other factors such as transportation, agriculture, and food (espe-

cially meat), waste – remains the main source of global greenhouse gas emissions. In this respect, our goal is not to present a ready-made theoretical framework or agenda but to identify pathways for studying climate change through the lens of valuation. Therefore, we begin by turning to the example of decarbonization. From a valuation perspective, decarbonization can be framed as a complex and powerful process of de- and revaluation that triggers a series of questions such as: How are climate-related risks measured, objectified, and translated into economic value? How do corporations, investors, regulative bodies, or civil society engage in processes of assessing and communicating the value of a decarbonized economy? Which value judgments are inscribed and negotiated in recent proposals of a “New Green Deal”? Drawing on that discussion, we summarize the valuation perspective by working out three focal points and illustrate their benefits for climate change research.

Setting the scene: Decarbonization as a process of de-, re- and evaluation

The (deep) decarbonization of the economy is one of the most prominent answers to the call for mitigating the devastating effects of temperature increase, sea-level rise, or extreme weather events. In its very essence, it requires nothing less than a radical transformation of the energy system away from coal, oil, and natural gas towards other sources. History reminds us that energy transitions occur over an extended period of time and at different speeds according to the sector or specific regions. Generally, it is not a matter of a few decades, but spans over more than a century (Fouquet 2010). Decarbonization, in contrast, needs to be faster and addressed globally. Particularly since the Paris Agreement in 2015 and the Sustainable Development Goals (SDGs), it has grown into a powerful political project.

Take, for example, the European Union and its programmatic statement, as published in the recent communication from the Commission on the Green New Deal: “The production and use of energy across economic sectors account for more than 75% of the EU’s greenhouse gas emissions,” the Commission argues. From this follows: “A power sector must be developed that is based largely on renewable sources, complemented by the rapid phasing out of coal and decarbonizing gas.” (European Commission 2019, 6) The European Commission emphasizes two important things here: fossil fuels are made responsible for global warming and they need to be replaced by renewable energy sources. This quote illustrates how the

valuation of one thing (renewable energy sources) is directly related to the devaluation of another (fossil fuels). Often, there are implicit valuations apparent, as in this context: the devaluation of another alternative, namely consuming or trying to consume (radically) less energy.

Despite the clarity of this programmatic statement, its translation into concrete policies and practical matters is confronted by a set of obstacles. For the sake of brevity, we will only point to three. First, there are different assumptions of what should be classified as a “renewable source,” for instance if nuclear power is regarded as one. When procedures are put in place to assess which energy sources are worth considering, thus pushing the classifications “alternative” vs “regenerative,” they implicitly carry evaluations and re-evaluations of energy sources. Second, despite a relatively long history of climate policy directed at decarbonization, fossil fuels remain at the heart of energy matters. This carbon lock-in (Unruh 2000) can be explained to a large extent by the long and cost-intensive innovation cycle of most carbon-intensive industries but also by fossil fuels’ role for stabilizing production systems (e.g., food, agriculture, as well as whole ways of living and consumption and cognitive models). Although fossil fuels have been devalored in decarbonization discourse, they are still in use and thereby remain an economically and financially exploitable value. Third, a major obstacle to a global solution is presented by the fact that the share of greenhouse gas emissions is distributed unequally between countries and within different segments of the population. Under these conditions, the effect of carbon inequality and the need for climate justice take high priority. The terms of this justice, of course, are deeply intertwined with social-economic as well as ethico-political values and their justification in globally heterogeneous orders of worth.

With these obstacles for political implementation in mind, it is striking but not surprising that many of the “mitigation” or climate policies have failed in

reducing emissions as required by the calculations of climate scenarios, such as the ones published by the Intergovernmental Panel on Climate Change (IPCC). In the context of this inertia, it is interesting to consider a development that Chiapello (2020) called the financialization of climate policy in the last edition of this Newsletter. In her analysis of an increasing importance of financial markets for climate policy issues, she understands green finance as the most recent configuration of a progressive privatization of global environmental policy that is full of limitations and far from being a universal remedy. Indeed, the delegation of responsibility for climate actions from political insti-

Thomas Frisch is a PhD candidate in Sociology at the University of Hamburg. Since March 2020 he has been working as a Research Fellow in the project “D°GREES – Decarbonization: Global Research on Effects in Enterprises and Societies,” one of fourteen subprojects of the Cluster of Excellence “Climate, Climatic Change, and Society (CLICCS).” In his PhD thesis he investigates practices of valuation in the context of social change. thomas.frisch@uni-hamburg.de

Stefan Laser is a postdoc in the Faculty of Social Sciences at Ruhr University Bochum. He completed his doctorate in Kassel under Jörn Lamla and Tanja Bogusz. His sociological research unraveling the global value chains of electronic waste is condensed in the book *Hightech am Ende. Über das globale Recycling von Elektroschrott und die Entstehung neuer Werte* [Hightech at the end: On the global recycling of electronic waste and the creation of new values] (2020). This is a contribution to both valuation studies and waste studies, two international and interdisciplinary fields. His research is also influenced by approaches from Science and Technology Studies, and his publications explicitly draw on and address discussions of economic sociology. stefan.laser@rub.de

Sandra Matthäus is a PhD student at the Humboldt University of Berlin, where she is working on her thesis, “Self.Worth.Feelings. Towards the Legitimate Subject Structure of (Late) Modernity,” supervised by Andreas Reckwitz. Since 2019 she has also been a Research Fellow at the Chair of Social Theory at Chemnitz University of Technology, leading the subproject on “cultured meat” within the research project “Disruptive Technologies. A Sociological Study on the Reconfiguration of Society,” which is funded by the Thyssen Foundation. sandra.matthaeus@hsw.tu-chemnitz.de

Cornelia Schendzielorz is a postdoc at the Humboldt University of Berlin and the German Centre for Higher Education Research and Science Studies. She completed her doctorate in Freiburg under the supervision of Ulrich Bröckling and Tanja Bogusz, deciphering processes of subjectivation in vocational training. Since 2018 she has been a research assistant at the Humboldt University of Berlin in the field of science studies, researching evaluation practices in science and peer review processes. schendzc@hu-berlin.de

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tutions to the private sector poses some delicate questions, including whether it is a good idea to put the search for solutions into the hands of those who played a large part in causing the current climate crisis.

Regardless of how these questions are answered, it is essential to take a closer look at the role of financial markets and global corporations, i.e., it is worthwhile investigating how they take action and might or might not transform their business models (Wade and Rekker 2020). The last two decades saw an exponential growth of instruments, such as reporting standards for

climate-related activities¹, initiatives and coalitions among businesses², and events with diverse stakeholders that all feed into the debate on a (deep) decarbonization of the economy. As a result, we are confronted with a highly dynamic field, a proliferation of diversified actors with distinct interests and manifold interrelations between them. Getting back to understanding the call for a decarbonized economy as a process of de-, re- and evaluation, we argue that a valuation perspective is well-suited for investigating how different approaches and understandings of value interact under these complex and uncertain conditions (see also Engels and Wang 2018).

How can valuation studies contribute to climate change research?

The lowest common denominator in the heterogeneous field of VS could be described as an awareness that the creation and attribution of value(s) is much more complex than their linguistic denomination, numerical numbering, or designation by means of key figures suggests. The following three analytical perspectives from VS could be of particular value to studying matters of climate change and their intersection with economic themes: investigating the processuality and performativity of valuation practices, unravelling the material embeddedness of value, and engaging with the contested nature of particular valuations.

First, scholars in the field suggest working out *the processuality and performativity of value determination processes*. Valuation practices provide an order for decision-making processes and establish hierarchies. At the centre of such research endeavours are hands-on valuation devices, that is, rankings, ratings, and prizes. Some scholars, such as Stark (2020), point to the fundamentally different logics behind these devices, which inform their specific performativity, i.e., their effects as a form of social action. *Rankings* then are the outcome of comparisons, where entities are displayed in a clear hierarchy based on predefined characteristics. Comparisons work in two ways: they aim at producing similarities based on decisions about which entities are compared with each other and then produce evaluative differences among those entities (Sauder and Espeland 2009). Consumers, for example, can compare energy suppliers – or better those having been categorized as such – based on their prices and sustainability commitment, while the new metering devices serve as powerful intermediaries that aim to rank the consumer's very own behaviour in real-time (Kragh-Furbo and Walker 2018). *Ratings* are the com-

parative practices at the heart of ranking lists, but they can also be mobilized as devices on their own, minus putting singularized entities into hierarchies. They, like rankings, tend to be assessments, based on previously made categorizations. For instance, the financial performance of a public company can be rated to facilitate the decision-making of investors. In this context, a growing interest in non-financial performance indicators – such as Environmental, Social and Governance criteria (ESG) or climate-related disclosure practices – presents a perfect empirical example for studying how non-economic values (such as biodiversity or the reduction of emissions) are translated into economic logics. *Prizes*, finally, are particular types of rankings, where the “winner” of a comparative endeavour gets all the attention and praise. VS has provided various studies on the cultural significance of prizes (e.g., regarding movies Helgesson and Muniesa 2013), but this is also of importance for climate change measures, especially considering winner-take-all markets and the assessments of experts that influence such markets (Lamont 2012). Actors work on and with valuation devices to stabilize social order. VS suggests scrutinizing both the designers and users of these devices. The methodologies thus explored can help to reveal the procedure of assessments and thereby enable to seize explicitly and implicitly inscribed values and interests, and to address possible ambivalences, discrepancies or even antagonisms.

Second, climate change is a very *material matter* (e.g., Latour and Weibel 2020; Knox 2020), which can be approached through VS by *unpacking values that are embedded in natural, technological as well as socio-cultural environments* (Moore and Patel 2018; Geden 2016). The approach urges scholars to consider materiality and nature as environmental conditions or, in fact, as co-producers together with human action, sociality, and its symbolic meaning. This is an endeavour to challenge and critically reflect dichotomous fronts and asymmetries between subject/object, nature/culture, and the like. We see this as a constructive perspective to grasp an interdisciplinary, multi-sited, and highly complex phenomenon such as climate science. Various subtle and not-so-subtle valuation practices shape the making, consideration, and so-called application of climate research. “Carbon capture and storage (CCS)” – i.e., efforts to transport carbon dioxide to storage sites in deep underground reservoirs instead of the atmosphere – is one compelling example that emphasizes this issue. CCS is controversial but also charged with hope, for example, when positioned for the reappraisal of entire landscapes. Consider the Ruhr district in North Rhine-Westphalia, Germany, a former hub of hard coal mining. It used to fuel the industrialization of a vast economy. After “phasing out” the

coal industry and shutting down the last mine in 2018, scientists, planners, and investors have been screening the old underground facilities from the vantage point of carbon-capturing and similar strategies in order to redirect or rethink emissions from industrial activities. However, the discussion is complicated by the “storage” and “capturing” of old groundwater, which is seen as a constant danger and overshadows “progressive” storage technologies. Some tunnels, deep in the earth, are nonetheless already used as thermal energy sources to supply offices and homes with heat (see www.gw-ruhr.rub.de). The underground infrastructures have to be shielded to ensure proper functioning, while other-than-human interferences are taken into consideration via experiments and models. In other words, it turns out that different production systems and their temporalities are intertwined in a complex way, meeting underground. Hundreds of millions of years old subterranean mountains of the carbon age are, once again, being treated with sophisticated measures, involving the mobilization of various actors, very particular forms of knowledges, and with consequences that are difficult to comprehend. The example of the Ruhr district here points to a large, yet still sparsely researched topic: wasting practices as essential parts of economic actions, infrastructures and systems. Put differently, the entanglements between waste and value offer fruitful sites for creative and critical investigations (Greeson et al. 2020). VS provides tools to examine such processes in detail, but empirical studies also help develop the field's perspective.

Third, *valuation is open to contestation, subject to negotiation and fundamental for legitimizing decisions*, all of which can be put to the test. For instance, from a VS perspective attempts to mitigate climate change such as emission trading can be understood as a “social process” (Abott 2016) of assessment, in which a value is assigned to the assessed object, namely the emission unit. Social processes are negotiation processes in which different representatives face each other in their respective roles with their specific interests. In general, the interests, goals, and concerns of the various participants are in conflict, when for example delegates of nation-states, lobbyists of affected companies, and administrations that organize and align these negotiation processes come together. It should not be forgotten that these actors also have their own conceptions of how these processes can be successfully coordinated and moderated. As these kinds of assessments

are often deeply embedded in specific socio-material contexts, a critical investigation from a VS perspective may allow analyzing which values are promoted, contested, and legitimized, which ones interfere with each other, and how these values are negotiated and weighed against each other in the light of an upcoming decision. These insights may help to reflect on the design and reorganization of climate-relevant assessment procedures, such as adaptation expenditures in different countries and settings (cf. climaps.eu 2018; see also Wissman-Weber and Levy in this Newsletter). Here, VS can directly connect with discussions from French pragmatism and convention theory, since there are plenty of thematic and personal overlaps. In *On Critique*, Boltanski (2011) proposed looking at critique in two ways: One, social scientists should analyze and take seriously the actors and their own critical capacities. Learning from their entanglements is presented as an invaluable source for critical reflection, which in a second step can be used to enlarge upon broader normative questions. This two-fold approach may help to inquire about the performance of valuation devices as well as about its legitimacy more broadly. In this regard, a sound proceduralism to which the participants comply, implying the circumspective involvement of heterogeneous actors, can serve as a powerful means to produce and provide legitimation for decisions reached. However, such an analysis can also contribute to a fundamental redesign or rebuttal of proposed reforms, of which there are many in climate change politics.

It's worth the trouble

Valuation Studies offers a promising heuristic for the social sciences to engage in climate change transformation, perhaps even to become involved in the further course of the transformation itself. We have introduced three entry points for future research: investigating the processuality and performativity of valuation practices, unravelling the material embeddedness of value, and engaging with the contested nature of particular valuations. At the same time, the discussion provides a solid ground for exploring fundamental theoretical-methodological questions that advance the social sciences in a more general way. It's worth engaging with the intricacies of climate change, and valuation studies may supply means to do so.

Endnotes

- 1 Examples are the Greenhouse Gas (GHG) Protocol, the Carbon Disclosure Project (CDP), the Global Reporting Initiative (GRI), or the Task Force on Climate-related Financial Disclosure (TCFD).
- 2 For instance, the World Business Council for Sustainable Development (WBCSD), the Science Based Targets Initiative (SBTi) or the We Mean Business Coalition.

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“Crises” as catalysts for more sustainable futures?

The case of the first oil crisis and the role of multilayered interpretative struggles

Timur Ergen and Lisa Suckert

Introduction

“How dare you?” Greta Thunberg’s exclamation in front of the UN was shaped by indignation but also disbelief. However, not only the young activists of *Fridays for Future* appear to be puzzled about humanity’s difficulties in adequately responding to climate change. Ample scientific evidence for global warming and its causes is available, and potential policies for reducing CO₂ emissions have long been developed, evaluated, and tested in practice. So why has the catastrophe on the horizon not induced substantial behavioral change? Why do we see so little reaction in the face of this all-encompassing crisis?

Collective non-action appears even more puzzling when we acknowledge that crises *have* repeatedly served as catalysts for socioeconomic transformation – in environmental as well as other domains: The American New Deal, shaping US society since the 1930s, cannot be explained without the groundbreaking experience of the Great Depression (Gerstle and Fraser 1989). Likewise, the European BSE crisis in the late 1990s gave way to new agricultural policies and sped up the rise of organic farming (Oosterveer 2002; Feindt and Kleinschmit 2011; Sutherland and Darn-

hofer 2012). In numerous countries, the politics of nuclear energy were remade by the crises of Three Mile Island (1979), Chernobyl (1986), and Fukushima (2011) (Bernardi et al. 2018; Useem and Zald 1982). In a similar vein, the oil crises of the 1970s, which this contribution focuses on, are crucial for understanding state-led restructuring of modern society’s energy supply systems, particularly in the field of renewable energy.

How can the transformative potential of crises be explained? This paper complements ongoing scholarly literature by proposing an approach to crises that focuses on their capacity to *open up the future*. Drawing on economic sociology’s recent emphasis on the role of imagined futures for socioeconomic action (Beckert 2016; Urry 2016), we focus on how perceiving a crisis involves engaging with alternative futures and contesting established expectations.

Particularly with regard to climate change and other environmental challenges, explanations as to why crises provoke social change oscillate between two poles, which one may call essentialist and constructivist. Essentialist accounts of crisis responses typically trace patterns of socioeconomic reaction back to structural specificities of the given structural disruption and their implications for individual interests. Environmental economists have classically theorized that ecological crises ignite more forceful societal reactions if they impose more innate and visible costs (Downs 1972). This approach also dominates psychological accounts of societal inertia in climate policy: climate change cannot trigger substantial reactions, it is argued, because its true costs cannot be experienced yet.

Most sociological accounts of crisis response attempt to go beyond such essentialist notions. For many sociologists, the transformative potential of crises is not inherent to structural features of the given shock but is due to the fact that interrupted social routine requires collective sense-making which may give rise to social conflict. Crisis response is thus dependent on social processes and societal “understandings” of the given crisis. For example, the sociology of disasters has highlighted pre-crisis events as significant in determining post-crisis social processes (Quarantelli and Dynes 1977). Similarly, the sociology of social movements emphasizes protest trajectories as key mediators of collective crisis responses (Rucht 2013). Underlying such approaches is the assumption that crises are not “natural” phenomena and must be socially constructed in order for societies to respond to them.

The approach we suggest in this paper engages with sociological, more constructivist accounts of crises but complements them with a perspective that highlights the role of imagined futures (Beckert and

Suckert 2020; Beckert 2016) for bringing about socio-economic change. While we do acknowledge the role of material stimuli, we argue that the transformative potential of crises is to a substantial degree dependent on discursive engagement with the future. It depends on multilayered interpretative struggles in which societies settle on whether disruptions present real crises – or mere accidents, errors, or irregularities. At the heart of these struggles, tangible experiences are linked to or detached from broader future consequences, potential causes are projected into the future or relegated to the past, and feasible remedies are conceived or neglected. It is in these multilayered interpretative struggles that the future is “opened up” – and sustainable transformations become conceivable in the first place.

Building on a historical analysis of the first oil crisis and respective controversies in the United States, we provide an ideal typical trajectory of multilayered interpretative struggles and show how a tangible disruption did become framed as an energy crisis. Drawing on extensive archival material, our case study indicates how the social contestation and construction of a crisis facilitated the establishment of long-range energy restructuring as an institutionalized field and opened discursive space for alternative futures.

Crises as a catalyst for sustainable futures?

Crises, understood as exogenous interruptions of routine, have a central place in economic and psychological models of social transformation. To many observers, environmental awareness and the subsequent expansion of environmental protection measures requires an “external shock,” i.e., an experience that modifies underlying interests. Along those lines, the economist Anthony Downs speculated that “the cause of the ecologist would ... benefit from an environmental disaster like a ‘killer smog’ that would choke thousands to death in a few days” (Downs 1972, 46–47). By contrast, a “more gradually deteriorating situation that will eventually pass some subtle ‘point of no return’” (ibid., 45) – the prime example of which would certainly be climate change – is hypothesized to have

difficulties stimulating enduring public concern. Relatedly, psychologists have framed inertia in the climate crisis as a problem of “unavailable” risks that cannot be experienced yet. In this line of reasoning, “[for] potentially catastrophic risks whose prevention requires long-term investment, there are built-in obstacles to serious regulatory efforts,” in that human cognitive operation is hard-wired to focus on “available” risks (Sunstein 2006, 201). As influentially inscribed in the public understanding of political inertia by the Stern Report (Stern 2007), the climate crisis is seen as inhibiting political responses even if the dan-

Lisa Suckert is a Senior Researcher at the Max Planck Institute for the Study of Societies in Cologne, Germany. Her research interests are economic and political sociology, sociology of time, capitalism, and sustainability studies. She is currently studying the interrelation of crises and future perceptions, drawing particularly on the case of Brexit and the crisis of the EU. Lisa has also studied the dynamics and ambivalent valuation processes in markets for sustainable products. Her publications include “The Future as a Social Fact. The Analysis of Perceptions of the Future in Sociology” (with Jens Beckert), *Poetics*, 2020; and “Unravelling Ambivalence: A Field-Theoretical Approach to Moralised Markets,” *Current Sociology*, 2018. suckert@mpifg.de

Timur Ergen is a Senior Researcher at the Max Planck Institute for the Study of Societies in Cologne, Germany. His research interests are economic and political sociology, innovation, energy systems, and the sociology of competition. He is currently studying deindustrialization as a social imaginary in comparative perspective. Recent publications are: “Rival Views of Economic Competition” (with Sebastian Kohl), *Socio-Economic Review*, online first, 2020; and “Transcending History’s Heavy Hand: The Future in Economic Action” (with Jens Beckert), in *Handbook of Economic Sociology for the 21st Century*, edited by Andrea Maurer (Springer Nature, forthcoming). ergen@mpifg.de

gers of non-action are fully understood. As the global climate has the characteristics of a common pool resource, individual countries will rationally try to benefit from pollution while others shoulder the costs of mitigation. Like in the psychological literature, patterns of societal reaction in common pool accounts are derived from the structural features of the given problem.

In this paper we critically engage with such approaches that praise environmental disruptions as self-evident drivers of sustainable change. The focus on the structural strains of “external shocks” obscures the complex social processes that practically turn environmental disruptions into crises and make deviations from past practices imaginable, feasible, and reasonable. Before we turn to the contested construction of crises in the next section, we want to briefly summarize how sociological approaches have conceptualized crises and relate their basic approach to the future.

Since its founding era, sociology has depicted itself as a “science of crises” (Koselleck and Richter 2006, 377), first and foremost concerned with dysfunctional societal dynamics. Nevertheless, many sociologists have conceptualized crisis as an ambivalent

phenomenon not to be confounded with disaster or catastrophe. Most pronounced in Marxist traditions, crisis is considered to hold the potential for "progressive" transformation, for counter-hegemonies to emerge, and better futures to be brought about. As a moment of transition, crisis can be "something positive, creative and optimistic, because it involves a change, and maybe a rebirth after a break-up" (Bauman and Bordoni 2014, 3). Sociologists have emphasized how crises may change power relations, challenge dominant institutions, or disrupt social networks, thus enabling actors to overcome established cycles of reproduction and bring about change. However, in the context of this paper, we focus on how crises are interrelated with societal perceptions of the future. Indeed, sociological concepts of crisis refer to the future in (at least) three important respects.

First, a crisis is considered an *unexpected* development, a sudden deviation from the predicted "regular" course of action, from the assumed "normal condition" (Habermas 1973). It can be understood as a mismatch between the future as we expect it and reality as it actually unfolds (Mayntz 2019). Considered as a turning point (Abbott 2001, 240ff.), a crisis decisively divides the continuous flow of time into a regular "before" and an unexpected "after."

However, crises differ from other unexpected events in the *scope of uncertainty* they imply. For accidents and errors, even if they may have catastrophic effects (Perrow 1984), actors can point at what technically went wrong, fix it, and prevent it from happening again (Engelen et al. 2011, 2–3). We may not be able to explain outliers and irregularities, but we consider them to be restricted to a particular situation. Their scope is limited to their direct context in the present. Crises, by contrast, imply a degree of uncertainty that projects into the future, as they challenge basic, taken for granted principles upon which expectations are built. Gramsci (1971) has characterized crisis as an "interregnum," in which the established order is dying, while "the new cannot be born." Established frames, explanations, and narratives are thus made redundant. Experiencing a crisis involves what Weick calls a "cosmology episode," i.e., an instance in which "people suddenly and deeply feel the universe is no longer a rational, orderly system. What makes such an episode so shattering is that both the sense of what is occurring and the means to rebuild that sense collapse together" (Weick 1993, 633). In crises, established modes of action and familiar responses cannot provide solutions (Jessop 2013). The experience of the past can no longer serve to orient the future. The flip side of this extended scope of uncertainty is, however, that crises are instances in which the future opens up and alternative trajectories become conceivable.

Finally and equally importantly, the concept of crisis involves the notion of an *undetermined future* that is open to agency. Unlike a catastrophe, crisis does not involve disastrous automatisms. In line with its conceptual origins in the physiological field, crisis refers to a development that can lead to either disaster, recovery, or even amendment. It highlights contingency and hence agency (Emirbayer and Mische 1998).

On the surface, sociological conceptions of crises seem to mirror popular understandings of them as catalysts for change. As crises open up the future, alternative futures become conceivable and space for deviant agency is created. However, this "opening up" of the future appears as a genuinely social and therefore contested process. When assessing the transformative potential of crises from a sociological vantage point it is therefore crucial to understand how crises are socially constructed.

"Crisis" as the result of multi-layered interpretative struggles

How does a crisis emerge? In theory, as for example in stylized models of bank runs (Diamond and Dybvig 1983; Merton 1948), there may be crises that cannot be traced back to any material disturbance but are entirely discursively constructed. However, most empirical crises, and particularly the environmental crisis that we focus on, entail a "material core," i.e., a tangible disruptive development. What is more, how well such a material core is suited to be constructed as a crisis is not entirely independent of its structural characteristics, e.g., to what degree the experienced development actually differs from previous expectations, or the scope of turmoil caused by the disruption. Nevertheless, in order to make sense of any disruptive development as a crisis, actors need to interpret the material core and relate it to broader frames. Crisis "is not some objective condition," Colin Hay (1996, 255) summarized this argument, but "brought into existence through narrative and discourse." We specify this perspective in that we argue that crisis discourse is a) shaped by multilayered interpretative conflicts in which b) perceptions of the future play a critical role.

A first important field of conflict usually concerns the *consequences of a disruption* and the related question of whether it presents a "real" crisis – or just an accident or irregularity. To be considered a crisis, the material core needs to be discursively linked to broader frames that stretch the direct context and challenge the established order. Narratives about possible catastrophic futures and dystopic scenarios are crucial in this endeavor, because they spell out what

practices, life spheres, populations, or industries might be affected in the future – and where this predicted future deviates from the previously expected future (Weingart et al. 2007). Providing credible narratives about the devastating long-term consequences of a disruption gives it significance beyond the situation (Walby 2015, 19). In contrast, those who oppose interpretation of a disruption as a crisis will renounce the scope of the disruption, tying it closer to the present, as a temporary problem that will not have consequences for the future.

A second interpretative struggle then concerns the *causes of a disruption*. Causality surely involves explanations that are oriented towards the past and spell out what went wrong. However, framing a problem as a crisis requires these assumed causes to be projected into the future. Credible crisis narratives need to spell out why causes will persist or even become more pronounced in the future. Consequently, disruptions are depicted as being bound to happen again or to get worse, unless the underlying mechanism is removed. In these struggles, which are often substantiated by simulations and forecasts, different interpretations of what elements of the past cannot be allowed to transcend into the future are at stake. Actors trying to avoid the perception of crisis will instead emphasize finite causes and portray the situation as a one-time accident or refer to contingency and reject causalities altogether. As interpretative struggles over the causes of a disruption involve attributing blame and responsibility, they can be assumed to be most fierce power struggles (Scholz 2016).

Making sense of the causes sets the stage for a final type of interpretative struggle concerned with possible *remedies to a disruption*. The discursive frame of a crisis is indeed opposed to the notion of determinism but instead involves an element of agency. Crises are not catastrophes that need to be endured, but developments that can be overcome and to which creative solutions are to be sought. Indeed, the crisis narrative implies an urge to action, the necessity of a remedying response. However, the proposed remedies may differ substantially in their time horizons: they can be depicted as emergency actions, mitigating immediate consequences and proposing a return to the previous normality; or they can be depicted as long-term solutions that suggest alternative futures (Crouch 2011). The alternative remedies that can credibly be depicted are of course highly interdependent with acknowledged causes and consequences of the crisis (Gibson 2012).

Finally, we argue that these distinctive spheres of contention constitute layers rather than stages or phases of an interpretative struggle in which a crisis is constructed (Jessop 2013). Whether a credible crisis

narrative promoting an alternative future emerges depends on the discursive outcome for each of these layers. There needs to be a widely acknowledged perception of consequences, causes, and potential solutions to a crisis. Yet, this is not a linear process, as all three layers are interdependent and interpretative struggles can move back and forth between these layers – or address all of them at the same time. Moreover, once established interpretations of crises, their consequences, causes, or remedies can be challenged again.

The multilayered construction of the first oil crisis, of 1973/74

Today, the first oil crisis, of 1973/74, is unequivocally understood as a watershed moment in the history of the postwar social order. It has been made responsible for grave societal transformations in the fields of economic policy, environmental protection, and geopolitics. Our focus here is on the less often discussed historical juncture of the advent of state-led attempts to restructure Western energy systems (Ergen 2017) that allows us to illustrate our theoretical framework. We document how multilayered interpretative struggles opened the future for societal coalitions and policies deviating from decades of established practice in the energy arena and facilitating the emergence of renewable energies.

As compared to the climate crisis, the first oil crisis made it easy to experience direct disruptions. This is despite the fact that the immediate material trigger of the first oil crisis was of limited significance. It consisted of a four-months-long reduction of oil exports by a number of Arab oil-producing nations. Price reactions to the cutbacks were severe, however. Oil prices roughly quadrupled and threw importing nations' economies into economic turmoil. Of high symbolic significance were long lines at gas stations and a series of rationing emergency measures, such as the national speed limit in the US or bans on Sunday highway driving in Germany. Especially in the US, the effects of the embargo questioned faith in American geopolitical supremacy. The embargo constituted a political reaction to US support of Israel in the Yom Kippur War. While Arab nations made public threats to use the "oil weapon" as part of their foreign policy arsenal since the 1950s (Yergin 1991), an earlier attempt to put pressure on Western nations through coordinated supply restraints failed in 1967. Explaining why exactly the 1973 embargo did not fizzle out in a similar fashion, but did in fact affect pricing and supply behavior, is not an easy task. A common structural explanation in the literature is that the US incremen-

tally lost its power to act as a "supplier of last resort" (Thompson 2017, 95).

Important for our purposes, discourse about an upcoming energy crisis emerged a few years earlier and provided a fertile narrative ground to frame the embargo. At the same time, warnings about a coming watershed moment in modern societies' resource use circulated in the environmental movement, the scientific community, and the public sphere. The landmark first report of the Club of Rome, *The Limits to Growth*, had been published just one and a half years earlier (Meadows et al. 1972) and was intensely debated in politics and the public (see, for example, US Congress 1973). The material disruptions of the embargo were discursively related to such dystopic forecasts depicting future consequences. The New York Times in January 1974 described the oil crisis in the following words: "[not] since World War II has there been a global problem that has threatened to change relationships and ways of life more than the current energy crisis" (New York Times 1974a). Similarly, on what we have described as the second layer of causes, the oil crisis was propagated as a new kind of political economic crisis, resulting not from idle capacity, but from naturally limited material means: "The current crisis stems not from a deficiency of demand but of supply, the most dramatic manifestations of which have been shortages of food and soaring food prices, and shortages of oil and soaring energy prices" (New York Times 1974). Projecting both the causes and consequences of the embargo into the future, it was portrayed as a "real" crisis challenging the established order.

Yet, the nature of the embargo as a critical situation requiring action was repeatedly doubted. In numerous congressional hearings, influential politicians charged oil executives with artificially engineering shortages to profit from price hikes. The question of whether the shortages were "real" was among the major points of contention in 1974 (New York Times 1974d). Securing public legitimacy for crisis policies in the energy sector required first and foremost the generation of widely accepted knowledge (Graf 2014). Reminiscent of today's Covid-19 crisis, policy-makers were afraid that public denial of the severity of the crisis would block political countermeasures. Assembling executives from the major oil companies, members of Congress begged the oil industry to supply the information necessary to shift public opinion: "Gentlemen, it is your duty to make ... as convincing a case as needs to be made to convince the American people that this is not a phony shortage induced by you. That is not only your duty as businessmen ..., but it is your duty as Americans ... There is nothing that we can do by legislation that the people can't undo by simply refusing to go along" (US Congress 1974, 119).

In addition to the reality of the shortages, actors doubted if Arab nations could be expected to maintain cartel discipline, i.e., whether the causes of the crisis would persist in the future. James Akins, an adviser in Richard Nixon's administration, complained publicly in April 1973 that belief in the dangers of an oil crisis was undermined by theories of natural cartel instability: "[T]he common response among Americans has been: 'They need us as much as we need them'; or 'They can't drink the oil'; or 'Boycotts never work'" (Akins 1973, 467). In the public sphere, the economist Milton Friedman was among the most vocal critics of an understanding of the crisis as a critical juncture. In a March 1974 Newsweek op-ed, he lamented that "The world crisis is now past its peak. The initial quadrupling of the price of crude oil after the Arabs cut output was a temporary response that has been working its own cure ... World oil prices are weakening. They will soon tumble. When that occurs, it will reveal how superficial are the hysterical cries that we have come to the end of an era and must revolutionize our energy-wasting way of life" (Friedman 1974).

Such diagnoses refer to both the first and second layer of our framework: they describe the embargo as an isolated incident without inherent long-term consequences. With a similar narrative, one of Nixon's aides tried to calm demands for government action internally: "I urge that we not allow pressures of the next month or two, based on a real and immediate shortage, seriously compounded by trendiness and news-magazine hysteria, to result in unnecessary and even counter-productive energy policies ... In a few months, I suspect, we will look back on the energy crisis somewhat like we now view beef prices – a continuing and routine governmental problem – but not a Presidential crisis" (cited in Yergin 1991, 618). Early attempts to downplay the crisis weaved together judgment about the significance of the incident for the future with projections about causes. Collectively "sitting the problem out" would unmask the embargo as a minor nuisance.

Despite such reservations, the government was forced by public opinion, expediency, and Congress to initiate a series of emergency measures, among them complex price controls and allocation schemes (Jacobs 2017). Moreover, public and congressional voices demanding more encompassing government measures put increasing pressure on the administration to take a more proactive stance. In May 1974, the New York Times – in line with influential congressional forces – decried "Anarchy in Energy," demanding a coordinated energy policy (New York Times 1974b).

In light of the escalated Watergate scandal, the Nixon administration repeatedly gave in to the demands for a more forceful policy response. Incremen-

tally it established what it called Project Independence, a potentially radical departure from established energy policy. When Nixon announced the (in 1973 clearly absurd) intention to make the United States independent from "foreign energy sources," he used language promising a path break: "Today the challenge is to regain the strength that we had earlier in this century, the strength of self-sufficiency ... I have ordered funding of this effort to achieve self-sufficiency far in excess of the funds that were expended on the Manhattan Project" (Nixon 1973).

However, this quest for possible remedies (our framework's third layer) was still intertwined with substantial struggles over the causes of the crisis. The exact meaning of Project Independence was subject to ongoing conflict. Moreover, Nixon repeatedly oscillated between acknowledging the structural severity of the crisis and downplaying its significance for the future of American society. In effect, significant parts of the conservative administration tried to use the bid for a national energy policy as a vehicle to push through deregulatory measures in the energy arena (Jacobs 2017). In line with Milton Friedman's thinking quoted above, the underlying rationale was that the energy crisis was believed not to be caused by energy or foreign policy complications, but by government measures preventing society from adapting to fluctuating supply conditions. While important factions in American society fought for price controls – both to ease the pain for consumers and to rein in Big Oil profiting from price hikes – important conservatives fought for deregulation and hence for price *rises*. Nixon himself echoed this causal account of the energy crisis when he criticized the American public for its unwillingness to adapt to new supply conditions: "Our deeper energy problems come not from war, but from peace and from abundance ... in prosperity what were once considered luxuries are now considered necessities" (Nixon 1973). The causal account of the energy crisis as being the result of excessive demands of the American consumer – for many symbolized by Jimmy Carter's later plea for Americans to please lower their thermostats (Carter 1977, 71) – was among the most influential positions in the energy politics of the 1970s. Crucially, it repeatedly brought together groups in favor of sectoral liberalization, environmentalists fighting for conservation, and industry groups pleading for minimal government interference. In 1975, an oil executive tried to appeal to this coalition when describing the underlying causes of the shortages: "The fact is that people tend to waste what is cheap and plentiful, and to conserve what is dear ... Because we thought petroleum and other fossil fuels were, for practical purposes, inexhaustible, we saw no reason to conserve them. We were, we see now, mistaken. The system is

beginning to recognize this mistake by pricing these fuels in accordance with their economic scarcity" (Bradshaw 1975, 49). This interpretative position was highly influential in policy-making throughout the decade. The partial rollback of price controls, the deregulation of natural gas, and the final deregulation of oil under Jimmy Carter and Ronald Reagan were legitimized on the basis of a consumerist-conservationist notion of the causes and associated remedies of the energy crisis (De Marchi 1981a, 1981b; Jacobs 2017).

Already in the early 1970s, however, deregulatory and moderately conservationist policies were criticized based on false premises and were complemented by a third suggested remedy. Since the turn of the decade, networks of environmental activists, firms, government administrators, and researchers accelerated activities to develop approaches for moving the energy system away from exhaustible fuels (Ergen 2017). A key success of these networks was to establish within the broader Project Independence a then gigantic new federal agency in charge of developing "new" energy sources, the Energy Research and Development Agency (ERDA, later consolidated into the new Department of Energy). While a majority of its resources were spent on nuclear energy projects, the new agency was a seedbed for initiatives throughout the decade to commercialize renewable energy technologies. All major renewable energy technologies in use today have received major kickstarts in ERDA-led programs. Even more important, it laid the foundation for imagining alternative ways out of the energy crisis. To give a few examples, the American debate about the oil crisis gave birth to Amory Lovins's proposal of a future "soft energy path," the idea of democratizing energy production with the help of renewable energy technologies (Lovins 1976). A so-called Solar Coalition in Congress managed to pass numerous dedicated support laws and established permanent Federal laboratories. Through ERDA and the Solar Coalition, the idea became institutionalized that one of the routine functions of the modern state is to advance the systematic development of new energy sources to cut into the reliance on politically unstable and exhaustible fuels. To this day, mobilization in favor of renewable energy development routinely relies on a set of promises developed in conflicts over the nature of the first oil crisis.

From the middle of the decade, an increasing share of the debate moved to what were then called "long-range" solutions – most often targeting "the year 2000." A New York Times op-ed in 1976 echoed this way of thinking, wondering if it may be in the national interest to make the entire world independent of fossil fuels, as "even if the United States could become 'embargo-proof,' this would not make us very secure if

some of our chief trading partners were still vulnerable" (New York Times 1976). Congress dedicated extensive hearings to the problem of long-range energy planning, discussing scenarios stretching into the 2000s (US Congress 1977). The language in these hearings had changed significantly from the skeptical routine-oriented language found in the early phases of the crisis. "We are concerned with such questions as these," Senator Nelson opened the first hearing, "Where are our energy assumptions, policies and programs taking us ...? Might we prefer to go somewhere else? And, if so, how do we change course? The way our society answers these questions will affect employment, lifestyles, wealth, equity, war, and peace" (US Congress 1977, 1). Opening up debate about the long-range future of the American energy system changed planning approaches and led to an increasing legitimacy of renewable energy support measures. It led Jimmy Carter's administration to proclaim a national goal of a 20-percent share of renewables in American energy consumption by the year 2000 and created a space to experiment with demand-led support schemes (US Department of Energy 1979).

Of course, many of the developments of the 1970s receded in the following years, most promises were hardly kept and many projections and diagnoses proved to be flawed from today's vantage point. Nonetheless, the case of the oil crisis emphasizes how the interpretation of consequences, causes, and remedies is subject to discursive struggles in which different perceptions of the future are contested. The social construction as a crisis of American society led to numerous highly significant attempts to experiment with the collective restructuring of modern energy systems. Most of these attempts, we submit, have had direct technological, institutional, and ideational lineages into today's interpretative struggles over the response to the climate crisis.

From climate change to climate crisis?

The presented theoretical considerations as well as the case study of the first oil crisis indicate that the potential of crises to foster socioeconomic transformation is to a substantial extent dependent on their capacity to discursively open up the future. Drawing on an economic sociology perspective that emphasizes the role of imagined futures, we have shown how interpretative struggles over the consequences, causes, and remedies of a crisis involve engagement with future expectations and can render alternative futures conceivable. Referring these insights back to our point of depar-

ture, what can we learn for the cause of global warming and the world's puzzling non-response?

First, while the inherent characteristics of global warming (e.g., its long-term build-up and tipping points) may not particularly facilitate collective response, it is important to acknowledge that such responses are similarly dependent on the societal interpretation of a disruptive development as a "veritable" crisis. In this regard, recent attempts by the Fridays for Future movement to actively reframe the underlying phenomenon not as climate change or a climate catastrophe but precisely as "climate crisis" appear both remarkable and promising in the endeavor to foster transformative social change.

Second, the various controversies emerging around the climate crisis can be understood along the three layers we have proposed and illustrated. The concept of multilayered interpretative struggles may therefore inform further analysis of climate discourse. For example, the abysmal scenarios regularly predicted by the Intergovernmental Panel on Climate Change of forthcoming flooding and desertification, famine and refugee movement are attempts at credibly portraying long-term consequences and showing how they disrupt established orders. In media and political discourse, such forecasts are then linked to tangible present events like droughts, tsunamis, or species extinction. Weingart, Engels, and Pansegrau (2007) have shown how linking the present to disastrous futures has been a substantial part of the German climate discourse since at least the 1980s. But similarly to what we have found for the oil crisis, we also find actors denying climate change by neglecting its relevance for the earth's future (Wright and Mann 2013). Along the same lines, on the layer of conflict over the causes of the problem we see actors neglecting human life as the primary cause of global warming or assuming global warming to be a temporary development. And while excessive CO₂ emissions are indeed widely acknowledged as a substantial cause, a closer look reveals a plethora of underlying mechanisms blamed for the climate crisis: from illegal forest clearance and capitalism to overpopulation and society's reliance on fossil fuels. Like we have seen for the oil crisis, crisis causes that need to be reverted in the future remain discursively contested. This is even more true for related remedies to climate change that constitute the third layer: How the climate crisis can be prevented or at least mitigated is subject to fierce conflicts between different interest groups as well as industrialized and developing nations. Suggested solutions range from technological modernization to a substantial transformation of capitalism to authoritarian control of individual behavior (Adloff and Neckel 2019). Moreover, for climate change we can currently observe a contro-

versy that concerns the idea of crisis agency as such: Is it still possible to mitigate climate change and focus on the causes, or should humanity rather prepare for the consequences of global warming and "learn to live

with it?" The potential for socioeconomic transformation is shaped by the outcomes of such multilayered interpretative struggles and their capacity to open up the future.

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Organizing for climate adaptation: Competing visions in Boston

Nichole Wissman-Weber and David L. Levy

Climate impacts have significant economic, social, and environmental consequences for cities to consider (Adger et al. 2005). In 2020 alone, climate-related disasters such as the droughts in East Africa, South Asian floods, and wildfires in Australia and the American West cost billions of dollars and brought immense suffering. This shifting environment, which is creating new, difficult-to-manage risks (Beck 2009), has been designated the Anthropocene (Steffen et al. 2007) – a new epoch characterized by human impacts on the climate and biodiversity loss (Clark 2014). The Anthropocene concept is shifting our collective understanding and response to environmental changes, which in turn generate material changes to the urban and natural environments (Gephardt Jr et al. 2009; Johnson et al. 2014; White et al. 2015).

The Anthropocene thus raises questions regarding how organizations, institutions, markets, and governance structures adapt. Although environmental problems are frequently framed as narrow managerial-technical problems amenable to simple solutions, the Anthropocene provides “the opportunity for a re-politicisation of environmental challenges” and to explore “many futures – imaginaries about worlds that would be good to live in and ways of reaching them” (Lidskog and Waterton 2016, 399). This exploration questions the path of continu-

ous economic growth, casts doubt on optimistic renditions of scientific progress, and probes the power relations vested in structures for defining, managing, and distributing risk (Beck 2009; Cable et al. 2008).

Contending with climate change through adaptation Coastal cities in the northeastern US began planning in earnest for climate adaptation following Hurricane Sandy in 2012, which caused widespread death and economic losses and was linked to climate change by the scientific community and the mass media (Trenberth et al. 2015). These cities are leading the way because they have substantial assets at risk and possess the administrative capacity and resources to engage in adaptation (see Shi et al. 2015). The media have struggled to convey the unprecedented size and intensity of the storm systems, the record rainfall and flooding in Houston, and the scale of devastation in Puerto Rico.

Most cities are in the early stages of planning: they are establishing initiatives, such as Climate Ready Boston (CRB), to assess and model likely physical impacts; estimate future costs under various scenarios; conduct cost-benefit analyses of adaptation measures; and explore financing mechanisms. They are forging local networks of stakeholders that include government agencies at multiple levels, community groups, and the private sector – primarily property developers, insurance companies, and consultants (Adger et

Nichole Wissman-Weber is an Assistant Professor of Management at the University of San Diego (USD) School of Business, where she teaches strategic management. Nichole takes an interdisciplinary approach to research at the intersection of climate change and business. Her current research focuses on cross-sector climate adaptation processes, including the role of consultancies, the incorporation of social equity, and the configuration of climate risk. She is the co-founder of the Environmental Integration Lab, which is in development at USD; she consults on climate adaptation projects and has published on topics such as climate adaptation, hybrid organizations, and the circular economy. nwissmanweber@sandiego.edu

David L. Levy is Professor of Management at the University of Massachusetts, Boston, and was a co-founder of the Sustainable Solutions Lab there. An Aspen Institute Faculty Pioneer Award Winner, he conducts research on corporate and societal responses to climate change, with a recent focus on urban climate adaptation. His work explores strategic contestation over the governance and finance of controversial issues engaging business, governments, and NGOs, such as climate change and sustainability standards. David has spoken and published widely on these topics, for both academic and practitioner audiences. david.levy@umb.edu

al. 2009; Anguelovski and Carmin 2011). Adaptation measures under consideration vary across temporal and spatial scales, ranging from multibillion-dollar harbor protection schemes to smaller-scale projects to protect neighborhoods and changes to zoning and building codes (Kirshen et al. 2008). Major foundations are funding studies of new financial mechanisms for resilience.

This process of organizing for adaptation raises several questions: How do organizations make sense of the risks associated with the Anthropocene? Which actors and what frames are engaged in the planning and decision-making processes? How do new processes and structures evolve to “manage risk”? How are these response processes affected by differential power and interests? What conflicts arise regarding risk management mechanisms and priorities, for example, between resilience and economic growth? And who will benefit from climate adaptation resources?

Risk regimes: Organizing for the unprecedented

We develop the concept of a “risk regime,” building on earlier work on risk society (Beck 2009; Beck et al. 1992), value regimes (Levy and Spicer 2013; Levy et al. 2016), urban regimes (Mossberger and Stoker 2001; Whitehead 2013), and organizational management of risk (Linnenluecke et al. 2012; Whiteman et al. 2011). We use this risk regime concept to examine the interaction of physical risks with economic, political, and discursive forces and the ways in which new processes are emerging that shape the construction, management, and allocation of risk. We illustrate the framework with a case analysis of climate adaptation in Boston.

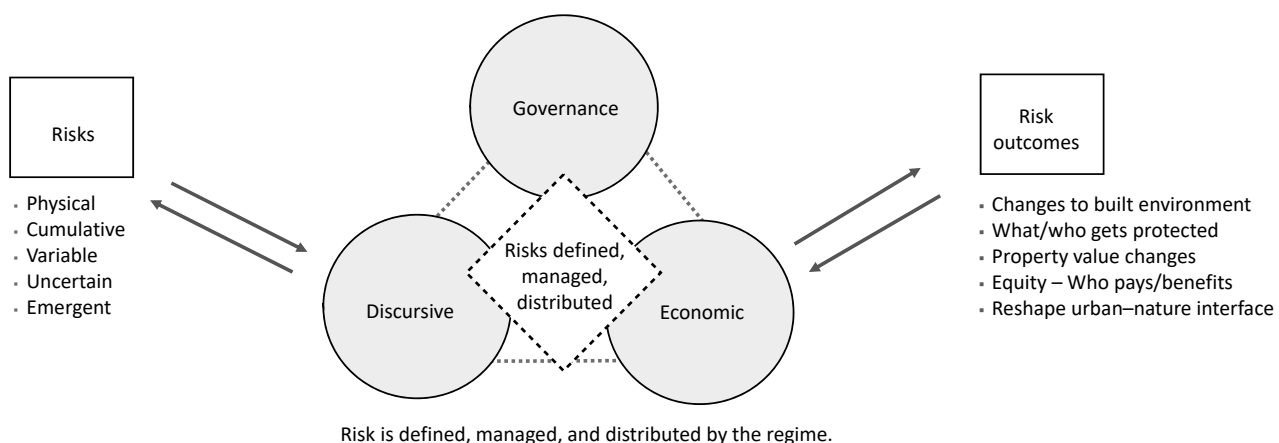
The Anthropocene concept suggests that risks have become “less readily identifiable, more problematic, less easily managed, and more anxiety-provoking” (Gephart Jr et al. 2009, 192), and thus cannot be objectively assessed (Holt 2004). Critical perspectives on risk management questions draw attention to the political economy of risk and the ways that perceptions of environmental risks are shaped by cultural context (Beamish 2001). Risk perceptions are actively

contested and shaped by organizations with economic interests, for example, over nuclear power (Cable et al. 2008) or genetically modified food (Schurman and Munro 2009). Indeed, “risks emerge from the very organizing processes through which they are assessed and managed” (Maguire and Hardy 2013, 232). Organizational pressures of hierarchy and cost control can exacerbate risks and silence concerns about them (Gephart Jr 2004; Perrow [1984] 2011). Nyberg and Wright (2016) describe how agents define and cement particular risk framings and develop market processes that monetize risk, translating physical into financial risk that can be controlled and transferred.

The concept of a risk regime describes the configuration of actors, rules, markets, and norms that is emerging to address urban climate risk. The contestation over risk definition and management is driven by competing imaginaries (Levy and Spicer 2013; Taylor 2004), which provide a shared sense of meaning “to articulate strategies, projects and visions oriented to these imagined economies” (Jessop 2010, 345). These imaginaries provide some coherence regarding the nature, extent, and manageability of risk, the role of regulatory and market institutions, the distribution of burdens and benefits, and the priority accorded to urban development, social equity, or environmental goals. “Such imaginaries anticipate and invite a significant restructuring of economic, social, cultural and political arrangements, and hence are often highly contested” (Munir et al. 2018).

Theories of urban environmental regimes are particularly relevant for climate adaptation. Whitehead (2013) argues that cities represent “the spatial manifestation of the complex of economic and political processes ... that shape and condition the urban experience.” These processes create tensions when “urban carbon control must be synchronized within a seemingly perpetual imperative for urban growth”

Figure 1: Risk regime conceptual framework



(1352). The traditional “growth coalition” of property developers, financial institutions, and city governments (Harding 1994) is likely to dominate climate urban adaptation policy.

Our risk regime framework suggests how a network of actors structures the way that risk is defined and managed. Figure 1 depicts the economic, governance, and discursive configurations that constitute a regime, and the dialectic between the destabilizing potential of physical risks, the structure and processes of the regime, and potential outcomes. The economic dimension of the regime concerns mechanisms of value creation, market structures, and business models at the firm and city levels; the discursive dimension relates to the semiotic systems that structure conceptions of risk and appropriate responses; and the governance dimension includes formal and informal rules, power relations, and organizations with authority (Levy et al. 2015).

Managing climate risks in Boston, Massachusetts

Boston has been considered a leader in planning for both climate mitigation and adaptation. Various reports have signaled a growing awareness of climate risks, a more sophisticated knowledge of specific impacts, and a move toward adaptation and implementation. For example, “A Climate of Progress” (Boston 2011) recognized the need to “give adaptation the same priority as mitigation,” and documented social and economic inequities associated with climate risks. The region also has an active community of nongovernmental organizations (NGOs), university researchers, consulting firms, and investors engaged on climate issues.

Hurricane Sandy in 2012 placed adaptation on the agenda of policymakers and business, even though Boston narrowly avoided major damage because the storm hit at low tide. The *Rising Tide* (2013) report included the first vulnerability assessment of flood risk in Boston and urged flexible adaptation strategies across agencies and sectors. Subsequent assessments, including the CRB reports, provided a more granular picture of risks. Boston is fourth in the US in terms of value-at-risk (Hallegatte et al. 2013) partly because large swathes of the city were built on filled-in harbor areas (Boston 2016). Reports paint a challenging future as the century progresses:

... almost 20 percent of Boston’s land area will be inundated by a 1% flood, exposing almost 90,000 residents and \$90 billion worth of real estate to flooding and 10 percent of Boston will be at risk of chronic stormwater flooding ... If

these climate hazards are not addressed, they will threaten Boston’s livability and economic viability, and they will disproportionately impact socially vulnerable populations ... (Boston 2016, 1)

Boston has experienced substantial development in vulnerable waterfront areas of the city, and significant flooding affected the Seaport district and other coastal areas during two “100 year” storms in early 2018. Enduring inequality has also been a source of tension. Boston has one of the highest levels of inequality for a major US city (Berube and Holmes 2016) and community groups highlight the intersection of climate risks with other vulnerabilities, such as low-quality housing, poor healthcare, and lack of insurance. Business groups have begun to evaluate the impact of climate risks on real estate, tourism, insurance, and operations. A Better City, a local group of 130 companies in multiple sectors including retail and property, has expanded its work from emissions reductions to adaptation and resilience.

Organizing the risk regime: Three imaginaries

Our immersion in Boston’s adaptation process involved attending many meetings and interviewing a range of actors. Analyzing this data helped us identify three imaginaries that represent distinct approaches to understanding and managing risks. The imaginaries are performative in that they represent how actors think the regime *ought* to be structured and inform strategies that actors pursue to realize them. The actual positions taken by various actors, as well as the trajectory of the emerging regime in practice, draw elements from several of these imaginaries.

The *business as usual imaginary* emerged as a cautious approach that stresses uncertainties in forecasts of climate impacts, the high cost of resilience investments, and concern that ambitious initiatives might disrupt existing business models and power relations. While acknowledging that climate risks exist, advocates for this imaginary emphasize the need for flexibility as the future unfolds and the risks of expensive and unnecessary actions. The key actors advocating for aspects of this imaginary are private sector actors, particularly property developers, but also some city officials concerned with the tax base.

The existing governance of the physical development of the city is largely in the hands of private property developers and investors, but constrained and guided by municipal zoning, planning, and permitting. The business community feared that rising concerns over climate risks would lead to stricter reg-

ulatory policies and higher construction and insurance costs. One real estate sector representative stated that: “One-size-fits-all building codes will be expensive; they don’t reflect the specific vulnerabilities and risks of each location and type of building. I am skeptical about requirements. The market is driving energy efficiency, and will drive resilience. Forcing developers to do the right thing assumes they are ignorant.” Another developer argued for an approach based on return on investment (RoI): “We are building to an uncertain sea-level future. We need careful investing but not overinvesting. Risk and cost has to balance out. One has to be careful, we should start with smaller measures.”

The property development sector did not deny climate risks, and was beginning to be concerned about property values declining as awareness of risks grew. It was therefore open to large-scale technological fixes that might enable business to continue as usual in the city and keep insurance costs down – as long as most of the cost was borne by federal and state funds. One adaptation project under consideration was a harbor barrier that could cost \$8–\$15 billion.

The *innovative models and finance imaginary* involved the transformation of physical risks into technical and financial problems amenable to management, perhaps even revealing new business opportunities. This imaginary goes beyond “trusting the market,” as in the business as usual imaginary, relying more on innovation and entrepreneurship to create new markets and business models. Risks are acknowledged in this imaginary, but they are tamed and controlled through models that purport to convey with precision the extent and cost of flooding with particular probabilities at various times decades hence. These risks would then be amenable to cost–benefit analysis and to the development of sophisticated financial instruments, supported by a new raft of resilience metrics and disclosures that attempt to capture the “value” of investments that reduce future losses.

Cities and towns were enchanted by the promise of technical expertise and market solutions that relieved them of the financial and political costs of adaptation. This promise also helped secure finance and insurance companies an influential seat at the policy table. Advanced analytics and innovative financial and insurance mechanisms, such as catastrophe and performance bonds, were proposed as innovative solutions to cities lacking the capital for adaptation investments. One global insurance executive stated: “Insurers can work for cities. Once we’ve got the modeling, you can create the rules of the game for finance – resilience investment and catastrophe bonds. It isn’t all bad news, there is a real business and city level dividend with climate risks.” The focus on models and moneti-

zation, however, made it difficult to include social factors such as equity in adaptation planning. A consultant in a risk modeling firm remarked: “You have to put a number on equity and social issues, unfortunately – you have to make sure it’s monetized if you want it to be included in adaptation. If you don’t monetize, then it won’t be included.”

In the *radical change imaginary*, the Anthropocene was considered too unstable for climate risks to be manageable with technical and financial instruments, however innovative. Proponents of this imaginary were typically environmental activists and community groups, who often express awareness of their vulnerabilities and marginalization from decision-making processes. The radical change imaginary also questioned underlying structures of governance, the primacy of economic values, and relationships at the human–nature interface. One community non-profit director stated: “We can use this time to redesign how planning happens in the city and reimagine who gets to make what decisions over the long-term, and really democratize climate and displacement.”

The radical change imaginary also envisages more radical changes to the material urban form and its boundaries with nature. In contrast to the notion of a harbor barrier as a sharp boundary wall protecting the city from the dangers of nature, the “Boston Living with Water” discourse has been promoted, through design competitions in Boston and New York, as a more progressive concept that blurs urban boundaries with nature and can address multiple goals. One local design idea suggested “Boston as Venice,” with a network of canals allowing storm-surge to penetrate the city without causing damage. The vision is to achieve a climate future that is “economically and socially sustainable, inclusive and equitable, and beautiful” (Living with Water 2015). Though primarily located in the design community, this integrative vision resonates strongly with community groups. Community organization members called for a broader conception of resilience that considers equity, people, and place. One leader passionately argued that: “The land underneath you has become more valuable than you. Investment needs to be about people, private and public spaces in the neighborhood.”

The emerging risk regime: The progressive instrumentalists

Our study suggested that the trajectory of the emerging regime is being shaped by competition and cross-fertilization among three imaginaries, which constitute visions of future risk regimes, but are rooted

in actors' interests, interpretive frames, and institutional locations. These are multiple competing visions regarding the desired contours of the emerging regime. For example, a risk regime could be driven primarily by public agencies and regulations or by markets and private business. It could envisage large-scale region-wide engineering projects such as a harbor barrier, or a more incremental approach. It could entail a more profound reconsideration of the human and urban interface with nature, or an extension of the traditional view that natural risks can be modeled, tamed, and managed.

We characterize the risk regime we observe actually emerging in the Boston region as *progressive-instrumentalist*, with close parallels to Stone's (1993) "middle-class progressive urban regimes." It reflects a degree of convergence among the core actors and has hegemonic appeal in its apparent promise to reconcile economic growth and resilience through technical analysis, consensus around scientific assessments, multi-stakeholder governance, business and financial innovation, and creative urban design. It also represents a process of compromise and accommodation, as business and government recognize the need for a collaborative, systemic approach that mobilizes and adapts regulations, markets, and private capital.

As a hegemonic accommodation, however, the progressive-instrumentalist regime does not reflect all stakeholder interests and viewpoints equally. Technical and financial actors, interests, and models are privileged and dominate the key decision-making meetings. Although equity concerns are noted occasionally in official reports, the radical change imaginary has largely been marginalized, being vocalized and represented in separate fora and with quite different language and norms. The regime is also riven with internal tensions. For example, while the need for new governance mechanisms to address the systemic character of climate risks is recognized, there is also evident reluctance to change decision-making processes in more structural ways.

In the economic realm, it is unclear how innovative finance and insurance markets will generate the resources needed, given the scale of investments required and elusive returns on resilience investments. The political struggles over who pays and who is protected have yet to play out. Crucially, the models and assessments used to tame, monetize, and manage risk, thereby keeping stakeholders at the table, run the risk of serious "misfires," for example, by omitting more severe scenarios. Reconciling resilience with continuing coastal development may prove illusory; the emerging risk regime could well be inadequate to prevent disastrous climate-related impacts.

Climate adaptation in the Anthropocene

Climate adaptation is the organized effort to grapple with emerging and unprecedented climate impacts. Our study illuminates how a network of professionals, business managers, policymakers, and community members is working to develop the organizational and knowledge infrastructure to manage risks. In studying the actors, processes, and discourses entailed in grappling with adaptation in the Boston region, we bring a grounded and decidedly organizational lens to conceptualize the Anthropocene.

The Anthropocene also opens an opportunity to explore "many futures – imaginaries about worlds that would be good to live in and ways of reaching them" (Lidskog and Waterton 2016, 399). Yet the recognition that the Anthropocene presents unprecedented and unpredictable impact stands in sharp contrast to the emergent technocratic risk regime that purports to reconcile climate change with preserving the economic and political status quo. It might be more accurate to say that the Anthropocene itself is being constructed within this organizational process, in that the contested process of structuring a risk regime molds our understanding of planetary risks as well as the material responses to it. Approaching adaptation from the perspective of the Anthropocene and risk society demonstrates the discontinuity between the historical stability of the climate – and the social and economic institutions that evolved within it – and an unstable, unpredictable future in which our institutionalized mechanisms for managing risk are inadequate. Moreover, society is locked into climate disruptions for generations to come (League et al. 2019). While the Intergovernmental Panel on Climate Change repeatedly calls attention to the narrow window of opportunity for reducing emissions, they are still rising (World Meteorological Organization 2020).

The events of 2020 – a pandemic, unprecedented climate-related disruptions, social movements demanding racial justice, and political upheaval – have brought wider attention to human vulnerabilities and to the inequalities associated with environmental and public health crises. As society contends with these challenges, there are emerging opportunities to address the structural social and economic rifts that shape the nature and distribution of risks, as well as the differential benefits and costs of public action. Fundamentally, the way in which we understand and manage risks to remain within planetary boundaries will reconfigure our relationship with the natural environment.

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The problem of compensation and moral economies of climate change

Rebecca Elliott

The climate crisis is here. Wildfires, running hotter and longer, burn homes to ash. Storms dump more water, faster, onto areas that have been paved over and built up, submerging private property and public infrastructure. Already-observed sea level rise has eaten away at coastal shorelines and generated “sunny-day” flooding from high tides, disrupting normal routines. So who pays for all this loss and damage, and how much?

By now, economic sociology has taught us a great deal about economic approaches to accounting for and mitigating future or further climate change, that is, the ways various actors have marshalled markets and market technologies to measure, price, and exchange emissions, and the politics thereof (e.g., Engels and Wang 2018; Liu 2017; Lohmann 2009; Lovell 2014; MacKenzie 2009). We know a good deal less about complicated questions related to the economic implications of climate change’s effects – effects which are no longer hypothetical but rather are already being felt and addressed, in uneven ways, around the world.

In the spirit of strengthening the engagement of economic sociology with this particular dimension of climate change, here I sketch out contested issues of *compensation* for climate change, where processes familiar to economic sociologists – commensuration, economization, valuation – reveal the play of economic techniques and rationalities, configurations of knowledge and political power, murky and contested boundaries between public and private, and cultural

understandings of worth and worthiness. I raise and illustrate some ways economic sociology might productively examine compensation for climate change by situating the discussion first in the empirical domain of insurance: the arena I study and one in which actors are already involved in sorting these issues out as a matter of economic practice (Elliott 2021). I then take the questions about compensation that arise in the insurance context and consider how they might be ripe for examination in other emergent arenas of compensation. And because processes of compensation typically involve designations of responsibility, I conclude with some discussion of how tracing those processes yields insight into moral economies of climate change.

Compensation for climate change with or without “climate change”

Compensatory arrangements already exist and function to distribute funds to those who find themselves affected by floods, storms, droughts, and wildfires – events that climate scientists view as influenced by climate change. Some of these arrangements are organized through insurance institutions, which pay out claims to people for such losses whether anyone is talking about climate change or not. I once asked the president of a U.S. insurance trade association how his member firms were preparing for climate change and he explained to me that they didn’t need to account for climate change *per se*. They were, after all, in the business of assessing, pricing, and protecting against risk,

Rebecca Elliott is Assistant Professor in the Department of Sociology at the London School of Economics and Political Science. Her research examines the intersections of environmental change and economic life as they appear across public policy, administrative institutions, and everyday practice, with a particular focus on the governance of climate change. Her first book, *Underwater: Loss, Flood Insurance, and the Moral Economy of Climate Change* (Columbia University Press), has just been published. r.elliott1@lse.ac.uk

with contracts typically written on a year-to-year basis. If the risks of various perils were indeed changing, insurance operations would adapt as they always had: by updating their assessments, premiums, and terms of contracts accordingly. As and when policyholders suffered losses, they would make their claims as usual and be compensated for the losses they experienced.

One task for economic sociologists then is to trace how and with what effects climate change – decomposed into its constituent hazards – is channeled through existing financial institutions and particularly those that establish arrangements for risk-spreading,

risk-transfer, indemnification, property valuation, and redistribution (Grove 2010; Johnson 2015; Taylor 2020; Weinkle 2019), even where frontal engagements with “climate change” may appear inconsistently or not at all. Through risk assessment and actuarial techniques, insurance economizes the natural hazards that are intensifying with climate change, and in doing so defines and distributes the costs of climate change. As economic sociologists well know, these processes of risk assessment and economization, however arcane, technical, and objective they might appear, involve human judgments of what is or is not relevant to various calculations. These judgments in turn mobilize particular social models and values, as well as reflect organizational decisions and constraints. Risk assessments and economizations don’t simply solve pre-existing problems, but instead work to define problems in the first place, in this case setting the financial terms upon which compensation for climate change can be secured. Furthermore, through setting the terms of contracts and selling policies, insurers decide what losses to include or exclude, as well as whose risks to include or exclude. These decisions effectively constitute climate communities of fate, creating specific obligations and entitlements vis-à-vis collective resources that pay for the losses faced by members (Heimer 1985; Lehtonen and Liukko 2015). By tracing how monetary amounts are estimated and disbursed, and to whom, economic sociology can provide insight as to how different people will fare as the climate changes.

Other important economic sociology questions emerge where the elegant logic of “normal” insurance compensation, as outlined by the trade association president, has begun to break down. Mounting catastrophic losses have in fact strained the ability of some insurance institutions to compensate policyholders; catastrophic losses have become routine losses. This has unsettled prevailing distributions of responsibilities across the state, the market, and individuals. In the U.S., the National Flood Insurance Program (NFIP), a public, federal program that insures most homes and small businesses, has been tens of billions of dollars in debt to the U.S. Treasury since Hurricane Katrina in 2005. Claims vastly outstripped premium revenues and, despite having large portions of its debt forgiven by Congress in the years since, the NFIP has never been able to claw its way out of the red. When catastrophic losses occur one after the next, the NFIP’s duty to compensate policyholders implicates budgetary constraints, public liabilities, and taxpayer obligations (Elliott 2021).

This has not just been a problem for public insurance institutions. In October 2020, a few private property insurers in Florida went into receivership

due to the stresses of recent hurricane seasons and storm losses, shedding policies that are likely to be picked up by the state’s public insurer. In California, private insurance claims related to wildfires in recent years have also driven several insurance companies out of business, leaving policyholders reliant on public backstops. Other insurers responded by “pricing in” the changing risk, but higher premiums put insurance coverage effectively out of reach for those who could no longer afford to buy their way into private networks of risk-sharing. Some companies have refused to renew policies at all because they no longer expect to be able to meet their potential liabilities. The problem of compensating catastrophic loss can in these ways lead to the creation of “protection gaps,” where people have uneven access to financial security as they confront a warming and more volatile world (Jarzabkowski et al. 2019; Johnson 2015). What all this might inspire for economic sociologists is an examination of how compensation for climate change reveals or troubles the boundaries between public and private, state and market, as well as how actors imagine that markets, or market-like technologies and arrangements, can or ought to work to manage the potentially enormous losses of climate change (Christophers 2019; Gray 2017; Hirschman and Popp Berman 2014; Mitchell 1999).

Compensation for climate change beyond insurance

Economic sociologists might transport concerns that arise in the world of insurance, about how and with what effects costs are estimated, attributed to climate change or not, and distributed, to other emergent arenas of compensation for climate change. After all, insurance is one way of compensating loss and damage, but there are others (O’Malley 2003). Disaster relief and foreign aid, often raised through tax revenues, do the same thing. Here the redistribution of resources, domestically or internationally, makes compensation possible. For decades now, small island states and developing countries have been trying to secure redistribution from the rich world explicitly to compensate them for climate change, in light of the fact that they will suffer worst from the effects of global warming but have contributed the least to global emissions. There have been steps toward this, despite the resistance of rich countries and particularly the United States. The United Nations Framework Convention on Climate Change (UNFCCC) enacted the Warsaw International Mechanism for Loss and Damage Associated with Climate Change Impacts at the 19th Confer-

ence of Parties in 2013. This “L&D” mechanism concedes that there are limits to adaptation and that some losses are now unavoidable (Tschakert et al. 2017). As currently written, the mechanism includes language that loss and damage “does not involve or provide a basis for any liability or compensation,” but legal scholars and policy actors have begun to consider how it might nevertheless create paths to financial support. Part of that project is to establish credible chains of attribution, directly connecting specific, observed, quantified loss and damage first to climate change and then to emissions from the rich world. We might follow these policy developments, and the calculations therein, as a way to gain insight into how differently positioned actors marshal and mix economic styles of reasoning with other forms of expertise, as well as diverse logics of worth (Boltanski and Thévenot 2006) in order to justify or refuse projects of global redistribution for climate change’s effects.

Lawsuits are another way to secure compensation for loss. In recent years, U.S. cities, states, and children have brought lawsuits against fossil fuel companies, seeking to hold those companies accountable for the damages caused by climate change. As of date of writing, several challenges continue to make their way through the courts. As Marion Fourcade’s (2011) study of litigation to compensate damage from oil spills teaches us, the adjudication of damages in the court systems provides a context for social actors to arrive at various valuations of nature, in which they work out the worth of what has been lost or damaged in monetary terms. Where climate change has begun to figure in court cases, economic sociologists might be attentive to how climate science and other forms of expertise, organizational and institutional histories, and cultural attachments to nature come together in ways that shape if and how compensation is awarded. We might also examine how the pursuit of compensation through litigation reveals the articulation of different kinds of “communities of fate,” where people are brought together not through insurance solidarity but through identification as injured parties, claimants, or victims.

In insurance, global governance, the courts, and beyond, the matter of compensation for climate change also raises questions about the larger place of money in responding to climate change. Economic sociologists might engage with the inevitable limits of compensation to leave people “made whole” when they face some of the losses of climate change. Monetary compensation can restore property and other things that can be assessed in monetary terms. But a flood, fire, drought, or storm can disrupt and destroy things that cannot be commensurated and economized so easily: a sense of security, a rhythm of life, an

emotional connection to home and place. Money may be an inadequate or only partially adequate response to the losses of some things that matter, that are worth something to people, inviting further exploration of how monetary compensation might in fact “distort the stakes of a decision for different groups,” as Wendy Espeland (1998, xiii) puts it, and shape the kinds and amounts of compensation that people desire and find acceptable.

Compensation and moral economies of climate change

The questions of who pays for climate change and how much are conspicuously questions of responsibility. Processes of compensation attribute responsibility, in multiple senses of the word: responsibility for causing a loss, responsibility for doing something about a loss, responsibility that we have to each other (Baker 2002). In the face of further climate change, contestation over compensation will involve claims-making around what is right, deserved, and fair, and the success of these claims will influence the material resources that are ultimately made available to recover from the impacts of climate change, and to whom they are made available.

Ideas about what is prudent and fair will also shape how people think about what compensation does or should do. For example, perceptions that insurance compensation enables people to continue to rebuild unwisely in harm’s way have fed a growing chorus of voices – coming from inside and outside governments – calling for different incentives and requirements that would push people out of floodplains, storm-exposed coasts, and the wildland-urban interface, rather than allow them to “get back to normal.” This is regarded not only as prudent, because it looks something like adaptation to climate change, but also as fair to taxpayers who don’t live in those areas, but who do bear the burden of disaster relief that covers uninsured losses, pays to rebuild public infrastructure, and fills the gap when insurance institutions can’t meet their claims.

By following developments in compensation for climate change, where various attributions of responsibility are contested, economic sociology can illuminate facets of emergent moral economies of climate change. This is to say: through tracing the imbrication of stated and unstated moral commitments and normative visions of climate futures with economic arrangements, we can deepen understanding of how precisely climate change is constituted as an economic problem, and for whom.

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Book reviews

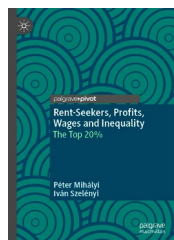
Péter Mihályi, Iván Szelényi · 2019

Rent Seekers, Profits, Wages and Inequality: The Top 20 %.

Cham: Springer

Reviewer **Bence Kováts**

Centre for Economic and Regional Studies,
Békéscsaba; Corvinus University of
Budapest
kovats.bence@krtk.hu



In their new book, Péter Mihályi and Iván Szelényi address the issue of rents, increasingly perceived to play a major role in driving inequalities to-

day (Ryan-Collins et al. 2017; Ward and Aalbers 2016). However, differently from the writings dealing with the negative consequences of the deregulation of the extraction of land rent in the past half century, the authors analyse rent from a novel perspective to explain recent socio-political dynamics in the highest-income countries of the world.

The authors define rent as the income “stemming from ownership of any asset [inaccessible by] other economic actors” (p. 64). Mihályi and Szelényi’s most significant innovation is that, in their interpretation, not only do legal

owners of scarce assets receive rent (exploitation rent) but also actors enjoying privileges. For example, industrial labourers in the highest-income countries receive higher wages than they would if their company did not enjoy a preferential position on the market due to protectionist regulations, or if the workers themselves were not better protected by collective bargaining or restriction of immigration (solidarity rent) (Chapter 3). Furthermore, the higher wages paid by companies in oligopolistic positions also include a significant share of rent.

The authors’ main argument outlined in Chapter 6 is that while the rent generated through the protection of industries in core countries is decreasing due to globalization-induced deregulation, rents produced in oligopolistic industries benefitting from globalization, e.g., the financial sector, increase. The rise of nationalist leaders propagating protectionism (such as Donald Trump) is fuelled by the fear in large parts of the population of the loss of their rents due to globalization. On the other hand, it is exactly the loss of these rents that mitigates inequality on the global scale through increasing productivity in the periphery.

This argument of the authors, albeit resembling findings of Milanović (2016), provides a very different perspective from interpretations that narrow their focus to core countries and rents generated by asset-owners: rents, distributed unevenly across the globe but more evenly among classes within countries in the past, are becoming more equally distributed geographically today. This argument of the authors is very powerful and will definitely find resonance among scholars concerned with global inequality rather than that within core countries.

However, it is rather surprising that the authors apply this

expanded notion of rent quite selectively without explaining the restrictions they apply. For example, is an individual’s wage not also influenced by the dominance of specific race, gender, cultures and languages over others, actively facilitated by (some) nation states over the past centuries (e.g., through investments in culture and knowledge production)? The authors mention racial and gender-based inequalities as non-capitalist forms of inequalities (pp. 36–40) and mention “cultural anxiety” as the materialization of efforts to preserve rents (pp. 119–23), but do not include them in their concept of rent seeking, while they do include positive discrimination (p. 65). The authors should have described in greater detail the range of privileges that can be considered as rent-generating assets and explain the restrictions that they apply.

The other main argument of the book outlined in Chapter 4 is that the upper-middle class, the top quintile of the population, is turning into a new nobility in core countries, hindering upward mobility from the lower classes. This occurs through the generation of an increasing amount of their wealth through rent-seeking, which takes the form of the inheritance of assets, advantages in access to elite education, and assortative mating. Since the wealth of the top 20 % is gained in the form of rent, they tend less to invest their money in economically productive ways, facilitating growth and the increase of wages in the lower quintiles. Even though this topic is indicated to be a focus of the book in its title and the introduction, this part of the work is underpinned by surprisingly little empirical evidence. The authors seek to support their argument with only a few references to works about inter-class mobility, the decreasing share of interclass marriages, and

a description of the process of hereditary admission to universities in the US.

Though the authors introduce Ricardo's land rent theory at length in their discussion of the major concepts of rent (pp. 28–30), and briefly mention that most of inherited wealth is linked to the spatially uneven appreciation of real estate in recent decades (p. 80), it is unfortunate they do not dedicate more attention to the connection between the two processes and do not address the issue of the financialization of housing, a topic widely discussed in the social sciences since the crisis (Aalbers 2016; Ryan-Collins et al. 2017; Wijburg 2020). The wealth of the top 0.1% is not only important because people envy it, as the authors note in their critique of Piketty (2014) (p. 135), but also due to the fact that that wealth is increasingly invested through mortgages into real estate (i.e., land), appreciating housing and significantly affecting productivity (Aalbers 2016; Ryan-Collins et al. 2017).

Considering Szélenyi (1983) has already dedicated significant attention to housing inequalities generated during state-socialism, while Mihályi (1981) advocated the cessation of public housing construction and the give-away privatization of the existing stock in Hungary in the 1980s, the authors' perspective on changes in the extraction of land rent and their effect on inequality generated through housing over the past few decades in Central and Eastern Europe would have been extremely interesting. However, the authors mostly discuss the region through rather traditional forms of rent extraction via political power in Chapter 5. While this part of the book is rich in anecdotes and provides an interesting overview of the twists and turns of the political-economic transformation these countries have been undergoing, it

does not seem to add much to the discussion of the authors' expanded notion of rent outlined in other chapters of the book.

Despite its limitations, including the unusually high number of typos, *Rent Seekers* provides an intriguing narrative and a convincing explanation of current political-economic dynamics in the world that will hopefully trigger discussion about the materialization of rent and its social consequences today.

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Roland Atzmüller, Brigitte Aulenbacher, Ulrich Brand, Fabienne Décieux, Karin Fischer, Birgit Sauer (eds.) · 2019

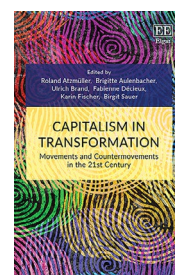
Capitalism in Transformation: Movements and Countermovements in the 21st Century.

Cheltenham, UK: Edward Elgar

Reviewer **Katalin Ámon**

Central European University, Doctoral School of Political Science, Public Policy and International Relations (DSPS), PhD candidate amonkata@gmail.com

Freedom and complexity: The intellectual power of Karl Polanyi's double movement theory



Capitalism in Transformation: Movements and Countermovements in the 21st Century is a collection of theoretical and empirical reflections on Karl Polanyi's life

work, mainly the double movement theory presented in his book, *The Great Transformation* published in 1944. Polanyi's best-known book defines the dynamics of capitalism as double movement: a continuous interplay between market forces (movement) and forces of social protection (countermovement) seeking to protect society from the deleterious effects of market expansion. The volume edited by Roland Atzmüller, Brigitte Aulenbacher, Ulrich Brand, Fabienne Décieux, Karin Fischer, and Birgit Sauer shows that Karl Polanyi's work still inspires research

chers to conceptualize the transformations of capitalism through the tensions of the double movement.

The book is divided into three sections. The first sections include an interview with the political economist Kari Polanyi-Levitt, Karl Polanyi's daughter (interviewed by Brie and Thomasberger, 2019), who emphasizes Polanyi's devotion to freedom and complexity and the historical-personal context of his work. Chapters 3 to 6 are theoretical reflections on Polanyi's double movement theory. Chapters 7 to 12 are case studies about contemporary developments of capitalism and as such mainly analyze the right-wing-nationalist shift in contemporary European politics and its links with global financial capitalism. Chapters 13 to 20 focus on the dynamics of transformation including the transnationalisation and digitalization of work, and the commodification of care and knowledge.

The two key concepts in the interview with Kari Polanyi-Levitt are freedom and complexity. It is these two concepts that sets the context and brings together the chapters that offer very different theoretical and empirical reflections. The chapters focus on capitalist transformations relying on Polanyi's concepts of movement and countermovement but with different understandings of how to conceptualize the double movement itself. Some chapters concentrate on the dynamics of tensions and contradictions produced (such as Silver 2019; Cangiani 2019), others on the principles and concepts of market and fictitious commodity (Deutschmann 2019; Jessop 2019), while others focus on the paths that could be produced by the double movement (Bohle and Greskovits 2019, for example). It would have been interesting to read a concluding chapter that sums up the different analytical approaches towards the double movement as a global force

that is channeled through national contexts, as a contradiction or tension between principles, and as a complex force that always has to be understood in specific historical-national contexts.

This would be particularly useful because there seems to be a variety of factors that interact with the double movement dynamics, such as the context of post-socialism and the specific constellations of key political actors (Bohle and Greskovits 2019), the limitations of social protection in Eurozone countries (Markantonatou 2019), and the intersections of global and national labor and care regimes (Aulenbacher and Leiblfinger 2019; Weicht 2019). These contexts influence both market expansion and social protection, and the national and local answers to marketisation and commodification. However, no analytical consensus seems to emerge from the chapters about what constitutes the national context and what constitutes market expansion as a global phenomenon. At the same time, the chapters discuss market expansion in the era of globalization/neoliberalization as a global phenomenon. It would be interesting to reflect on the different analytical perspectives because the blurred boundaries between market expansion and the answers to it could as well be one of the main contradictions caused by the double movement.

This is especially striking in the analysis of the emergence of the populist right (Bohle and Greskovits 2019; Atzmüller and Décieux 2019; Becker and Dörre 2019; Sauer 2019), political Islam (Buğra 2019), and the globalization and commodification of care (Aulenbacher and Leiblfinger 2019; Weicht 2019). In these cases, conservative nationalist-familialist answers to the movement ultimately contribute to market expansion and even the rejection of forms of social protection (claims of

equality) against it (Atzmüller and Décieux 2019). From the chapters analyzing rightwing populism and familialism promoting market expansion, a shared pattern emerges in line with Polanyi's analysis of fascism. However, it is less openly discussed whether these answers – if they ultimately strengthen market expansion and remove social protection – should be identified as countermovement forces at all.

The definition of social protection does not only have a theoretical relevance, but also affects the ways transformation could be imagined and achieved. Polanyi was interested in change and forwardlooking, but not only from an analytical point of view. Conceptualizing social protection is therefore not only relevant for revising double movement as a concept, but for identifying potential paths of change. Therefore it would have been interesting to include more cases of social protection and double movement dynamics such as the chapters about social movement organizing against land grab as soy expansion (Fischer and Langthaler 2019) and progressive changes in housing and urban infrastructure (Novy, Bärnthaler, and Stadelmann 2019) to potentially identify shared patterns in social protection dynamics that do not result in the promotion of market expansion.

While teasing the shared patterns and contradictions out more would have benefitted the book, the book illustrates very well why a Polanyian understanding of capitalism is still so relevant for many researchers: it is because of the freedom and complexity offered by Polanyi's theory highlighted in the interview with Kari Polanyi-Levitt. Polanyi's work allows researchers the intellectual freedom to analyze the complex interactions between market, society, and the environment, and such intellectual freedom is in itself an

act of social protection in the era of neoliberal knowledge production. Such analytical freedom is necessary to capture the complexity of capitalist transformation(s), but it would have benefitted the book if it also offered an overview of the analytical approaches through which this can be achieved.

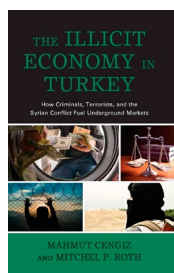
Mahmut Cengiz,
Mitchel P. Roth · 2019

The Illicit Economy in Turkey: How Criminals, Terrorists, and the Syrian Conflict Fuel Underground Markets.

Lanham, Maryland: Lexington Books

Reviewer **Annette Hübschle**

University of Cape Town (UCT). Global Risk Governance Programme
annette.hubschle@uct.ac.za



Turkey plays a strategic and geographically significant role in the northern hemisphere with its territory adjoining continental Europe and Asia. Over the millennia, Turkey's location as pathway between the Occident and Orient has been both a blessing and a curse to the people of Turkey. Most readers will remember the tales of greatness and conquest at the peak of the Ottoman Empire, which saw Turkey become a world power during the

medieval and early modern period. The Ottoman Empire started to decline towards the end of the eighteenth century as a result of wars and the gradual loss of territories, ending in the establishment of the Republic of Turkey in 1923. Modern Turkey has gone through many institutional and political reforms and backlashes. Its wish to join the European Union has to date been unsuccessful. The book reviewed here may hold some indirect answers as to why leading European powers are resistant to granting Turkey EU membership.

Overall the book provides an impressive empirical overview of the illicit economy in Turkey by focusing on key organized crime and terrorist activities. It starts with an exhaustive history of the emergence of criminal networks in Turkey. What caught my eye is the discussion of social banditry as one of the precursors of modern organised criminal networks and emergence of corrupt patronage networks involving politically connected and business elites. The prominent role of Robin Hood-type figures who distribute goods and services to the poor goes a long way in explaining how corrupt systems become entrenched not only in Turkey but elsewhere in the world, including South Africa from where I write this review.

The second chapter explains the illicit economy by pointing to historical, geographic, institutional, and structural factors that enabled the growth and firm anchoring of criminal networks in modern Turkey. Its geographic proximity to the notorious Balkan Route offers a smuggling highway from opium-producing regions in Asia to European markets. Nuclear materials, cigarettes, and people have also been smuggled along this route. In combination with a weak judicial system and the social legitimacy of smuggling among local communities, smuggling has be-

come a way of life for many rural dwellers in some border regions of Turkey. What is clear from the insightful quotations from smugglers is that the lines between legal and illegal and legitimate and illegitimate economic activities are moving targets with many grey areas being exploited by criminal actors.

The remainder of the book is structured around specific illegal markets and terrorist activities. Chapters 3 to 5 look at illicit markets for drugs, people smuggling and trafficking, cigarettes, oil, pharmaceuticals, antiquities, and nuclear materials. Cengiz and Roth provide detailed analysis of the different markets, their structure and functioning, and the societal impacts. Turkey is often a source, transit, and consumer country in markets for a variety of illegal economic activities. The chapters are clearly written from a state-centric crime control perspective. While the authors discuss the dismal performance of the Turkish health system in dealing with drug addiction and treatment briefly, they do not mention the detrimental impacts of drug control upon drug users and low-level rural cannabis growers, who are treated in the same way as cross-border heroin traffickers. Alternative crime fighting models such as harm reduction or legalization appear to find little favour with the authors. In fact, the authors make reference to "recidivism" being "quite common among drug users" (p. 48). Recidivism is usually associated with the tendency of a convicted offender to reoffend. Labelling drug users as offenders is not only unhelpful but also deeply problematic as evidenced elsewhere in the world, most notably in the US where black men are routinely arrested for drug use or low-level dealing. Another strange assertion is the claim that in countries "where prostitution is either legal or at

least tolerated, the demand is high for human trafficking victims who can be exploited in the sex sector” (pp. 34–35). The authors base this claim on Feingold’s seminal article (2005), which debunked human trafficking myths including that legalizing prostitution increases prostitution (Feingold 2005: 28). The erroneous interpretation of Feingold’s work may explain why the section on sex trafficking appears to conflate prostitution with sex trafficking. This conflation may arise from the popular contention that people who engage in sex work lack agency or free will to do so. The well-researched case study on the investigations in Iğdir City suggests, for example, that some “trafficking victims” chose to return to their place of work after deportation, suggesting that they may not have been forced into prostitution. The authors make the normative claim that “victims who return voluntarily to work in the sex sector are still considered victims.” In spite of the normative stance taken, the chapters provide rich data and are peppered with fascinating details and observations which, no doubt, stem from Cengiz’ decades-long career in the Turkish Anti-Smuggling and Organised Crime Department.

Scholars of corruption and political authoritarianism will find chapters 6 and 7 interesting as these chapters provide invaluable insights into the various forms of corruption and state capture during the Erdoğan regime and the resultant hollowing out of law enforcement and judicial institutions. Cengiz and Roth make a convincing argument that the po-

liticization of the criminal justice system, the entanglement of state with the ruling political party and the concomitant purges of law enforcement, intelligence and judicial officers laid the foundation for the criminal capture of the state, which has created loopholes for criminal and terrorist organisations. The remaining chapters of the book deal with terrorist actors (Chapter 8), the Syrian crisis (Chapter 9) and money laundering (Chapter 10). A huge chunk of these chapters is devoted to the Kurdistan Workers Party (PKK) and ISIS (Islamic State in Iraq and Syria). The Kurdish struggle for independence and/or autonomy has a long and terrifying history. In reading the sections on the PKK in the book, I felt uneasy with the terrorist labelling by the authors without acknowledgment of the systemic marginalisation and state-sponsored violence by Turkish authorities against Kurds. The Turkish army destroyed 3,000 villages between 1992 and 1996, displacing 384,793 (Turkish statistics 2002) or between an estimated 1.5 million to 2 million (Human Rights Watch 2002, Jongerden 2021) Kurds over the following decade. One person’s terrorist is another person’s liberation fighter.

In concluding, the book is informative and provides rich narrative descriptions based on triangulated data. It is unclear whether there is an overarching theoretical or conceptual approach. The early chapters suggest an organized crime angle while later chapters appear to support of Shelley’s theory of dirty entanglements of state and non-state actors by way of corruption in the perpetration of

criminal and terrorist activities. I would have wished for more engagement with the interface between legality and illegality. Much of the book points to the “underworld” of organised crime and terrorists as fuelling “underground” markets. Based on the chapters on corruption and dirty entanglements, it would appear that it may not be so easy to differentiate between “upperworld” and “underworld” actors.

Cengiz’ intimate knowledge of Turkish law enforcement operations and shortcomings as well as the extensive empirical research on illicit markets are a golden thread throughout the book. I am hoping for an ethnographic follow-up book or article that documents the difficulties of career law enforcement officials holding the blue line during state capture and the systemic hollowing out of criminal justice institutions.

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Mark Alizart · 2020

Cryptocommunism.

Cambridge, UK: Polity Press

Reviewer **Philipp Degens**University of Hamburg, DFG Humanities
Centre for Advanced Studies "Futures of
Sustainability"

philipp.degens@uni-hamburg.de



Bitcoin used to entail the promise of a world with decentralised money, freed from states and central banks as well as from private banks and financial intermediaries. It has fostered hopes of overcoming the current financial and monetary system and building a new one based on free and decentralised interaction. At least this hope had been widespread ten years ago, when Satoshi Nakamoto's white paper was written and Bitcoin was created. Slightly more than a decade later, Bitcoin appears to be merely a highly speculative asset, celebrated by libertarians and modern crypto gold bugs. It attracts, it seems, only those that believe in an old-fashioned monetary theory that perceives commodity money as the outcome of barter, and that is driven by concern about the power of governments to create money and increase its supply. At least, it seems, the emancipatory and liberating power of Bitcoin is rarely seen anymore. Also, time has not served Bitcoin well as the hottest topic in money: it has been overtaken by modern monetary theory and a renewed interest in the state with its capacities for monetary and financial policy. In a sense, Bitcoin's fate somewhat resembles the development of views on the internet as a whole.

Early hopes that it would serve as an egalitarian means to connect free and autonomous individuals, and to decentralise power and the economy, have long had their day. Instead, the internet has facilitated corporate control, Big Data quasi-monopolies, and enriched banks and multinational companies. It appears that the ethos of decentralization has failed in these cases.

Against this backdrop, Paris-based philosopher Mark Alizart offers a provocative intervention, arguing that Bitcoin does in fact provide the possibility to actually put communism into practice. In his reading, Bitcoin indeed has the capacity to create a new economic system without banks and corporate control. Decentralised and consensual data technology frees us from surveillance and allows us to become truly autonomous. The book's programmatic title underlines that Alizart does not envision a libertarian anarchist world, but *cryptocommunism*. Bitcoin (or, to be more precise, the blockchain technology), as he puts it, enables "a collective appropriation of the means of monetary production" (p. 47).

The stimulating book is structured in three parts, each divided into four short chapters. The different parts build upon each other and reflect respectively on Bitcoin as a means of decentralised yet consensual governance (part I), as a form of money (part II), and as a tool to organize life beyond money (part III).

The main theoretical foundation of Alizart's argumentation lies in a particular reading of Marx through the lens of the insights of thermodynamics that culminates in the astonishing statement that "Bitcoin is Marx's dream become reality" (p. 28). Alizart's account is based on the conviction that the laws of thermodynamics govern not only nature but also the economy. He stresses that this was

Marx's view too. Alizart therefore is in line with recent approaches that elaborate on close links between Marxian thought on one hand, and ecological materialism in general and thermodynamics in particular on the other (see, for example, Burkett and Foster 2006). Such thermodynamic accounts of the economy highlight dynamics and crises (partly reflecting entropy) and reject the notion of Newtonian equilibria that is at the heart of conventional economics. It is likely that some readers will not agree with the way Alizart equates the earth and the economy as both "subjects of the laws of thermodynamics" (p. 106). Yet the book is a must-read for everyone interested in thermodynamic accounts of Marx and Marxian thoughts, even if Alizart's reading of Marx, and the underlying broader implication for social theory as being reliant on thermodynamics, might be disputed.

I will leave those issues aside here, and, instead, I would like to draw attention to selected issues concerning Bitcoin and the way Alizart posits it as a mechanism to solve the problem of socialist planning. Alizart embraces cryptocurrencies because they uniquely combine decentrality and consensus. The blockchain as a decentral, distributed ledger creates consensus, without giving up individuality and autonomy. It is important to note that issuing currency is only one basic implementation of the protocol's capacities. Smart contracts enable "automating automation" (p. 92) by connecting objects that exchange tokens without human interference. Bitcoin as a currency therefore does not even fulfil the potential of blockchain that lies in smart contracts, entailing information on quantity and quality, and beyond. It therefore is the *blockchain protocol* that entails the power to set free a cryptocommunist world in which access and dis-

tribution of goods is arranged from each according to their ability, to each according to their needs.¹

There is a major reason why Bitcoin as such does not have the potential to lead us into crypto-communism. Here I am referring, most notably, to the idea of scarce money that is encoded in the protocol. This is arguably one of Bitcoin's key features. The total number of Bitcoin is just over 21 million, in order to ensure value stability – or, more precisely, deflation. This feature reflects the fact that Bitcoin rests on a commodity theory of money that regards money as something scarce and given.² Alizart is sceptical of such theories, and in fact he devotes one chapter – “fools gold” – to addressing problems that arise from the idea of constructing Bitcoin as “digital gold.” He acknowledges that it is in great part this particular feature that results in the well-known libertarian fascination with Bitcoin. Alizart's negative assessment of the scarcity element in Bitcoin is unequivocal; he perceives the idea “that the value of money can be fixed forever” as being “simply infantile” (p. 70). Such a form of money might well serve as a store of value, but not as a general means of exchange. In his view, the creation of money should have been freed up in the Bitcoin protocol instead of being forced to stick to one rule that embraces scarcity. Here, Alizart refers to credit theories of money, and to Schumpeter in particular, and argues that economic activity is necessarily dependent on an endogenous money supply. Moreover, the rule-based scarcity idea (derived from Hayekian thought) does simply not work. Creating money out of nothing is “always possible” and “perhaps the most fascinating thing about money” (p. 68f). According to Alizart, it is sufficient that two people mutually agree on what money is – provided certain

rules exist and counterfeit is practically difficult.³ This perspective resonates with those approaches to money that shed light to money's plurality and diversity, and that acknowledge various actors as being quite capable to create monetary circuits (cf. Bandelj et al. 2017, Dodd 2014). Alizart briefly discusses all different kinds of actors and organisations – individual people, entrepreneurs, states and so on – that are able to issue their own currency. He criticizes the conception of a single currency that can be controlled by large monopolistic entities, be it central banks or commercial banks. He therefore discusses the idea that monetary biodiversity would protect the economy, as proposed by the economist Bernard Lietaer, an influential activist for monetary pluralism and diversity. Referring to his thermodynamic conception, Alizart concludes that an economy with two opposite currencies – “hot” and “cold” – would constitute an “antagonistic equilibrium” (p. 78). In this recognition of monetary plurality, Alizart does not follow Marx, who had been highly critical of Proudhon's or Owen's experiments with alternative currencies.

Whereas Alizart discusses the role of monetary theory and of thermodynamics as social theory, he leaves one issue strikingly underexposed given our current crises – that of the amount of energy necessary for maintaining and using the blockchain technology. Bitcoin is directly coupled to the material world via the energy that is consumed in “mining” processes. For Alizart, this does not appear to be problematic. After all, in his thermodynamic world, energy consumption is not a problem but a simple necessity. Alizart may be convinced (in fact he certainly is) that the issue of overconsumption of energy and natural resources will (and can only) be solved via a

technical solution. In this view it is only a matter of time for solutions to be found. However, readers might wonder to what extent this assertion holds or to what extent we should base our practices and policies on such a hope.

All in all, the intellectual journey that Alizart takes us on is as intriguing as it can be. The question of how exactly cryptocurrencies might serve as “a collective appropriation of the means of monetary production” (p. 47), however, seems still not to be solved. Its technology might entail the possibility of decentralised consensus that in turn could constitute a “successful version of Soviet ‘democratic centralism’” (p. 34). Yet it seems quite unclear who would actually form the collective that organizes the socialization of the means of production. It is unlikely that it will (only) be humans. At the least, smart contracts and automated automation will surely mean that non-humans take decisions in a decentral and consensual way. In a world of smart contracts that increasingly become smarter, non-human entities are in fact likely to play a much bigger role than humans. Alizart briefly mentions Bruno Latour and his proposal of a *parliament of things* and suggests, “we will learn to live with [non-humans, machines, PD] symbiotically” (p. 93). Yet the actors, or actants in the terms of Latour and Callon, that collectively negotiate the distribution of the means of production (and that of products), might not take the well-being of humans as a main reference point. This would, however, be necessary for a cryptocommunist world for humans. To further elaborate on such important issues, actor-network-theory might be fruitfully employed. The book, at least, offers a fresh and fascinating proposal of how to merge science and social theory that shows some proximity to Latour.

Readers might sharply disagree whether the kind of crypto-communism that Alizart describes seems to be a utopian or rather a more dystopian vision – it is a world where we might “imagine that our destiny is to become the neural network of the new life form that Bitcoin will be” (p. 102). Alizart clearly places himself in the tradition of the futurologist Norbert Wiener, one of the founders of cybernetics, in the belief that automation and decentralisation will facilitate true democratic governance (p. 18f). It is quite probable that not everyone will embrace technology in general, and blockchain in particular, in the same way as Alizart does. However, he powerfully reminds us that we should not too easily disregard Bitcoin and the blockchain technology as nothing but a libertarian playground for a bunch of digital gold diggers. This alone is a very good reason to engage with the book. Furthermore, it raises questions – and gives intriguing if provocative answers – of how to conceive horizontal social relations free of

domination, built on mutuality, decentralism, and consensus in a future world driven by smart technology. For economic sociologists, the book appears to be a timely invitation to become more closely engaged with these issues.

Endnotes

- 1 It might be somewhat confusing that Alizart, although he rejects so many of its core features, constantly praises Bitcoin, instead of other cryptocurrencies that do not encode scarcity into their blockchain protocols. In the end, the vision of truly decentralised and consensual blockchain technologies in a cryptocommunist world seems to depend on some sort of “alternative blockchain” that overcomes Bitcoin’s highly unegalitarian and centralist design (cf. Dodd 2018). Somewhat opposed to his own critical stance of Bitcoin, Alizart even states there are too many alternative, leftist blockchain projects (in a footnote on p. 129).
- 2 The question whether or not Alizart, in his rejection of a commodity theory of money, follows or contradicts Marx, shall not be raised here. It is, however, quite unclear if and in what sense Marx com-

mits to a commodity theory of money. At least, as Derpmann (2018) argues, the Marxian perspective does not necessarily rest on such a monetary theory.

- 3 In this regard, Alizart rejects those monetary theories that assert first and only the state to be in a position to guarantee money’s value (by accepting it as a means for settling obligations with the state, i.e., to pay taxes).

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