# 1AC

### Food ADV

#### The sole contention is Food.

#### The present nature of merger policy over the agriculture sector threatens both the access to AND availability of food---there are two internal links:

#### 1. SYSTEM RESILIENCE.

#### There are imminent threats to food supply chains---that risks cascading destruction. BUT, building in system resilience through an innovative process mitigates shocks.

Dr. Ika Darnhofer 21, Associate Professor, Economic & Social Sciences, University of Natural Resources and Applied Life Sciences, Vienna, "Resilience or How Do We Enable Agricultural Systems to Ride the Waves of Unexpected Change?" Agricultural Systems, Vol. 187, February 2021, ScienceDirect.

The COVID-19 pandemic is the most recent example of an unexpected event with far reaching impact. Earlier examples include the collapse of the Soviet Union, the BSE crisis, the terrorist attacks of 9/11, the 2008 financial crisis, the Fukushima Daiichi nuclear disaster, Brexit, as well as the string of extreme weather events linked to the climate crisis. The processes that unfold after such an event tend to be unpredictable, as they result from the interplay of objective facts, how various actors make sense of these facts, and how the economic, institutional and social relationships link the various actors in a complex web of interdependencies (Jasanoff, 1997; Law, 2006; Law and Mol, 2010; Lang, 2010; Leach et al., 2010; Biggs et al., 2011; Rosin et al., 2012; Béné, 2020; Enticott and Maye, 2020; Marchant-Forde and Boyle, 2020; Thorsøe et al., 2020).

Unexpected events remind us of a key message of resilience thinking1: that agricultural systems not only face slow, predictable change, but also rapid, unpredictable change (Fig. 1). I would argue that much research on change in agricultural systems has focused on slow, predictable, controlled, planned, managed change, with much less attention to their ability to face the unexpected, to navigate surprises, to benefit from unpredictable events. Accordingly, the methodological tools available to assess risk are in much wider use than those that allow to ponder uncertainty.2 Similarly, many approaches to studying resilience focus on the ability of the system under consideration to ‘bounce back’ after a shock, thus implicitly contributing to maintain the status quo, possibly with some marginal adjustments. This has been heavily critiqued by social scientists, as the current situation is often fraught with social inequities, so that maintaining the status quo implicitly supports the powers-that-be (see Cote and Nightingale, 2012; Brown, 2014; Olsson et al., 2015). Much rarer are studies of resilience that focus on the ability to ‘bounce forth’ (Davoudi, 2012), i.e. for an agricultural system to implement major adaptations or even transform, not least in response to an unexpected event. It thus seems that we like to ‘tame’ real-world issues, rather than accepting their ‘wicked’ nature (see Rittel and Webber, 1973).

[Figure omitted]

I argue that it would be helpful to redress this imbalance, acknowledging that unexpected events are ubiquitous. This means not only accepting that ‘change is the only constant’, but also that often enough change is of the unexpected, surprising kind. Instead of assuming that the future is known (i.e. can be extrapolated from past trends) consider that it might well be very different from what we expect. Rather than a one-sided focus on stability – not least because it allows planning for increases in efficiency and productivity through standardization, rationalisation, and optimization – assume that there will be surprises, that the system will need to change and adapt. Given the lack of sustainability of many agricultural systems (IAASTD, 2009; IPES-Food, 2017; TEEB, 2018; IPCC, 2020), and the lock-in that hamper transitions to sustainability (Grin et al., 2010), unexpected events may even offer valuable openings for change (Taleb, 2012).

This does not mean that we should give up on planned, directed and purposeful transitions, based on assessing trends, their expected impacts, and associated risks. However, we need to be aware that with their focus on predictability, such efforts are based on an underlying assumption that agricultural systems develop along a stable trajectory, their essential dynamics known.3 This assumption may underestimate the complexity of agricultural systems, the unpredictable interplay between their natural, technological and social elements. Thus, when trying to understand how agricultural systems change over time and how they respond to surprises, we need to capture the interactions between all these elements, including the subjective perception of actors (e.g. Herman, 2015; Shah et al., 2017; Perrin et al., 2020; Posch et al., 2020). Indeed, an event may transform the future possibilities perceived by the farmer, without it being immediately visible in the farm's activities. In other words: even if a system seems stable, there may be diverse changes underlying this outward stability, that may erupt suddenly; possibly using the opening created by an unexpected event.

If we take into consideration that agricultural systems will face unexpected surprises, then focusing solely on developing recipe-like recommendations meant to ensure optimal crop or farm management is one-sided, as these recommendations are efficient only as long as the context (e.g. soil, weather, markets, labour availability) remains stable and broadly complies with the assumptions underlying the model. This is an engineering mindset (see Jacob, 1977), where the farmer is expected to work according to a preconceived plan, striving solely for efficiency, using specialized inputs and machines. Yet, in real life, farmers are also tinkerers, engaged in an unfolding, open-ended process, reorganising their resources to explore new ideas, adjusting their system based on new information, transforming it in response to opportunities as they emerge. As such, an agricultural system is not a perfect product of engineering, but the provisional achievement of a tinkering process, reflecting a historical becoming replete with contingencies.

For an agricultural system to be resilient, it must balance the ability to be efficient in the current context with the ability to re-organise, to adapt in response unforeseen (and unforeseeable) change (Fig. 1). While much research has focused on developing efficient processes and increasing productivity, much less research effort has gone into understanding what enables agricultural systems to navigate unexpected change. For that, it may be helpful to explore designs that ensure buffers, maintain redundancies, privilege modularity, promote diversity. Such design strategies can strengthen adaptability by enabling bricolage and tinkering, i.e. processes where available resources are reconfigured and used in novel ways in response to emerging opportunities (Jacob, 1977; Coquil et al., 2014; Feyereisen et al., 2017; Grivins et al., 2017; Caves and Phelan, 2020; Zagata et al., 2020). Recognizing and shaping these opportunities is enabled by processes such as experimenting, learning, networking, collaborating (Percy, 2005; Levidow and Oreszczyn, 2012; Chantre and Cardona, 2014; Bédart and Stassart, 2017; Klerkx and Begemann, 2020). In these processes, the impact of a surprising event, the outcome of every trial and every failure provide valuable information that is used to better understand shifts in the system and its dynamics, thus guiding the next adaptive step (see Taleb, 2012:181ff).

Adaptive processes may rely on new inputs, but they may also rely on the ability to mobilise and reorganise available resources in creative ways. Thus, rather than just only focusing on assessing whether the ‘right’ elements (e.g. technology, knowledge, policies, institutions) are present, it is also important to consider how they are assembled (see e.g. Legun, 2015; Jones et al., 2019), what relations have been built between elements in a system, and how much flexibility and manoeuvrability these relations offer.

As the above conceptual exploration shows, understanding change might be more about processes than objects, more about flows than states. To capture what enables adaptation in a dynamic world, a process-relational perspective can be helpful. This perspective is akin to systems thinking, but emphasises relations over elements4 (Walsh et al., 2020). Importantly, as these relations are not seen as static ‘things’ but as dynamic and unfolding, the focus is on the processes involved in building, maintaining, and changing relations (Emirbayer, 1997; Powell, 2013; Dépelteau, 2018).

#### Market concentration stifles attempts to develop AND implement new technologies and processes.

Jennifer Clapp 21, Professor & Canada Research Chair, Global Food Security & Sustainability, University of Waterloo, "The Problem with Growing Corporate Concentration and Power in the Global Food System," Nature Food, Vol. 2, Issue 6, June 2021, pg. 404-406. edited for clarity.

A relatively small number of transnational firms have come to wield a high degree of influence within the global food system. Recent years have seen firms all along agrifood supply chains merge and acquire one another, to form giant ‘mega-companies’ that are central players in what can only be described as a profound reconfiguration of the world food economy. This process is happening in markets for farm inputs, agricultural commodity trading, and food processing and retail1–3. In parts of the global food system where just a few giant firms control a large share of the marketplace, these firms can influence the types of seeds farmers plant, what crops are grown, what breeds of livestock are raised and in what types of facilities, working conditions for food system workers, and the types and prices of food items that appear on grocery store shelves, to name just a few examples.

There is long-standing concern that powerful firms in concentrated markets are more incentivized to advance the short-term interests of their shareholders rather than the public good4,5 , a concern that extends to food systems. Civil society groups worry that concentrated agrifood firms might pursue profit maximization strategies in ways that undermine the livelihoods of small-scale producers, push up prices, limit product choices and damage the environment. As preparations are underway for the 2021 UN Food Systems Summit (UNFSS), which has goals of making food systems more equitable, healthy and sustainable, civil society groups have expressed concern that the Summit agenda does not sufficiently focus on the implications of corporate power in food systems6 . This relative neglect is especially puzzling in the context of growing global concern about the potential harm from concentrated markets in other sectors, such as Big Tech. Because food systems are so important for multiple reasons—food is a basic need as well as a basic human right, food systems provide livelihoods for nearly a third of humanity, and food systems are intimately connected to ecosystems—it is imperative that we have a better understanding of the potential consequences of corporate concentration and power in the sector.

This Perspective examines the implications of corporate power in one highly concentrated sector—the global seed and agrochemical industry—that has become more consolidated in recent years7,8 . The merger of Dow and DuPont in 2015, which spun out a new agricultural input firm, Corteva Agriscience, was one of three major mergers that the agricultural seed and chemical industry saw in the 2015–2018 period. ChemChina purchased Syngenta in early 2016, shortly after the Dow–DuPont deal was announced, and in 2018 Bayer purchased Monsanto. What was already a highly concentrated industry dominated by what were known as the Big Six firms since the early 2000s is now dominated by just four large firms: Bayer, Corteva, ChemChina-Syngenta and BASF (which grew by purchasing assets the other firms sold to get their merger deals approved by regulators).

Closer examination of this sector reveals that there are multiple ways in which concentrated firms can exert power—both directly and indirectly—that matter for food system outcomes: by shaping markets, by shaping technology and innovation agendas, and by shaping policy and governance frameworks. Without policies in place to keep corporate power in check, there is a risk that concentrated markets can undermine key goals for food systems, such as the provision of equitable livelihoods, sustainability and broad-based participation in food system governance. Policies to rein in corporate power in food systems will require efforts on multiple fronts, and a focus on these efforts should be prominent on the agenda of the UNFSS.

Shaping market dynamics

When only a few firms dominate within a market, those firms at the top tend to have power to shape how that market functions. The desire to have more power over market dynamics is in fact a big reason why firms engage in mergers and acquisitions in the first place—to expand their market share and deliver higher returns to their shareholders. Economists have long been concerned about ‘market power’ associated with highly concentrated sectors because it can stifle competition and potentially lead to higher prices that can harm consumers9 . For this reason, most regulatory attention is paid to the potential impact of market power, and in particular, its impact on consumer prices.

The recent mergers in the global seed and agrochemical sector generated enormous concern about the potential impact of greater corporate concentration on markets7,10. In 2009, the share of the global market held by the top four firms at the global level for seeds was 54%, and 53% for agrochemicals, up significantly from 21% and 29%, respectively, in 1994, prior to several rounds of mergers in the sector11. This level of concentration was approaching the threshold of what most economists consider to be a highly concentrated market, where anything over a 40% share for the top four firms is considered moderately concentrated, and over 60% is highly concentrated. In 2018, after the most recent mergers, the top four firms controlled even more of the market—around 70% of the global pesticides market12 and around 60% of the global seed market13.

Some analysts warn against reading too much into these aggregate global market share figures regarding concentration levels because there are differences in specific crop seed market shares at the domestic level14. However, even those data show that in many domestic markets, just a few firms dominate sales of key staple crop seeds in a wide range of countries, in many cases with market shares above 80%, including the USA, the UK, Turkey, South Africa, Thailand, Italy, Denmark, Indonesia and Brazil. In Brazil, for example, the top four firms controlled 97% of the maize seed market by value in 201610. Such high levels of concentration usually are red flags for regulators who seek to ensure that markets remain competitive.

Concentration at these levels can impact seed prices through weakened competition, especially in cases where there are significant barriers to entry facing new firms due to high costs for research and development (R&D), as is the case in the seed and agrochemical sector. There are relatively few studies that examine this question empirically in the sector, given difficulties in accessing data that are held behind paywalls by the private sector. The peer-reviewed studies that do exist looked at time-series data for key crop seed markets in the USA and found that market concentration is at least one significant factor contributing to higher seed prices15–17. A recent [OECD] Organisation for Economic Co-operation and Development study10 that analysed proprietary cross-country seed price data also found a linkage between concentration and seed prices, but only at levels of market concentration above 80% (although this study was limited by the fact that it looked at data from only one year, 2016). The finding of the link between concentration and seed prices in these studies raises concern about the potential implications for equity, making this area worthy of further study. If farmers are paying more than they would otherwise for their inputs due to market concentration, they are likely absorbing these costs in the form of lower compensation for their work. The reason is that it is difficult for farmers to pass on those higher costs to consumers because they are often selling their products to concentrated intermediary firms who demand lower prices.

Influence over pricing is not the only way in which concentrated firms can shape market dynamics. Fewer firms controlling a market can also limit choice by making certain products more available than others. In some markets in the USA, for example, it is becoming increasingly difficult for farmers to access non-transgenic varieties of seeds, as the big firms with more market share can exert influence over product availability18 and incentivize distributors to focus on sales of genetically modified versions of seeds that deliver higher profits and the sale of other products, such as associated herbicides19. Intellectual property protection that transnational seed companies hold over hybrid and genetically modified varieties also limits the ability of farmers to save seeds for replanting20. This kind of market control is intensified when there is vertical integration of businesses across different parts of the agrifood value chain21. The seed and agrochemical businesses were once distinct industries but have now morphed into one because genetically modified seeds are designed to work with specific inputs (such as certain herbicides), in an integrated way.

Giant firms that dominate markets also typically have more bargaining power over working conditions and labour compensation22,23. Recent research indicates that labour’s share of income in the economy in the USA and many other countries drops as firms become more concentrated24. Mergers among dominant firms can also contribute to job losses, especially if the resulting firm seeks to make its operations more ‘efficient’ by combining key functions. The merger of Dow and DuPont, for example, resulted in 1,700 job losses, while Bayer cut 12,000 jobs in the wake of its purchase of Monsanto25,26.

Shaping technology and innovation pathways

When just a few concentrated firms dominate within a sector, those firms can influence technological innovation trends in important ways27. Firms pursuing mergers and acquisitions often make the case to regulators that they need to consolidate into larger entities to put more funds towards R&D that can result in breakthrough innovations that promise wide-scale benefits, including the possibility of lowering costs for consumers. However, at the same time, concentrated markets can also work to impede innovation, especially when they result in higher barriers to entry for other firms28,29. A key question for regulators is to tease out which force is likely to prevail, if any. Untangling the implications of these competing dynamics for innovation in the seed and agrochemical sector is not an easy task14

It is important to consider how the impact of concentration on innovation can change over time, as technological changes emerge and settle, and as markets become more concentrated and potentially shut out new entrants due to high R&D costs. There was a boost in seed innovation that followed mergers among seed and chemical firms in the 1970s–1990s period, for example11, when firms were consolidating to invest huge sums into R&D operations for the development of agricultural biotechnology that resulted in new seed varieties. However, as the sector became more highly concentrated in the late 1990s and early 2000s, innovation in the agricultural biotechnology sector slowed29. Moreover, throughout the entire period, herbicide R&D languished at the big firms because their innovation agenda focused almost exclusively on the relatively less costly strategy of modifying seeds to work with existing herbicides30–32.

Simply focusing on whether firms ‘innovate’ in general gives an incomplete picture of the power of concentrated firms to shape food systems. We must also pay attention to the kinds of innovation dominant firms promote and whom that innovation serves. In other words, what matters is not whether new seed varieties and herbicides are introduced at all, but rather, what types of seed varieties and other related technologies are being developed (or not developed) and whether end users were consulted and social and environmental implications were taken into account33. In concentrated sectors such as seeds and agrochemicals, the firms that hold the most market share have tended to focus on very narrow innovation pathways that privilege high-tech and relatively high-cost proprietary technologies, such as genetically modified seed and agrochemical packages, over other less capital-intensive and more accessible innovations, such as agroecology34. In other words, firms tend to invest in innovation pathways that are good for their own bottom lines, rather than developing more accessible and low-cost technologies for the world’s farmers, especially small-scale producers in the developing world.

A narrow focus on certain technologies over others can also foster technological ‘lock-ins’ for users that can have undesirable environmental and social consequences. The technological innovations that came with the agricultural biotechnology revolution, for example, locked farmers growing certain crops into using genetically modified seeds that were designed to work only with certain chemical herbicides. Furthermore, glyphosate, which was once just one of many non-selective herbicides in the 1970s, rose to become the world’s most widely used herbicide due to the fact that most genetically modified seeds were altered to be resistant to it35. As we are becoming more aware of the potential risks associated with widespread glyphosate use, including growing weed resistance to the chemical, its environmental effects, and still-debated health-related concerns, some firms are engineering seeds to be resistant to older, more toxic chemicals that bring their own risks36.

The high-tech innovation agenda in the seed and agrochemical industry has become especially pronounced in recent decades due to the general trend towards privatization of agricultural R&D, where governments have stepped back from their earlier strong role in sponsoring agricultural research37. This trend leaves much of the technological agenda setting in the sector to the largest firms whose primary goal is short-term profit maximization to satisfy shareholders.

The latest round of consolidation in the agrifood sector is already shaping the technological landscape for farming in new ways. The dominant firms are seeking to establish leading positions in emerging digital platforms for agriculture and in computer-assisted genome editing7,38. When Bayer purchased Monsanto, for example, it also acquired the digital agriculture start-up that the latter had already purchased39,40. If the same firms that dominate seed and agrochemical development also dominate digital farming platforms, they can integrate their products in ways that drive additional types of technological lock-in and extend their market power. Such an outcome could result in further constraints to farmer choices and raises questions about farmers’ rights over and access to data, including that generated on their own farms41–43.

#### 2. INDUSTRIAL AGRICULTURE.

#### A flood of chemical use AND other industrial practices make food systems terminally unsustainable.

Kimberly White & Julian Cribb 10-13, Founder & CEO, The Planetary Press; Adjunct Professor, University of Technology, Sydney, "Julian Cribb- Earth Detox: Charting The Path Toward A Safer, Cleaner World," The Planetary Press, 10/13/2021, <https://www.theplanetarypress.com/2021/10/julian-cribb-the-planetary-podcast/>.

Kimberly White

That is unnerving. Now, you’ve written quite extensively about food security. What threats do chemical pollution pose to food security?

Julian Cribb

Five million tonnes of pesticides are used to grow the world’s food at the moment. This is ten times more than when Rachel Carson warned us about them back in the 1960s. Those pesticides don’t just disappear. They go into the soil. They go into the ecology around us. They are wiping out bees, birds, and others that pollinate crops. About a third of the human food supply here requires pollination. So if we kill off all the pollinators, then we’re going to be down about a third of our food if we’re not careful. Basically, 98 percent of agricultural chemicals hit a non-target organism; that is, a bumblebee, a farmworker, a consumer, something like that, something that wasn’t intended. Now, levels are not high in the food that you buy in the supermarket, but they are there. And a lot of these chemicals, because they’re not water-soluble, they’re very hard to get rid of. So when you buy your fresh vegetables, no matter how hard you wash them, you cannot get rid of the chemicals. Basically, washing doesn’t work very well. So, this is a real dilemma. You can’t avoid these things. They’re coming at you. Even if you shop for organic food, to some degree, it’s getting contaminated by farmers on the farm next door and things like that. So we have to get off this growing food with poisons kick; it’s just not a future. There are a lot of farmers who are becoming organic farmers or regenerative farmers who are trying to minimize or eliminate their use of poisons, and that is a very important development.

Kimberly White

Absolutely. There’s often talk about avoiding specific produce like strawberries or apples- produce listed as the “dirty dozen”- because of the amount of pesticide residue. For farmers producing organic crops, it is becoming increasingly difficult due to pesticide drift from neighboring conventional farms.

Julian Cribb

Yes, the United Nations Food and Agriculture Organization produced a report which basically said that most of the world’s arable farmland is now contaminated. Most of it. So even if you’re an organic farmer, if you want to set up a farm on a place that’s been farmed by conventional methods before, you’re gonna find your soil is almost permanently polluted. It’s very hard to clean soil once it’s been poisoned. So, these things are everywhere; they’re out of control. It’s basically death by a thousand cuts because we’re talking about thousands of different chemical companies producing thousands of different chemicals. Very, very hard to regulate. A lot of these chemicals now come from developing countries where there is no regulation or control over their manufacture, distribution, or use. They’re coming into foodstuffs that are in circulation worldwide. So this is a very disturbing dimension of it. Another one that many farmers point to is that, of course, these things are killing the biosphere in which agriculture exists. They’re poisoning the water supply. They’re affecting, as I say, the ecology in which agriculture survives. So we’re actually taking down our future ability to grow food by doing these things. Now, we have to move away from this highly toxic mode of food production to a far less toxic mode. I’m not saying do away with all farm chemicals, but I’m saying we have to use softer, safer chemicals if we’re going to use them at all.

But as I’ve warned in my earlier books, agriculture itself is under tremendous threat. Its soils are running out, its water is running out, and the stable climate that it once enjoyed is gone. So we may not be doing agriculture very much longer; it’s going to start to break down in the mid-century. We need to find other ways to produce food that are low in toxins, which uses very little water and land but which produce highly nutritious, clean, safe healthy food. Such systems do exist. Urban food production systems can be made to do this, for example. Deep ocean aquaculture can also be made to do this. So there are alternatives to the traditional 10,000-year-old technique of putting plants in soil and growing them outdoors.

Kimberly White

You’re right. There are so many different options. Things are changing every single day due to new innovations. Meat production, for example. We see a lot of new research and development go towards lab-grown meat—the same with plant-based alternatives. There are so many options. There’s not going to be one silver bullet solution; it is going to be many different solutions. Different ideas from people coming together from around the world.

Julian Cribb

That’s correct. I mean, farmers are very inventive people. They have to be to stay afloat. Basically, they’re coming up with all these new ideas for ways of producing food, both agriculturally and non-agriculturally. There’s a huge opportunity. Probably the biggest global opportunity that exists today is not renewable energy. It’s renewable food. Why? Because every single person on the earth needs food, two or three times a day. We are going to consume something like 11 trillion meals a day by the middle part of the century. They’ve got to come from somewhere. Now, growing them in cities by recycling water and recycling nutrients is one very sensible pathway for this to take. And it’s already starting to happen. Bio-cultures, hydroponics, aquaponics, all of these intensive techniques, which often involve very little or no chemical use, are all coming down the line at the moment. It’s early days, a lot of those companies are going to go broke, but some of them aren’t, and they’re going to make a huge success. And we can feed everybody on earth well if we go to this new system of food production. That’s the point. We don’t need to have starvation. And indeed, if you do that, you’re actually going to get rid of two-thirds of the world’s wars. Why? Because two-thirds of wars are generated by disputes over food, land, and water. So if we feed everybody adequately, we’ve got rid of a lot of the reasons for conflict that exists in our world. We will have a much more peaceful world. So food really holds the key to solving a lot of problems that humans now face.

Kimberly White

That’s a great point. We’re also really seeing the level of awareness increase when it comes to climate change. So, it is an exciting time right now because more people are focused on solving this huge challenge. It is bringing forth a lot of innovative solutions that are not just beneficial for climate but are more sustainable, use fewer chemicals, and are less water-intensive. We’re seeing people discuss regenerative agriculture a lot more fervently- which is fantastic.

Julian Cribb

If we put the same amount of intellectual effort and the same amount of financial investment into regenerative farming and urban food production that we have put into chemical farming, for example, then we’ve got this problem licked. We will solve this problem in no time at all. We just need to get the scientists into this. The scientists are still working for the chemical companies at the moment, for the most part. And that’s a disgrace, really. We need to get them focused on how you do regenerative agriculture safely, cleanly, healthily and how you repair the landscape. If we go to this new system of food production, regenerative farming, plus urban food production, and deep-sea aquaculture, that will feed the world quite adequately, and it will end the sixth extinction, as well as stopping about two-thirds of wars.

Kimberly White

I am glad you mentioned that because one of the leading causes of deforestation is our consumption of agricultural commodities. Palm oil is a great example because it is in about half of everything on our grocery store shelves here in the U.S. We’re having this huge impact on countries like Indonesia, and specifically in the area of Borneo. But because it is imported from a faraway place and does not impact our local environment, it’s out of sight and mind.

Julian Cribb

It is having an impact on all countries and all human beings. Because if you clear the Amazon or you clear-fell Borneo, you’re increasing the rate of carbon emissions into the atmosphere; you’re accelerating climate change. Land clearing, after coal burning, is the next most dangerous thing that humans can do if they want to destroy a habitable earth. So we’re destroying a habitable earth for Americans, Australians, as well as people living in Indonesia or Borneo or the Amazon basin. So, these things now are on such a large scale that they affect every single one of us. This is why I’m drawing attention to the chemical issue because humans have just unleashed this torrent of chemicals worldwide. You can find them everywhere you look. You can find them on the peak of Mount Everest, at the bottom of the Marianas Trench, in squid three kilometers down in the North Atlantic, in polar bears in the Arctic. These are human industrial chemicals. You can find them in the blood of every single American, European, Chinese. We are all absolutely glutted with these things at the moment. And we don’t even know the problems that are coming down at us. The medical literature contains quite a lot of warning signs, but this is really bigger and much worse for us, even than climate change. I mean, climate change is bad enough, heaven knows, but this one is just slipping under the radar. We are ignoring it. Governments worldwide are ignoring it. It’s got to be fixed, and it can be fixed.

Kimberly White

I agree. And I think an important part of the conversation is that we can’t just get so focused, and I think that’s happened a lot of times. We start to work in a silo; we get focused on one issue and one issue only, and that does happen with climate and the biodiversity space. But, as you have said, we can’t solve one without solving the other. And we have to make sure that the solutions to one don’t exacerbate the problem of the other, especially as we’re trying to come up with all of these solutions to these converging crises we have. We have to take those blinders off and look at all of the issues we’re facing, not just a singular view.

Julian Cribb

Absolutely. And at the moment, there is no government on the planet, except possibly Bhutan, that has a policy for human survival. Right? There is no government in the world that is committed to human survival. No government has a policy for dealing with all ten of the threats. Now, some of them have sort of a half policy for dealing with climate change. And a couple of them have policies for dealing with nuclear weapons and things like that. But they’ve not got an answer to this complex of ten huge threats that are bearing down on us that constitute the human existential emergency, the biggest threat that humans have ever faced. So it’s time we got real about these things, and we start to think about the solutions, and as you say, make sure those solutions do no harm. We have to make sure that however good the solution is, we don’t just replace one dirty chemical with another dirty chemical. We have to think ahead and analyze the consequences of our actions and come up with much safer solutions.

#### Despite momentum for a transition, the highly concentrated market crowds out AND disincentives any possibility for its actual implementation.

Kristen Tam & Olivia Bielskis 21, BA, Environmental Science Policy, University of California, Los Angeles; BA, Political Science & Human Biology and Society, University of California, Los Angeles, "Stimulating Antitrust Enforcement to Expand the Regenerative Agriculture Movement," UCLA Library, 2021, pg. 11-14.

C. Consolidation Threatens the Growth of Regenerative Farming

I. Regenerative Farming is Reducing Emissions, Bolstering Biodiversity, and Increasing Food Security, a Critical Practice to create a Climate Resilient Future

The United Nations IPCC report calls for a rapid greenhouse gas reduction to limit temperature rise to 1.5 degrees celsius by 2050.33 Given that agriculture and forestry accounted for 10.5 percent of greenhouse gas emissions in 2018,34 farming practices can play a crucial role in meeting these goals. Farming the land in ways that build healthy soil, maintain biodiversity, and sequester carbon dioxide are critical measures that will help America cultivate a sustainable food system, protect the land for generations to come, and meet greenhouse gas emission reduction goals.

Currently, the practices that dominate the American agricultural landscape often till the soil, plant only one to two crops at a time, and input large sums of fertilizer, herbicides, pesticides, and other chemicals to streamline production. Industrialized agriculture values efficiency, maximizing yield, and decreasing labor input. In contrast, regenerative agriculture practices maintain soil health for long term benefit by applying compost as fertilizer, planting cover crops, implementing diverse crop rotation, rotating livestock grazing, limiting fertilizer and pesticide use, and eliminating tillage practices.35 Although opponents highlight that regenerative practices yield less products per acre and require more labor input, they neglect the significance of their energy input being 30-60 percent less than traditional methods because they do not use machines, fertilizer, and herbicides.36 This practice ultimately increases the long term productivity and stability of food production because it doesn’t rely on the continuous purchasing and application of chemicals into the soil. Instead, it builds soil health by increasing nutrient and water retention, both of which increases land productivity.37

II. Small Farms are More Likely to Implement Regenerative Fertilization Practice

One of the defining regenerative agriculture practices is applying compost and manure as fertilizer. There are three different types of fertilization methods that the USDA measures every few years, manure, organic, and commercial that help replenish soil nutrients. Manure is the application of animal bio excretions,38 organic fertilizer is the use of organic matter, compost, animal manures or green manures and does not include any chemical fertilizers,39 and commercial fertilizer is the application of chemically derived fertilizers such as nitrogen, phosphate and potash.40 For these figures, manure and organic fertilizers are categorized as “regenerative fertilizers” because they represent methods that replenish soils with naturally derived as opposed to chemically manufactured nutrients.

Small farms, 10.0 to 49.9 acres, are more likely to implement regenerative fertilizer methods than medium sized, 260 to 499 acres, and large sized, 1,000 to 1,999 acre farms. In 2017, 32.74 percent of small farms used regenerative fertilizer, compared to 27.27 percent of medium and 21.63 percent of large farms.41 Small farms are also transitioning away from commercial fertilizer to regenerative fertilizer methods at a faster rate than medium and large farms. From 2012 to 2017, small farms had the greatest percent decrease in number of farms using commercial fertilizers, 6.50 percent, and the largest percent increase for regenerative practices, 6.47 percent. Medium farms experienced a 2.28 percent decrease in the number of farms implementing commercial fertilizers, while a 2.57 percent increase in regenerative fertilizers. Large farms experienced a 2.31 percent decrease in the number of farming implementing commercial fertilizers, while a 2.32 percent increase in regenerative fertilizers.42 This demonstrates that smaller farms are more willing and better suited to implement regenerative practices.

Industrial agriculture firms, on the other hand, highly prioritize efficiencies and maximizing profit, thus, are less likely to invest the time and money into learning about and switching to regenerative fertilization practices. While small farms are making the most rapid transition to regenerative fertilization practices that would benefit the market and planet in the long run, the increased market and resource dominance of the largest farms, which have the slowest rates of transition to regenerative fertilization practices, is ultimately hindering the growth of regenerative agriculture in the United States.

D. Consolidation Negatively Affects Farmers

This disproportionate market power gained by a few agriculture conglomerates allows them to reduce prices in order to drive out competition.43 While large farms lack the will to invest in more regenerative farming techniques, small farms that do not employ regenerative practices are primarily hindered by their lack of economic means to do so. As previously stated, individual farmers make less than 15 cents per dollar and, according to a study conducted by the USDA in 2001, 71 percent of poultry growers live below the poverty line.44 Such subpar circumstances are not conducive to having the freedom to invest time and money into switching practices to plant cover crops, not till, and use animal fertilizer.

E. Consolidation Negatively Affects Consumers

In addition to harming farmers, agricultural consolidation has also resulted in increased food prices for consumers, largely disproving the claims of Bork’s “consumer welfare standard.” In 2014, economist John Kwoka published a book Mergers, Merger Control, and Remedies: A Retrospective Analysis of U.S. Policy where he analyzed 200 mergers from 1976 to 2006 and found that post-merger prices on average increased by 4.3 percent.45 In addition, evidence has shown that market self-correction has not occurred as a result of antitrust underenforcement.46

#### Food insecurity sparks AND drives conflict in numerous hotspots.

Julian Cribb 19, Adjunct Professor, University of Technology, Sydney. Principal, Julian Cribb & Associates. Author, Journalist, Editor & Science Communicator, "Hotspots for Food Conflict in the Twenty-first Century," in Food or War, Chapter 5, 2019, pg. 141-173.

The mounting threat to world peace posed by a food, climate and ecosystem increasingly compromised and unstable was emphasised by the US Director of National Intelligence, Dan Coats, in a briefing to the US Senate in early 2019. ‘Global environmental and ecological degradation, as well as climate change, are likely to fuel competition for resources, economic distress, and social discontent through 2019 and beyond’, he said. ‘Climate hazards such as extreme weather, higher temperatures, droughts, floods, wildfires, storms, sea level rise, soil degradation, and acidifying oceans are intensifying, threatening infrastructure, health, and water and food security. Irreversible damage to ecosystems and habitats will undermine the economic benefits they provide, worsened by air, soil, water, and marine pollution.’ Boldly, Coats delivered his warning at a time when the US President, Trump, was attempting to expunge all reference to climate from government documents.23

Based upon these recent cases of food conflicts, and upon the lessons gleaned from the longer history of the interaction between food and war, several regions of the planet face a greatly heightened risk of conflict towards the mid twenty-first century.

Food wars often start out small, as mere quarrels over grazing rights, access to wells or as one faction trying to control food supplies and markets. However, if not resolved quickly these disputes can quickly escalate into violence, then into civil conflagrations which, if not quelled, can in turn explode into crises that reverberate around the planet in the form of soaring prices, floods of refugees and the involvement of major powers – which in turn carries the risk of transnational war. The danger is magnified by swollen populations, the effects of climate change, depletion of key resources such as water, topsoil and nutrients, the collapse of ecosystem services that support agriculture and fisheries, universal pollution, a widening gap between rich and poor, and the rise of vast megacities unable to feed themselves (Figure 5.3).

Chart

Description automatically generated

Each of the world’s food ‘powderkeg regions’ is described below, in ascending order of risk.

United States

In one sense, food wars have already broken out in the United States, the most overfed country on Earth. Here the issue is chiefly the growing depletion of the nation’s mighty groundwater resources, especially in states using it for food production, and the contest over what remains between competing users – farmers, ranchers and Native Americans on the one hand and the oil, gas and mining industry on the other. Concern about the future of US water supplies was aggravated by a series of savage droughts in the early twentyfirst century in the west, south and mid-west linked to global climate change and declining snowpack in the Rocky Mountains, both of which affect not only agriculture but also the rate at which the nation’s groundwater reserves recharge.

‘Groundwater depletion has been a concern in the Southwest and High Plains for many years, but increased demands on our groundwater resources have overstressed aquifers in many areas of the Nation, not just in arid regions’, notes the US Geological Survey.24

Nine US states depend on groundwater for between 50 per cent and 80 per cent of their total freshwater supplies, and five states account for nearly half of the nation’s groundwater use. Major US water resources, such as the High Plains aquifers and the Pacific Northwest aquifers have sunk by 30–50 metres (100–150 feet) since exploitation began, imperilling the agricultural industries that rely on them. In the arid southwest, aquifer declines of 100–150 metres have been recorded (Figure 5.4).

[Figure omitted]

To take but one case, the famed Ogallala Aquifer in the High Plains region supports cropping industries worth more than US $20 billion a year and was in such a depleted state it would take more than 6000 years to replace by natural infiltration the water drawn from it by farmers in the past 150 years. As it dwindles, some farmers have tried to kick their dependence on groundwater – other users, including the growing cities and towns of the region, proceeded to mine it as if there was no tomorrow.25 A study by Kansas State University concluded that so far, 30 per cent of the local groundwater had been extracted and another 39 per cent would be depleted by the mid century on existing trends in withdrawal and recharge.26

Over half the US population relies on groundwater for drinking; both rural and urban America are at risk. Cities such as New Orleans, Houston and Miami face not only rising sea levels – but also sinking land, due to the extraction of underlying groundwater. In Memphis, Tennessee, the aquifer that supplies the city’s drinking water has dropped by 20 metres.

Growing awareness of the risk of a nation, even one as large and technologically adept as the USA, having insufficient water to grow its food, generate its exports and supply its urban homes has fuelled tensions leading to the eruption of nationwide protests over ‘fracking’ for oil and gas – a process that can deplete or poison groundwater – and the building of oil pipelines, which have a habit of rupturing and also polluting water resources. The boom in fracking and piping is part of a deliberate US policy to become more self-reliant in fossil fuels.27 Thus, in its anxiety to be independent of overseas energy suppliers, the USA in effect decided to barter away its future food security for current oil security – and the price of this has been a lot of angry farmers, Native Americans and concerned citizens.

The depletion of US groundwater coincides with accelerating climate risk, which may raise US temperatures by as much as 4–5 C by 2100, leading to major losses in soil moisture throughout the US grain belt, and the spread of deserts in the south and west. Food production will also be affected by fiercer storms, bigger floods, more heatwaves, an increase in drought frequency and greater impacts from crop and livestock diseases. In such a context, it is no time to be wasting stored water.

The case of the USA is included in the list of world ‘hot spots’ for future food conflict, not because there is danger of a serious shooting war erupting over water in America in the foreseeable future, but to illustrate that even in technologically advanced countries unforeseen social tensions and crises are on the rise over basic resources like food, land and water and their depletion. This doesn’t just happen in Africa or the Middle East. It’s a global phenomenon.

Furthermore, the USA is the world’s largest food exporter and any retreat on its part will have a disproportionate effect on world food price and supply. There is still plenty of time to replan America’s food systems and water usage – but, as in the case of fossil fuels and climate, rear-guard action mounted by corporate vested interests and their hired politicians may well [freeze] ~~paralyse~~ the national will to do it. That is when the US food system could find itself at serious risk, losing access to water in a time of growing climatic disruption, caused by exactly the same forces as those depleting the groundwater: the fossil fuels sector and its political stooges. The probable effect of this will, in the first instance, be a decline in US meat and dairy production accompanied by rising prices and a fall in its feedgrain exports, with domino effects on livestock industries worldwide.

The flip-side to this issue is that America’s old rival, Russia, is likely to gain in both farmland and water availability as the planet warms through the twentyfirst century – and likewise Canada. Both these countries stand to prosper from a US withdrawal from world food markets, and together they may negate the effects of any US food export shortfalls.

Central and South America

South America is one of the world’s most bountiful continents in terms of food production – but, after decades of improvement, malnutrition is once more on the rise, reaching a new peak of 42.5 million people affected in 2016.28 ‘Latin America and the Caribbean used to be a worldwide example in the fight against hunger. We are now following the worrisome global trend’, said regional FAO representative Julio Berdegué.29

Paradoxically, obesity is increasing among Latin American adults, while malnutrition is rising among children. ‘Although Latin America and the Caribbean produce enough food to meet the needs of their population, this does not ensure healthy and nutritious diets’, the FAO explains. Worsening income inequality, poor access to food and persistent poverty are contributing to the rise in hunger and bad diets, it adds.30

‘The impact of climate change in Latin America and the Caribbean will be considerable because of its economic dependence on agriculture, the low adaptive capacity of its population and the geographical location of some of its countries’, an FAO report warned.31

Emerging food insecurity in Central and Latin America is being driven by a toxic mixture of failing water supplies, drying farmlands, poverty, maladministration, incompetence and corruption. These issues are exacerbated by climate change, which is making the water supply issue worse for farmers and city people alike in several countries and delivering more weather disasters to agriculture.

* Mexico has for centuries faced periodic food scarcity, with a tenth of its people today suffering under-nutrition. In 2008 this rose to 18 per cent, leading to outbreaks of political violence.32 In 2013, 52 million Mexicans were suffering poverty and seven million more faced extreme hunger, despite the attempts of successive governments to remedy the situation. By 2100 northern Mexico is expected to warm by 4–5 C and southern Mexico by 1.5–2.5 C. Large parts of the country, including Mexico City, face critical water scarcity. Mexico’s cropped area could fall by 40–70 per cent by the 2030s and disappear completely by the end of the century, making it one of the world’s countries most at risk from catastrophic climate change and a major potential source of climate refugees.33
* The vanishing lakes and glaciers of the high Andes confront montane nations – Bolivia, Peru and Chile especially – with the spectre of growing water scarcity and declining food security. The volume of many glaciers, which provide meltwater to the region’s rivers, which in turn irrigate farmland, has halved since 1975.34 Bolivia’s second largest water body, the 2000 square kilometres Lake Poopo, dried out completely.35 The loss of water is attributed partly to El Niño droughts, partly to global warming and partly to over-extraction by the mining industries of the region. Chile, with 24,000 glaciers (80 per cent of all those in Latin America) is feeling the effects of their retreat and shrinkage especially, both in large cities such as the capital Santiago, and in irrigation agriculture and energy supply. Chile is rated by the World Resources Institute among the countries most likely to experience extreme water stress by 2040.36
* Climate change is producing growing water and food insecurity in the ‘dry corridor’ of Central America, in countries such as El Salvador, Guatemala and Honduras. Here a combination of drought, major floods and soil erosion is undermining efforts to raise food production and stabilise nutrition.
* Food production in Venezuela began falling in the 1990s, and by the late 2010s two thirds of the population were malnourished; there was a growing flood of refugees into Colombia and other neighbouring countries. The food crisis has been variously blamed on the Venezuelan government’s ‘Great Leap Forward’ (modelled on that of China – which also caused widespread starvation), a halving in Venezuela’s oil export earnings, economic sanctions by the USA, and corruption. However, local scientists such as Nobel Laureate Professor Juan Carlos Sánchez warn that climate impacts are already striking the densely populated coastal regions with increased torrential rains, flooding and mudslides, droughts and hurricanes, while inland areas are drying out and desertifying, leading to crop failures, water scarcity and a tide of climate refugees.37 These factors will tend to deepen food insecurity towards the mid century. Venezuela’s climate refugees are already making life more difficult for neighbouring countries such as Colombia.
* Deforestation in the Brazilian Amazon has, in recent decades, removed around 20 per cent of its total tree cover, replacing it with dry savannah and farmland. At 40 per cent clearance and with continued global warming, scientists anticipate profound changes in the local climate, towards a drying trend, which will hammer the agriculture that has replaced the forest.38 Brazil has already wiped out the oncevast Mata Atlantica forest along its eastern coastline, and this region is now drying, with resultant water stress for both farming and major cities like São Paulo. Brazil’s outlook for 2100 is for further drying – tied to forest loss as well as global climate change – increased frequency of drought and heatwaves, major fires and acute water scarcity in some regions. Moreover, as the Amazon basin dries out, it will release vast quantities of CO2 from its peat swamps and rainforest soils. These are thought to contain in excess of three billion tonnes of carbon and could cause a significant acceleration in global warming, affecting everyone on Earth.39

Latin America is the world capital of private armies, with as many as 50 major guerrilla groups, paramilitaries, terrorist, indigenous and criminal insurgencies over the past half century – exemplified in familiar names like the Sandanistas (Nicaragua), FARC (Colombia) and Shining Path (Peru).40 Many of these drew their initial inspiration from the international communist movement of the mid twentieth century, while others are right-wing groups set up in opposition to them or else represent land rights movements of disadvantaged groups. However, all these movements rely for oxygen on simmering public discontent with ineffectual or corrupt governments and lack of fair access to food, land and water generally. In other words, the tendency of South and Central America towards internal armed conflict is supercharged significantly by failings in the food system which generate public anger, leading to sympathy and support for anyone seen to be challenging the incumbent regimes. This is not to suggest that feeding every person well would end all insurgencies – but it would certainly take the wind of popular support out of a lot of their sails. In that sense the revolutionary tendency of South America echoes the preconditions for revolution in France and Russia in the eighteenth and twentieth centuries.

Central Asia

The risk of wars breaking out over water, energy and food insecurity in Central Asia is high.41 Here, the five main players – Kazakhstan, Uzbekistan, Turkmenistan, Tajikistan and Kyrgyzstan – face swelling populations, crumbling Soviet-era infrastructure, flagging resource cooperation, a degrading landscape, deteriorating food availability and a changing climate. At the heart of the issue and the region’s increasingly volatile politics is water: ‘Without water in the region’s two great rivers – the Syr Darya and the Amu Darya – vital crops in the downstream agricultural powerhouses would die. Without power, life in the upstream countries would be unbearable in the freezing winters’, wrote Rustam Qobil.42

Central Asia’s water crisis first exploded onto the global consciousness with the drying of the Aral Sea – the world’s fourth largest lake – from the mid 1960s43, following the damming and draining of major rivers such as the Amu Darya, Syr Darya and Naryn. It was hastened by a major drought in 200844 exacerbated by climate change, which is melting the ‘water tower’ of glacial ice stored in the Tien Shan, Pamir and Hindu Kush mountain ranges that feed the region’s rivers. The Tien Shan alone holds 10,000 glaciers, all of them in retreat, losing an estimated 223 million cubic metres a year. At such a rate of loss the region’s rivers will run dry within a generation.45 Lack of water has already delivered a body blow to Central Asia’s efforts to modernise its agriculture, adding further tension to regional disputes over food, land and water.

‘Water has always been a major cause of wars and border conflicts in the Central Asian region’, policy analyst Fuad Shahbazov warned. This potential for conflict over water has been exacerbated by disputes over the Fergana valley, the region’s greatest foodbowl, which underwent a 32 per cent surge in population in barely ten years – while more and more of it turned to desert.46

The Central Asian region is ranked by the World Resources Institute as one of the world’s most perilously water-stressed regions to 2040 (Figure 5.6). With their economies hitting rock bottom, corrupt and autocratic governments that prefer to blame others for their problems and growing quarrels over food, land, energy and water, the ‘Stans’ face ‘a perfect storm’, Nate Shenkkan wrote in the journal Foreign Policy. 47 Increased meddling by Russia and China is augmenting the explosive mix: China regards Central Asia as a key component of its ‘Belt and Road’ initiative intended to expand its global influence, whereas Russia hopes to lure the region back into its own economic sphere. Their rival investments may help limit some of the problems faced by Central Asia – or they may unlock a fresh cycle of political feuding, turmoil and regime change.48

A 2017 FAO report found 14.3 million people – one in every five – in Central Asia did not have enough to eat and a million faced actual starvation, children especially. It noted that after years of steady improvement, the situation was deteriorating. This combination of intractable and deteriorating factors makes Central Asia a serious internal war risk towards the mid twentyfirst century, with involvement by superpowers raising the danger of international conflict and mass refugee flight.

The Middle East

The Middle East is the most water-stressed region on Earth (see Figure 5.5 above). It is ‘particularly vulnerable to climate change. It is one of the world’s most water-scarce and dry regions, with a high dependency on climate-sensitive agriculture and a large share of its population and economic activity in flood-prone urban coastal zones’, according to the World Bank.49

The Middle East – consisting of the 22 countries of the Arab League, Turkey and Iran – has very low levels of natural rainfall to begin with. Most of it has 600 millimetres or less per year and is classed as arid. ‘The Middle East and North Africa [MENA] is a global hotspot of unsustainable water use, especially of groundwater. In some countries, more than half of current water withdrawals exceed what is naturally available’, the Bank said in a separate report on water scarcity.50

[Figure omitted]

‘The climate is predicted to become even hotter and drier in most of the MENA region. Higher temperatures and reduced precipitation will increase the occurrence of droughts. It is further estimated that an additional 80–100 million people will be exposed by 2025 to water stress’, the Bank added.

The region’s population of 300 million in the late 2010s is forecast to double to 600 million by 2050. Average temperatures are expected to rise by 3–5 C and rainfall will decrease by around 20 per cent. The result will be vastly increased water stress, accelerated desertification, growing food insecurity and a rise in sea levels displacing tens of millions from densely populated, low-lying areas like the Nile delta.51 The region is deemed highly vulnerable to climate impacts, warns a report by the UN Development Programme. ‘Current climate change projections show that by the year 2025, the water supply in the Arab region will be only 15 per cent of levels in 1960. With population growth around 3 per cent annually and deforestation spiking to 4 per cent annually... the region now includes 14 of the world’s 20 most water-stressed countries.’ 52

The Middle East/North Africa (MENA) region has 6 per cent of the world’s population with only 1.5 per cent of the world’s fresh water reserves to share among them. This means that the average citizen already has about a third less water than the minimum necessary for a reasonable existence – many have less than half, and populations are growing rapidly. Coupled with political chaos and ill governance in many countries, growing religious and ethnic tensions between different groups – often based on centuries-old disputes – a widening gap between rich and poor and foreign meddling by the USA, Russia and China, shortages of food, land and water make the Middle East an evident cauldron for conflict in the twentyfirst century.

Growing awareness of their food risk has impelled some oil-rich Arab states into an international farm buying spree, purchasing farming, fishing and food processing companies in countries as assorted as South Sudan, Ethiopia, the Philippines, Ukraine, the USA, Poland, Argentina, Australia, Brazil and Morocco. In some food-stressed countries these acquisitions have already led to riots and killings.53 The risk is high that, by exporting its own food–land–water problems worldwide, especially to regions already facing scarcity, the Middle East could propagate conflicts and government collapses around the globe. This is despite the fact that high-tech solar desalination, green energy, hydroponics, aquaponics and other intensive urban food production technologies make it possible for the region to produce far more of its own food locally, if not to be entirely self-sufficient.

Dimensions of the growing crisis in the Middle East include the following.

* Wars have already broken out in Syria and Yemen in which scarcity of food, land and water were prominent among the tensions that led to conflict between competing groups.
* Food, land and water issues feed into and exacerbate already volatile sentiment over religion, politics, corruption, mismanagement and foreign interference by the USA, China and Russia.
* The introduction of cheap solar-powered and diesel pumps has accelerated the unsustainable extraction of groundwater throughout the region, notably in countries like Libya, Egypt, Saudi Arabia and Morocco.54
* Turkish building of new dams to monopolise waters flowing across its borders is igniting scarcity and potential for conflict with downstream nations, including Iraq, Iran and Syria.55
* Egypt’s lifeline, the Nile, is threatened by Ethiopian plans to dam the Blue Nile, with tensions that some observers consider could lead to a shooting war.56
* There are very low levels of water recycling throughout the region, while water use productivity is about half that of the world as a whole.
* There is a lack of a sense of citizen responsibility for water and food scarcity throughout the region.
* Land grabs around the world by oil-rich states are threatening to destabilise food, land and water in other countries and regions, causing conflict.
* A decline in oil prices and the displacement of oil by the global renewables revolution may leave the region with fewer economic options for solving its problems.
* There is a risk that acquisition of a nuclear weapon by Iran may set off a nuclear arms race in the region with countries such as Saudi Arabia, Syria and possibly Turkey following suit and Israel rearming to stay in the lead. This would translate potential food, land and water conflicts into the atomic realm.

Together these issues, and failure to address their root causes, make the Middle East a fizzing powder keg in the twentyfirst century. The question is when and where, not whether, it explodes – and whether the resulting conflict will involve the use of weapons of mass destruction, including nuclear, thus affecting the entire world.

China

China is the world’s biggest producer, importer and consumer of food. Much of the landmass of the People’s Republic of China (PRC) is too mountainous or too arid for farming, but the rich soils of its eastern and southern regions are highly productive provided sufficient water is available and climate impacts are mild. Those, however, are very big ‘ifs’.

In 1995, American environmentalist Lester R. Brown both irked and aroused the PRC Communist Party bosses with a small, hard-hitting book entitled Who Will Feed China? Wake-Up Call for a Small Planet. 57 In it he posited that Chinese population growth was so far out of control that the then-agricultural system could not keep up, and China would be forced to import vast amounts of grain, to the detriment of food prices and availability worldwide. His fears, so far, have not been realised – not because they were unsoundly based, but because China managed – just – to stay abreast of rising food demand by stabilising and subsidising grain prices, restoring degraded lands, boosting agricultural science and technology, piping water from south to north, developing high-intensity urban farms, buying up foreign farmland worldwide and encouraging young Chinese to leave the country. What Brown didn’t anticipate was the economic miracle that made China rich enough to afford all this. However, his essential thesis remains valid: China’s food supply will remain on a knife-edge for the entire twentyfirst century, vulnerable especially to water scarcity and climate impacts. If the nation outruns its domestic resources yet still has to eat, it may well be at the expense of others globally.

Some western commentators were puzzled when China scrapped its 35-year ‘One Child Policy’ in 2015, but in fact the policy had done its job, shaving around 300 million people off the projected peak of Chinese population. It was also causing serious imbalances, such as China’s huge unmarried male surplus. Furthermore, rising urbanisation and household incomes meant Chinese parents no longer wanted large families, as in the past. Policy or no policy, China’s birthrate has continued to fall and by 2018 was 1.6 babies per woman – well below replacement, lower than the USA and nearly as low as Germany. Its population was 1.4 billion, but this was growing at barely 0.4 per cent a year, with the growth due at least in part to lengthening life expectancy.58

For China, female fertility is no longer the key issue. The critical issue is water. And the critical region is the north, where 41 per cent of the population reside. Here surface and groundwaters – which support not only the vast grain and vegetable farming industries of the North China Plain but also burgeoning megacities like Beijing, Tianjin and Shenyang – have been vanishing at an alarming rate. ‘In the past 25 years, 28,000 rivers have disappeared. Groundwater has fallen by up to 1–3 metres a year. One consequence: parts of Beijing are subsiding by 11 cm a year. The flow of the Yellow River, water supply to millions, is a tenth of what it was in the 1940s; it often fails to reach the sea. Pollution further curtails supply: in 2017 8.8 per cent of water was unfit even for agricultural or industrial use’, the Financial Times reported.59 On the North China Plain, annual consumption of water for all uses, including food production, is about 27 billion cubic metres a year – compared with an annual water availability of 22 billion cubic metres, a deficit that is made up by the short-term expedient of mining the region’s groundwater.60

To stave off disaster, the PRC has built a prodigious network of canals and pipelines from the Yangtse River in the water-rich south, to Beijing in the water-starved north. Hailed as a ‘lifeline’, the South–North Water Transfer Project had two drawbacks: first, the fossil energy required to pump millions of tonnes of water over a thousand kilometres and, second, the fact that while the volume was sufficient to satisfy the burgeoning cities for a time, it could not supply and distribute enough clean water to meet the needs of irrigated farming over so vast a region in the long run, nor meet those of its planned industrial growth.61 Oft-mouthed ‘solutions’ like desalination or the piping of water from Tibet or Russia face similar drawbacks: demand is too great for the potential supply and the costs, both financial and environmental, prohibitive.

China is already among the world’s most water-stressed nations. The typical Chinese citizen has a ‘water footprint’ of 1071 cubic metres a year – three quarters of the world average (1385 cubic metres), and scarcely a third that of the average American (2842 cubic metres).62 Of this water, 62 per cent is used to grow food to feed the Chinese population – and 90 per cent is so polluted it is unfit to drink or use in food processing. Despite massive investment in water infrastructure and new technology, many experts doubt that China can keep pace with the growth in its demand for food, at least within its own borders, chiefly because of water scarcity.63 Adding to the pressure is that China’s national five-year plans for industrialisation demand massive amounts more water – demands that may confront China with a stark choice between food and economic growth. ‘The Chinese government is moving too slowly towards the Camel Economy. It has plans, incentives for officials; it invests in recycling, irrigation, pollution, drought resistant crops; it leads the world in high voltage transmission (to get hydro, wind and solar energy from the west of China). None of this is sufficient or likely to be in time’, the Financial Times opined.64

As the world’s leading carbon emitter, China is more responsible for climate change than any other country. It is also, potentially, more at risk. The main reason, quite simply, is the impact of a warming world on China’s water supply – in the form of disappearing rivers, lakes, groundwater and mountain glaciers along with rising sea levels. To this is coupled the threat to agriculture from increasing weather disasters and the loss of ecosystem services from a damaged landscape.65

China is thus impaled on the horns of a classic dilemma. Without more water it cannot grow its economy sufficiently to pay for the water-conserving and food-producing technologies and infrastructure it needs to feed its people. Having inadvertently unleashed a population explosion with its highly successful conversion to modern farming systems, the challenge for China now is to somehow sustain its food supply through the population peak of the mid twentyfirst century, followed by a managed decline to maybe half of today’s numbers by the early twentysecond century. It is far from clear whether the present approach – improving market efficiency, continuing to modernise agricultural production systems, pumping water, trying to control soil and water losses and importing more food from overseas – will work.66

China has pinned its main hopes on technology to boost farm yields and improve water distribution and management. Unfortunately, it has selected the unsustainable American industrial farming model to do this – which involves the massive use of water, toxic chemicals, fertilisers, fossil fuels and machines. This in turn is having dreadful consequences for China’s soils, waters, landscapes, food supply, air, climate and consumer health. Serious questions are now being asked whether such an approach is not digging the hole China is in, even deeper. Furthermore, some western analysts are sceptical whether the heavy hand of state control is up to the task of generating the levels of innovation required to feed China sustainably.67

Plan B, which is to purchase food from other countries, or import it from Chinese-owned farming and food ventures around the world, faces similar difficulties. Many of the countries where China is investing in food production themselves face a slow-burning crisis of land degradation, water scarcity, surging populations and swelling local food demand. By exporting its own problems, China is adding to their difficulties. While there may be some truth to the claim that China is helping to modernise food systems in Africa, for example, it is equally clear that the export of food at a time of local shortages could have dire consequences for Africans, leading to wars in Africa and elsewhere. How countries will react to Chinese pressure to export food in the face of their own domestic shortages is, as yet, unclear. If they permit exports, it could prove catastrophic for their own people and governments – but if they cut them off, it could be equally catastrophic for China. Such a situation cannot be regarded as anything other than a menace to world peace.

Around 1640, a series of intense droughts caused widespread crop failures in China, leading to unrest and uprisings which, in 1644, brought down the Ming Dynasty. A serious domestic Chinese food and water crisis today – driven by drought, degradation of land and water and climate change in northern China coupled with failure in food imports – could cause a re-run of history: ‘The forthcoming water crisis may impact China’s social, economic, and political stability to a great extent’, a US Intelligence Assessment found. ‘The adverse impacts of climate change will add extra pressure to existing social and resource stresses.’ 68

Such events have the potential to precipitate tens, even hundreds, of millions of emigrants and refugees into countries all over the world, with domino consequences for those countries that receive them. Strategic analysts have speculated that tens of millions of desperate Chinese flooding into eastern Russia, or even India, could lead to war, including the risk of international nuclear exchange.69

Against such a scenario are the plain facts that China is a technologically advanced society, with the foresight, wealth and capacity to plan and implement nationwide changes and the will, if necessary, to enforce them. Its leaders are clearly alert to the food and water challenge – and its resolution may well depend on the extent of water recycling they are able to achieve. As to whether the PRC can afford the cost of transitioning from an unsustainable to a sustainable food system, all countries have a choice between unproductive military spending and feeding their populace. A choice between food or war. It remains to be seen which investment China favours.

However, it is vital to understand that the problem of whether China can feed itself through the twentyfirst century is not purely a Chinese problem. It’s a problem, both economic and physical, for the entire planet – and it is thus in everyone’s best interest to help solve it. For this reason, China is rated number 3 on this list of potential food/war hotspots.

Africa

Food wars – that is, wars in which food, land and water play a significant contributing role – have been a constant in the story of Africa since the mid twentieth century, indeed, far longer. In a sense, the continent is already a microcosm of the world of the twentyfirst century as climate change and resource scarcity combine with rapid population growth to ratchet up the tensions that lead competing groups to fight, whether the superficial distinctions between them are ethnic, religious, social or political.

We have examined the particular cases of Rwanda, South Sudan and the Horn of Africa – but there are numerous other African conflicts, insurgencies and ongoing disturbances in which food, land and water are primary or secondary triggers and where famine is often the outcome: Nigeria, Congo, Egypt, Tunisia, Libya, Mali, Chad, the Central African Republic, the Maghreb region of the Sahara, Mozambique, Cote d’Ivoire and Zimbabwe have all experienced conflicts in which issues of access to food, land and water were important drivers and consequences.

The trajectory of Africa’s population in the first two decades of the twentyfirst century implies that the number of its people could quadruple from 1.2 billion in 2017 to 4.5 billion by 2100 (Figure 5.6). If fulfilled, this would make Africans 41 per cent of the world population by the end of the century. The UN Population Division’s nearer projections are for Africans to outnumber Chinese or Indians at 1.7 billion by 2030, and reach 2.5 billion in 2050, which represents a doubling in the continent’s inhabitants in barely 30 years.70 While African fertility rates (babies per woman) remain high by world standards – 4.5 compared with a global average of 2.4 – they have also fallen steeply, from a peak of 8.5 babies in the 1970s. Furthermore, the picture is uneven with birthrates in most Sub-Saharan countries remaining high (around five to six babies/woman), while those of eight, mainly southern, countries have dropped to replacement or below (i.e. under 2.1). As has been the case around the world, birth rates tend to drop rapidly with the spread of urbanisation, education and economic growth – whereas countries which slide back into poverty tend to experience rising birthrates. Food access is a vital ingredient in this dynamic: it has been widely observed that better-fed countries tend to have much lower rates of birth and population growth, possibly because people who are food secure lose fewer infants and children in early life and thus are more open to family planning. So, in a real sense, food sufficiency holds one of the keys to limiting the human population to a level sustainable both for Africa and the planet in general.

[Figure omitted]

Forecasting the future of Africa is not easy, given the complexity of the interwoven climatic, social, technological and political issues – and many do not attempt it. However, the relentless optimism of the UN and its food agency, the FAO, is probably not justified by the facts as they are known to science – and may have more to do with not wishing to give offence to African governments or discourage donors than with attempting to accurately analyse what may occur. Even the FAO acknowledges however that food insecurity is rising across Sub-Saharan Africa as well as other parts.

In 2017, conflict and insecurity were the major drivers of acute food insecurity in 18 countries and territories where almost 74 million food-insecure people were in need of urgent assistance. Eleven of these countries were in Africa and accounted for 37 million acutely food insecure people; the largest numbers were in northern Nigeria, Democratic Republic of Congo, Somalia and South Sudan

the agency said in its Global Report on Food Crises 2018.71

The FAO also noted that almost one in four Africans was undernourished in 2016 – a total of nearly a quarter of a billion people. The rise in undernourishment and food insecurity was linked to the effects of climate change, natural disasters and conflict according to Bukar Tijani, the FAO’s assistant director general for Africa.72

Even the comparatively prosperous nation of South Africa sits on a conflict knife-edge, according to a scientific study: ‘Results indicate that the country exceeds its environmental boundaries for biodiversity loss, marine harvesting, freshwater use, and climate change, and that social deprivation was most severe in the areas of safety, income, and employment, which are significant factors in conflict risk’, Megan Cole and colleagues found.73

In the Congo, home to the world’s second largest tropical forest, 20 years of civil war had not only slain five million civilians but also decimated the forests and their ecological services on which the nation depended. Researchers found evidence that reducing conflict can also help to reduce environmental destruction: ‘Peace-building can potentially be a win for nature as well, and... conservation organizations and governments should be ready to seize conservation opportunities’. 74

As the African population doubles toward the mid century, as its water, soils, forests and economic wealth per capita dwindle, as foreign corporations plunder its riches, as a turbulent climate hammers its herders and farmers – both industrial and traditional – the prospect of Africa resolving existing conflicts and avoiding new ones is receding. The mistake most of the world is making is to imagine this only affects the Africans. The consequences will impact everyone on the planet.

A World Bank study has warned that 140 million people will have to leave just three regions of the world as climate refugees before 2050 – and the vast majority of these, some 86 million, would be displaced from their homes in Sub-Saharan Africa.75 The second decade of the twentyfirst century has already witnessed a blow-out in the number of Sub-Saharan Africans fleeing north, across the desert into the already dangerously overstressed region of North Africa. From there many have headed by boat for Europe, with shocking loss of life on the way – up to 5000 deaths due to drowning in a single year. The number of Africans fleeing across the Mediterranean has fluctuated, climbing as high as a third of a million people (in 2016) with most of them headed for Italy, followed by Greece, Cyprus and Spain. By this time Europe already had a population of five million Sub-Saharans.76

It is worth recalling, for a moment, that a food failure in the North African grainbowl in the third and fourth centuries was a primary factor in the collapse and demolition of the Roman Empire, from Britain to Asia Minor.

The risk of a tsunami of people attempting to escape Africa for Europe, and to a lesser degree the Middle East, in coming decades is building with ominous intensity. The stress in SubSaharan Africa is already forcing conditions in North African countries closer to crisis point. Were their food systems to fail in domino-succession, the scale of potential movement of desperate people into Europe can only be guessed – but is certainly in the range of tens to hundreds of millions. Large enough, in other words, to swamp the nations of Italy, Spain and Greece and eliminate their governments altogether, forcing many of their own people in turn to flee into northern Europe. Given the crisis caused by a million Syrians fleeing into Europe in 2013, the consequences for European stability and the world economy of an African eruption tens or hundreds of times the size can only be imagined.

The good news is that, in the view of the World Bank, up to 80 per cent of Africa’s climate refugees could be prevented from leaving their homes in the first place by timely climate and development (i.e. food, land and water) action taken by the rest of the world. The bad news, however, is that most of the world’s large oil and coal companies and their climate-denying puppet governments remain implacably opposed to the sort and scale of action necessary, preferring to pull the global house down on their own heads.

Canadian ecologist Paul Chefurka argued in a far-sighted paper that the outlook for Africa by 2040 was grim, even if the continent were able to lock in a 1 per cent year-on-year increase in farm yields. Even then Africa might still be forced to spend half its wealth – an almost impossible proportion – on food imports by 2050, assuming sufficient affordable food was available globally to supply them. Chefurka argued the solutions were:

First, the developed world must get its act together when it comes to foreign aid. Our lack of performance with regard to the Millennium Development Goals is beyond contemptible. A minuscule sliver of the GDP of the richest nations could help prevent a catastrophic outcome for hundreds of millions of people and scores of countries. That we have failed our African brothers and sisters so egregiously is a shame that should follow all of us into the afterlife.

Second, and most importantly, we must develop an immediate crash program of education and contraception in all the regions at risk from this gathering storm. Africa may be the first, but the conditions are ripe for much of South Asia to follow in their footsteps. We must blanket Africa with schools and family planning clinics.77

There is substance to both points. Unfortunately expanding conventional farming with a view to feeding all the Africans in 2050 and 2100 is unlikely to succeed. It is a twentieth-century solution to a twentyfirst-century problem, even with more advanced farming technologies added. It would unleash cataclysmic soil and water loss, gross pollution, the spread of deserts and animal, plant and human diseases, accelerate climate change (through land clearing and the use of fossil fuels and fertilisers) and extinguish the last of Africa’s wildlife. The combined outcome of this would be war, potentially on a continent-wide scale – and it is for this reason Africa ranks second on this list of world food and war hotspots.

Where the true solutions to Africa’s and the world’s food challenges may lie is dealt with in the concluding chapters of this book.

South Asia

The constellation of burgeoning food demand, water scarcity, degrading land, a turbulent climate, social, political and religious feuding and rampant militarisation make the region of South Asia – India, Pakistan, Bangladesh and Sri Lanka – the most dangerous of all for civilisation during the twentyfirst century.

The population of the region has more than tripled since the 1960s. India alone is looking at a population of 1.73 billion by 2050, Pakistan at 306 million, Bangladesh 202 million and Sri Lanka at 23 million – a combined total approaching 2.3 billion.78 The Indo-Gangetic Plain is the bread-basket of the three largest countries and currently feeds more than 900 million from both surface and groundwater.

‘India is facing a perfect storm in managing water. Centuries of mismanagement, political and institutional incompetence, indifference at central, state and municipal levels, a steadily increasing population that will reach an estimated 1.7 billion by 2050, a rapidly mushrooming middle class demanding an increasingly protein-rich diet that requires significantly more water to produce – together, these are leading the country towards disaster', says Professor Asit Biswas of the National University of Singapore.79 ‘India is now facing a water situation that is significantly worse than any that previous generations have had to face. All Indian water bodies within and near population centres are now grossly polluted... Not a single Indian city can provide clean water that can be consumed from the tap on a 24x7 basis’, he adds. This was underlined by a warning from the Indian Supreme Court in 2018 that the capital, New Delhi – population 25 million – was on track to run out of groundwater completely.80 Facing similar water scarcity were 20 other Indian cities, including Bangalore and Hyderabad – heartbeat of the Indian high-tech boom – menacing the lives and jobs of 600 million Indians.81

Free electricity and cheap diesel pumps led to an explosion in the extraction of groundwater across the Indo-Gangetic plain. ‘The best estimate is that at present India uses 230–250 cubic kilometres of groundwater each year. This accounts for about one-quarter of the global groundwater use. More than 60% of irrigated agriculture and 85% of domestic water use now depends on groundwater.’ Over large areas, India’s groundwater levels have been falling precipitously, in places at rates of a metre or more a year, since the start of the twentyfirst century and scientists fear its reserves will be largely exhausted by 2050.82

The World Resources Institute, which keeps a hawk-like gaze on global water issues, notes that more than half of India is already water stressed, affecting more than 600 million people – and the situation will become extremely grave towards 2040 (Figure 5.7).83

Climate change is only making matters worse for South Asia – the rising intensity of droughts, floods and heatwaves threatens to undermine the region’s fragile ability to feed itself. Indeed, according to some projections, parts will be so hot as to become uninhabitable and unfarmable.84 Recent climate modelling identified India as the world’s second most vulnerable country for climate-related hunger, and Bangladesh third, with the situation worsening towards 2 C of global warming.85 The Indian Ministry of Finance concurs, warning that climate could shrink agricultural incomes by as much as 25 per cent in unirrigated farmland and 18 per cent in irrigated areas by 2100.86

[Figure omitted]

South Asia’s main water reserve, the glacial ice of the Hindu Kush and Himalaya which supports two billion people, is in dire straits, according to a study by 210 scientists. A third of it will be gone by 2100, in a ‘climate crisis you haven’t heard of’, said lead author Philippus Wester. Its loss due to global warming holds catastrophic consequences for rivers, groundwater, food production and the cities that rely on it.87

‘Climate change is likely to have a detrimental effect on South Asia out to 2030 and beyond, mainly because of its ability to exacerbate one of South Asia’s biggest challenges: an expanding population and the challenge of feeding, housing, clothing, watering and employing it’, wrote analyst Benjamin Walsh.88 Melting glaciers, increased evaporation and swelling cities are all intensifying existing food and water insecurity and, since climate change cannot be prevented in the short run, governments had better prepare for it, he said. In this sense, Walsh and Biswas tender similar advice: whether or not South Asia can ride out the ‘perfect storm’ will depend on the competence and determination of hitherto somewhat inept governments in taking the essential steps to conserve water and find new ways to produce food. The subcontinent’s existing food and water model is broken and cannot survive the mid century.

On the positive side is the enthusiasm with which South Asia has embraced renewable energy and the IT revolution, expressed in the region’s strong economic growth. These demonstrate that vast and rapid national and regional changes are possible. Water, land and food, however, present far more intractable problems – social, political and technical – on which age-old disputes over religion, ethnicity and caste lie like a pall.

Since India and Pakistan partitioned in 1947, there has been ongoing low-level conflict over the waters of the Indus and the territory of Kashmir. Pakistan considers India is stealing its water and trying to assert hegemony through dam-building, while India claims Pakistan is losing water due to climate change: the scarcer water becomes for either country, the more the tensions escalate. Both sides are heavily armed: India has 2.1 million soldiers under arms, and Pakistan 644,000. Both nations have 120+ nuclear warheads. Between them, they spend US$65 billion a year on their militaries.89 How close they have been to open war is highlighted by legal expert Dr Waseem Quereshi: ‘The tension over water conflicts between India and Pakistan has been soaring. India has threatened that it will scrap the IWT [Indus Waters Treaty] entirely. In response, Pakistan has stated that such a revocation of a bilaterally agreed treaty would be considered an act of war’. 90

Large-scale food, land and water failures anywhere on the Indian subcontinent could spark immense refugee movements in the tens or hundreds of millions, capable of obliterating neighbour countries and igniting wars. They are liable to be on a scale that dwarfs the Syrian refugee problem into insignificance, with worldwide repercussions. For example, some 130 million people on the subcontinent inhabit low-lying coastal regions that will be under the sea by 210091, and that is but a single dimension of the climate–water crisis. The World Bank rates the Indian subcontinent the world’s second most vulnerable region for enforced climate migration, with 40 million climate refugees alone in India by 2050.92 These estimates take no account of the scale of migration that could result from major failures in food or water, or people fleeing resulting conflicts.

The scenario of major collapse in the South Asian food and water system is so appalling that no government or agency, as yet, seems prepared even to contemplate its possibility, or to risk the displeasure of South Asian governments and peoples by speaking openly about it. As a result, the world at large is doing little to forestall or prevent it. However, for whatever the vox populi is worth, when the website Debate.org asked readers to vote on the question “Will India Collapse?”, 76 per cent of respondents (mostly Indians) were of the view that it would.93 The Oslo Peace Research Institute, in a rather more structured attempt to predict the likelihood of future conflicts based on past behaviour, rated Pakistan, India, Afghanistan and Sri Lanka among the countries more likely to face wars up to 2050.94

The great issue for humanity is South Asia’s combined arsenal of 250+ nuclear weapons. Though many of these are thought to be ‘battlefield’ or tactical nukes (as opposed to city busters), there are enough of them to cause a worldwide famine affecting everybody and lasting several years. This insight arises out of the increasing sophistication of global climate models, which can now describe the impact of nuclear release on the global climate system with far greater precision than ever before. Meteorologist Alan Robock from Rutgers University and physicist Brian Toon from the University of Colorado have devoted 30 years to projecting the effects of nuclear war. They estimate that a limited nuclear exchange between India and Pakistan would throw up at least five million tonnes of dust and smoke from burning forests and incinerated cities, lofting it into the high atmosphere where it will linger for up to 20 years. In climatic terms, this would be the equivalent of an asteroid impact on Earth or a large volcanic eruption, they said – enough to unleash a worldwide ‘nuclear winter’. 95

‘We put it into a NASA climate model and found it would be the largest climate change in recorded human history’, Brian Toon told a journalist. ‘The basic physics is very simple. If you block out the Sun, it gets cold and dark at the Earth’s surface’. 96

He continued: ‘We hypothesized that if each country used half of their nuclear arsenal, that would be 50 weapons on each side. We assumed the simplest bomb, which is the size dropped on Hiroshima and Nagasaki – a 15 kiloton bomb. The answer is the global average temperature would go down by about 1.5 degrees Celsius. In the middle of continents, temperature drops would be larger and last for a decade or more’. The effects of this snap cooling on agriculture worldwide were then calculated. The answer was equally chilling: harvests would crash by 20–40 per cent for five years, and for the next five years, linger 10–20 per cent below the pre-war norm. This would result in malnourishment, if not outright starvation, for most of the world’s population (Figure 5.8).

Diagram, engineering drawing

Description automatically generated

Such an event would be more severe than the Little Ice Age of the eighteenth century – which was, it may be recalled, a likely contributing factor in the hunger that led to the French Revolution – or the cool period that brought down the Roman Empire in the fourth century. In today’s overcrowded world it would unleash global hunger, reducing the average daily caloric intake from 2900 to 1900–2000 calories or fewer, which is borderline malnutrition. For people already hungry, such an outcome would be fatal.

Yet that is not the worst of it. A report by International Physicians for the Prevention of Nuclear War (IPPNW) concluded that China, lying immediately downwind of India/Pakistan, would be worst affected by the nuclear winter effects of even a limited atomic war in South Asia. Chinese winter wheat production would fall by up to half, and the rice crop by 21 per cent.

Two billion people in India and China would starve within months, government in both countries would probably disintegrate and, in an echo of their own and Roman histories, the remnants of society would doubtless be riven among local warlords. Most of the nations of Southeast, West, North and Central Asia on their borders would be swept away before the tide of people fleeing the catastrophe.97

How such events would play out for the rest of the world are not easy to predict – but, in all likelihood, the panic occasioned by rising global hunger, soaring global food prices and the loss of two of its largest traders would crash the world economy, toppling more governments and igniting further civil and international conflict, some of it potentially nuclear.

Thus, even a relatively limited nuclear exchange, such as between India and Pakistan, could bring civilisation as we know it to an end. From this brief assessment it can be seen that the Indian subcontinent, more than any region on Earth, holds the key to the future of world food security and hence, the fate of civilisation in this century. For this reason, the South Asian region is rated as the Number One Risk on this list, in terms of food, land and water insecurity and conflict risk, above all others.

The Human Tide

Since lack of food, or fear of it, is a primary motive for people to leave their homes, the number of refugees and displaced people worldwide offers stark testimony to the increasing pressures facing human civilisation and its food supply, as we bang up against the finite limits of the planet we inhabit.

The actual number of refugees and internally displaced people more than doubled in the first two decades of the twentyfirst century, from 32 million in the late 1990s to 68.5 million in 2018.98 Furthermore, the proportion of the world population in flight rose nearly tenfold, from 0.1 per cent to almost 1 per cent, meaning – as the World Economic Forum pointed out – that around one person in every hundred has fled their home.99 In 2018, the UN High Commissioner for Refugees noted these were ‘the highest levels of displacement on record’, that nearly half of all refugees were children under 18 and that, on average, 20 people were being displaced every minute.

On top of this the UN reported 258 million ‘economic migrants’ in 2017,100 mostly from Asia and mainly educated people who had foreseen potential trouble in their homelands, including China and India, and had the resources to move themselves and their families out of harm’s way and to other more secure parts of the globe. Together, then, almost a third of a billion human beings now roam the planet every year in search of new homes and opportunities, freedom from war or hunger. Such a vast number of people already on the road – equivalent to the entire population of the USA – gives some inkling of the colossal people movements which could eventuate from large scale conflicts over food, land and water as the century advances.

It is time to face the fact that movements of a billion humans or more are now entirely possible over a comparatively short time – even though many may die in the process.

In case anyone should consider such vast movements to be impossible, the World Bank notes that the number of global tourists alone already exceeds 1.25 billion a year – which simply goes to illustrate the capacity of modern transport systems.101 Most of those tourists travel by air, road, rail or passenger vessel – however, it should be noted the world also has 52,000 merchant ships, 312,000 general aviation aircraft, 4.6 million fishing boats and tens of millions of larger recreational craft102 capable of being commandeered by fleeing people, should their needs be fierce enough.

As mentioned before, the Bank anticipated that at least 140 million ‘climate refugees’ may be forced to quit just three highly vulnerable regions by the mid twentyfirst century: SubSaharan Africa, South Asia and Latin America.103 In the Bank’s analysis, the main drivers for these immigrants, it should be noted, are factors such as water scarcity, crop failure, sea-level rise and storm surges – not the wars these impacts may also ignite. They would make the exodus much larger. Furthermore, the Bank’s analysis does not include other at-risk regions such as China, Central Asia and the Middle East/North Africa.

The FAO, in its report on the state of world food security,104 commented as follows.

* ‘The number of conflicts is... on the rise. Exacerbated by climate-related shocks, conflicts seriously affect food security and are a cause of much of the recent increase in food insecurity.’
* ‘Conflict is a key driver of situations of severe food crisis and recently re-emerged famines, while hunger and undernutrition are significantly worse where conflicts are prolonged and institutional capacities weak.’

It is important to understand that such disasters are preventable, with sufficient forward recognition of the driving factors, early implementation of suitable preventative strategies and with the co-operation of the global community. At present this cooperation is fragmentary, and few countries feel responsible for preventing the kinds of events described in this chapter, especially those taking place in distant, overseas countries. Yet it is increasingly in their own interests to do so, in view of unavoidable consequences for themselves, both physical and economic.

In the twentyfirst century the risk of mass migration and conflict driven by insecurity of food, land and water is higher than in any previous age of human history. The World Economic Forum (WEF) rated enforced mass migration as the sixth most likely of its top 30 global risks in 2018 and the second worst in terms of its societal impact. It identified ‘profound social instability’ as the risk factor most highly connected to the prevailing range of global trends.105 Furthermore, the ominous and destabilising rise of right-wing populism and renascent fascism in western countries, especially, is in part a direct response to rising fears of mass immigration.106

Eight out of the WEF’s top ten risks of 2018 related to global food security. Furthermore, the World Food Programme (WFP), in its report At the Root of Exodus: Food Security, Conflict and International Migration, drew a direct line between food, war and mass migration: ‘The WFP study found that countries with the highest level of food insecurity, coupled with armed conflict, have the highest outward migration of refugees. Additionally, when coupled with poverty, food insecurity increases the likelihood and intensity of armed conflicts; something that has clear implications for refugee outflows’, it said.107

Food, land and water must therefore now be viewed as strategic components of defence and international security as elemental as naval fleets, air power, armies or weapons. There is no logic to arming ourselves against the possibility of global conflict if, by ignoring its causes, we inadvertently set in motion the very machinery that drives it. Neglecting the strategic importance of food, land and water will deliver increased risk of war and mass migration – while the opposite is also true: attending to them can yield a vital peace dividend by extinguishing or damping down an important casus belli. This issue is developed in Chapter 7.

#### That goes nuclear, causes extinction, AND has disparatesocietal impacts---BUT current public discourse is desensitized to nuclear threats. Only by analyzing scenarios for conflict reinvigorates concern.

Andrew Futter et al. 20, Professor of International Politics at the University of Leicester; Samuel I. Watson, Associate Professor at the University of Warwick; Peter J. Chilton, Research Fellow at the University of Birmingham; Richard J. Lilford, Professor of Public Health at the University of Birmingham, “Nuclear War, Public Health, The COVID-19 Epidemic: Lessons for Prevention, Preparation, Mitigation, and Education,” Bulletin of the Atomic Scientists, Vol. 76, No. 5, pg. 271-276, 2020, T&F.

It may seem tactless, even perverse, to write about other sorts of disasters that might befall our planet in the middle of a pandemic. But write we must. For the current crisis is a harbinger of crises to come, whether humanmade or natural. While many of the lessons to be learned from the COVID-19 outbreak are specific to communicable disease, they may also provide insight into a broader set of challenges that the world may face if nuclear weapons were ever to be used again.

Dealing with a pandemic is trivial compared to dealing with the aftermath of a nuclear incident or attack. Thermal injury, followed by radiation illness, not to mention the disruption to society and the impact on the environment, would dwarf the effect of COVID-19. The basic infrastructure of government, the criminal justice system, finance, telecommunications, and food supply could be severely disrupted, whereas they have remained largely intact during the current pandemic. But public concern over nuclear weapons has faded from a high point a generation ago. In part, this may be because of psychological biases that do not properly weight the impact of an event by its probability of occurring. Consequently, the public must once again be educated about and sensitized to nuclear risk.

The task of prevention and preparation cannot be left to governments alone. As with climate change, the whole of society must be engaged in pushing to transform how humans think about and manage our nuclear world. Only then will governments have the incentive to reduce systemic risk and plan for the unthinkable.

It is paradoxical that the prevention of nuclear war, so prominent in the public mind during the 1980s, has almost faded from view despite the continued proliferation of nuclear weapons and the means to deliver them; despite the unraveling of the nuclear arms control edifice that has undergirded international order since the 1960s; despite rising political tensions across the world; despite well-documented near misses resulting from accidents and miscalculation; and despite the risk that nuclear materials could fall into terrorist hands. During the Cold War, governments and civil society groups planned extensively for the impact of nuclear weapons, and the general public was encouraged to read or watch a series of “duck and cover” or “protect and survive” pamphlets and TV programs explaining what to do in the event of a nuclear war. Today that seems strange, even slightly comical. It should not be.

A sober analysis of the risks and consequences of nuclear catastrophe reveals that they are unacceptably high. But by learning lessons from the COVID-19 pandemic and applying them to the nuclear realm, engaged citizens can help to reduce those risks.

The consequences of nuclear attacks

The consequences of nuclear use depend on the size, number, and types of weapons, the altitude at which the explosion occurs, and population density. Alex Wellerstein’s NUKEMAP is an online tool that allows users to calibrate the gruesome effects of nuclear strikes of different magnitudes over any part of the world (Wellerstein 2020). As the tool makes clear, nuclear weapons destroy human life in three zones radiating out from the epicenter: the fireball; the shock wave; and the area of a residual radiation, whose direction depends on prevailing winds. As an example, the 455- kiloton W88 warhead currently deployed on missiles inside US nuclear-powered submarines, if detonated above London, would kill an estimated 675,000 people and injure over a million more, not taking into account radiation damage and subsequent fallout. The Tsar Bomba, a 50-megaton bomb released into the atmosphere by the Soviet Union in 1961 and the most powerful bomb ever to be tested, could have killed up to 7.6 million people and injured a further 4 million if detonated over New York City. During the Cold War, experts estimated that the use of just 1 percent of the world’s nuclear stockpile could kill about 56 million people and injure another 61 million (Daugherty, Levi, and Von Hippel 1986).

The medical effects of nuclear war are summarized in a report of that title, published by the British Medical Association’s Board of Science and Education in 1983 (British Medical Association 1983). Its conclusions derive from the generic effects of blast, thermal, and radiation injury, as well as from observations made following the bombings of Hiroshima and Nagasaki in 1945 and from over 2,000 nuclear tests (Simon and Bouville 2015). The fireball destroys everything at close hand, while at a greater distance thermal radiation causes flash burns and fires. A blast wave follows. Traveling at 90 meters per second, it wreaks havoc, crushing people in buildings, injuring them with flying debris, or choking them with dust. Survivors of thermal and blast injury, and those at greater distance from ground zero, are exposed to nuclear radiation and fallout. In the short term, they are at risk of radiation sickness, the main features of which are bone marrow suppression, gastro-intestinal symptoms, and skin damage. The severity of the disease depends on the radiation dose. Longer-term effects of radiation include reduced fertility, congenital abnormality (especially microcephaly), and cancer (especially of the thyroid).

However, just as the impact of a pandemic does not end with health effects, the impact of a nuclear strike would also go beyond the immediate death toll. Supply chains, including those for food and medicine, would be severely disrupted. Law and order would probably break down on a massive scale. There are also risks that are theoretical and controversial, but which would be cataclysmic if they occurred. Prominent among these is the risk of a so-called nuclear winter resulting from particles released into the high atmosphere (Sagan 1983; Scouras 2019).

Another theoretical risk is that of electromagnetic pulse disruption of electronic systems. Such an effect caused satellites in low orbit to fail following the high-altitude Starfish Prime nuclear test, carried out by the United States in 1962 (Plait 2012). Many writers have tried to imagine life in the aftermath of a nuclear strike, and the descriptions make the reader wonder if those killed immediately are not the fortunate ones (Whitcomb 2019; Witze 2020).

How might a nuclear incident arise?

Although the major nuclear powers have reduced stockpiles from their peaks in the 1980s, there are still over 13,000 nuclear weapons in the world today (Ploughshares Fund 2020). The bombs released in Japan in August 1945 relied entirely on fission, while in modern warheads fission is merely the detonator for an immensely more powerful fusion reaction. Several hundred of these weapons are held at high states of readiness for an attack. What might trigger their deployment? There are four main risks.

First is a planned attack. The 1945 attack on Japan is the only example to date. During the Cold War, potential belligerents were ostensibly restrained under the condition of mutual assured destruction, which itself relies on retaliation, rationality, and uncertainty about how the other side would act. Such gamesmanship may have been successful while there were only two actors, the United States and the Soviet Union, but it has become more complex and arguably more fragile in a world where nine states can deploy nuclear weapons, and where new flashpoints have emerged in East Asia, South Asia, and possibly the Middle East.

Second is miscalculation. There have been numerous nuclear near misses in our past: most famously, the near launch from a Russian nuclear submarine during the Cuban Missile crisis in 1962, and as a result of the NATO military exercise, code-named Able Archer, which led to a nuclear war scare in 1983. But also, more recently during the India–Pakistan Kargil war of 1999, just a year after both had conducted nuclear tests.

Third is an accident. It is at least conceivable that nuclear weapons could be used by accident, possibly through a computer malfunction or human error. Perhaps the best example of this would is the so-called “Petrov incident” in 1983, when scattered rays of sunlight tricked a Soviet alert system into thinking a US nuclear attack was incoming (Lewis et al. 2015).

Fourth is by non-state actors, such as terrorist groups. The chance of a nuclear detonation by a terrorist group may be limited; but perhaps more worrying is the possibility that by simulating an attack from one country they could provoke retaliation from another, or from some other interference that leads to nuclear use.

Most commentators think that miscalculation or accident is the most likely progenitor of a nuclear strike, by a considerable margin; if that is true, then nonuse of nuclear weapons for 75 years has been the result mostly of luck rather than judgment (Pelopidas 2017).

Quantifying the risk of nuclear events

The magnitude of the risk of a nuclear event is hard to estimate. The risk of a single incident, leading to the death of, say, one million people, might be as high as 50 percent over the next 50 years, according to one model (Barrett, Baum, and Hostetler 2013). Another widely cited figure is a 2 percent chance per year (Hellman 2008). A survey of experts found a wide range of estimates of the probability of nuclear war over a 10- year period; only one of the 79 respondents put the risk at zero percent, and 60 put it at over 10 percent (Lugar 2005).

The expected loss from a future event is the product of its probability and its impact, both of which could themselves be assigned probability distributions to represent the associated uncertainties. The impact could be calibrated in disability adjusted life years or even just life years lost. As a simple illustration, a 5 percent probability of an event with 50 million causalities results in an expected loss of 2.5 million (0.05 x 50 m) lives.

However, the skewed distribution of impact means the probability of losses that are orders of magnitude larger than this cannot be ignored. Figure 1 provides an example of the expected life years lost from a nuclear conflict by providing probability distributions based on estimates from the literature. In this example, the expected number of lives lost is 29 million, even though the median probability of a nuclear conflict is “only” 10 percent and the median number of lives lost is 1 million. By way of comparison, the World Health Organization estimated that climate change would be responsible for around 241,000 additional deaths each year to 2030 (or about 2.5 million over ten years) (World Health Organization 2014). Neither of these calculations take into account loss of life due to indirect economic effects. Nor do they include suffering caused by chronic illness and disability. In the case of nuclear exposure, this also includes terrible effects on unborn children. However, even without taking these considerations into account, it is clear that both nuclear war and climate change are huge threats to public health and wellbeing. But there is little reason to conclude that climate change is a greater hazard. The effects of nuclear war are immediate, whereas climate change provides plenty of warning, allowing infrastructure to be preserved, even if at high cost.

Public perceptions and social concern

A generation ago, nuclear risk was at the forefront of the public debate. Citizens across the globe were genuinely worried that a nuclear war might break out between East and West, and this spurred huge public protests and a strong anti-nuclear movement. However, today, the appreciation of nuclear risk appears much lower, with far less public concern beyond elite-level discussion and civil society activism. Notwithstanding the work of the International Physicians for the Prevention of Nuclear War (an international federation of medical groups), the International Campaign to Abolish Nuclear Weapons, the recent Humanitarian Initiative on Nuclear Weapons, and the 2017 Nuclear Ban Treaty, nuclear risks appear to have fallen below other global societal risks, such as climate change, and, following the outbreak of COVID19, global pandemics. Why has the risk of nuclear war almost dropped out of popular concern when there is little or no objective reason for citizens to lower their guard? There are four main reasons.

First is a failure to consider both the probability and magnitude of nuclear events. As the above calculations show, probability should not be considered in isolation from the magnitude of an event if it occurs. The expected loss should be kept in mind when assessing threats.

Second is the general public’s bandwidth for giving attention to important issues. There appears to be a limit to the number of issues that can rise to prominence at any one time; issues must compete for public and journalistic attention (Hilgartner and Bosk 1988). But other issues, important as they may be, should not crowd out the nuclear risk.

Third is the availability heuristic. People are more engaged by things they have experienced than things they must imagine. Expect public support for investment to prevent and prepare for pandemics in the near future. However, the hidden danger is often the greater danger, in part because it is hidden and less tangible.

Fourth is a sense of futility. Challenges such as climate change and pandemic prevention are perceived to be more “doable” in the sense that people feel they can influence the course of events. Such a sense of powerlessness may induce a nihilistic attitude. However, citizens are not powerless to reduce nuclear risk.

Learning nuclear lessons from COVID-19 and preparing for the unthinkable

The current COVID-19 crisis, in addition to serving as a timely reminder of the very personal nature of global catastrophic risk, can also shine light on the ongoing nuclear challenge that global society faces.

The first objective when dealing with global catastrophic risks, such as that posed by nuclear weapons, is the importance of prevention. It is easy to think that nuclear prevention differs from pandemic prevention in the sense that pandemics arise from the natural world while nuclear events are entirely human made. However, pandemics involve human actions at all levels, from the way the environment is managed (Brulliard 2020), through containment in facilities that experiment with modification of the viral genome, and through the nations and international agencies that respond to emerging threats. Both viral and nuclear risks can be mitigated by international co-operation. The risk of pandemics can be reduced through international agreement covering early reporting of communicable disease outbreaks. Delayed reporting resulted in delayed action in the case of COVID-19.

Worryingly, similar bilateral and multilateral agreements, supported by trust building, are eroding in the nuclear arena. Ensuring that the current global arms control architecture – including the Nuclear NonProliferation Treaty agreed in 1968 and the New START agreement between the United States and Russia that is due to expire next year – survives into a new era is essential. Likewise, continued international efforts to reduce the risks posed by nuclear terrorism through securing nuclear facilities and accounting for all fissile materials are also vital.

Genuine political commitment to nuclear disarmament would of course be the ultimate prevention mechanism, but whether nuclear disarmament is possible in our lifetimes is a moot point. Indeed, global engagement with nuclear disarmament appears to be on the wane even after the high point of agreement of the 2017 Nuclear Ban Treaty. Nevertheless, if the world cannot disarm, at least it could create a regime where all, or the great majority, of armaments are taken off high alert and various confidence building and risk reduction mechanisms are put in place, given the well-documented risks of accident or miscalculation. All these measures require strengthening international bodies that can carry out inspections and help overcome suspicion through increasing transparency. For example, governments will be more confident to reduce the high alert status of nuclear weapons if they can be assured that other governments are doing likewise.

If prevention is not possible, then attention must turn toward preparation. It has been argued that the world was not properly prepared for the current pandemic, from a lack of personal protective equipment to economic planning for lockdown, meaning that decisions had to be made on the fly. However, if governments were not prepared for the pandemic, then they are likely not prepared for other global disasters either, the most significant of which would arguably be a nuclear disaster.

Duncan Campbell’s 1982 book War Plan UK gives an unnerving insight into the limitations of planning for life after a nuclear attack even in an age where such an event was taken seriously (Campbell 1982). And it is not clear that much societal contingency planning beyond the continuity of government exists in most states today (see Graff 2017). COVID-19 has highlighted the enormous pressures on the health service, police officers, and other essential workers, and has shown that these workers can become ill or even die. Moreover, even if just one city was attacked by a nuclear weapon, it would be necessary for other parts of the country to come to its aid, and the government would have to step in to put emergency measures in place for the distribution of food and water, shelter, and healthcare.

Policy makers cannot just wring their hands and say how catastrophic it would be and hope for the best. The fact that it would be difficult to manage such a scenario is the very reason why the plans should be made. Such plans would have to involve the whole of society, just as they did in the 1960s. Citizens need to persuade their governments to spend money and energy on difficult questions. How to maintain food supplies? How to get money to people who need it? Who is an essential worker? Which industries or parts of society should be prioritized? What is the correct balance between state and private industry in the response? How much should the population be allowed to know? How far should human rights be suspended? What should the parts of the country that are functioning do to help those that are not?

The current COVID-19 crisis also provides insight into the challenges that citizens would face in the event of a nuclear attack (whether small or large in scale, or indeed just threatened). A nuclear crisis is likely to create far greater levels of panic, hoarding, and shortages of medical supplies than has COVID-19. There would be a rush to stockpile iodine, for example, to counter the effects of radiation on the thyroid, but also of the equipment necessary to treat burns or gain access to clean water. A nuclear attack would also almost certainly mean the curtailment of civil liberties, as well as lockdowns and restrictions on travel (both domestically and abroad). Rather than to prevent the spread of illness, this would be done to allow the authorities to try to manage the crisis and prevent lawlessness. It may even include martial law and possibly a restriction of citizens’ ability to access reliable information. To some extent, this is easier today with 24-hour television news reporting and myriad online resources to keep everyone up to date (assuming TV and radio transmission is still possible), but the flip side of this is that knowing what is real or believable is difficult (Lazer et al. 2018). This also highlights the importance of clear and unequivocal messaging on the part of trustworthy governments (another significant challenge highlighted by the response to COVID-19).

Perhaps the most important pieces of the nuclear risk puzzle are education and engagement. Notwithstanding the excellent work by organizations such as the Nuclear Threat Initiative, the public is probably less familiar with the basics of nuclear weapons and nuclear risks than at any point since the 1940s, so it is essential that more be done to educate the public about them, perhaps in a similar way to what has happened with climate change. With respect to engagement, a nuclear disaster, and certainly a nuclear war, would be a catastrophe that extended beyond borders, and while an immediate reaction might be to close borders and look inward, it is clear that any response would have to be global.

A nuclear wake-up call

In 1966 the BBC docudrama The War Game depicting a hypothetical nuclear attack on the United Kingdom was deemed so upsetting that it was initially banned from being broadcast. Two decades later, the films The Day After and Threads portrayed the harrowing impact of nuclear attacks on towns in the US Midwest and on Sheffield, England, respectively. Upsetting as these films may have been, they nevertheless played an important role in educating the public about nuclear risks. A generation later, in the midst of the challenges and politics of the modern world, people seem to have forgotten the dangers posed by nuclear weapons or are at best blissfully ignorant. It is essential, however unpleasant it may seem, that citizens think about the unthinkable and make a concerted effort to hopefully prevent, but in a worst-case scenario mitigate and manage, the threats posed by nuclear weapons. The world has survived for 75 years without the use of nuclear weapons in war, but this does not automatically mean that the same will be true in the future. That governments have avoided catastrophe thus far is, at least in part, due to luck. There is no reason to assume that this luck will hold out indefinitely.

There is a limit to how far governments are prepared to move without the support of their citizens. As was the case in the abolition of the slave trade two hundred years ago or with climate change today, the causal chain is often from citizen to government, rather than the other way around (Jennings 2013). Citizens should hold politicians to account. It is crucially important that scientists and other experts are humble about how much is known – or how much can be known. However, the gradual awakening to the dangers of climate change, and more recently virulent disease, shows that the public can absorb abstract ideas and incorporate them in their worldview beyond just reciting empty slogans. But a societal movement requires engagement from a broad swath of groups including the press, teachers, the judiciary, and humanitarian and religious groups to ensure that the issue of nuclear risk is placed at the center of the public agenda in a sober but serious way.

#### Independently, food insecurity is a risk magnifier---it locks in numerous existential threats. Err against complacency wedded in the Global North.

John Hewson et al. 20, Honorary Professorial Fellow, Australian National University. PhD, Economics, Johns Hopkins University; Bob Douglas, Emeritus Professor, National Centre for Epidemiology and Population Health, Australian National University; Robyn Alders, Senior Fellow, Chatham House Global Health; Julian Cribb, Adjunct Professor, University of Technology, Sydney, "Food is at the Heart of Our Future," Commission for the Human Future, Round Table on Global Food Security, June 2020, pg. 11-16. language edited.

1.7 Adverse economics

The global food system is [subject] ~~slave~~ to a productionist paradigm that focuses on producing more food, for monetary profit rather than nutritional purposes. This outmoded system rewards the volume of food produced rather than its dietary virtues or quality.

It is dominated internationally by a small number of extremely large agribusiness, food processing and retail corporations and their relentless drive to increase both production and consumption. These punish farmers by paying them less and less for producing more and more. This has devastating impacts on rural communities, on people, animals and on the farming environment. Effectively, the current agribusiness system drives farmer to become miners of their soils, water, landscapes and biodiversity, degrading the very ecological system and climate that sustain healthy food production.

Increasing concentration of corporate ownership has corrupted the goal of sustainable food production and captured control of regulation intended to protect the agroecosystem and consumer health. It gives preference to high-fat, high-sugar, high-salt, high-chemical and heavily processed foods that defy sound nutritional advice. It invests in large-scale land clearing and the slaughter of wildlife, such as the orangutan. Furthermore, corporate funding of scientific research has sullied science, causing it to lose consumer and government confidence.

Food producers worldwide are now locked into a competitive spiral to produce food at the lowest possible prices to meet the needs of supermarkets promoting cheap food while creating profits for a handful of transnational corporates, using systems that take no account of our ability to sustain the human food supply in the longer term. The industrial farming model unfairly advantages large corporate and company farms over smaller family farms. Consequently, millions of smallholders and farmers who can no longer compete are being forced off their land. The corporate model aggregates land and water holdings then, when it has extracted its rent, re-sells them to realise capital gain. This transforms the farming landscape and society forever as it sheds skills, degrades natural capital and bars young farmers from entering the industry.

Consumers everywhere now eat food that does not reflect the real cost of producing it. They are disconnected, almost completely, from the people who originally produced the food, and how it was produced, leading to wide-scale public ignorance about which foods are healthy, safe and sustainable and which are the opposite. Food consumption patterns are now extensively determined by advertising agencies rather than by nutritionists or sustainable farmers, leading to growing health problems and rising death rates. Consumers have been trained by corporates to expect ‘cheap’ food, with disastrous consequences for the environment that produces their food and their own health. The reality is that today’s food is too cheap to last.

A new way to value food is imperative. There is room for far more involvement by consumers, farmers, dieticians and nutritionists in the human diet than the industrial system permits today.

Food chains, typically extending for thousands of kilometres, undermine the capacity of local food producers to supply their own markets, and the contact between producers and consumers so necessary to a healthy, sustainable diet. They cause massive waste and muffle market signals to producers. They are responsible for a large part of the food sector’s climate emissions and high costs. For all these reasons the world urgently needs solutions that shorten supply chains, notably a return to locally produced foods.

A complex web of political economy factors drives today’s food systems. Dominant market-based approaches to food governance prioritise economic over social and environmental interests and have led to hyper-concentration in the market and political power of transnational corporations across the entire food chain. Concentration of ownership of food processing, marketing, transport and supply is dominated by around 20 global mega-corporates. Four companies now control more than 60 percent of global proprietary seed sales; this is causing large-scale agricultural biodiversity loss and threatens future food security.

Of equal concern is corporate dominance of the supply chain that provides farmers with chemicals, fertiliser, machinery and other inputs, and its effect on rural communities. Corporate agribusiness argues we need to intensify agricultural production to meet future food demands, using disruptive digital, chemical and genetic technologies; however, these will further entrench their control of the food chain. In the words of one farmer, “These corporate players don’t recognise the importance of social and community values in their balance sheets or their reporting to their shareholders.”

Oceans should not be forgotten. Corporatisation and increased scale of fishing has intensified the emptying of the world’s oceans as fishery after fishery disappears, through over-allocation and ineffective quota enforcement. While aquaculture is presented as a solution, often it depends on unsustainable use of both agricultural and marine feed sources.

Individualism, a cornerstone of Western identity, is a major obstacle to a global shift to mindsets that value collective goals, such as food security, health, safety and sustainability, over private ambitions. Changing this may be a critical step in achieving true global transformation towards food security.

Consequently, the global, industrialised and commodified food system is deeply unsustainable and grossly unfair. Its failures and fragilities have been apparent for decades and have been brought into sharp relief in the current pandemic. The case for transformative change is urgent and overwhelming. Addressing power asymmetries between corporations, governments, farmers and consumers within and surrounding food systems represents a core challenge for any transformation agenda.

Among others, the Eat-Lancet Commission, Lancet Obesity Commission, the High-Level Panel of Experts on Food Security and Nutrition, IPCC, IPES-Food, FAO and IFPRI have all highlighted the parlous state of the world food system and the need to reinvent it.

1.8 Food chain failures

The coronavirus pandemic has highlighted the systemic fragility of just-in-time chains that are a feature of the world commodity food system – and the risk this poses to reliable food supplies in future. Covid-19 clusters in meatworks, food processing plants, produce markets and other concentration points caused breakdowns in demand and supply and extensive food waste when farmers in many countries were forced to plough their crops under.

Food security has four key components: production, storage, distribution and food safety. In many parts of the world, none of these are fit for purpose, as revealed by the Covid-19 chaos.

A widely neglected issue is that no major city, anywhere on Earth, can feed itself. All rely for their food from transport, processing, storage and supply chains extending for thousands of kilometres. This makes them highly susceptible to fragmentation, oil shocks, transport failures, supply shortages, climate and weather impacts, conflicts, trade disputes, industrial strikes, health lockdowns and other forms of disruption.

Countries reliant on food imports are especially at risk. Unfair trade and investment terms, combined with a broken system of aid, has entrenched food import dependency in low-income countries.

The chief goal of global food chains is profit for the corporations and shareholders that control them, not assured supply, good nutrition or health. Being privately held, increasingly outside of national jurisdiction, they lack both transparency and accountability to the public. They limit the choice of foods to those which are most profitable to transport and process, or which meet narrow marketing aims such as eyeappeal. They foster the incorporation of toxic chemistry, mostly derived from petroleum and coal, as preservatives, colourings and additives and the leaching of packaging materials, into the food supply.

Corporate dominance means there is a lack of independent ‘public good’ research into food production, food systems, logistics, novel foods, nutrition and health, serving the needs of humanity, rather than agribusiness. Instead research tends to be focussed on corporate food chain needs.

1.9 Population

The issue of a sustainable food supply for humanity through the 21st Century is inseparable from the question of the human population, at what level it may peak and how it can be brought down to a number capable of living within the Earth’s resources. Nor can these two be separated from the issue of climate change.

At present, humans and their livestock account for 97 per cent of the biomass of all vertebrate land animals on Earth – an almost complete reversal of the situation barely a century ago. Population growth is the great driver of unsustainable use of water, food and other vital resources.

Underpinning all 10 catastrophic threats to the human future is our failure to contain human numbers, to address how they are to be constrained and brought back into balance with the Earth’s capacity to support us. Indeed, many governments are still bribing their citizens with subsidies and tax breaks to produce more babies on the misguided assumption that this leads to economic growth. These short-sighted policies increase the scale of catastrophic risk faced by all.

While population growth tends to be strongest in developing regions, reckless overconsumption of resources is strongest in the wealthy world. Both issues need to be controlled if human civilisation is to survive. The Commission will discuss this issue in more detail in future reports.

1.10 Links to global risks

Food insecurity is intimately linked with the 10 catastrophic risks with which the Commission for the Human Future is concerned (scarcity of key natural resources, collapse of ecosystems, overpopulation, global warming, nuclear conflict, global poisoning, uncontrolled technologies, food insecurity, failure to act, etc)

Food insecurity is a prime impeller of societal upheaval, civil conflict and international wars. The protection of national borders enclosing food production resources constitutes the chief justification for defence spending. The world presently spends $1.8 trillion a year on new weapons – but only $70 billion a year on improving food and its production, an imbalance ratio of 25 to 1.

Competition and disputes over increasingly scarce food, land and water resources in a shifting climate have the potential to ignite local, regional and global conflicts, including nuclear.

Food failures, whether combined with conflict or not, have the potential to unleash mass refugee tsunamis out of afflicted regions, with domino-like destabilization of neighbouring lands, their governments and even whole continents. This was foreshadowed in the Syrian refugee crisis and its impact on Europe and West Asia.

The combination of industrialised agriculture and an increasingly unstable climate is leading to rapid hyper-urbanization as hundreds of millions of rural people are driven off their farms and into cities. This in turn can destabilise urban societies, cause governments to fall, with global economic repercussions.

Food production today is a key contributor to an avalanche of human chemical emissions which are polluting the entire planet and affecting all life. It is a primary driver of climate change, loss of biodiversity and extinction. It is a major factor in the rise of pandemic disease, both infectious and noncommunicable. It is an underlying factor in about two thirds of human conflicts. It is a major user of disruptive new technologies, including biotechnology and nanotechnology, with unknown and unregulated consequences for humanity.

The appearance of well-stocked supermarkets in wealthy societies feeds the illusion that the food problem is ‘solved’, leading to overwhelming complacency on the part of government, industry and society and a lack of preparedness for future global food crises.

#### Plan: The United States federal government should restrict anticompetitive mergers in the agriculture sector.

#### The plan inaugurates a strict scrutiny of mergers in the agriculture sector. That effectively resolves and deters anticompetitive behavior.

Kristen Tam & Olivia Bielskis 21, BA, Environmental Science Policy, University of California, Los Angeles; BA, Political Science & Human Biology and Society, University of California, Los Angeles, "Stimulating Antitrust Enforcement to Expand the Regenerative Agriculture Movement," UCLA Library, 2021, pg. 15-29.

II. Prong One: “Antitrust Injury” Should Include the Threat of Loss of Profits due to Possible Price Competition

The negative effects of agriculture consolidation have transpired largely due to the lack of antitrust enforcement from the Courts and the DOJ and FTC. The Supreme Court’s ruling on Cargill v. Monfort, which allowed two meatpacking corporations to merge even though the plaintiff, a competing firm, claimed the merge would cause a “threat of loss of profits.” This showcases how this perspective on antitrust laws has failed to err on the side of precaution and subsequently allows mergers that decrease competition in the marketplace to arise. This section outlines the intended purpose of antitrust laws, provides an overview of the case, then argues why showing the threat of loss of profits due to possible price competition following a merger does constitute antitrust injury. Further, this ruling has created an unreasonable threshold for private entities to bring potential mergers to court and has created precedent for later filings to be dismissed on the basis that they did not prove sufficient “antitrust injury.”

A. Origins of Antitrust Law

The term “antitrust” came about in the late 1800s because many companies were transferring their stock to a board of “trustees” who controlled the output and prices for entire industries.47 With this in mind, antitrust laws were designed to ensure that a few corporations do not hold substantial economic power that could “be exerted to oppress individuals and injure the public generally.”48 Not only do they intend to prevent monopolization of markets, but they aim to maintain competitive markets, increase consumer surplus, increase the quantity and quality of the product consumed, reduce deadweight loss, and improve efficiency in resource allocation as well.49

Congress created three major Federal antitrust laws to maintain competition in the marketplace: The Sherman Antitrust Act, the Clayton Antitrust Act and the Federal Trade Commission Act.50 The first of the antitrust laws, The Sherman Antitrust Act was enacted in 1890 with the purpose of protecting interstate and foreign trade by outlawing contracts, combinations, conspiracies, and anticompetitive conduct that unreasonably restrained trade.51 The Act is not violated when one firm’s vigorous competition and lower prices take sales from its less efficient competitors; in this case, the Courts state that competition is working properly.52 While the Sherman Act imposes a more onerous burden of proving actual unreasonable restraints, Congress created the Clayton Act to require proof only of potential anticompetitive effect.53 The Act intends to prevent practices that suppress competition and give large businesses undue advantages over small businesses, as well as to prohibit mergers and acquisitions that are likely to lessen competition.54

There are three key elements that help uphold United States antitrust laws and affect the level of enforcement. The first is jurisprudential doctrines that the courts develop.55 Judicial decisions may limit or expand the reach of antitrust laws by setting precedents that alter the government’s ability to challenge certain types of cases. The second is the prosecutorial discretion that enforcers, the DOJ, the FTC, and the state attorneys general, employ.56 Because these agencies determine what does and does not violate antitrust laws, a change in the enforcement discretion or philosophy of enforcers may affect the intensity of regulation. The third is the fiscal resources provided to the enforcers.57 Judicial rules that increase or decrease the cost and barrier to entry to pursue cases can affect the number of antitrust cases brought to trial.

B. Jurisprudential Doctrines are Largely Influenced by Lenient Interpretations by the Courts

Until the late 1970s, the courts strictly ruled against many mergers and in favor of protecting competition. However, this changed when Robert Bork published a book in the 1980s arguing that the government must only focus on changes in consumer prices when assessing anticompetitive harm, a perspective known as the “consumer welfare standard.”58 His framework prioritized economic efficiency over small businesses, arguing that big business should be allowed to consolidate because its efficiency benefited the economy.59 Concurring with Bork, the Chicago School principles claim that underenforcement of antitrust laws was better than overenforcement because market self-correction will provide sufficient safeguards to competition.60

Because of these new priorities, the Supreme Court, FTC, and DOJ adopted this philosophy in 1979 ushering in what is known as the Chicago Era.61 They prioritized the efficiencies and lower prices that larger firms created, thus rolling back their antitrust enforcement on larger firms to create more consolidated industries.62 Although consolidated industries may positively affect consumers by decreasing prices, the Court neglected to take into account the negative effect that consolidation in agricultural purchasing and distribution had on suppliers such as farmers. When there are less buyers, distributors, or packers who compete for the supplier’s good, the buyers are able to control and drive down the price they pay to the suppliers; they create what is known as monopsony power.

C. Cargill v. Monfort

Cargill v. Montfort exemplifies a decision invoking a diluted enforcement of the Clayton Act that leads to the creation of monopsony power. In this case, the Supreme Court overruled the Circuit and District Court rulings and decided that the plaintiff, Monfort, did not establish sufficient antitrust injury under Section 16 of the Clayton Act by claiming a threat of loss of profits to sue Excel. Monfort, the fifth largest beef packing corporation in the United States, was contesting the merging of Excel and Spencer, the second and third largest beef packing corporations in the United States. Excel is a wholly owned subsidiary of Cargill, Inc., which owns more than 150 subsidiaries in over 35 countries.63 The merger would still leave Excel as the second largest packer, but its market share would almost equal the largest packer, IBP, Inc.64

The case was first brought to the Tenth Circuit Court, where they agreed that the plaintiff proved antitrust standing and was able to seek injunction under Section 16 of the Clayton Act, which allows for a party to sue for injunctive relief due to “threatened loss or damage by a violation of the antitrust laws.”65 This conclusion was reached because Montfort’s viability in the market would be injured by (1) a threat of loss of profits from the possibility that Excel would lower its prices to a level at or only slightly above its costs, and (2) a threat of being driven out of business by the possibility that Excel would lower its prices to a level below its costs, which would violate Section 7 of the Clayton Act.66 Section 7 intends to prohibit actions that substantially lessen competition or tend to create monopolies.67 These injuries would be met on the premise that Excel would injure Monfort by enacting a “price-cost squeeze.” A price-cost squeeze would involve Excel increasing the bidding price it would pay for cattle while lowering the price it sells the end product, boxed beef, to a level at or only slightly above its production costs.68 In effect, this would require Monfort to also lower its prices in order to remain competitive, causing them to suffer profit losses.69 Excel’s large financial resources endowed by its owner, Cargill, would allow it to accept far lower profit margins than firms like Monfort, which would eliminate competitors in the short run and reduce competition in the long run.7071 This inevitability violates the Clayton Act by creating a “threatened loss or damage”72 by a pricecost squeeze, which would “substantially… lessen competition”73 and create a dynamic in which Excel can control the market to maximize their own benefit.74

The District Court agreed that Monfort’s allegations and proof of anticompetitive effect were sufficient given that Excel, being the second largest producer, could create an acquisition that realistically threatens Monfort’s position as a strong competitor in the marketplace.75 The Court of Appeals also affirmed this ruling and held that the respondent’s allegation of a “pricecost squeeze” was not just harm from competition, but constituted a claim of injury as a form of predatory pricing because Excel would drive other companies out of the market.76

D. The Supreme Court’s Ruling on Cargill v. Monfort Undermines the Clayton Act

In response to the District and Circuit Court rulings, the Supreme Court’s first argument was that the showing of loss or damage merely due to increased competition does not constitute antitrust injury to seek relief under Section 16.77 The Supreme Court looked back to its rulings on Brunswick orp. V. Pueblo Bowl-O-Mat, Inc., where they held that “antitrust laws do not require the courts to protect small businesses from the loss of profits due to continued competition, but only against the loss of profits from practices forbidden by the antitrust laws.”78 Here, the Court found that the competition that Monfort alleged, competition for increased market share, was simply vigorous competition, and not actively forbidden by antitrust laws.79 The Court suggests that if antitrust laws protected competitors from the loss of profits due to this price competition, any decision by a firm to cut prices in order to increase market share would be rendered illegal.80

However, showing loss or damage due to increased competition does constitute antitrust injury. Antitrust injury results from predatory pricing, an anticompetitive practice forbidden by antitrust laws where a corporation intentionally lowers prices below normal competitive prices in order to monopolize part of the market.81 Monfort demonstrated that this injury is at play because they proved high likelihood that Excel would engage in a price-cost squeeze. A price cost squeeze may be viewed as “simply vigorous competition” in the short run. However, if the practice continues, it will greatly reduce competition in the long run. Furthermore, antitrust laws focus on protecting competition in the long run rather than treating these matters as mere short term price wars. In this case, the Court focused on the post-merger conduct and opted to deny relief unless the plaintiff could prove a violation of the Sherman Act. Instead, the Court should focus its attention on the merger itself and grant relief if there is a significant probability that the merger will adversely affect competition in the market, focusing on the probable threat of harm rather than actual harm.82 This aligns with the purpose of Section 7 in the Clayton Act to prevent mergers that “may substantially lessen competition, or tend to create a monopoly” without requiring initial proof of ongoing, established harm to the plaintiff.83 Section 16 of the Clayton Act is not being properly enforced to protect competition if it does not grant plaintiffs antitrust injury on the basis that there is a threat of loss of profits due to possible price competition following a merger.

The Supreme Court’s second argument is that the respondent neither raised nor proved any claim of predatory pricing before the District Court. This is because Monfort did not allege that Excel’s engaging in a price-cost squeeze was included in predatory activities.84 Although Monfort may only have four passing references that claim that Excel would be able to and would probably engage in predatory pricing, it should not need to claim this, rather, the evidence of a price-cost squeeze likely occurring is enough to satisfy antitrust injury.

The Court's ruling on Cargill v. Monfort did not, however, set a per se rule, which would have unequivocally “denied competitors standing to challenge acquisitions on the basis of predatory pricing theories.”85 Therefore, competitors can still challenge acquisitions on the basis of predatory pricing. However, because the Court ruled that showing loss of damage merely due to increased competition, or the threat of loss of profits due to possible price competition following a merger does not constitute antitrust injury to give injunctive relief under Section 16,86 if following competitors try to bring up this reason for antitrust injury, they will most likely be denied standing as the Court will refer back to this case. This language has been inscribed into this section’s jurisprudence doctrines and has not been overturned or amended since, as more recently cited in the definition of antitrust standing in Glen Holly Entm’t, Inc. v. Tektronix Inc case in 2003.87 The subsequent adverse impacts of consolidation on the market demonstrate that showing loss of damage due merely to increased competition, or the threat of loss of profits due to possible price competition following a merger does constitute antitrust injury and should be struck down.

III. Prong Two: The DOJ and FTC have significantly decreased the number of agriculture and meatpacking merger acquisitions that they block

A. Power in the Hands of the Antitrust Division and Federal Trade Commission to determine Harmful Merges

The second institutional aspect affecting antitrust enforcement is observed in federal agencies. The DOJ and FTC are the federal agencies that evaluate if corporate merges valued at more than $94 million can occur.8889 Since the 1980s, regulation by the FTC and DOJ has significantly decreased. Every year the FTC and DOJ review over a thousand merger filings, and it was found that between 2000 and 2005, 95 percent of merger filings presented no competitive issues.90 For mergers that “may… substantially… lessen competition, or tend to create a monopoly,”91 the FTC conducts more in-depth investigations using their Merger Best Practices guidelines.92 Oftentimes, competitive issues with these mergers are solved by consent agreement with the parties. In the few cases where the agency and parties cannot agree on a way to fix the competitive problems, the agency may bring the merger on administrative trial to federal court.93

These agencies base their determination on if a merge is likely to create or increase market power.94 Market power is the ability of a seller or a group of sellers to profitably maintain prices above competitive levels for a significant period of time or the ability of a buyer or coordinating group of buyers to depress prices below competitive levels.95 When a merger is brought before them, such as the acquisition of Cargill by Continental, the Division conducts extensive research. In this case, they worked with over 20 attorneys, economists and paralegals who reviewed over 400 documents and consulted with officials from the USDA, FTC and state attorneys general offices. They interviewed over 100 farmers, farm organization officials, agricultural economists, grain company executives, and other individuals. In conducting their analysis, the Division determines the size and shape of the product and geographic markets, how recent buying and selling patterns would be affected by the merge, analyzes the size of the firms’ market shares, and looks at the pre- and post-merger levels of concentration in the market.9697 From this, the Division decides if the effect of the merger may substantially lessen competition in the relevant market, which determines whether or not to allow the merger to exist.98 In Philadelphia National Bank, the Supreme Court set forth an additional test that said if mergers control an undue percentage share of the relevant market and which results in a significant increase in the concentration of firms in the market inherently likely to lessen competition, then they violate Section 7 of the Clayton Act.99

After the Division follows these steps, they can prevent the merger from existing or allow the merger to proceed if they follow restructuring recommendations. For Cargill, they concluded that the merger would prevent competition and options for farmers to sell their products to. Thus, the Division suggested multiple divestitures in Cargill and Continental facilities throughout the Midwest, West and Texas Gulf. The Division did this because they wanted to ensure that farmers in the affected markets would have alternative buyers to sell their grain and soybeans to.100 This case exemplifies that the DOJ and FTC have the capacity to determine how much evidence is needed to prove injury, what constitutes control of an “undue percentage share of the relevant market,” and what “a significant increase in the concentration of firms in the market” is.101 Although the investigation in Cargill and Continental resulted in an adequate enforcement of antitrust guidelines, the majority of cases do not face comparable evaluation.

B. Regulation by the DOJ has Significantly Decreased

Decreased regulation by the DOJ and FTC is not adequately protecting competition. From 2010 to 2019, despite a 79.16 percent increase in the number of pre-merger submissions to the DOJ and FTC, from 1,166 to 2,089, the percentage of mergers that these agencies conducted a second request for decreased by 0.5 percent and 0.3 percent respectively for the DOJ and FTC.102 Despite a clear increase in the number of merger requests, the DOJ and FTC have not proportionally increased the usage of their enforcement mechanisms.

Examining enforcement in 2013, there were 1,326 merger transactions reported, 217 of which raised questions for further inquiry based solely on information reported. From this, 47 second requests were issued from the FTC and DOJ to collect data from the businesses. After receiving this information, the DOJ and FTC brought 38 merger enforcement actions which in the majority included settlement agreements with the parties involving asset divestiture to prevent post merger harm. This resulted in only 6 merger cases filed in court seeking injunction rather than settlement.103 Seeing as enforcement trends have shifted to such a great extent to allow over 95 percent of merger transactions form every year, the DOJ and FTC have clearly demonstrated a propensity to decrease regulation of mergers, which generally favors furthering the dominance of large corporations.

The Cargill case epitomizes the Court’s lenient attitude specifically against enforcement of Section 7 of the Clayton Act where the federal agencies also need to increase enforcement to uphold the goals of the statute. Under Section 7 in the Clayton Act, the number of merger cases investigated by the DOJ have decreased in each decade following the Bork era: 125.3 merger cases per year in the pre-Bork era from 1970 to 1979,104 95.1 cases per year in the post-Bork era from 1980 to 1989,105 and most recently, only 69.8 cases per year from 2010 to 2019.106 Merger cases have experienced drastic decreases in the number of cases for which the DOJ conducts a second request, finds violation of antitrust laws, and bars a merger from proceeding from the 1970s to our current age. For agriculture enforcement specifically, since 1969 the DOJ has only filed 10 cases against company mergers for fluid milk manufacturing and dairy products, while meat packing firms have only faced 7 cases cumulatively.107 The DOJ’s decreasing regulation of mergers that substantially harms competition has caused the agriculture market to become more consolidated; therefore, it must reinvigorate its deference to its statutory duties to uphold the Clayton Act and strike down on mergers that it foresees will and currently are, threatening competition on the marketplace.

From 2008 to 2011, the FTC challenged nearly all mergers that would result in three or fewer significant competitors, most that would result in four or fewer significant competitors, and none that would leave five or more competitors.108 This practice closely resembles Robert Bork’s philosophy arguing that mergers resulting in four or more competitors should be presumptively lawful.109 Although the FTC was diligent in challenging mergers that would result in three or fewer significant competitors, having five large competitors on the market still constitutes a substantially consolidated market, further decreasing competition and preventing smaller businesses from surviving and profiting.

IV. Recommendations

In order to uphold competition in the marketplace, the Courts and federal regulation agencies must take deliberate action against mergers that will inevitably have profound effects on long-term competition. In order to address prong one, where the Courts have not erred on the side of precaution and have not granted antitrust injury to parties that claim “the threat of loss of profits due to possible price competition,” the Courts should interpret American antitrust laws with Congress’s intent to protect competition, rather than through the lens of consumer welfare, a strategy that has failed to uphold empirical integrity, seeing as consumer prices have risen.110 Specifically, they should interpret Section 16 of the Clayton Act to allow for antitrust injury to include the threat of loss of profits due to possible price competition following a merger. Not only will this rightfully decrease the barrier to bringing forth an antitrust injury, but it will bring precedent back into alignment with the purpose and intention of the Clayton Act and prevent further consolidation in the agriculture marketplace.

In order to address prong two, where the DOJ and FTC have largely allowed consolidation in the marketplace to transpire with limited regulation, the DOJ and FTC must increase the number of agriculture and meatpacking merger acquisitions that they block by holistically analyzing the scope of the merger’s market power. Additionally, they must reinvestigate current corporations in the market that have unruly market power, such as Tyson, and require divestiture. Tyson is sued on average 2.7 times every month, however, it still holds a substantially large percentage of the meat processing and packing industry.111 By implementing both of these recommendations, the federal government can truly fulfill their regulatory responsibilities by laying the groundwork for increasing competition by maintaining or increasing the number of farms, distributors and meatpacking businesses.

CONCLUSION

The growing consolidation of America’s agriculture industry is alarming and poses a continuous threat to the expansion and transition to regenerative farming practices. The DOJ, FTC and the Courts have embraced Robert Bork’s “consumer welfare standard” philosophy and employ stricter standards to prove antitrust injury, allowing more consolidation to occur in the agriculture industry. These conglomerates have increased market prices,112 and in the long run, are implementing farming practices that are destroying the soil and security of America to produce its own food. There are more small and medium sized farms that implement regenerative practices such as applying manure and organic fertilizers. In order to expand the implementation of regenerative practices, large operations need to be broken down and further prevented from forming. Ultimately, allowing merges to occur and limiting regulation on the current marketplace by the Courts and federal agencies is harming consumers, farmers, and the government.

#### Our method is valuable:

#### 1. LEGALESE.

#### An open query into antitrust law is pivotal to sustain AND generate movement potential.

Amna A. Akbar et al. 21, Associate Professor, Law, The Ohio State University, Moritz College of Law; Sameer M. Ashar, Clinical Professor, Law, University of California, Irvine School of Law; Jocelyn Simonson, Professor, Law, Brooklyn Law School, "Movement Law," Stanford Law Review, Vol. 73, Issue 4, April 2021, Lexis.

It has never been clearer how ideas birthed in and by social movements are fundamental forces in law and politics in the United States. 1On the left 2in the last decade, Occupy Wall Street coined "the 99%," mobilized people against growing economic inequality and corporate power, and laid a foundation for the deepening of anticapitalist critique and socialist politics. 3The Ferguson and Baltimore rebellions, combined with organizing by the Movement for Black Lives (M4BL) and a growing constellation of abolitionist organizations, have made anti-Blackness, white supremacy, and police violence core issues on the liberal-to-left spectrum and redefined the terms of policy debate. 4Young people are organizing for a Green New Deal, a response to the environmental crisis that is remaking climate-change politics. 5Indigenous resistance from Hawaii to the Dakotas is connecting environmental justice to the revival of anticolonial land politics. 6Through strikes and organizing, nurses, teachers, and "rideshare" [\*825] drivers are reasserting the centrality of worker power to social movements and economic, racial, and gender justice. 7This scale and volume of left social movement activity--our focus--marks a resurgence of contestation after decades of relative quiet. 8Today's social movements are meeting the existential crises of our time with vision, scale, and infrastructure. They reflect the growing sense that neoliberal law and politics has failed the majority of people in the United States. And they point the way toward transformation.

This particular moment of political, economic, and social crisis demands that more of us consider how to work alongside such efforts. In this Article, we identity a methodology for working alongside social movements within scholarly work. We argue that legal scholars should take seriously the epistemological universe of today's left social movements, their imaginations, experiments, tactics, and strategies for legal and social change. We call this methodology movement law.

Movement law is not the study of social movements; rather, it is investigation and analysis with social movements. Social movements are the partners of movement law scholars rather than their subject. For at least three decades, legal scholars have studied social movements, creating a "law and social movements" subdiscipline. 9We are inspired by this work, and we believe it is [\*826] essential for scholars to write about movements to understand the theories of social change that they embody. We aim to articulate something distinct: a methodology for legal scholars across areas of law.

Movement law is also distinct from movement lawyering, an approach to lawyering in solidarity with social movements. 10Movement lawyering aims to create space within public-interest practice to work with movements to build grassroots power. 11In contrast, our focus is on creating space within legal scholarship to think alongside social movements. To be sure, these are related endeavors, and many movement law scholars engage in movement lawyering. But in this Article we give sustained attention to scholarly method.

Movement law approaches scholarly thinking and writing about law, justice, and social change as work done in solidarity with social movements, local organizing, and other forms of collective struggle. As it begins in solidarity and with commitments to justice and freedom, it often begins outside of the law as traditionally conceived. In this way, movement law builds on the work of jurisprudential schools of thought such as critical legal studies (CLS), critical race theory (CRT), Latina/o critical theory (LatCrit), feminist legal theory, critical lawyering, and democratic constitutionalism. By looking to lived experience and [\*827] structures of inequality, scholars in these critical traditions have long complicated conventional accounts of law--what it does and for whom and how it can and should change--with an eye toward collective struggle and ideation. 12As Chuck Lawrence has recently underscored, CRT teaches us that "[a]ll race reform, all racial justice, is achieved through the work of people who join together in justice movements to disrupt systems and institutions of plunder and to contest the racialized narratives that justify that plunder." 13Movement law centers itself within this history of critical thought.

We are interested in social movements for their potential to democratize our politics and embolden our visions for change. Social movements exist on all sides of the political spectrum. Indeed, scholars across the ideological spectrum might claim movement law. But for us, because our own solidarity is born out of commitments to a certain understanding of social, political, and economic justice, our focus is on left movements today: those that aim to redistribute life chances and resources; those that aim to end our reliance on prisons and police to solve political, economic, and social problems; those that confront systems of white supremacy, anti-Blackness, capitalism, ableism, cisnormativity, and heteropatriarchy; and those that struggle to fundamentally transform state and society. In this Article we focus on movements that posit wholesale transformation rather than reform as their end goal; that challenge elite rule and aim to build democracy from the ground up; and that focus on collective rather than individual well-being. 14Collectivity--across race, class, gender, sexuality, disability, and social location--leads to solidarity with the potential to profoundly shift our modes of living into ones that are more sustainable and more equitable.

Social movements have marshaled some of the most profound changes in how we relate to one another and what we can expect of the state. 15Social movements break the molds of political discourse, project new possible futures, and create terrains of engagement for more people. They galvanize hope and collective action rather than cynicism and alienation in a way that can guide [\*828] people to face the historically rooted material crises of our time. 16Radical visions--where the scale of the vision matches the scale of the problems we face--can change what we think is possible both within and outside of the law. The visions of movement actors and organizations point us toward forms of reconstruction that call us to participate in remaking the world in more just ways.

Social movements are central to left intellectual traditions. 17Scholars across disciplines are studying with renewed curiosity the histories of movements and enslavement and colonialism; capitalism and white supremacy; and race, class, and political economy. 18More than ever, this is a time for legal scholars to focus on social movements.

[\*829] When we produce legal scholarship, we propagate ideas. Typically, we tell stories about what is wrong with our systems and institutions of law, and we advocate for solutions. Legal scholarship--adjacent to the coercive power of the state--is inherently normative then. 19Movements, like scholars, are fundamentally invested in the realm of ideas. But unlike most legal scholarship, left movements are invested in disrupting the status quo and transforming political, economic, and social relations. Movements often start with disrupting ideas and telling new stories about what is possible. Movement law attempts to engage, celebrate, and participate in disruption from the grassroots. When this effort arises from within the university, it is necessarily contradictory given the university's central role in reproducing elite rule and the myth of meritocracy. Nonetheless, we believe it is important and possible for legal scholars to support efforts at radical and popular ideation toward transformation. Otherwise, we acquiesce to a much narrower and more elite discourse.

When we speak of producing scholarship in conversation with movements, we do not mean to limit our solidarity to currently existing social movements. Instead, we focus more broadly on collectives of people struggling together to generate new ideas and ways of living together, whether they are current or historical, and whether they are full-fledged social organizations, fledgling formations of community members in struggle, local organizing groups, unions, or worker centers. 20We use the term "movement" because of the collective strength and potential for transformative change that it implies.

#### Particularly, investigating legal discourse in the agriculture sector opens the toolbox for reconfiguring the broader economic system.

Renee Hatcher 19, Assistant Professor of Law at John Marshall Law School-Chicago, where she serves as the Director of the Community Enterprise and Solidarity Economy Clinic, "Solidarity Economy Lawyering," Tennessee Journal of Race, Gender, & Social Justice, Vol. 8, Issue 23, 2019, Lexis.

"To most public interest-minded law students and lawyers, practicing transactional law isn't an obvious path to saving the world . . . [But] now transactional lawyers are needed, en masse, to aid in an epic reinvention of our economic system." -- Janelle Orsi 1

An emerging cohort of lawyers are working to transform the dominant economy from one that centers on self-interest, greed, and profit maximization to an economy that centers the needs of people and the planet. These lawyers work in private practice, at legal service organizations, as in-house counsels, clinical professors, and pro-bono volunteers. Their work includes corporate structuring, contract drafting, real estate deals, regulatory advising, and law reform projects, among other things. Their clients are individuals, organizations, small businesses, social enterprises, cooperatives, worker self-directed nonprofits, community land trusts, time banks, and other collective experiments that seek to build alternative mechanisms for both economic justice and social liberation. 2 This is the "solidarity economy" movement, a growing movement building a new economic system rooted in economic democracy, social solidarity, and environmental sustainability. 3

At the heart of this new economic system are five unifying principles: (1) solidarity, (2) equity in all dimensions (race, gender, ability, etc.), (3) pluralism, (4) participatory democracy, and (5) sustainability. 4 The movement's ultimate vision is twofold, first to grow these values and practices through grassroots initiatives, and second to link these solidarity economy activities in a network of mutual support, transforming the current dominant global economy into a just, democratic, and sustainable economic system. 5 To that end, the core principles are embedded in the organizational and business structures, governance, financing, and the ways in which solidarity economy enterprises and organizations build their supply chains and partnerships. As a result, solidarity economy lawyers, lawyers that work with solidarity economy clients, often work at the cutting edge of corporate law, securities regulations, employment law, licensing, and intellectual property. However, in some cases the current legal regime is ill suited for these new types of enterprise. So, while solidarity economy practitioners are reimagining the economy and means of economic exchange, solidarity economy lawyers are attempting to reimagine the law to reflect the needs of their clients.

This essay explores solidarity economy lawyering as an emergent field of practice in the United States. After a short explanation of solidarity economy theory and practice, the essay explores the way in which transactional representation of solidarity economy enterprise clients is different from traditional business and nonprofit representation. The essay goes on to argue that transactional lawyers have a particular role to play in 1) advocating for corporate, regulatory, and contract law reform to better suit the needs of grassroots solidarity economy enterprises, 2) creatively redeploying legal techniques and practices relating to risk management, organizational form, and the allocation of property rights to further the purpose of internalizing social and ecological values into the heart of [\*26] economic exchange, otherwise known as 'radical transactionalism', and 3) "scaling up" the solidarity economy through the linkage of solidarity economy organizations and enterprises. These contributions are instrumental to the long and short-term success of the solidarity economy movement. The essay concludes with some thoughts on how solidarity economy lawyers can be most effective.

I. What is Solidarity Economy?

The solidarity economy (SE) 6 is a set of theories and practices that promote equitable, solidaristic, democratic, ecological, and sustainable development with an ultimate vision of 1) growing these values and practices through grassroots initiatives, and 2) linking these solidarity economy activities in a network of mutual support, such that they transform the current dominant global economy into a just, democratic, and sustainable economic system. 7 Many communities, across the United States and across the globe, are engaging in SE activities through grassroots economic initiatives such as: alternative currencies; community-run resource libraries; participatory budgeting; worker, consumer, and producer cooperatives; community land trusts; intentional communities; community development credit unions; community supported agriculture programs; open source free software initiatives and others. 8 Not only do SE initiatives and enterprises currently exist in every sector of the dominant economy, but they also are prevalent in informal diverse economies.9 \*\*\*FOOTNOTE BEGINS\*\*\* See, e.g., J.K. GIBSON-GRAHAM, A POSTCAPITALIST POLITICS 69 (2006) ("[W]hat is usually regarded as the "economy" -- wage labor, market exchange of commodities, and capitalist enterprise -- comprises but a small subset of the activities by which we produce, exchange, and distribute value." Diverse economies refers to a theoretical framework that accounts for all of the alternative means of economic activity.); J.K. GIBSON-GRAHAM, THE END OF CAPITALISM (AS WE KNEW IT): A FEMINIST CRITIQUE OF POLITICAL ECONOMY 4 (1996); Brian Burke & Boone Shear, Introduction: Engaged Scholarship for Non-capitalist Political Ecologies, 21 J. POL. ECON. 127 (2014); Janelle Cornwell, Worker Co-operatives and Spaces of Possibility: An Investigation of Subject Space at Collective Copies, 44 ANTIPODE 725, 739 (2012); J.K. Gibson-Graham, Diverse Economies: Performative Practices for 'Other Worlds', 32 PROGRESS HUM. GEOGRAPHY 613, 623-24 (2008). \*\*\*FOOTNOTE ENDS\*\*\* As a political project, solidarity economy proposes a transformational shift of [\*27] the relationships between the market, the state, and people, centering the needs of people and the environment over the needs of private interests and capital. 10 In doing so, SE seeks to be the "next system," replacing neoliberal capitalism by building and connecting networks of grassroots economic initiatives and practices that embody the five core principles of SE: solidarity, sustainability, equity in all dimensions (race, gender, ability, etc.), participatory democracy, and pluralism. 11

Solidarity economy is not a static concept or blueprint for a new economy. It is an ever-evolving movement that grows from existing and emergent practices, guided by the theoretical principles. 12 In other words, the theory and the practice of SE are circular through an ongoing praxis of "debate, experience research, organizing and reflection." 13 This continuous iterative evolution of SE allows for new forms of organization and experiments of exchange that best serve the material needs of its practitioners. 14 Solidarity economy broadly defines the economy as all of the ways in which people, communities, and organizations meet their material needs. 15 Therefore, solidarity economy can be thought of as "a dynamic process of economic organizing in which organizations, communities, and social movements work to identify, strengthen, and create democratic and liberatory means of meeting their needs." 16 Figure 1 illustrates some of the current kinds of initiatives that make up the solidarity economy. 17

[\*28] Figure 1. Ethan Miller, Defining Solidarity Economy: Key Concepts and Issues.

While many communities and cultures have longed practiced solidarity and cooperation to provide for the material needs of its members, 18 solidarity economy theory in the United States is relatively new. The U.S. solidarity economy movement emerged in 2007, although solidarity economy practices have existed since early in the twentieth century. 19 As in other parts of the world, the solidarity economy movement in the United States directly grew out of failures of the dominant economy, neoliberal and austerity policies, and the impending economic downturn of 2008. In many ways, the economic downtown, spurred by the collapse of the mortgage securities market and subprime loans catastrophe, shook not only the U.S. economy but also main-street's general trust in the invisible hand of the market and integrity of the financial industry. It was in the early days of the economic downtown, that communities and organizations took the first steps to nationally coordinate the U.S. solidarity economy movement. In 2007, at the U.S. Social Forum, a number of SE practitioners and organizations convened, discussed emerging practices, and strategized the future of the SE movement in the U.S. 20 Subsequently, there [\*29] have been numerous meetings to discuss the theory and future of the movement. 21 Over the last decade, the solidarity economy in the United States has grown significantly. 22 By one conservative estimate, there were more than 700 solidarity-economy businesses in 2016. 23

Moreover, the solidarity economy movement is in many ways a movement of movements, as many current movements are incorporating solidarity economy strategies into their organizing work. For example, the Movement for Black Lives Policy Platform advocates for the support of cooperative development and social economy networks as a tenet of economic justice. 24 Furthermore, a number of solidarity-economy initiatives have sprung out of local organizing efforts affiliated with the Black Lives Matter movement. 25 The indigenous rights and environmental justice movements are pushing for the creation of public banks in the wake of the Standing Rock protests. 26 Immigrant-rights advocates are incubating worker cooperatives to ensure immigrant workers can take ownership of their labor and have a say in their working conditions. 27 These efforts and other SE initiatives need legal support to thrive and flourish.

II. Transactional Lawyering in the Solidarity Economy Movement

At its core, transactional lawyering is about the structuring of organizational and individual relationships within the parameters of the law. Transactional lawyers structure businesses, negotiate and draft contracts, and advise clients on relevant laws and [\*30] regulations. 28 These skills are imperative to the long-term success of the solidarity economy movement. SE enterprises, like traditional enterprises, retain lawyers to advise on entity formation and governance, draft relevant agreements and contracts, and counsel on applicable regulations. However, SE initiatives are markedly different from traditional enterprises in three major ways: 1) the motivations of the enterprise are guided by the five SE principles and not the maximization of profit, 2) the relationships within the enterprise are often blurred and overlapping, and 3) the means of exchange are varied and diverse. 29 It's important that lawyers understand and explore these differences as there are implications on the law and legal practice.

For example, imagine a group of seven women seek out a lawyer to start a catering and prepared-food business. The women decided that they want to be equal partners, share in profits and put up the same value of start-up capital. Easy enough. This is a scenario that most experienced transactional lawyers would be able to address. However, imagine for a second that the women go on to say 1) all of the women will work and contribute to the day-to-day decisions based on democratic consensus, 2) two of the women are applying for asylum and do not have work authorization, 3) the business will provide free meals to those that are food insecure in their community, 4) a number of the capital contributions will be in the form of sweat equity, and 5) the business intends to compensate the lawyer not in dollars, but in future meals prepared by the business. '

Each additional piece of information would have an impact not only on the laws implicated but also how the lawyer might approach the case. To begin, in the spirit of consensus building, the lawyer might ensure that all seven women could attend and participate in any future client meetings. This particular business, a worker cooperative, would require a deeper analysis of entity formation and applicable regulations to help meet the client's goals. 30 Cooperative law varies greatly from state to state and the lawyer would need to think through the relevant state and federal regulations that might classify the worker-owners as either an employee or an owner of the business. 31 The lawyer would carefully have to research and analyze the relevant immigration and employment regulations to ensure that all members can participate and will be classified as owners for the purpose of federal work authorization laws. 32 The implications of such classifications can mean the difference between success and failure of the business, as well as the protection of its members. 33 Given that the business' purpose is in-part charitable, and inpart wealth building (for-profit), the lawyer would want to identify the best combination of benefits and structures, as well as carefully draft governance agreements. 34 As such, the lawyer would need to do additional fact investigation and have a better understanding of [\*31] the client's goals and priorities to provide effective counseling on entity formation. 35 In addition to considering the various entity options, the lawyer would need to explore the issue of sweat equity contributions by the worker-owners. The Fair Labor Standards Act (FLSA), 36 or other relevant state laws, might potentially prevent the worker-owners from investing sweat equity without receiving immediate compensation. The lawyer's compensation is also an issue, as the lawyer would need to research relevant regulations for the proposed barter arrangement. 37 What language would go into an engagement letter if the attorney agreed to represent the business in exchange for a future promise of food? Would the prepared meals be taxable income for the lawyer? Would the lawyer get to try the food first? All important questions that would need to be addressed before moving forward with representation of the client.

This is just one cursory example of how a solidarity economy business client might be different from a traditional business. Yet, it demonstrates the new type of legal practice that is emerging to adequately serve solidarity economy clients. SE lawyers must have a broad understanding of the full range of legal structures. Otherwise the tendency may be to propose those structures with which they are most familiar, leaving other potential options unexplored. Other substantive areas of law include securities law, employment law, tax law, intellectual property, contact law, and commercial law. Still, SE practice can implicate a wide range of legal issues far beyond these traditional bodies of business law. In the example above, the lawyer would need to research immigration law, Good Samaritan food statutes, and barter exchange taxation regulations to adequately serve the client. This is not uncommon. SE clients are rethinking and remaking the means of economic exchange. 38 This will continue to require transactional SE lawyers to expand their substantive areas of practice. Further, many solidarity economy initiatives are connected to or a part of social movements. 39 Such connections are likely to have an impact on the legal support required. In the long term, SE lawyers may need to regularly consult and collaborate with attorneys in a range of practice areas and be nimble in responding to the needs of their clients.

Beyond the technical skills and expertise of transactional practice, SE lawyering also requires what has been referred to as the right "culture fit" or the "touch." 40 This can best be explained as the willingness of a lawyer to embrace the imaginations and experimentations of clients, and subsequently put the law in service to those ends. 41 Both in legal education and mainstream practice, the minimization of risks is emphasized as the lawyer's primary concern. 42 While important, a fixation on risks in SE practice often will not best serve the goals of the clients.

[\*32] There are many gray areas of law related to SE practice. 43 It's the lawyer's job to assess, analyze, and provide the most viable options for achieving the client's goals, recognizing that the law is not always clear. 44 Specifically, in a SE lawyering practice, it's necessary for the lawyer to demonstrate creative capacity, a deep understanding of the client's perspective and goals, and a commitment to the shared values of the solidarity economy movement. 45 Recognizing that the attorney-client relationship is more than just a mere transaction, effective solidarity-economy lawyers build authentic and solidaristic relationships with their clients. 46 Relationship building is a primary way in which SE lawyers can demonstrate a shared commitment to SE values and principles. As SE lawyers grow in their experience and practice, they come to rely on their acquired knowledge, while continuing to embrace the innovative goals of SE initiatives. 47 Furthermore, as is the case with all effective lawyering, SE lawyers will need to commit themselves to understanding the context in which their clients are operating, including the movements that clients may ground themselves in. Currently, lawyers across the country are engaged in SE lawyering. 48

A growing cadre of lawyers are representing SE organizations at legal service organizations, community economic development law clinics, law firms, and in solo practice. 49 For example, the Sustainable Economies Law Center (SELC), a 501(c)3 organization, is an institutional pioneer in solidarity economy lawyering. 50 SELC has provided legal services to hundreds of solidarity economy enterprises through their Resilient Communities Legal Cafes, 51 direct representation, and legal resources on their website, including materials on cooperative law, grassroots financing, community renewable energy law, food enterprises, and alternative forms of exchange or money. 52 Beyond providing legal support to SE enterprises, SELC is an example of a solidarity economy legal service organization. 53 The organization functions as a worker self-directed nonprofit, a hybrid governance model in which a nonprofit organization adopts governance characteristics of a worker cooperative. 54 Worker self-directed nonprofits empower their workers to collectively make decisions on behalf of the organization. 55 While these nonprofits still have a governing board of directors, the board concedes significant decision-making authority to the employees or members. 56 This particular model of nonprofit governance embodies the SE principle of participatory democracy. 57 Moreover, [\*33] in furtherance of solidarity and equity principles, all SELC employees, legal and non-legal, receive the same salary, 58 and the organization provides services on a sliding scale. 59

While SELC is often cited as "the" solidarity economy legal service organization," 60 a number of legal service organizations specialize in SE lawyering. A few are worth mentioning in an attempt to build awareness for law students and interested lawyers. Baltimore Activating Solidarity Economies, for example, has provided support to a number of SE initiatives in Baltimore, Maryland, including a mapping project of the local solidarity economy. 61 Likewise, the Urban Cooperative Legal Center based in Newark, New Jersey, provides legal support to start-up coops and organizes community events to discuss cooperative development. 62 Additionally, the Urban Justice Center's Community Development Project works with a number of New York City cooperatives and SE initiatives. 63 In the same vein, the Center for Community Based 2 Enterprise (C2BE) in Detroit, Michigan, not only provides cooperative legal support but also integrates cultural organizing to scale the local Detroit solidarity economy. 64 Law for Black Lives has also provided and facilitated legal support to a number of SE campaigns. 65 Finally, organizations like the Working World and the ICA Group have lawyers on staff that regularly engage SE legal practice. 66

Similarly, a number of transactional and community economic development (CED) law school clinics around the country provide legal support to SE enterprises. For the past two years, the clinic that I direct at John Marshall Law School-Chicago has used solidarity economy theory as a framework for case selection, prioritizing those clients that exemplify the five principles of SE (equity, sustainability, participatory democracy, solidarity, and pluralism). Currently, most of our clients are worker cooperatives and cooperative incubators. Recognizing the local emerging solidarity economy and gap in legal services [\*34] in Chicago, the clinic at John Marshall Law School is currently being rebranded from the Business Enterprise Law Clinic to the Community Enterprise and Solidarity Economy Clinic. Other clinics to highlight with a SE practice are Vermont Law School's New Economy Law Center, 67 Harvard Law School's Community Enterprise Project, 68 Hofstra Law's Community and Economic Development Clinic, 69 New York Law School's Nonprofit and Small Business Clinic, 70 University of Baltimore School of Law's Community Development Clinic, 71 University of Michigan Community and Economic Development Clinic, 72 American University Washington College of Law's Community and Economic Development Law Clinic, 73 and CUNY Law School's Community and Economic Development Clinic. 74 There are also a number of law firms engaged in SE practice including the Tuttle Law Group, 75 Dorsey & Whitney LLP, 76 Gilmore Khandhar LLC, 77 the Law Office of Elizabeth Carter, 78 and Sarah Kaplan Law Office 79 to name a few. Lawyers at these institutions and others are exploring new organizational forms and governance structures, engaging in law reform projects, and structuring relationships between SE enterprises. 80

III. SE Lawyers are Reimagining the Law

Law reform is a particular point of intervention in which lawyers can add value to the SE movement. In examining the fullness of the solidarity economy movement, there are complex and innovative initiatives that require the exploration of "gray areas" of the law, law reform projects, and the creative redeployment of transactional practice, referred [\*35] to as 'radical transactionalism.' 81 Unlike traditional businesses, SE enterprises do not fit neatly within established laws. The current statutory framework is largely designed to regulate adverse self-interests of economic actors in the mainstream economy, like the employer/employee, landlord/tenant, and producer/consumer relationship. 82 As such, our laws often fail to account for the diverse economic arrangements and overlapping, solidaristic nature of relationships within the solidarity economy. Continuing with the example of a worker cooperative, there are numerous state and federal laws that regulate the employer-employee relationship. 83 Most of these statutes assume that there are two separate and distinct parties, the employer and the employee, that have separate and adverse interests. However, in worker cooperative enterprises, worker-owners are effectively both employees and employers. This leaves significant ambiguity as to whether worker-owners will be classified as an employee under any given regulation or if an employee relationship exists within a worker cooperative business.

In the course of their work, lawyers are well positioned to identify the insufficiencies of the law to address the needs of SE clients. In understanding the confines of the legal framework, lawyers can propose and participate in law reform campaigns that better accommodate the innovation of the SE movement. For example, SELC has been instrumental in a number of policy reform campaigns in California, 84 most recently helping to secure the California Worker Cooperative Act. 85 The statute provides important visibility to California worker cooperatives, and also provides some clarification on the employee classification of worker-owners. 86 The law also confers additional benefits on worker cooperative businesses, including important securities exemptions and limiting the power of "community investors". 87

Often law reform efforts are guided by SE organizational coalitions. Lawyers can play an important role within these coalitions. Specifically:

[\*36] 1. SE lawyers can serve as legal translators of the status quo and produce popular education resources on the current state of the law. 88

2. SE lawyers can identify which aspects of the law are barriers for the long-term success of the SE movement.

3. SE lawyers can draw upon their experiences in practice to craft legislation that's responsive to the wider SE movement.

4. SE lawyers can work with government staffers to draft legislation.

5. SE lawyers can provide legal alerts and continuing legal education programs to educate lawyers on updates to the law.

In each of these roles, lawyers can add value and support to the larger SE movement. While SE lawyers are currently doing this work, many more are needed to support local and state law reform efforts.

Beyond law reform, lawyers are also, more daringly, radically reimagining the laws of economic activity. "Radical transactionalism" is the creative redeployment of transactional legal techniques and practices to reimagine and reconfigure the legal building blocks of the economy

based upon social and ecological values. 89 One such example is the reimagining of intellectual property law and copyright licensing that gave way to the creation of the Creative Commons license. 90 The Creative Commons license, established in 2001, "provides free, easy-to-use copyright licenses to make a simple and standardized way to give the public permission to share and use creative works." 91 Created by law professor Lawrence Lessig, Creative Commons is a relatively new innovation that legally allows individuals to share "knowledge and creativity to build a more equitable, accessible, and innovative world." 92 In the larger scheme of our hegemonic legal underpinnings, this example only begins to scratch the surface of what is possible. Imagine if a group of 1000 SE lawyers, based in communities, actively and collectively began to reimagine the "rules of our economic road." What would it look like to infuse the principles of equity, sustainability, solidarity, and participatory democracy into contract law, employment law, property law, and the laws of business organizations? The result would be nothing less than a transformation of the current social economic system. Developing and popularizing alternative rules based upon transformative principles can be the beginning of a more just future. 93

[\*37] The difference between law reform and radical transactionalism is akin to the difference between reformist reforms and transformational re-imaginings. 94 In the case of law reform, the given policy proposal starts from the status quo and often deals in rigid legal frameworks, as well as the assumptions and ideological underpinnings of the current system. Radical transactionalism as applied to SE lawyering, begins with the principles and values of solidarity economy theory. From there the lawyer deconstructs and re-envisions the legal building blocks of economic activity. This kind of political project and radical reimagining, again, speaks to the creative capacity necessary for effective solidarity economy lawyering.

IV. SE Lawyers are Positioned to Scale the Solidarity Economy

SE lawyers can also add value to the solidarity economy movement by linking and structuring relationships between solidarity economy enterprises. As local communities continue to innovate diverse SE initiatives, the larger part of SE theory and practice is linking these various grass-root organizations in international networks of exchange to build out a just global economy. In other words, the full ambition of the solidarity economy movement is a "pluralistic conglomeration of worldwide economic activities that share a set of core values." 95 To achieve this goal, the solidarity economy rejects the traditional concept of "scale" and focuses on the meaningful linkage and integration of SE initiatives into larger solidaristic networks. 96 "Scaling-up" the solidarity economy includes the structuring of supply chains and the provision of services between SE enterprises, but also extends to activities of mutual aid and support like collective skill-sharing and workshops, policy advocacy, financing, joint ventures, and the development of solidarity markets. 97 All of these activities serve to move an even-larger share economic activity out of the dominant capitalist sector and strengthen the growing global solidarity economy.

SE lawyers are poised to aid in this important work of scaling-up the solidarity economy. Lawyers are well situated to identify potential scaling opportunities and structure relationships between solidarity economy initiatives. Being few and far between, SE lawyers tend to work with a number of SE enterprises in their specific locales. As a result, SE lawyers can be instrumental in mapping the local solidarity economy, identifying the needs and offerings of existing SE enterprises, and structuring business relationships between SE initiatives by drafting agreements. For example, in 2018, the Business Enterprise Law Clinic at John Marshall Law School- Chicago was commissioned by the Illinois Worker Cooperative Alliance to complete a policy report that included mapping the local worker cooperative ecosystem. 98 Law students in the clinic researched, identified, and interviewed existing worker cooperative businesses, some of which were current or previous clients. 99 The clinic is also participating in a local coalition building effort, Chicagoland Cooperative Ecosystem Coalition (CCEC), that aims to facilitate opportunities for cooperation among cooperatives and supporting technical assistance [\*38] providers. 100 Another example is the work of SE lawyers with the Baltimore Roundtable for Economic Democracy (BRED). BRED is a network table of Maryland-based worker cooperatives established in 2016. 101 BRED provides non-exploited financing and technical assistance support to further the local Baltimore solidarity economy. 102 The organization also provides popular education and workshops on cooperative development to the larger Baltimore community. 103 Solidarity economy lawyers in Baltimore have been an integral part of the BRED initiative, 104 and contributed to mapping project of the Baltimore solidarity economy. 105 These examples highlight some of the ways in which lawyers are currently scaling the SE movement.

CONCLUSION

In conclusion, solidarity-economy lawyering is an emerging practice for transactional lawyers. Skilled transactional lawyers are needed to provide direct representation to the increasing number of SE enterprises. If attorneys are to be effective in the endeavor of SE lawyering, they will need to use new creative approaches and utilize every tool in the transactional lawyering toolbox. Specifically, SE lawyers need to have a broad knowledge business law concepts, including the full range of legal entities, commercial law, tax, employment law, intellectual property law, and securities. Beyond a working knowledge of the substantive areas of law, effective SE lawyers will need to embrace the imaginations and experimentations of SE clients, and put the law in service of their clients' visions. This requires creative capacity and the willingness to explore and advise SE clients on "gray areas" of the law. Navigating this kind of practice also necessitates a meaningful understanding of the client's context and goals.

#### 2. PLANNING.

#### Analyzing existing errors in this sector provides both a material AND discursive praxis for dismantling commodification of agriculture.

Patricia Allen & Alice B. Wilson 08, Director, Center for Agroecology & Sustainable Food Systems, University of California, Santa Cruz; PhD, Cultural Anthropology, UNC-Chapel Hill, "Agrifood Inequalities: Globalization and Localization," Development, Vol. 51, Issue 4, 2008, pg. 538-539.

The tendencies to elitist and paradoxical orientations and outcomes in the US alternative agrifood movement are not intentional. In fact, many of the participants explicitly support social justice, even though it goes against the grain of American individualism (Allen and Hinrichs, 2007). And, nearly every sustainable agriculture organization now lists social justice as one of its goals, a significant change over the years. The local food movement can become a liberatory movement in two key ways.

First, the local food movement, by de-industrializing the table through self-transformation and ethical food practices, has the potential to be an immediate ‘here and now’ way to build a different world and resist neo-liberalization. Gibson-Graham (2006) and Gibson-Graham and Cameron (2007) point to the development of community projects that eschew private ownership relations and the appropriation of surplus value by non-producers. For example, one of the newest food trends are ‘pay what you can’ restaurants based on the idea that everyone deserves good food, but not everyone can afford to pay the same price (Farnsworth, 2008). The USA Domestic Fair Trade Working Group has launched an effort, now piloted in several states, to bring fair trade practices to the US by working to create a third party-certified standard that would represent social justice criteria, including a living wage. The ethics of consumption and the connection between food and embodiment makes food a pivotal point for challenging and charting pathways to alternative critical engagement.

Second, beyond the value of actual practices, there is the value of discursive and cognitive change and engagement. Because our relationship with food is one of the ‘closest-in’, consumption provides a place, a site of unmapped possibilities present within every situation, with immanent transformative potential to cultivate new subjectivities and the cultural alternatives

to neo-liberal hegemony. The local food movement can build strong communities that join with other communities to challenge Polanyi’s (1944) ‘fictitious’ commodification of humans and nature. In the organic market, for example, the importance of its growth lies primarily in the opening it provides for the conscious ‘defetishization’ of food, and for enjoining people to think critically about the food system (Allen and Kovach, 2000). If neo-liberal capitalism rests firmly on the industrialization of agriculture and the commodification of food, then the project of highlighting the transformative political potential in the daily decisions people make about food ^ that is, denaturalizing industrial food ^ becomes central to opening up alternatives to neo-liberalism.

While food-system localization advocates must be challenged to analyze the implications of the widespread, uncritical embrace of the idea of place in a landscape of massive historical inequality, place also has liberatory sensibilities. A sense of place can develop a consciousness of linkages and a positive integration of the global and local, building a ‘global sense of the local, a global sense of place’ (Massey, 1994: 156). Applying this understanding of place as a process and locality as a set of relations has the potential to expand the local food movement’s attention to inequality. Rather than a localism based on romantic essentialism or one that reads local as good and global as bad, local food movements can partner with other regions to address inequality and the policies that create and foster it.

The United Nation’s Human Development Report cites unfair policies as the cause of the increases in global inequality. Even the World Bank is advocating changes in unfair international trade policies. Koc (1994) suggests that ‘globalization’ become a term for the knowledge that we share the same world, which requires responsible and caring relationships among members of the world community. If we take this approach, we can join together to end inequality and environmental destruction both through community-scale entrepreneurial efforts and through changing public policy. If we do not, we end up where we are today, with Wal-Mart as the world’s largest purveyor of ‘local’ food. Changes in American agrifood policies and citizen engagement with everyday food choices are key to reversing the trend of increasing inequalities both between and within nations.

#### 3. PLURALISM.

#### Competition is a complex web of systems that requires a pluralist lens for an accurate assessment.

Clive L. Spash & Adrien O.T. Guisan 21, Chair, Public Policy and Governance, Vienna University of Economics and Business; PhD, Vienna University of Economics and Business, "A Future Social-Ecological Economics," Real World Economics Review, No. 6, 09/07/2021, pg. 203-214.

Economies are the socially structured institutional process involving the interaction of humans with the natural world. Social reproduction is achieved only within the bounds of the given structure and mechanisms of biophysical reality. The form and scale of economic processes depends upon a set of spatially and temporally contextual social institutions. That is economics concerns the form and function of social provisioning process which can take various forms and are far from limited to price-making market or capitalist institutions. Starting from processes of social provisioning, economics becomes the study of plural historical, actual and potential economies with their underlying institutional arrangements and biophysical basis rather than a singular abstract idealised “economy”. This broadens analysis not only to what institutions, norms and values shape the economic process and agents’ behaviours, but also to what are socially desirable and ecologically sustainable systems of social provisioning. Economics is neither value free nor ethically neutral but its stance on both should be made explicit. It must also be realist about how economies are reproduced via social and ecological mechanisms. That means linking to both power relations and ethical and just means of provisioning, but also material and energy throughput that respects others (human and non-human). The aspirations of economists to provide for the well-being of humanity, if taken seriously, mean a revolutionary change in economics is long overdue.

The philosophical basis of the approach is argued to be closest to critical realism. Core aspects of correspondence here are depth ontology raising the profile of both structure and mechanisms as opposed to a sole focus on empirical facts. Structure as a metaphysical reality with multiple causal mechanisms operating in open systems then poses challenges for how economics conducts itself as a science. While following critical realism in its epistemic pluralism there is also a recognised need for structuring interdisciplinary research and uniting diverse fields via common ontological understanding leading to a structured methodological pluralism (not the eclecticism of constructionism and conventionalism). Potential methods for research are selected on the basis of the qualities

of an object of study and research question and as such remain open and diverse (quantitative/qualitative, intensive/extensive, see Sayer, 2010). Economic science is then neither deductivist, empiricist nor reducible to a set of idealised methods.

We start this explanation of SEE by taking issue with the hegemonic definition of economics based on choice and offer an alternative based on social provisioning. This clarifies the failure of economics to address different forms of economies both in theory and as actualised and operational both historically and at present. The relationship of economies to needs and their satisfaction with an associated material and energy throughput then becomes part of economic analysis. As noted, a clarified relationship between the ecological economic and the social is required and we explain some basic aspects of the relationship to social reality. This coverage is an outline of the ontological commitments of SEE, that is how reality is understood, its key constituents as far as an social-ecological economic system is concerned and some of their relationships. Next we outline the way in which economics can be conducted from the perspective of two other aspects of philosophy of science, namely epistemology and methodology.

II. Economics as the study of social provisioning

A rather obvious approach to defining what constitutes economics as a subject is to determine its primary object of study. Economics as an orthodoxy has for some time been dominated by a neo-Austrian dogma that was introduced significantly via Lionel Robbins (1932) and adopted into the mainstream, not least in microeconomic theory. This placed the concepts of resource scarcity and individual choice at the centre of a liberal political economy that was supposedly value free. The economic problem became meeting unlimited and competing wants and the supposed solution was meant to be resource allocation via “the market”, soon supplemented by (macro-)economic growth. In fact a single institutional process associated with capitalism was being advocated, namely, what Karl Polanyi (1957) termed, the price-making market. Robbins neo-Austrian definition then merged into Chicago school neoliberalism, where choice in a market setting, subject to price incentives, became the essence of economics and this has since permeated its meaning. This approach permitted an imperialistic expansion of economics into all sorts of subject areas, simply based on the idea that humans must make decisions as individuals so that any decision became an economic topic, e.g. equating everything from buying a cup of coffee to suicide (as infamously proposed by Becker, 1976).

In stark contrast, an older tradition regards the core of economics as determining the social and institutional arrangements for providing the needs of a community (or nation). Here the aim is to achieve a common good or well-being of all. What constitutes the good/well-being for a group then requires explicit ethical judgment. Modern times reduced the goal of seeking the “common weal” (i.e., the ability to fare well, prosper and have good fortune) into accumulating wealth and making money. Economics then simply became the study of capital accumulation using money and market prices and ultimately leading to economists’ claims of being able to determine optimally efficient public policy.

SEE immediately takes issue with reducing the subject down to studying something as singular as the economy, as if there were only one such entity or form. The term “the economy” is merely unthinking code for market capitalism, while denying actualised varieties of capitalism and that this is only one form of economic system (Hodgson, 2016). So rather than reduce economics to the study of one generic form meant to approximate the currently dominant system, a far broader approach is required, and not least so because this system is failing and creating catastrophic social and ecological crises.

A more comprehensive approach is to define economics as the study of social provisioning to meet human needs within an ethical framework of care and justice for others, both human and non-human. Social provisioning is a necessary activity for any social group whether a household, village, town, city, region, nation state or global collective. It concerns the ways in which people organise as social groupings to satisfy their needs. Markets as mechanisms for allocation are merely one form of arrangement and themselves diverse in structure.

Economics can then be seen as concerned with the variety of institutions for ensuring the satisfaction of needs and the reproduction of a society. Institutions here are to be understood as inclusive of conventions, norms, rules and regulations (Vatn, 2005). This immediately opens up economics for the consideration of alternatives and potentialities rather than the nihilistic claim that there are no alternatives.

A common objection to a focus on needs is that this is deterministic and fails to allow for the variety that appears evident in human society. Such a claim can be seen as confusing objective requirements with subjective means of their fulfilment. Thus Max-Neef (2009 [1992]) makes the distinction between needs and the satisfiers that enable their actualisation. He identifies nine fundamental needs – subsistence, affection, understanding, participation, leisure, creation, identity, freedom – that are regarded as universal and only changeable over extremely long time periods of species evolution (Max-Neef, 2009[1992]: 138). Meeting needs is regarded as a necessary prerequisite for human flourishing, while their means of fulfilment is socially contextual and varies across space and time (Rauschmayer and Omann, 2017). Satisfiers relate to the institutions, norms and practices that structure the satisfaction of needs, and will influence how economic goods and services contribute to their fulfilment or inhibition (Max-Neef, 1992). As such, while needs remain objective, how they are expressed, perceived, and fulfilled will always be subjective, conditioned by institutional arrangements and wider social and cultural contexts. This embeddedness and emergence of an economy from and with social structure forms one of the foundational ontological commitments of SEE.

In turn, social and economic systems are understood as being embedded in, and fundamentally constrained by, biophysical structures (Spash, 2017; Spash and Smith, 2019). All economic processes interact with their environment. There is a straight forward and basic dependency of economic systems upon flows of materials and energy as well as sinks for the necessary removal of waste material and energy. Economies are open social-ecological systems. Their processes operate within a set of limits prescribed by ecosystems structure and functioning, and social structure represented by actors and their institutional context.

III. The biophysical in economics

A basic fact, although absent from most economic thinking, is that natural resources and waste sinks are required to ensure social provisioning. The reproduction of societies must address the maintenance of ecosystems structure and their functioning or fail. Production fundamentally requires energy, or, more precisely, available energy termed “exergy”. That is, humans require energy capable of performing useful “work”, which is defined, as in physics, to mean the exertion of a force against some form of resistance (Ayres and Warr, 2009). Such work can be performed by humans, animals or machines, but will always require some input of exergy, whether it is the solar radiation embodied in food that fuels human and animal labour, or fossil fuels to power a heat engine. This dependency of societies on flows of energy and materials is captured in the concept of “social metabolism” (Krausmann, 2017). There is no single social metabolism because it will vary depending upon the structure of an economy and its social provisioning mechanisms, and there-in lies the potential of alternative socialecological economies.

The metabolic nature of human societies emphasises the role of materials and energy in their reproduction. This make the laws of thermodynamics central to any economic process as explored by Georgescu-Roegen (1971). The first law of thermodynamics stipulates that The metabolic nature of human societies emphasises the role of materials and energy in their reproduction. This make the laws of thermodynamics central to any economic process as explored by Georgescu-Roegen (1971). The first law of thermodynamics stipulates that

Human, and non-human, survival depends upon material and energy exchange which means on being open systems. Giampietro (2019) notes how Schrödinger described living organisms and ecosystems as having the capacity to seemingly avoid, or even reverse, entropic decay through interaction with their surroundings but this requires gathering available energy and concentrated materials from, and disposing of waste into, other systems. Entropy is not actually reversed because it continues in the larger system with which living organisms interact and are dependent. As biophysical entities living organisms are open systems. In general, open systems can maintain organisation, a given size and level of activity, but this has consequences for the systems with which they must interact. The growth of any organism, ecosystem or population is therefore fundamentally limited by the biophysical structure of its environment. These are termed horizontal limits by Devictor (2017: 120-121), because they relate to the spatial-temporal boundary for a given population, assemblage or ecosystem. The same principle applies to human societies and their economies, which depend upon ecosystems for flows of materials and energy as well as sinks for the waste they generate. Giampietro (2019) remarks that this implies that the processes ensuring the reproduction of elements of a “technosphere” (i.e. a social economy) must not interfere with the reproduction of elements in its associated “biosphere” (i.e. ecosystems structure and function) upon which they depend for maintaining a given scale of activity and organisation. Different societies have attempted to address this requirement in different ways with varying degrees of success in sustaining themselves.

Human history consists of a long period in which social provisioning was organised by free roaming, migratory, hunter gatherers prior to the rise of sedentary agricultural settlements. The former appear highly sustainable, long lived and relatively low impact, although some extinction of species is implicated. The latter consisted of small bioregional economies, with regional material flows and solar radiation as the main source of exergy, reliant on agriculture and forestry for various reproductive processes. The industrial revolution marked the start of a major transformation of social metabolism in human social and economic systems. The use of fossil fuels – coal then gas then oil – became the main source of exergy driving production processes, while increasing use of concentrated minerals replaced solar dependent plant and animal materials. This expansion of production, along with the development of artificial fertilizers, facilitated the growth of economic activities and populations beyond their previous limits (Spash, 2017).

This social metabolism appears highly unsustainable. After a few hundred years operating in just parts of the global provisioning system the results appear headed towards catastrophic collapse. The move away from exergy derived from solar radiation to finite stocks of concentrated minerals, combined with economic growth, has meant the social metabolism of industrialised human societies rapidly depleted the “entropic dowry” upon which it depends (Georgescu-Roegen, 1971). As a physically closed system, the Earth exchanges flows of energy but not of materials with its surrounding (at least not in any significant sense), while the reproduction of biospheric entities is made possible by the existence of various climatic systems that dispose of thermal energy into outer space, maintaining favourable conditions for life (Mayumi, 2017). Once used the stocks of low entropy are in effect irreversibly lost. In theory, the flows of exergy from solar radiation could be harnessed to reverse the dispersal of available energy on Earth, but to date this remains science fiction, while the ability to reconcentrate all dissipated materials to original quality on a substantive scale appears equally implausible (Spash and Smith, 2019). Recognising the biophysical reality of the economic process then leads to the inevitable conclusion that industrial economies are dependent on finite stocks exergy and their continued operation, let alone continual growth, is impossible over any extended period of time.

While the exhaustion of finite resources remains an ultimate limit on human activity, an arguably more pressing limit is the accumulation of waste. Industrial social metabolism “merely transforms low entropy into waste” (Georgescu-Roegen, 1971). As such, pollution should not be treated as a problem outside the system (i.e. an externality), or an anomaly, that could somehow be solved through increased efficiency, or correcting prices, but as an integral part of the economic process (Spash, 2021b). The Laws of Conservation indicate the inevitability of pollution because mass remains the same, but the quality of materials, like energy, declines. Ecological economists such as Daly (1992) have emphasised the scale of impacts from human activity (e.g. waste accumulation). What has been given less attention is the qualitative aspect arising due to the creation of artificial substances and interventions that would not have otherwise occurred and to which natural systems and entities are unable to adjust. Such unnatural impacts on the biosphere and ecosystems lie at the heart of the ecological crisis, such as the on-going mass extinction of species. Thus, not just the scale of human activity (e.g. quantity of waste, population size) but also its qualities determine the consequences for the environment and functioning of ecosystems. The importance of the form of intervention is why technology is never neutral, and also what determines the extent to which something is unnatural (Deckers, 2021). Humans are then engaged in processes of change not equilibrium and stability.

The development of ecology in the 1970s brought new insights into the structure of complex systems and their interconnections. This was mainly driven by the realisation of the disruptive impact of human activities on ecosystems’ structure and function, which in turn affected human systems (Spash and Smith, 2019). Contrary to previous views of ecosystems as isolated, self-regulating and stable systems, they became recognised as complex and dynamic open systems. The potentiality to change ecosystem structure dramatically following systems collapse was highlighted by Holling (2009[1986]), who described this organisation and reorganisation process as part of a cyclical pattern. The evolution of an ecosystem or population can be chaotic with abrupt changes in trajectory. Besides the “horizontal limits”, mentioned earlier, “vertical limits” are emergent and arise due to interactions between ecological levels and dependencies between different components of the system (Devictor 2017). Human activities interacting with ecosystems have uncertain and indeterminate consequences for their structure and function. In the face of such partial ignorance and indeterminacy over human intervention, public policy would better be precautionary than risk taking (Stirling, 2017), and society prepared to adapt rather than lock itself in to a specific “optimal” pathway (e.g. infrastructure, technologies, energy and materials).

IV. The social dimension of economics

Social reality is the dynamic outcome of human practices from which it emerges and by which it is reproduced (Lawson, 2006). However, emergence means that social structure while dependent upon is not reducible to human practices (e.g. individual behaviour). Social structure enables coordinated interactions through collective practices. Collective practices refer to accepted ways of doing things in a community, and can emerge in various ways, notably because of their functionality, but also simply by chance or repeated occurrences (Lawson 2012). They form a basis for individuals to form expectations as to the appropriate course of actions to follow in order to coordinate with others. Interconnected obligations and rights may evolve that are relationally constituted and constitutive of social positions (Lawson 2006). For example, the positions of employer and employee exist in relation to each other and entail associated rights and obligations for both parties.

How, and to what degree the actions of agents are pre-determined by social structure, as opposed to being autonomous, is a fundamental point of debate. Mainstream economics reduces “society” to being an aggregation of individuals who act purely out of individual selfinterest (i.e. maximising their own personal utility) and are basically identical (both ethically and psychologically). As such it cannot explain the historical variety in social provisioning systems – production and consumption patterns – throughout history and across contemporary cultures. This requires understanding human variety and social relations as emergent and mediated through institutions and values that interact with, shape and form economic structures. Human action is always relative to a particular context in space and time and set within social structure. While agency is restricted it is neither denied nor entirely pre-determined.

Following Jessop’s (2001, 2005, 2007) “strategic-relational” approach, structure and agency can be viewed as dialectical concepts beyond an artificial dualism. He considers structures as strategically selective, but not absolutely constraining, leaving some room for agency. His main argument is that structures generally tend to favour some actions over others. In this sense, he emphasize the importance of a strategic context for action: agents will strategically reflect on their (usually incomplete) understanding of structural constraints and opportunities and act accordingly. Action is therefore both structured, and “structuring” as it tends to reproduce structures and their patterns of strategic selectivity. These recursive interactions between agency and structure create tendencies because structures are not absolutely constraining. There is then only relative and temporary stability to patterns of strategic selectivity, with the possibility for actions to circumvent structural constraints or change them.

As structures are the product of human agency, they are dynamic and are open to change (Lawson, 2012). Through their practices and interactions, humans continuously (and often unintentionally) reproduce and transform the social structures that influence these practices. The employer-employee relation for example has evolved, with a changing set of rights and obligations as unions have negotiated better working conditions. Likewise, the social positioning of women has changed as emancipatory movements have fought for equal rights as citizens.

That major social structures can change (if generally only slowly) is evident from the contrast between modern society and archaic societies. For example, Sahlins (1972) described how hunter-gatherer economies were characterised by a high degree of underproduction and disdain towards accumulating material possessions. Modern industrialised societies promote over production and waste in a throwaway, fashion conscious mode of conspicuous consumption. Thus, modern consumer behaviour is not an ahistorical trait of human nature, but a specific form of social structure which helps reproduce the capitalist mode of production. The change in economic and social structure during the rise of capitalism and associated market economies has sometimes been described as a change in terms of the extent to which “the economy” is embedded in society. A prime example is the work of Karl Polanyi (1957) which argues that such modern market economies should be understood using a “formal” economic approach (i.e. individual choice in price-making markets). He regards most of human history as having been spent in “primitive” economies, where market exchange was largely or totally absent, and distribution occurred via reciprocity and kinship groups (Polanyi, 1957). Economic (provisioning) activities were described as being embedded in social relations and institutions. Understanding such economies required a “substantive” approach to economics in contrast to the formal approach, which he accepted as valid only for modern economies. The latter are governed by rational logic, efficiency, self-interest and prices which he believes means they can be regarded as disembedded from social relations (Gemici 2008; Polanyi, 1957).

While Polanyi highlights aspects of institutional differences between capitalist market economies and past economies, the division he draws between socially embedded primitive economies and socially disembedded modern economies is erroneous and only serves to reify the utopia of the “self-regulating market” that he painfully attempted to deconstruct (Spash, 2019; Gemici, 2015). The notion of (dis-)embeddedness fails to capture the changing qualities of social provisioning, and ultimately denies their social aspects. This encourages the separation of the social and economic, rather than their conceptual distinction and actual connection. Modern market economies are instituted differently than their historical counterparts, but market relations remain embedded-in, and built upon networks of social relations (Granovetter, 1985).

While Polanyi highlights aspects of institutional differences between capitalist market economies and past economies, the division he draws between socially embedded primitive economies and socially disembedded modern economies is erroneous and only serves to reify the utopia of the “self-regulating market” that he painfully attempted to deconstruct (Spash, 2019; Gemici, 2015). The notion of (dis-)embeddedness fails to capture the changing qualities of social provisioning, and ultimately denies their social aspects. This encourages the separation of the social and economic, rather than their conceptual distinction and actual connection. Modern market economies are instituted differently than their historical counterparts, but market relations remain embedded-in, and built upon networks of social relations (Granovetter, 1985).

Price-making markets have little, or in fact nothing, in common with perfectly competitive markets, where each firm has no power to set prices or control other factors of production. Actual market economies evidence oligopoly and monopoly power institutionalised in the corporation. Prices are the result of power relations and that includes the power to structure markets and regulations in ones own favour. Multi-national corporations and the Davos elite do not wait to be regulated; they lobby and influence government action in their favour opting for self-regulation when other choices are unavailable.

Power in the market place also means creating demand for products. Large firms have means to manipulate social attitudes, and therefore to manage what consumers buy and at what price (Galbraith, 1979; Kapp, 1978 [1963]; Spash and Dobernig, 2017). Promotion of dissatisfaction is the essence of modern marketing via normalising comparison with others, status-seeking (i.e. keeping up with the Jones’s), fashions, in-group/out-group identity, shopping as therapeutic and possessing the latest technology. Rather than industrial production leading to material satiation, and the need for less work, the consumer society has evolved with more work and more disposable products. This process has long been recognised as involving conspicuous consumption (Veblen 1991 [1899]) and manipulation by corporate and business enterprises (Galbraith 1969 [1958], 2007 [1967]; Kapp 1963).

V. Philosophy of economic science

Mainstream economics has attempted to employ and maintain discredited philosophical approaches to conducting itself as a science. On the one hand it aspires to finding objective truths through empiricism as if theory was unnecessary and data could speak for themselves. On the other it promotes a form of deductivism that places abstract mathematical models at its core with unquestionable foundational axioms divorced from any reality. Sometimes the two are combined in a pseudo logical empiricist approach,1 or claims to some vague form of positivism with epistemological positions such as a fact-value dichotomy, a naïve objectivism and the search for universal laws (Spash, 2012). None of this has been neutral, but has rather hidden an implicit conceptualisation of reality. Thus, the particular worldview of mainstream economics has tended to favour regarding economies as physically isolated, mechanical, self-regulating, equilibrating and predictable systems. Leaving an ontology to be defined by a methodology (whether deductivist or empiricist) means falling foul of the epistemic fallacy. That is, objects and their relationships only become accepted as valid, or even recognisable as relevant, if they conform to the methodology, e.g. if something cannot be measured it is ignored, effectively not existing in the analytical approach. Thus mainstream economics is blinkered by its methodological choices and methods (e.g. cost-benefit analysis) come to dictate understanding of reality (e.g. Nature must have a monetary price to be of value). In addition, contrary to the approaches of mainstream economists, the second half of the 20th Century saw a general recognition that science operates in a social context, and that our knowledge is fallible. However, the failings of mainstream philosophy of science are not the primary concern here (see Tacconi, 1998; Lawson, 2006; Spash, 2012, 2020), but rather we aim to suggest what would be a way forward in relation to SEE.

The search for philosophical foundations led Tacconi (1998) to propose a combination of post-normal science and constructionism. However, in its strong form constructionism denies realism and is incompatible with the ontological commitments of ecological economists to a biophysical reality independent of the human mind. Post-normal science is also not a philosophy of science, but an epistemological critique of traditional naïve objectivism in the natural sciences and its transference into the social sciences. As Tacconi (1998) seems to recognise his mixture of inconsistent approaches results in contradictions. Puller and Smith (2017: 19) summarise the problem as follows:

“Ecological economists seem to be searching for a way to combine a perception of the world as independent of our knowledge, while at the same time admitting the social construction of knowledge and the role of meaning-making in the social realm”

They then detail how a philosophical well-grounded approach can be found in critical realism, which combines ontological realism with epistemic relativism.

The form of critical realism of relevance here is associated with the early works of Roy Bhaskar (1975 [2008], 1979). As explored by Lawson (1997) in relation to economics, a strong emphasis is placed on the importance of addressing ontological issues. More specifically critical realism propose a depth ontology that goes beyond empiricist and actualist philosophies to give place to structure and the causal powers of their mechanisms. Structures and mechanisms make events happen. What is actualised is merely part of the potential and the result of which mechanisms and counter mechanisms are operative and which ones dominate. The empirically observable is then merely a subset of what is actualised based on human ability to take events into account.

The form of critical realism of relevance here is associated with the early works of Roy Bhaskar (1975 [2008], 1979). As explored by Lawson (1997) in relation to economics, a strong emphasis is placed on the importance of addressing ontological issues. More specifically critical realism propose a depth ontology that goes beyond empiricist and actualist philosophies to give place to structure and the causal powers of their mechanisms. Structures and mechanisms make events happen. What is actualised is merely part of the potential and the result of which mechanisms and counter mechanisms are operative and which ones dominate. The empirically observable is then merely a subset of what is actualised based on human ability to take events into account.

While social structures are human constructs they are no less real for that. Capitalism is, for example, a recognisable system with real mechanisms and effects (as described earlier). Reality is further conceived as stratified, with hierarchically ordered strata, starting from a physical dimension, followed by chemical, biological, social and economic dimensions (Collier 1994b). All biological entities are physical, but physical structure is independent of biological structure. Similarly, the co-dependent social and economic strata are dependent upon the biological, the chemical and physical, but not vice versa. However, as consistent with the earlier discussion, higher strata are irreducible to lower from which they are emergent. Similarly, Georgescu-Roegen (2009[1979]) exemplifies such properties by considering how an elephant is composed of physical and biological structure but its behaviour (an emergent property) cannot be explained purely form physics or chemistry. As we have noted society is not simply the aggregation of the individuals of which it is composed.

This stratified and layered understanding of reality also results in a concept of causality that differs from traditional realist approaches. Instead of being explicable as event regularity, critical realism explains actualised events using the concept of causal powers of mechanisms based on structures and mechanisms (Collier 1994a). In open systems, there are multiple mechanisms at play that can either enable or prevent the actualisation of potentialities. Rather than seeking universal and timeless “laws” of Nature there are law like conditions where certain tendencies of mechanisms become actualized (Puller and Smith, 2017).

Bhaskar describes the scientific process as “the social production of knowledge by means of knowledge” (Collier, 1994a: 54). In this view, “transitive” knowledge or thought objects, provide the concepts, models and theories that are simultaneously the raw material and the product of science, and which seek to explain “intransitive” reality or real objects (Sayer, 2010). Science seeks descriptive and explanatory knowledge if natural and social entities, phenomena, events and their relationships. While social structure is subject to change it is not so easily or quickly, it has durability (Lawson, 2006), and that means the same transitive / intransitive approach to understanding knowledge can be applied. Those who emphasise change as undermining all knowledge (e.g. Goddard, Kallis and Norgaard, 2019) fail to allow for durable structure and mechanisms which are the essence of the ability to know anything. There is also a tendency to over play the role of social scientists in affecting their objects of study.

As Sayer (2010: 33) states “social scientists and historians produce interpretations of objects, but do not generally produce the objects themselves”. He argues that a clear distinction is required between an object of inquiry and our knowledge of it, which consists in the language, concepts or images that we use to describe reality. Thought objects are therefore referents to their “real” counterparts, but he regards knowledge of true correspondence as impossible, i.e. all knowledge is fallible.

Experience of the external world consists of ideas (percepts, sense data, qualia) involving socially contextual conceptualisation (e.g. language, culture, prior knowledge). The extension of knowledge involves reconceptualization and involves the role of metaphors and analogies which relate to existing ways of thinking e.g. the current prevalence of computing metaphors and analogies. The transitive or thought object in critical realism involves weak constructionism and is termed epistemic relativity or (sometimes) epistemological relativism. This weak constructionism contrast with the radical relativism of strong constructionism where knowledge is simply a matter of shared conventions among researchers. In such accounts the relation to real structures, mechanisms and objects is regarded as irrelevant or even the existence of a reality beyond the human mind is denied.

Although knowledge is fallible, it is not equally so. Choices can be and are made between difference explanations and descriptions. Representations of the world are of practical use and their employment in our actions and practices has consequences which can be evaluated, help us navigate it and enable us to have an impact on it. We judge what works well and what does not. In Sayer’s (2010: 48) terms intersubjectively shared conventions must prove themselves to be practically adequate, so that our expectations about the world and results of our actions are actually realised. This is more than just the usefulness of a theory, because the adequacy of knowledge is also judge in terms of descriptive realism relative to the structure of reality. Thus critical realism is distinct from instrumentalism (such as found in American Pragmatism) because the aim is not simply prediction but causal explanation. Prediction can be equated with explanation only if one assumes event regularity, which fails to hold in open systems like economies. Indeed, prediction is unnecessary for the explanation of a phenomenon (Collier, 1994a).

Investigation of open systems requires a distinct approach from the idealised laboratory experiment which tries to create a partially isolated system through controlling mechanisms. The limited applicability of such methods for social phenomenon means alternative methods are typically required, such as the use of counterfactuals. However, as Danemark et al. (2002b) point out, there is no specific “method of critical realism”. Indeed the method for investigation is relative to the object of study and research question. Critical realism also recognises a wider range of modes of inference than the traditional induction and deduction. It includes the roles of retroduction and abduction (see Danermark et al., 2002a), as forming part of the process of providing causal explanation, which opens up the methodological toolbox of social sciences and changes understanding of methodology as supposedly (but not actually) conducted in traditional sciences. An inference always implies a form of generalisation and can either refer to extrapolation in an empiricist sense or to conceptualisation of the “hidden essence of things” in a realist sense. Danemark et al. (2002a: 100) suggest five strategies that can help us discern the hidden underlying structures and mechanisms: (1) counterfactual thinking; (2) social experiments; (3) studies of pathological cases; (4) studies of extreme cases and (5) comparative studies.

There are also grounds for judging which methods are appropriate. Methods and related theories must be adequate to their objects of study (Puller and Smith, 2017; Spash, 2012). For example, evolutionary theory, and its associated tools for analysis, is inadequate for understanding the operation of a mechanical clock. Thus, Hodgson’s (2008) argument that evolutionary theory should replace mechanistic theory in economics is flawed because it simply repeats the same mistaken belief that all objects of relevance to economic must be of one form (i.e. evolutionary rather than mechanical). Similarly the imposition of mathematical formalism as defining economics fails not because the methods is inherently wrong but because it cannot address the object of study, i.e. the characteristics of economic systems. More specifically quantifying everything with arithmomorphic concepts excludes all qualitative aspects (Georgescu-Roegen, 2009[1979]). This indicates the need for a structured methodological pluralism, where theories and methods are informed by the qualities of the object under study and cooperation occurs between those with common understanding (Spash, 2012).

A final aspect of note is the emancipatory role of social science research. Investigating the real (structural) cause(s) of a social phenomenon means the explanation of the social scientist will inevitably clash with the existing ideas of some people, that is new evidence may appear, theories brought into question, previously confirmed positions be undermined. Such is the nature of scientific research. Social scientists criticise those holding fallacious ideas. If there are institutions holding those false ideas then the research is also a criticism of them and the social scientists has a role in removing wrong beliefs. Collier (1994a) argues the role of the social scientist is not just to criticize but should be to undermine institutions promoting false ideas. Emancipation is then seen as transforming structure. When considering environmental research the case being made here is clear because research showing beliefs about the benefits of economic growth, fossil fuels, chemicals, plastic, asbestos, genetic modification and so on, to be false then criticise the institutions promoting such things. Research is neither neutral nor value free and facts have ethical implications for both the researcher and society.

VI. Conclusion

The multiple social, ecological and economic crises of our age, and the failings of mainstream economics to explain or address the structural causes of these crises, means new approaches to economics are essential. SEE has been outlined here as a necessary and emerging paradigm. Economics has become increasingly detached from its object of study and the orthodoxy is fundamentally flawed as a social science because it advocates a prescriptive methodology while lacking any serious engagement with epistemology and ontology. The resulting epistemic fallacy means it promotes a narrow implicit world view as if a factual truth. Failures here include imposition of limited quantitative methods and mathematically formalist methodology that exclude qualitative aspects of reality and the use of isolated/closed systems thinking for an open system reality.

Economies are the socially structured institutional process involving the interaction of humans with the natural world. Social reproduction is achieved only within the bounds of the given structure and mechanisms of biophysical reality. The form and scale of economic processes depends upon a set of spatially and temporally contextual social institutions. That is economics concerns the form and function of social provisioning process which can take various forms and are far from limited to price-making market or capitalist institutions. Starting from processes of social provisioning, economics becomes the study of plural historical, actual and potential economies with their underlying institutional arrangements and biophysical basis rather than a singular abstract idealised “economy”. This broadens analysis not only to what institutions, norms and values shape the economic process and agents’ behaviours, but also to what are socially desirable and ecologically sustainable systems of social provisioning. Economics is neither value free nor ethically neutral but its stance on both should be made explicit. It must also be realist about how economies are reproduced via social and ecological mechanisms. That means linking to both power relations and ethical and just means of provisioning, but also material and energy throughput that respects others (human and non-human). The aspirations of economists to provide for the well-being of humanity, if taken seriously, mean a revolutionary change in economics is long overdue.

#### Only through a pluralistic analysis at the intersection of planning AND legalese enables critical rethinking of present-day economics past theory and towards practice.

Dr. Bronwen Morgan & Dr. Declan Kuch 20, Professor, Law, University of Sydney Law School; Vice Chancellor’s Research Fellow, School of Law, University of South Wales, "Diverse Legalities: Pluralism and Instrumentalism," in The Handbook of Diverse Economies, Chapter 36, ed. J. K. Gibson-Graham & Kelly Dombroski, February 2020, pg. 323-329.

Law is important to economic thinking and practice. Why? Because practices of legality, both formal and informal, help to define understandings of property and ownership, to enforce transactions between parties, to reallocate economic resources from one group to another and to compensate for harms suffered in economic interactions. Law, to some extent, allocates the rights, duties and resources that constitute the range of diverse economic practices explored in this field of scholarship, and tends to both legitimate and facilitate these practices. Law is important proactively and not simply as a reaction to ‘trouble cases’ (Sarat et al. 1998): it can constitute economic activity as much as proscribe or regulate it. As this chapter will show, across all five domains of diverse economies, law arranges or rearranges obligations into new patterns that can be repeated or modified until they crystallize into new social relations. As such, law has a cross-cutting salience for the analytical structure of diverse economies. And particularly once encoded by the state, law tends towards ‘frozen politics’ (Morgan 1999), accruing a stickiness to the social relations it governs that is relatively hard to roll back.

To what extent then does law play a role in ‘producing a discourse of economic difference as a contribution to a politics of economic innovation’ (Gibson-Graham 2008)? This question as such has not been articulated to date in diverse economies scholarship. There is thus fertile potential for productive dialogue. We start with the observation that diverse economies scholarship and socio-legal scholarship share a common commitment to two key assumptions about the role of law in the economy. The first is that legalities are not separate from social practices but are rather embedded in them, whether in state-centred form or beyond the state. The second is that legality can be equally constitutive of non-capitalist and alternative capitalist economic practices, even though many formal practices of state-centred legality may tend to consolidate capital’s hold on the economy. Just as diverse economies scholarship unsettles ‘familiar representations of capitalism as an obdurate structure or system, co-extensive with the social space’ (Gibson-Graham 2008, p. 615), so too legality is by no means obdurate or necessarily implicated in blocking and prohibiting, but instead can reveal malleable openings for economic difference, and perform alternatives to the familiar nexus between capital, private property and waged labour.

This chapter explores two pathways opened up by the question of law’s role in producing a discourse of economic difference: legal pluralism and legal instrumentalism. Legal pluralism, most simply, refers to the recognition of the coexistence of multiple authoritative legal processes that operate within a specific jurisdictional or territorial area. Legal instrumentalism refers to a mode of legality which has roots in late nineteenth-century philosophical pragmatism where legal institutions are seen as a means to an end. While legal pluralism diversifies understandings of sources of law, legal instrumentalism is more outcome-focused: legality is viewed as providing resources for retooling the economy, using legal instruments to help bring community economies, for example, into being. This retooling can create openings in the status quo that we have described elsewhere as ‘radical transactionalism’, where legal building blocks of property and capital can be creatively deployed to provide a foundation for new social and democratic possibilities (Morgan and Kuch 2015, p. 559; see also Morgan and Thorpe 2018). However, alliances between legal forms and centralized state political power often significantly constrain the possibilities and openings available in legal settings and institutions, including in courts, in the writing of legislation and the operation of regulatory bodies. Appreciating these limits can strengthen diverse economies scholarship. This chapter emphasizes that legal instrumentalism should not assume the central or monopolistic salience of legality, but is rather one part of a complex assemblage of social and political relations that create, perform and constitute diverse economies.

LEGAL PLURALISM AND ECONOMIC DIFFERENCE

Legal pluralism is open-minded as to the source of binding norms, viewing them as embedded in customs or social practices as much as official state-sanctioned institutions. Contemporary understandings of legal pluralism tend to assume pluralization against a benchmark of modern, secular legal norms generated by state institutions, but of course a longer history and broader geographical view on legal systems reveals a rich mixture of relationships between state, civil society, religious and citizen institutions. Modern secular formal legalities were closely linked by Weber and others (Rheinstein 1967) to practices that support capitalist activity. This has led to the perceived interdependence between formal-legal rationality and capitalistic practices around profit, accounting and commercial dispute resolution. Certainly, along with the rise of Westphalian conceptions of national sovereignty understood hierarchically, there has been a tendency for formal-rational legalities in the modern era to compress the breathing space for diverse and plural understandings of legality. Hence a common thread through legal pluralism is the recognition that a multiplicity of institutional and cultural sites for the generation of legal norms can coexist without the necessity for a hierarchical relationship of ‘higher’ and ‘lower’ authority (see Chapter 33 by Marx and Chapter 40 by Bargh in this volume).

Assuming some degree of legal pluralism is thus naturally congruent with a stance on diverse economies that positions legality not as an external skeleton for a constrained subset of economic activity, but rather as always performing shifting boundaries between capitalist, alternative and non-capitalist practices. This is illustrated particularly well by reference to the range of exchange and labour practices foregrounded by diverse economies scholarship. Along these two dimensions, many practices flourish that illustrate legalities strongly decentred from state law. The labour practices discussed in chapters on unpaid labour (Williams and White, Chapter 14; Dombroski, Chapter 16), informal labour (Placino, Chapter 19) and non-human labour (Barron and Hess, Chapter 17) all tend to take place without reference to the purview of waged market labour as defined by formal employment law. Chapters on precarious labour (Pavlovskaya, Chapter 13), reciprocal labour exchange (Gibson, Chapter 18) and affective labour (Dombroski, Chapter 16) explore forms of labour which might well be part of formal labour practices defined and shaped by state law, but whose ethos or contours are distorted by the operations of such state law. In these instances, legal pluralism in many instances will capture a much more nuanced understanding of the relationship between binding norms and non-legal dimensions of reciprocity or care.

These relationships may be mutually productive, or they may be sites of tension and friction. For example, Lahiri-Dutt (2016) explores mining on the fringes of the Indian nation-state as a site where informal economic activity and cultural practice intersects with formal law in ways that produce friction across a variety of judicial and executive sites, such as tax collection. Existing labour practices embedded in the informal economy conflict with state regulations about mining in ways that are indeterminate. Implicit in Lahiri-Dutt’s discussion is that the existing practices of the community tend to be defined as illegal by their relationship to competing sources of state rules. But the norm-generating nature of informal activities and cultural practices is entirely visible to both legal pluralism and diverse economies scholarship. Despite the hospitability of legal pluralism and diverse economies, the tendency towards formalization over time noted above is endemic to labour practices, whose status as a contractual relation under capital has always been especially vexed in the context of law. A century of labour law in most Western jurisdictions has been built upon policing the boundary between legitimate and illegitimate labour contracts. To give a recent example, the sharing economy has blurred the employment status of those who work through digital platforms.

A similar perspective can be applied to the range of exchange activities explored in diverse economies literature. Direct provisioning (see Chapter 24 by Grasseni) and share systems are relatively clearly non-market transactions. Although law may still monitor fraud or abuse of power, it does not clearly frame or constitute the actual exchange. However, if we explore alternative currencies (see Chapter 25 by North), fair trade goods (see Chapter 27 by Naylor), direct producer–consumer supply chains (see Chapter 23 by White), gleaning (see Chapter 22 by Morrow), or especially social procurement (see Chapter 28 by McNeill), the constitutive and possibly constraining presence of legality is much more apparent. These modes of exchange are partially constituted by modes of legality which impose their own conceptions of legitimacy (legal vs. illegal) onto them. Legalities matter, but in much the same way as economies matter in diverse economies: that is, in terms of framing a wide range of disparate possibilities that shift continuously. Take for example the long history of shared hospitality provided as a gift. Since the development of the ‘sharing economy’ (see Chapter 29 by Sharp), Couchsurfing is one example of modern technology (digital platforms) facilitating and expanding this gift-based form of sharing. The mutuality of such gifts can be extended through non-monetary exchange practices such as time banking (see Chapter 26 by Diprose), or entirely commodified through commercial digital platforms such as Airbnb. The shadow of formal-rational law shapes not only the market transactions but also those practices involving offering space as a gift, or in exchange for other time-based services. Formal state law in the areas of tax, liability and contract might potentially apply to these activities, often in a bid to make them ‘visible’ such that income flows can be taxed, damages may be sought, and commercial agreements may be enforced (Morgan and Kuch 2015). The trajectory of formalization over time is a legacy of legality.

However, it is just as possible to focus on the social norms that animate the non-market dimensions of these transactions and explore how macro-legal frameworks can support these. This is no easy task. As Davina Cooper (2013) has explored in researching time banking, for instance, wider capitalist framings often pressure transactions performed in the time bank to mirror capitalist valuations. And over time, this constrains those patterns of exchange and labour that we identify here as beyond the purview of formal state law. In short, the iceberg familiar to diverse economies scholars becomes increasingly top-heavy.

Law can be a site of remedying this imbalance in two ways: firstly, by critically addressing the increasingly instrumental approach to considering the role of law in producing economies of difference; and, secondly, through greater focus on systemic change and organizational frameworks for practices of work and exchange, particularly enterprise and finance. To extend the Couchsurfing example: in instrumental terms, there is a reasonable likelihood that diverse legalities may induce pressure on entities like Couchsurfing to adopt more capitalistic practices, including the evolution of Couchsurfing from non-profit to a ‘for-benefit’ legal form of enterprise. A diverse economies reading can help draw attention to what is lost and gained in such a move.

LEGAL INSTRUMENTALISM AND BUILDING OTHER ECONOMIES

Legality manifests as malleable, performed and situated. This resonates with the way that diverse economies scholarship implies an anthropological sensibility about how order is made. Such a sensibility means, in part, shifting away from thinking of law as necessarily defined as a set of particular rules that generate specific outcomes. To some extent this puts legal instrumentalism in tension with diverse economies – but sometimes there are instrumental possibilities present in existing formal state law that embody transformative possibilities. At other times, those possibilities are currently inchoate, embedded in social practices, customs or patterned behaviour that could be characterized as legal pluralism. It might be possible to say that in general ‘non-capitalist’ practices are less likely to be captured by the dynamics of legal instrumentalism – but the general picture of how and when law matters is often much more fluid and nuanced.

Law relates to the five dimensions of diverse economies (see Tables 1.1–1.5 in Chapter 1) indirectly, rather than creating an additional dimension. This is the case for both legal pluralist and legal instrumentalist perspectives. From the perspective of legal pluralism, the pluralism relates to sources of authority (state or non-state) rather than to economic practices. Modern economies are in many ways defined by the institutions that enforce the boundary between legitimate and illegitimate actions in all domains of economic practice. Enforcement involves a spectrum of activities from criminal sanctions to the ‘softer’ cultivation of appropriate conduct of citizens, consumers and workers by means of the incentive frameworks laid down by legal rules. The boundary between formal and informal emanations of law is a variation of the point made above that legal pluralism is an important dimension of diverse economies. As noted earlier, transactional practices such as gifts or financial practices such as household income flows are typically invisible to formal law. Yet formal law can also shift this situation by defining precisely when these practices become visible to the state, as for example when governments redefine the sharing of private housing through digital platforms as a taxable transaction.

This outcome-focused perspective on law is much more instrumental. From the perspective of legal instrumentalism, though – and similarly to legal pluralist approaches – legality is not an additional distinctive dimension of economic practices. Rather, legality constitutes (on occasion) those practices: law allocates the rights, duties and resources that constitute prac-tices of labour, finance, enterprise etc., legitimating them (from the perspective of the state) to varying degrees. The instrumental salience of law for diverse economies of difference is its capacity to arrange or rearrange obligations into new patterns that can be repeated or modified until they crystallize into new social relations.

The joint stock corporation is perhaps the purest creature of law in a typical economic landscape, possessing as it does the quality of legal ‘personhood’ and the admitted fiction of the ‘corporate veil’ that limits shareholder liability without capping profits (see Chapter 11 by Walenta in this volume). But legal engineering can fashion distinct kinds of organizational economic actors, making the legal form of an enterprise a crucial site of political potential. Legal form dictates the flow of money, including profit; responsibilities when things go right or wrong; equity, voting rights, debtor relations, and shares. The centrality of law in the creation of these various incidents of organizational personhood means that legal instrumentalism can be constitutive of quite different entities, rearranging equity, debt, audit and shares in novel company law formats.

As William Davies argues, doing this helps ‘start to imagine a wholly different economy, simply through considering how freedoms, powers and responsibilities might be combined differently, via subtly redesigned legal instruments’ (Davies 2013). In the sharing economy context, the emerging ‘platform cooperative’ movement (Schneider 2018) and peer-to-peer commons-based organizations (Bauwens and Pantazis 2018) are powerful examples, with diverse forms of company and intellectual property law at their heart, some of which are finding their way into propositions for concrete organizational alternatives to Airbnb such as FairBnB (https://fairbnb.coop/ [accessed 08 May 2019]). This is not inconsistent with legal pluralism: for example, a legal pluralist understanding of ownership shows the ways companies can be rethought as commons (Healy 2018), in dialogue with formalist-focused instrumentalist approaches that are sympathetic to this vision (Deakin 2012). Also illustrative of the co-presence of legal pluralism and legal instrumentalism, jurisdictions like the UK and USA have legislated distinctive company forms for social enterprise, whilst in Australia, certification schemes and a creative approach to the customization of ordinary company law (Morgan 2018) have arguably filled the role of formalizing social missions into diverse economic organizations.

While the legalities of diverse enterprise illustrate how formal law can be constructively instrumental, the legalities of finance might be seen as constraining the breathing space for community economies to flourish (but see chapters in Part V of this volume). The finance sector is often viewed instrumentally through the lens of capitalocentric political economy, highlighting the dubious ways the sector has grown parasitically upon useful economic output without contributing to it (Jessop 2012; Quiggin 2009). Large multinational financial corporations dominate infrastructure capacity, leading to situations where finance entangled with state law tends to steam-roll community interest concerns. For example, Airbnb’s venture capital funding took it from major US cities to a global presence with little regard for local regulation or its impact on rents. Between 2008 and 2018, Airbnb reportedly took on more than US$3 billion of venture capital funding (Benner 2017). Following highly public backlashes from neighbourhoods being hollowed out by property investors through the platform in cities such as Paris, Barcelona, Berlin and New York, local taxes and ordinances are now often collected alongside Airbnb’s site fees as an instrumental mechanism to resolve its intrusion into neighbourhoods across Europe and the United States.

The financial disentanglement of Airbnb’s responsibilities to city residents can be contrasted with FairBnB, the cooperatively owned enterprise structure mentioned above that provides an alternative to Airbnb. Enterprise diversity brings in its train diversity in financing and the use of surplus: rather than profits to offshore shareholders and taxation directed to municipal coffers, FairBnB provides ‘a platform to be owned and managed by a cooperative of users and neighbours who will collectively decide how to reinvest part of the profits in local projects that would help to ease the impact of tourism, protect residency and fight gentrification’.

PROPERTY AS A SUBSTRATUM: LAW AS A COMMONS

If labour and transactions give breathing space for non-capitalist activities while enterprise and money struggle more but constitute foundational shifts when successful, property law is the most entrenched of all (Capra and Mattei 2015). Airbnb’s operations obviously depend crucially on individual property rights over individual dwellings, but could law create a different kind of substratum for a different kind of sharing economy? In many ways, the cumulative effect of using law to retool enterprise, labour and finance in the ways described above is to construct a kind of commons despite the individualized property rights of its substratum. This is consistent with the point often made by diverse economies scholars that neither property ownership nor the type of legal rights that pertain in relation to property are determinative of a commons (Davies 2017; Gibson-Graham et al. 2013).

This point is echoed within legal doctrine, in relation to both private property and the commons. In relation to the first, the ‘social function of property’, an established doctrine in certain jurisdictions, in Latin America and France especially, embraces:

the idea that an owner cannot always do what she wants with her property; rather she is obligated to make it productive, which may include putting it at the service of the community. In other words, sometimes the state is obligated to require individuals to sacrifice some property rights in order to put property to its productive and socially functional use, or to do so itself. (Foster and Iaione 2015, p. 308)

In relation to the commons, this concept is often interpreted in two divergent ways by courts: one ‘based on the inevitable rivalry or subtractability of an open access resource, and the other based on the inherent public value of an open access resource (even if privately held)’ (Foster and Iaione 2015, p. 294).

The substantive ambiguity, then, of legal resources, is a common thread here. And indeed, some socio-legal scholars use this to argue that law is itself a kind of commons. Roger Cotterrell elaborates on law’s capacity to function as a communal resource by ‘approving and protecting the empirical conditions that facilitate mutual interpersonal trust’ (Cotterrell 2002, p. 643), and Amanda Perry-Kessaris (2009, p. 21) identifies three pathways for doing this: ‘expressing the values and interests that hold people together, coordinating the values and interests that hold people apart, and provoking and facilitating participation in social life’. If legal rules express consensus where possible and coordinate dissent in a socially responsive and participatory fashion, they become themselves a communal resource. And the intellectual resources of diverse economies scholarship add a rich substantive dimension to the idea of law itself as a commons. In illuminating the diverse ways that existing social practices embed property, markets, transactions, money and exchange, it becomes more imaginable that legal rules and legal institutions can and should reflect, express and facilitate that diversity; diversity that is in fact long-embedded in the tradition of law (Capra and Mattei 2015). The tradition of legal pluralism already embodies such commitments, and if legal instrumentalism can work with the grain of legal pluralism, then legality itself will become more open-textured. Diverse legalities will increase capacity to temper law’s tendency to consolidate capitalist practices, instead opening up economic difference and helping to institutionalize its diverse possibilities.

CONCLUSION

We would like to close by stressing that we are by no means claiming that law is all that matters. It may be a highly salient aspect of ‘producing a discourse of economic difference’ but it is also deeply insufficient. Formal state laws are just words on pages: irrelevant until embedded in social practices and power dynamics. Informally, and beyond even legal pluralism, social norms often do similar work; even formally, financial architectures and their conditional force frequently do similar work, securing the force of law without taking the form of general rules. This injunction to attend to both legal form and infrastructure should not be mistaken for a methodological prescription for diverse economies research. Formal law is often not the obligatory point of passage for resolving disputes in community enterprises, nor does it necessarily dictate monetary flows through an enterprise, for example. The operations and forms of legality are radically insufficient for the creation of enduring institutions and practices.

Nonetheless we close by urging explicit engagement with the dynamics of legality, in particular via more extended conversations between diverse economies and socio-legal scholars. Whether law is viewed in instrumental terms as a resource for retooling economies or in legal pluralist terms as a fresh language for enacting discourses of economic difference, it is far more than a rigid external framework. Rather, legality is a rich interpretive site, with more plasticity and open texture than many might assume; perhaps even the capacity to act as a commons itself.

# 2AC

## CASE

### Framing---2AC

#### It's try-or-die for feeding the world in face of unsustainable ag systems.

Carl F. Jordan 22, Agroecology Laboratory, Odum School of Ecology University of Georgia, "Can Organic Agriculture Feed the World?" Evolution from a Thermodynamic Perspective, pg. 2-4, 2022, Springer.

Opponents of this approach argue that industrial agriculture is unsustainable for a number of reasons:

1. It is highly dependent upon petroleum to synthesize the fertilizers, pesticides, and herbicides, and for fuel for the airplanes, trucks, and tractors that deliver and spread these compounds. Because petroleum supply is erratic and limited (12), agriculture based on these compounds is unsustainable. As the price of petroleum increases, prices for agricultural chemicals will increase (13). As prices increase, less fertilizer will be used, resulting in greater soil degradation and declining yield of agriculture (14).

2. Use of genetically modified crops can increase yield (15). However increasing yield requires an energy tradeoff against ability to resist pests, and compete with weeds for nutrients and water. Genetic engineering does not increase the photosynthetic energy available to plants. It just redirects it (16).

3. Use of genetically modified crops can put the farmer under the control of international corporations that own patents on the crops. As use of these crops spreads, the world’s food supply becomes increasingly dependent on the economic goals of a handful of corporations and not on the needs and desires of consumers (17).

4. The simple, vertically integrated economic food chain common in industrial agriculture can be highly susceptible to disturbances (18). For example, terrorists can disrupt the world’s food supply by introducing pathogens and other biological weapons into a few key links in food chain (19, 20).

5. Industrial agriculture is leading to a depletion of water resources. For example, center pivot irrigation has led to a significant depletion of the Ogallala Aquifer in the western U.S. (21).

6. Prevalence of monocultures in industrial food production systems leads to loss of genetic diversity (21). Low genetic diversity increases the risk of disease or insect outbreak (22).

7. Inorganic nitrogen leached from fertilizers spread on agricultural fields enters waterways and causes hypoxia that results in kills of fish, crustaceans and other marine life (23). Dead zones have been reported from more than 400 regions throughout the world (24).

8. Nitrogen volatilized from fertilizers enters the troposphere and poses direct health threats to humans and causes substantial losses in agricultural production (25).

9. Animal waste lagoons and sprayfields near aquatic environments can significantly degrade water quality and endanger health (26).

10.Overuse of antibioitics in the livestock industry has resulted in increasing resistance of pathogens (27).

11. Increasing resistance of weeds to a single type of herbicide is resulting in the need for an expensive series of herbicides (28).

12. Use of pesticides kills beneficial insects that can help control pest species (21).

13. Plowing and other methods of tillage that disrupt the structure of the soil result in erosion that is destroying croplands throughout the world (29).

Opponents of industrial agriculture argue that what is needed is a paradigm shift away from agriculture based on the premise that humans must conquer nature in order to survive to the premise that humans must learn to understand how nature works, and take advantage of the services of nature to produce food and fiber (30). One term for such agriculture is “organic”, but there are other terms that capture the spirit of organic agriculture such as sustainable agriculture, biodynamic agriculture, alternative agriculture, ecological agriculture and regenerative agriculture.

Only a few studies have been carried out long enough to evaluate the potential of organic agriculture. Mäder et.al. (31) compared organic and conventional (industrial) farmed plots over a period of 21 years,. They found that while crop yields were 20 percent lower in the organic trials, fertilizer and energy inputs were up to 53 percent lower, and pesticide input was reduced by 97 percent. This means that while gross income from the organic fields was lower, net income may have been higher. Pimentel et.al. (32) reviewed the 21-year study of industrial and two types of organic treatments at the Rodale Institute in Kutztown, Pennsylvania. They concluded that organically managed crop yields on a per-ha basis can equal those from conventional agriculture, although there was high variability depending on the crop, soil, and weather conditions. Badgley et. al (33) compared yields of organic versus conventional food production for a global dataset of 293 examples and estimated the average yield ratio (organic:non-organic) of different food categories for the developed and the developing world. The average yield ratio for studies in the developed world was slightly less than 1.0, but greater than 1.0 for the developing world. Results of comparisons often depend upon the amount of farm chemicals used in the conventional system (34). Critics of organic agriculture such as Avery and Avery (35) assume that “organic” means replacing nitrogen in inorganic fertilizers with similar amounts of organic nitrogen from sources like animal and green (plant-based) manures. However, replacement with equivalent amounts is not necessary to achieve comparable production, since significant amounts of inorganic nitrogen are lost through volatilization and leaching. In organic systems, losses are much less due to nutrient recycling by soil micro-organisms that feed upon soil organic matter.

## Theory

#### No impact

Dan Reiter 95. Postdoctoral fellow at the John M. Olin Institute for Strategic Studies at Harvard University. 1995. International Security. Vol 20. No. 2, Fall p. 34.

These empirical findings have important implications for current policy questions. They indicate that it takes a lot to provoke a state to preempt, meaning that states can probably get away with more in the way of military mobilization during a crisis without sparking preemption. If the traditional dilemma in crisis management is between doing too little militarily risking war from deterrence breakdown, and too much, risking war via preemption, these results would prescribe making more military preparations to avoid deterrence breakdown, because the risks of preemption via an escalation spiral are quite low. Further, these results indicate that fears of preemptive strikes against nuclear forces of new nuclear states in international crises might be exaggerated. Lastly, peace can be protected by stressing to crisis partipants the unacceptability of striking first, especially if real costs (such as withholding military aid) are imposed on surprise attackers. Further, emphasing the dangers of preemption might reinforce the self-denying prophecy effect. Though genuinely aggressive states willing to accept international censure may be immune to such efforts, such actions could help preserve peace in some crises, especially when the adversaries prefer a peaceful solution or are vulnerable to outside pressure.

#### This arg trivializes warfare

Pete **Brooke 14**. Wired. “Irony Alert: Fake Battlefields Give Paintballers an Unrealistic Vision of War”, http://www.wired.com/2014/11/irony-alert-fake-battlefields-give-paintballers-unrealistic-vision-war/

Even though construction of these “imaginary battlefields” is informed, somewhat ironically, by photographs of war zones, they are still poor imitations of the topology and environments after which they are named. “Existing images from conflict-zones influence the design and layout of these paintball landscapes,” he says. “They create a more complete façade. This masquerade trivializes warfare and disconnects the general public even further from the wars our volunteer armies face.”

## K

#### Legalese is accessible---everyone possesses regulatory power.

Damjan Kukovec 14, PhD Harvard Law, Senior Lecturer in Law and a Co-Leader of the PhD Programme at Middlesex School of Law in London, ARTICLE: HIERARCHIES AS LAW, 21 Colum. J. Eur. L. 132, fall, lexis

The proposition that people are not politically capable or that they are not deciding, however, is a misrepresentation of power, authority, law, and governance. When we see law as hierarchical and as a constant interplay of injuries and recognitions, as well as a synthesized memory of those injuries, rather than as legal [\*176] doctrines and concepts, it becomes clear that law is not just what lawyers do, 262 but what all of us do all of the time. We are too often used to thinking that we have conferred regulatory power to either political institutions or to legal expertise. 263

We lawyers and advocates are powerful, 264 but an emphasis on the power of legal expertise could suffer from under-inclusion and over-inclusion at the same time. First, lawyers across the globe find themselves in radically different structural situations, with immense power differences. Second, we are all deciding. Each of us forms and conforms to authority all the time. Constant authoritative syntheses are not made by institutions, nor only by legal experts, but by all people, all the time. If we understand the legal system as a patchwork of constant injuries and recognitions, we should rather explore how not just us, lawyers, but every person, no matter in what institutional, vocational and daily setting they find themselves acts legally and politically. In this sense, all of us - people from every domain in every social setting - are legal actors. We are not led by the invisible hand of expertise 265, but by an invisible hand of the ideology of all of us.

All of us already have "regulatory power". People are not passively constituted by abstract legal entitlements, but themselves impose injuries on themselves and others all the time and in every social setting. Decision-making power of each of us goes far beyond voting, representation, litigation and what is usually understood as participation in or exercise of governance.

The idea that there is no space for political contestation is contradicted by the fact that everyday all of us contest, or fail to contest, countless hierarchies. We are all constantly deciding and creating our social and legal life in every social setting. All of us in our daily work and lives respond to or do not respond to the concerns of others. All of us keep making or not making a difference in the normative situation of others. Thus, it is not just lawyers, but each of us constantly performing legal acts. In this sense, each person already has "regulatory" and political power.

The problem is not that we do not have the power and need to claim it from "the market" or, in David Kennedy's terms, that people are only informed, consulted, our polling data serving as base line for expert management and that citizens are not actually deciding. Nor is it that people are not participating in global governance and that the possibility for global political life needs to be remade. Global governance, just like authority, does not need to be "claimed." It is already here. Citizens already have political power and are already deciding. We are governing all the time. We are already politically capable.

Alt fails – radical intellectual posturing can’t transform the material conditions that create violence because they prioritize discourse over institutional engagement

Schwartz, Poli Sci Prof @ Temple, 9

(Joseph, “The Future of Democratic Equality,” Routledge, pg 64-5, ava)

'Discursive' performance is not the sole manner by which individuals deal with (and express) the material and cultural structural realities that both empower and constrain individuals. For example. individuals cannot readily "discursively perform" themselves out of their socio-economic or class position. There is a certain materiality to poverty or to being "bossed" that can't simply be "ironically" and "performatively" transformed. Class relations are structural, as well as discursive. The greater difficulty in forming unions in the United States- as compared to other advanced industrial democracies-has much to do with American legal, ideological, and political constraints and not simply with the rel- ative inefficacy of the "performative," "counter-hegemonic" behavior of (frag- mented) individuals. Even the "parodic" possibilities of "gender" reversal are constrained by the communities in which one resides. ls the "reversal" of "drag" a viable public possibility in a violently homophobic community? Were not the "performative" options of a Matthew Sheperd (extremely) more limited than those of a gay or lesbian student at a "progressive" residential liberal arts college (and unsafe-and even degrading and violent-social spaces confront gay and lesbian people and women and students of color in the most allegedly "cosmopolitan" of social spaces). Simply put, distinct "social spaces" set differ- ential constraints on "performative" choices. Of course, how individuals express class, race, gender, and sexuality does, in part, involve how we "perform" (or "racist") cultural and discursive "norms." Hence, the inevitable controversies over "authenticity" within racial, sexual, and ethnic communities, as well as criticism of people taking on the mores of a class different from those who share their "place" in the labor process, neighborhood, or income strata. But there are material constraints to performative "choice": one can't "perform" one's way out of an under-funded inner city school or out of being a laid-off auto worker with dim prospects of finding a new job with comparable wages and benefits. Traditional sociological theories of "structuration" provide greater insight into how these individuals would deal with these social dilemmas than do micro-level theories of the discursive construction of subjectivity. To her credit, Wendy Brown is more concerned with issues of class and political economy than are many post-structuralist political theorists. She expressly claims to bring class back into her political analysis and condemns identity poli- tics as a "phantasmagorical reflection of the 'middle-class' American dream." But there is little attention in her work to developing a political strategy that could promise a structural and material redistribution of power, rather than an alter- ation of how we think of epistemology, discourse, and politics." While ideology and culture play a relatively autonomous role in constituting subjectivity, both have a material structure that must be altered if society is to be democratized. Brown implies that radical social change does not as much involve democratiz- ing social structural relations as it does popularizing a radical epistemological approach to discourse. Brown argues that if we will ourselves to "surrender epis- temological foundations" and give up "specifically moral claims" we will all be able to engage in "the sheerly political: 'wars of position' and amoral contests about the just and good in which truth is always grasped as coterminous with power, as always already power, as the voice of power."""' Even if one resists asking whether democracy can rest on "amoral" principles, one can still ask whether Brown's Foucauldian assertation that power and truth are co-terminous can distinguish between more or less democratic forms of power? The post-structuralist hyper-emphasis on "discourse" and the agonal construction of the self also overly devalues the state as an arena for political reform. Brown's work makes a positive political contribution by warning social movements about fetishizing the struggle for group rights within the law as potential minefields of "reversed" power/knowledge formations. State regulation and technocratic control which claim to defend the interests of newly, legally- recognized identities may yield the perverse consequence of "domesticating" the identity of the insurgent social group (e.g. state micro-management of the work place in "comparable worth legislation," or enforcement of patriarchal values in regard to punitive workfare or "child support" regulation)?" Sometimes, as Brown contends, new-found rights may enhance separation and alienation between and within individuals and groups, as well as constitute new forms of state regulation in the name of the impersonal subject. But Brown rejects the possibility (and historical reality) that new "rights" can, in other contexts, con- tribute to human emancipation by enhancing individual choice and freedom. To deny this is to ignore the elective affinity between the struggle for "rights" and struggles to achieve political equality for formerly subordinate peoples. Not all new-found rights are "co-optative" and a "reinscribing of domination.""7 Nor will the conflict within the American polity over how we should interpret and defend "rights" ever cease. One only has to witness contemporary political con- conflict over "abortion rights," "voting rights," "gun rights," etc. Rights are both politically contested and protective of certain forms of human choice and agency. Rights do not "fix" identities as intransigently as Brown and other post-structuralists claim. Do rights only serve, as Brown contends, to promote "the discursive denial of historically layered and institutionally secured bounds, by denying with words the effects of relatively wordless, politically invisible, yet material constraints"?"" Patri- cia Williams and other critical race theorists have argued that being included under the state's equal protection law helped limit violence against people of color." Despite legitimate fears about excessive state regulation of sexuality, would Brown reject the use of state force to limit domestic violence? How does her philosophical fear of the bureaucratic-regulatory powers of the state speak to the experience of hundreds of thousands of women who have been spared the "privatization'' of domestic violence by the extension of the rights of state author- ity (e.g. the police) to act against violence within the household? Are such prac- tices solely evidence of the "reconstruction of domination by the regulation of the technocratic-bureaucratic state"? Of course, state regulation of domestic violence may, in Brown's language, produce a female subject "dependent upon the pater- nal state" for protection. But is this not preferable to the prior form of paternal state that let a man be the violent definer of "rights" in his home?

#### This is offence - grounding the subject in some principles is critical to the institutional support necessary to sustain radical democratic life

Joseph Schwartz 8, Professor of Political Science at Temple University, The Future of Democratic Equality, 56-61

Butler, Brown, and Connolly reject the essentialism of “narrow” identity politics as an inverted “ressentiment” of the Enlightenment desire for a universal, homogenized identity. They judge identity politics to be a politics of “wounding, resentment, and victimization” that only can yield bad-faith moralization Wendy Brown takes to task identity politics for “essentializing” conceptions of group identity. For example, she critiques the work of Catherine MacKinnon as epitomizing “identity” political theory, accusing MacKinnon of denying women agency by depicting them purely as victims.38 Brown also remains wary of the patriarchal, conformist nature of traditional left conceptions of solidarity and citizenship. Brown’s implicit concept of radical democratic citizenship rests upon the recognition that political identity is continually in flux and is socially constituted through “agonal” political struggle. Brown celebrates an Arendtian conception of a polity in which both shared and particular identities are continually open to reconstruction. In this “left Nietzschean” view of an “everyperson’s” will to power, there can be no cultural certainties or political givens, as such “givens” would repress difference and fluidity.39 But, if the human condition is a world of permanent flux, then we must postulate a human capability of living with constant insecurity, for in this world there can be no stable political institutions or political identities.40 An ability to calculate the probabilities of political actions or public policies would disappear in this world of infinite liminality. By assuming that the pre-eminent democratic value is that of leaving all issues as permanently open to question, post-structuralist “democratic theory” eschews the theoretical and political struggle over what established institutions and consensual values are needed to underpin a democratic society.¶ Post-structuralist analysis has contributed to a healthy suspicion of narrow and “essentializing” identity politics. But a self-identified feminist, African- American, or lesbian activist is likely to value the shared historical narratives that partly constitute such group identities. Of course, if one is a democrat and a pluralist, one would reject the oppressive homogenization and potentially authoritarian aspects of ethnic or racial chauvinism and of “essentializing” types of identity politics. The democratic political home should be open, fluid, and self-reflective; but if participation is to be open to all, then such a society also needs to reproduce a shared democratic culture and the institutional guarantee of democratic rights. That is, contrary to post-structuralist analysis, not all issues can be open to “agonal struggle” in a democratic society. The traditional radical democratic critique of democratic capitalism remains valid; the equal worth of the individual is devalued by rampant social inequality within and between groups. Thus, a radical democrat, whether post-structuralist or not, must not only be committed to institutional protections of political and civil rights, but also to social rights—the equal access to the basic goods of citizenship (education, health care, housing, child care). Of course, the precise nature and extent of these rights will be politically contested and constructed. But a democratic society cannot leave as totally “open” the minimal institutional basis of democracy— a democratic society cannot be agnostic as to the value of freedom of speech, association, and universal suffrage.¶ Social movements fighting for an expansion of civil, political, and social rights, rarely, if ever, rest their arguments on appeals to epistemological truths— whether “foundational” or “anti-foundational.” To remain democratic, their policy goals cannot be so specific that they preclude political argument about both their worth and how best to institutionalize them. If social movements in a 58 democratic society deemed that every policy defeat meant a betrayal of basic democratic principles, there would be no give-and-take or winners and losers within democratic politics. But if a government were to abolish freedom of speech and competitive elections, or deny a social group basic rights, it would be reasonable for an observer to judge that democratic principles had been violated. Democratic political movements and coalitions struggle to construct shared meanings about those political, civil, and social rights that should be guaranteed to all citizens—and they often work to expand the types of persons to be recognized as citizens (such as excluded immigrants). Such arguments are inevitably grounded in normative arguments that go beyond merely asserting the import of “flux,” “difference,” and “anti-essentialism.” The civil rights movement did not demand equal rights for all solely as an “agonal” assertion of the will of the excluded; they desired to gain for persons of color an established set of civil and political rights that had been granted to some citizens and denied to others. The movement correctly assumed that the exclusion of citizens from full political and civil rights violated the basic norms of a democratic society. Thus, postmodern epistemological commitments to “flux” and “openness” cannot in-and-of-themselves sustain the “fixed” moral positions needed to sustain a radical democracy.¶ Post-structuralist theorists openly proclaim their hostility to all philosophical “meta-narratives.” They reject comprehensive conceptions of how society operates and the type of society that would best instantiate human freedom. But post-structuralists go beyond rejecting “meta-narratives”; they insist that only an “anti-foundational” epistemology can ground a politics of emancipation. For Butler, Brown, and Connolly, not only do “meta-discourses” invariably fail in their efforts to ground moral positions in a theory of human nature or human reason. They also assert that an agonal politics of democratic “we” formation can alone sustain democratic society. This agonal politics, they claim, can only be sustained by a recognition of the inconstant signification of discourse and the ineluctable flux of personal and group identity.41 Rejecting the authoritarian, celebration of the “ubermensch” by Nietzsche, they offer a post-Nietzschean, “amoral” conception of democracy as an open-ended project of defining a self and community that is constantly open to the desires of “others.” These theorists constantly reiterate the definitiveness (dare we say “foundational truth”) of this grounding of democracy, despite the historical reality that social movements often contest dominant narratives in the name of a stable alternative narrative of a democratic and pluralist community.¶ One might well contend that the post-structuralist political stance is guilty of a new meta-narrative of “bad faith,” that of “anti-foundationalism.” According to this anti-foundational politics, a true democrat must reject any and all a priori truths allegedly grounded upon the nature of human reason or human nature. A committed democrat may well be skeptical of such neo-Kantian or neo-Hegelian conceptions of freedom; but, many committed democrats justify their moral commitments using these philosophical methods. A democrat might also reject (or accept) the arguments of a Jurgen Habermas or Hans Georg Gadamer that the structure of human linguistic communication contains within it the potential for a society based on reasoned argument rather than manipulation and domination. But there are numerous other philosophically “pragmatic” ways to justify democracy, even utilitarian ones. Political democrats may well disagree about the best philosophical defense of democracy. But, invariably, “practicing democrats” will defend the belief (however philosophically “proved” or “justified”) that democratic regimes best fulfill the moral commitment to the equal worth of persons and to the equal potential of human beings to freely develop and pursue their life plans.¶ To contend that only an anti-foundationalist, anti-realist epistemology can sustain democracy is to argue precisely for a foundational metaphysical grounding for the democratic project. It is to contend that one’s epistemology determines one’s politics. Hence, Brown and Butler both spoke at a spring 1998 academic conference at the University of California at Santa Cruz where some attributed “reactionary” and “left cultural conservatism” to belief in “reactionary” “foundationalist humanism.”42 Post-structuralism cannot escape its own essentialist conception of identity. For example, Butler contends in Feminist Contentions that democratic feminists must embrace the post-structuralist “nondefinability of woman” as best suited to open democratic constitution of what it is to be a “woman.”43 But this is itself a “closed” position and runs counter to the practices of many democratic feminist activists who have tried to develop a pluralist, yet collective identity around the shared experiences of being a woman in a patriarchal society (of course, realizing that working-class women and women of color experience patriarchy in some ways that are distinct from the patriarchy experienced by middle-class white women).¶ One query that post-structuralist theorists might ask themselves: has there ever existed a mass social movement that defined its primary “ethical” values as being those of “instability and flux”? Certainly many sexual politics activists are cognizant of the fluid nature of sexuality and sexual and gender identity. But only a small (disproportionately university educated) segment of the women’s and gay and lesbian movement would subscribe to (or even be aware of) the core principles of post-structuralist “anti-essentialist epistemology.” Nor would they be agnostic as to whether the state should protect their rights to express their sexuality. Post-structuralist theorists cannot avoid justificatory arguments for why some identities should be considered open and democratic and others exclusionary and anti-democratic. That is, how could post-structuralist political theorists argue that Nazi or Klan “ethics” are antithetical to a democratic society—and that a democratic society can rightfully ban certain forms of “agonal” (e.g. harassing forms of behavior against minorities) struggle on the part of such anti-democratic groups.

#### Competition is not monolithic---only recognizing its role in determining well-being and reappropriating it solves.

Maurice E. Stucke 12, Douglas A. Blaze Distinguished Professor of Law at the University of Tennessee College of Law, J.D. from the Georgetown University Law Center, "Reconsidering Antitrust's Goals," Boston College Law Review, Vol. 53, March 2012, accessed via Lexis

In antitrust, competition, however defined, is not the ultimate end. Competition instead represents the means "to achieve broader government objectives for the economy or for a given industry." 292

If competition is not an end, but a more efficient (or democratic) means to achieve other goals, then three implications arise. First, there must be one or more ultimate goals, with perhaps other intermediary goals. Second, one must have a form of competition in mind, and understand how and under what circumstances one's conception of competition can promote or impede one's ultimate objectives. Third, one must understand how the formal legal and informal institutions can promote one's conception of competition.

As an initial premise, competition's ultimate goal is to improve well-being. 293 Competition can be bitter, but we take such bitters to improve [\*597] overall well-being, not simply to be left miserable. If, as a result of our competition policy, our physical and mental health deteriorates, our isolation and distrust increases, and our freedom and self-determination decrease, then the policy is not worthwhile. A competition policy, which simply involves a rush for scarce resources, in which many are trampled or left scrambling for the scraps, would appeal to the few who captured the resources. So our conception of competition (as defined in part by our competition policy) must promote (or at least not impede) overall well-being.

Some will ask whether this is too much to ask of antitrust. Let competition policy improve the allocation of scarce resources, reduce the costs of goods and services, and maximize overall wealth. Leave well-being to individual choice or supplementary governmental policies. We do not require other laws, such as the U.S. Food and Drug Administration regulations on frozen cherry pies, 294 to promote overall well-being. Why should antitrust bear this burden?

One premise of our economic system of private enterprise is the importance of free competition. The Small Business Act's policy declaration summarizes this philosophy:

The essence of the American economic system of private enterprise is free competition. Only through full and free competition can free markets, free entry into business, and opportunities for the expression and growth of personal initiative and individual judgment be assured. The preservation and expansion of such competition is basic not only to the economic well-being but to the security of this Nation. 295

This policy statement by Congress incorporates three important premises. First, competition does not exist independently of the legal and informal institutions. As economist R.H. Coase said, "[T]he legal system will have a profound effect on the working of the economic system and may in certain respects be said to control it." 296

[\*598] Second, the types of competition (fair versus unfair) can vary depending on the legal and informal institutions. 297 The phrase "competition on the merits" invariably involves normative considerations of unfair competition. 298 The legal and informal institutions provide the rules of the game necessary for that type of competition to function effectively 299 and thereby affect the market participants' incentives. 300 As Douglass North notes, "How the game is actually played is a consequence of the formal structure (e.g., formal rules, including those set by the government), the informal institutional constraints (e.g., societal norms and conventions), and the enforcement characteristics." 301 A market's performance characteristics are a function of these institutional constraints. The rules will define the opportunity set in the economy. Changing the rules can lead to different outcomes. 302 If the antitrust laws reward (or are indifferent to) monopolization, monopolies will be the likely outcome in markets conducive to monopolization. 303

Third, some types of competition ("full and free") promote overall well-being. Other types of competition, such as the "exploitation of child labor, the chiseling of workers' wages, the stretching of workers' [\*599] hours, are not necessary, fair, or proper methods of competition" 304 and hinder well-being. 305

Accordingly, legal institutions (including antitrust law) 306 and informal ethical, moral, and social norms 307 can promote overall well-being to the extent that they promote fair competition and deter unfair competition. Consequently, the stronger our belief in the importance of preserving and expanding fair competition to promote overall well-being, the greater antitrust's role in defining and deterring unfair competition. The Supreme Court describes the antitrust laws in general, and the Sherman Act in particular, as "the Magna Carta of free enterprise." 308 The Court has argued that antitrust laws "are as important to the preservation of economic freedom and our free-enterprise system as the Bill of Rights is to the protection of our fundamental personal freedoms." 309 Thus, antitrust promotes fair competition that, in turn, will promote overall well-being. 310

If antitrust's ultimate goal is to promote well-being, we must then address what constitutes "well-being." Webster's Dictionary defines "well-being" as "the state of being happy, healthy, or prosperous." 311 But being prosperous or healthy does not necessarily mean greater happiness. Well-being, as the Organisation for Economic Co-operation and Development (OECD) found, is multi-faceted. Promoting well-being entails [\*600] promoting (1) material well-being (income and wealth, housing, and jobs and earnings) and (2) quality of life (health status, work and life balance, education and skills, social connections, civic engagement and governance, environmental quality, personal security, and subjective well-being). 312

Should antitrust law then promote (1) only material well-being or (2) both material well-being and quality of life? Advances in the literature of happiness economics will enable policymakers to tailor governmental policies to promote well-being (or at least minimize sources of unhappiness, such as unemployment, mental illness, or inadequate health care). 313 It is apparent, however, from the available evidence that one cannot maximize well-being by maximizing only one component.

After one's basic needs are met, the economic literature shows, increasing income and wealth does not significantly increase well-being. 314 One of the few well-being metrics in which America excels is material well-being. The average household disposable income in the United States in 2008 was $ 37,690 per year, and average U.S. household's financial worth was an estimated $ 98,440--much higher than the OECD averages of $ 22,284 and $ 36,808, respectively. 315 Increasing aggregate material well-being will not necessarily increase overall well-being. 316 If a larger pie means greater wealth inequality, the wealthier [\*601] will not necessarily be happier, 317 and there will be greater incentives for the wealthy to use the law to safeguard their interests. 318 Promoting wealth maximization (to the exclusion of other values) can also promote status competition, selfishness, and envy, and can marginalize other values correlated with greater happiness. 319 Thus, the greater issue is fairness, namely how well the resources are distributed. 320

Income inequality in the United States increased significantly during the past antitrust policy cycle. 321 The United States has "the fourth highest rate of income inequality and relative poverty (17.3% of people [are] poor compared to an OECD average of 11.1%) in the OECD." 322 Other policy challenges involve quality-of-life issues, such as work and life balance, 323 social connections, 324 safety, 325 and environmental quality, [\*602] including how efficiently the United States uses its natural resources. 326

Consequently, in developed countries like the United States, an antitrust goal to maximize wealth (to the exclusion of other goals) will not necessarily increase (in fact, can even reduce) overall well-being. To maximize well-being, any competition policy must balance the promotion of material well-being with quality-of-life factors, such as freedom and self-determination, while not deterring the exercise of compassion and interpersonal relationships.

Such a policy is not difficult to imagine. Competition in dispersing political and economic power can increase economic opportunity and personal autonomy, 327 a key predictor of happiness. 328 Citizens can choose to purchase from (and work for) firms that align with their personal, religious, and ethical values. 329 When a firm engages in exploitative, unfair behavior, a competitive market provides alternatives. 330 Positive sum competition provides richer social connections as people use their personal "vigor, imagination, devotion, and ingenuity" to help [\*603] others. 331 In promoting productive and dynamic efficiencies, antitrust can promote sustainable consumption and production. Greater productive efficiency can increase leisure time, which employees can use to contribute their unique skills to community volunteer work. 332 In enabling these activities, which are correlated generally with healthier and happier people, competition can promote well-being.

#### Directly engaging to reconfigure the state rather than critiquing it is better able to create meaningful change – dismantling legalism doesn’t stop regulation of sexual and political life, it just leaves it in the hands of more conservative forces

McCluskey 8 (Martha T., Professor of Law at SUNY Buffalo Law School, “How Queer Theory Makes Neoliberalism Sexy”, http://papers.ssrn.com/sol3/papers.cfm?abstract\_id=1154550)

In the end what seems to be a choice to reject, subjective, deceptive “rights” claims in favor of more careful, honest evaluation of competing policy preferences ends up being a choice to stifle a more candid debate about competing subjective “rights”. Those who oppose new rights on account of their high “price” are simply using the term “price” as a label to mystify the subjective decision to privilege other policies by fixing them as necessary, normal background rights. By masking these other rights as part of a market “price,” law-and-economics creates a veneer of economic objectivity and technical authority that obscures the underlying historical contingencies and contestable moral and political judgments that ground these background rules. The queer critique of rights similarly disparages certain policy choices as costly, dishonest, coercive state power even while it privileges and normalizes other policy choices as part of a privatized background of naturalized power. By implying that some safer or more exciting space free from regulatory effects awaits those who reject state support, queer theory’s anti-statism joins rightwing free-market ideology in erasing the pervasive structures of legal rights and state control that inevitably govern the family and market. Particularly in the current social and political context, where neoliberalism exerts far more cultural, legal, and political power than queer theory or other left, critiques disdain for liberal rights and regulation may do more to strengthen an authoritarian state than to open up possibilities for more progressive alternatives. A critical approach that instead aims directly and openly to reconfigure the state for feminist ends may have the advantage of directly engaging rather than conceding the questions of what kind of state power, in whose interests, we want to advance, in her analysis of feminist advocacy for rights to caretaking support, Mary Anne Case (2001) suggests that some state-centered reforms could paradoxically be less costly and regulatory with respect to feminist concerns than some reforms that seem more narrowly targeted. (Jase criticizes reforms aimed at giving parents greater rights in the workplace, but not out of simple faith in an unregulated market or private family comprised of unconstrained individual choice. Instead, like those who are generally critical of liberal rights, she explores the harmful incentive effects likely to flow from such rights and warns that these effects could particularly impact women and others already subject to inequity in the workplace. She goes further, however, to explain how some law reforms that are even more state-centered might avoid some of these costs. For example, Case notes expanded rights to public recreation and public transportation would alleviate some of the burdens on women caring for children without setting up a zero-sum competition between family-focused mothers and work-focused women, or between competing groups of workers. Fineman (2004) similarly explains that her vision of caretaking rights requires expansive restructuring of both state and market to avoid shifting caretaking costs to others who hear disproportionate shares of the costs of social production and reproduction. She links her proposal for caretaking rights to a broad vision stronger workers’ rights and stronger human rights to economic resources sufficient to address basic human needs regardless of caretaking responsibilities. Rather than categorizing reform strategies as public or private, critical theory might better achieve its goals by focusing directly on the different normative goals of queer and feminist theory. But discussing those questions of substantive value leads to a second point of disagreement prominent in some queer and feminist legal theory.

**Failure to engage the state causes right-wing takeover which turns the case**

Duggan, Prof of American Studies @ NYU, 94

(Lisa, Queering the State, Social Text, No. 39 (Summer, 1994), pp. 1-14)

But the challenge is not only organizational and financial. The rightwing antigay zealots have mobilized new strategies and new rhetorics that challenge the customary practices, arguments, and slogans of liberal gay rights organizations. Successful opposition to the onslaught on the local,state, and national levels will require more than gearing up another round of the same kind of struggle. The opposition has changed its colors, andso must we.The crisis specifically challenges those of us who teach and write about queer issues. We have already been faced with the rhetoric of crisisin higher education, mobilized by conservatives-a rhetoric that targetsteaching and scholarship in the areas of class, race, gender, and sexualityas "politically correct" and as an effort to split, fragment, and destroy theidea of a common culture transmitted through education. In right-wingattacks on the state of higher education, lesbian and gay teachers andwriters are often singled out as scholars of the particularly frivolous andabsurd, though we are also often represented as uniquely powerful, able tooverwhelm and destroy the very conception of a common culture.These attacks are now paralleled by similar ones launched in the arenaof national politics. Lesbian and gay efforts to secure civil rights protections have quickly become central in public debates of various kinds sincethe election of Bill Clinton. In conservative attacks on the new administration, queers are represented as ridiculous, with trivial political concerns, but also as a frightfully controlling presence in national politics. Shrill cries of the dominance of the Gay Lobby have been mobilized with lightning speed, especially in response to the debates surrounding the military.Local and state initiatives to roll back or prevent antidiscrimination measures pick up and elaborate these themes, as they also try out new strategies and rhetorics.Even in friendly internal critiques of the state of progressive politicscritiques in which the problem of fragmentation is addressed-gayand lesbian politics are sometimes invoked to represent the narrowing offocus (what could be narrower?) and the neglect of the common interest.In a field of progressive alliances often pejorativelydescribed as a conglomerationof "special interest groups," lesbian and gay organizationsseem to represent the most "special" interests of all. In this way we appear, on both the right and the left, as signifiers of the "crisis" of liberal politics itself.4The problem for those of us engaged in queer scholarship and teaching, who have a stake in queer politics, is how to respond to these attacks at a moment when we have unprecedented opportunities (we are presentin university curriculums and national politics as never before), yet confront perilous and paralyzing assaults. It is imperative that we respond to these attacks in the public arena from which they are launched. We cannot defend our teaching and scholarship without engaging in public debate and addressing the nature and operations of the state upon which our jobs and futures depend. In other words, the need to turn our attention to state politics is not only theoretical (though it is also that). It is time for queer intellectuals to concentrate on the creative production of strategies at the boundary of queer and nation-strategies specifically for queeringthe state.5

#### Antitrust mobilizes social community building---the alt alone fails to attract popular support.

Gerald **Berk 19**, Professor Emeritus of Political Science at the University of Oregon, Ph.D. in Political Science from the Massachusetts Institute of Technology, “Antimonopoly and the Democrats,” Dissent, 11-25-2019, <https://www.dissentmagazine.org/online_articles/antimonopoly-and-the-democrats>

Democrats are waking up to the realities of economic power. Less than a decade ago, the subject was taboo. Even with the economy in ruins, Democratic leadership saw no option beyond neoliberalism. But since the 2016 primaries, a split has opened up in the party. With it has come a resurgence of antimonopoly politics that neoliberal leaders can no longer ignore.

At first blush, it looks like antimonopoly heightens the conflict between socialists committed to overcoming capitalism and establishment centrists seeking to save it from populist attacks on the left and right. But antimonopoly once contributed to **mobilization, coalition building**, and **sustained reform** across the liberal-left spectrum, and it might do so again today.

The Antimonopoly Tradition

Democracy and markets are fragile and demanding systems, easily corrupted by formidable concentrations of power. The antimonopoly tradition recognizes this fragility, and it makes no sharp distinction between economic and political power. Excessive concentrations of political power undermine economic prosperity no less than excessive concentrations of economic power corrupt democracy. The problem for law and public policy in a democracy with markets seems simple: how to check the constant tendency to concentrated power. There’s no clear-cut way to do that, because those who seek to attain power and lock in privilege are endlessly inventive. Under the right conditions, institutions designed to check power can be used to opposite ends. As a result, antimonopoly is far more than an ideology. It is a political project that requires vigilance, action, and constant adaptation.

Reformers have drawn on the antimonopoly tradition—which is far more wide-ranging than just antitrust, a set of policies designed to prevent predatory competition and break up concentrations of economic power—throughout U.S. history. In the 1830s, Jacksonians used it to authorize privatization, dismantling the Second Bank of the United States because it locked in the privilege of an overweening aristocracy. Abolitionists in the 1840s and 1850s drew on the antimonopoly tradition to dismantle the slave power. In the 1880s, populists enacted state antitrust laws to check the growth of corporate power. In the first decades of the twentieth century, Progressives went further, breaking up corporate power and boosting countervailing forces in government, unions, and proprietary enterprise. In the New Deal, the antimonopoly tradition broke the power of banks and industrial corporations and paved the way for regulation, collective bargaining, and welfare provision. In the 1940s, liberals drew on it to outlaw discriminatory pricing and check the predatory power of chain stores. In the 1950s and 1960s, antitrust administrators broke up patent monopolies, opening the way to high technology.

The antimonopoly tradition, as this sketch demonstrates, has enabled **diverse political projects**. In the first Gilded Age, it provided a challenge to laissez-faire constitutionalism—the legal doctrine that markets were autonomous from politics, and that property and contracts always protected individual liberty. In today’s Gilded Age, the antimonopoly tradition confronts market fundamentalism: the belief that liberty is best realized in market transactions insulated from democratic interference; that it is possible to organize markets effectively without government supervision; and that we ought not worry about concentrations of economic power, either because they are efficient or temporary.

The turn to market fundamentalism had a major impact on the practice of antitrust, severing it from its roots in the antimonopoly tradition. The University of Chicago–trained lawyer Robert Bork, who published The Antitrust Paradox in 1978, convinced Reagan’s Justice Department that antitrust blocked efficient forms of business organization. Left alone, corporations and capital markets could decide better than government regulators whether mergers, hostile takeovers, outsourcing, or breaking up and selling off corporate assets would serve consumers. If the result was concentrated power, so be it. In time, the Democrats agreed that the only goal of antitrust was to protect consumers. By 1992, antitrust had disappeared from their platform for the first time in a century.

The resurgence of the antimonopoly tradition among Democrats indicates a sea change in how they approach economic governance. Rather than limiting debate to after-the-fact redistribution, they have begun to ask how markets and business organizations can be structured to check concentrations of power. Many Democrats are converging on a platform to rebuild a more democratic economy, even as they disagree in fundamental ways over what that means, who should benefit, and how to achieve it. Still, the antimonopoly tradition’s shared appeal could open **new possibilities** for party politics and reform. This might seem overly optimistic, but a closer look at how the antimonopoly tradition has informed three ideological factions within the Democratic Party—democratic socialists, (neo)liberals, and antimonopolists proper—illustrates the potential for a broader politics focused on challenging concentrated power and building a more democratic economy.

Democratic Socialists

The antimonopoly tradition has already seeped into contemporary democratic socialist politics. From Bernie Sanders’s presidential campaign to the Movement for Black Lives and the Green New Deal, socialists have combined the antimonopoly tradition with class analysis in a mixture fertile for reform.

On its face, the antimonopoly tradition seems at odds with socialism. Why improve markets when they are the site of labor exploitation? Why promote competition when it drives down labor and environmental standards worldwide? Isn’t the resurgence of antitrust yet another effort to save capitalism and coopt the socialist left? All of this might be true, if contemporary socialists conceived of socialism as a uniform system of public ownership of the means of production. But although they seek to decommodify critical areas of economic life (healthcare, education, and housing), many socialists advocate a mixture of economic forms: strong unions, co-determination, labor councils, employee stock ownership plans, cooperatives, credit unions, family farms, and community land trusts. Where public ownership is not a clear substitute for private economic power, many **socialists** have **turned to the antimonopoly tradition to destabilize and prevent that power from accumulating**.

Consider socialist proposals for banking. Many prominent democratic socialists support a return to Glass–Steagall, a classically antimonopoly solution to corporate power, rather than public ownership of banking. As Supreme Court Justice Louis Brandeis wrote in Other People’s Money and How Bankers Use It in 1914, allowing bankers to speculate on the savings of depositors was a conflict of interest. It fostered excessive risk-tasking, turned banking into a casino, enriched a small elite, and divided the interests of Wall Street from Main Street. The framers of Glass–Steagall hoped to check these tendencies. In the aftermath of the financial crisis, Sanders called not to nationalize banks that were too-big-to-fail but to break them up. The opposite, he argues, has occurred. The bailouts and the Dodd–Frank Act made banks bigger, fewer, and more powerful.

Socialists combine antimonopoly analysis of banking with class-based, anti-racist, and communitarian action. Black communities, for example, cannot be revitalized without a national credit fund and policies to support locally owned and run black banks. Worker-owned enterprise, cooperatives, and geographically rooted enterprise cannot thrive without renewed attention to community development and rural banks, local credit unions, and revolving credit funds. Socialists acknowledge that none of these alternatives are possible or sustainable without checking the power of the largest financial institutions in the first instance.

Socialists have a similar approach to agricultural policy. Sanders’s plan to revitalize rural America combines class and antimonopoly analysis. The monopolization of **ag**riculture, reads his plan, has devastated family farms and rural communities. In pork production alone, consolidation resulted in an 82 percent decline in the number of hog farms in Iowa between 1982 and 2007. Worse still, corporate agriculture has turned formerly independent farmers into a **dependent class** through an **exploitative system** of vertical integration. Dominant meatpackers and chicken processors have taken ownership of livestock. They let out contracts to ranchers and farmers to raise it for cut-rate prices, under rules that foist cost and risk onto the producer. Machinery monopolies make it illegal to for farmers to repair their own equipment.

#### Their K of “sustainability” is too totalizing---it siloes away useful theorizations of post-capitalism into arbitrary and incompatible binaries.

Giuseppe **Feola et al. 21**, Copernicus Institute, Sustainable Development, Utrecht University; Olga Koretskaya, Erasmus School, History, Culture & Communication, Erasmus University Rotterdam; Researcher, Local2Local, "(Un)Making in Sustainability Transformation Beyond Capitalism," Global Environmental Change, Vol. 69, July 2021, ScienceDirect.

During the last decade, the notion of **transformation** has taken **centre stage** in sustainability debates. Inputs from the social sciences and humanities are increasingly recognized as being essential to understand and engender transformative responses deemed necessary in light of the magnitude and scope of global environmental change (Pelling, 2010, O’Brien, 2011, O’Brien, 2012, Hackmann and Lera St. Clair, 2012, Feola, 2015, Patterson et al., 2017, Fazey et al., 2018).

While the **unsustainability** of models of development **rooted in** capitalist modernity was not a **central** feature of initial theorizations of sustainability transformation (Feola, 2015; for a notable exception, see Pelling et al., 2012), sustainability transformation scholarship has more recently **come to terms** with the **root causes** of the climate crisis. Societies that maintain ‘**business as usual**’ and hence pursue compound expansion—a central tenet of capitalism—are set to **overshoot** the target of limiting global warming to 1.5–2.0 degrees (IPCC, 2018). Meanwhile, the 2008 financial crisis and the Covid-19 pandemic have resulted in a broadening of the debate on the contradictions of capitalism and the conditions for post-growth and post-capitalist economies (e.g. Harvey, 2014, Streek, 2014, Brand and Wissen, 2013, New Roots Collective, 2020, Büscher et al., 2021). Evidence on the unfeasibility of strategies such as green growth and the circular economy, which aim to decouple capitalist development from its intrinsically destructive impacts on the natural environment, has mounted (e.g. Haberl et al., 2020, Hickel and Kallis, 2020, Jackson and Victor, 2019, Parrique et al., 2019). Close examination of sectors such as agriculture (e.g. IPES-Food., 2016) as well as broader analyses of affluence and overconsumption (e.g. Wiedmann et al., 2020) further question the possibility of meeting global sustainability targets without challenging and transforming modern capitalist institutions and their cultural, social and political architecture.

Sustainability transformation is increasingly seen across a **broad range of fields** as a **multifaceted**, **multilevel** process that necessarily entails **questioning** the fundamental principles on which our societies are based: the ‘physical deep structures of civilization’, as well as ‘established patterns of life and work and […] benefits and burdens’ (Jasanoff and Kim, 2013: 189). Critical, autonomous and post-development scholarship in geography (e.g. Escobar, 2015, Chatterton, 2016, Demaria et al., 2019, Schmid, 2019, Schmid and Smith, 2020) and political ecology (e.g. Brand, 2016) as well as some sustainability transition approaches focussing on long-term development cycles (e.g. Kemp et al., 2018, Kanger and Schot, 2019; also see Feola, 2020) and **earth system governance** debates (e.g. Albert, 2020, Lövbrand et al., 2020) have enriched the **conceptualization** of sustainability transformation, particularly by bringing **together** critiques and conceptions of global environmental change, capitalism, industrial modernity, and sustainability transformation. For example, leading human geographer Leslie Head has contended, ‘It is **widely recognized** that we need to **shift** some very big cultural frames—the importance of economic growth, the dominance of fossil fuel capitalism, the hope of modernity as unending progress—to deal **adequately** with the climate change challenge’ (Head, 2019: ix). Similarly, environment and development scholar Harold Wilhite has argued that ‘deep reductions in energy use and carbon emissions will not be possible within political economies that are driven by the capitalist imperatives of growth, commodification and individualization’ (2016). This position has been echoed by researchers in the field of sustainability transitions; according to Kemp and colleagues, the sustainability literature indicates ‘the need for systemic change, not only in socio-technical systems, but also in the system of capitalism and the process of marketisation, which has been the dominant force of transformation in the last two centuries, together with emancipation and democratization’ (Kemp et al., 2018:71).

In this paper, we maintain that **connecting** the above mentioned **theorizations** of sustainability transformation and debates on **contradictions** of capitalism and the conditions for post-growth and post-capitalist economies provides a **fruitful** and as yet not fully explored ground to **conceptualize** sustainability transformation. An especially relevant perspective has been advanced by scholars who argue that sustainability transformation entails the deconstruction of and liberation from capitalist imaginaries of endless economic growth (e.g. Latouche, 2010) or the **‘breaking’ of capitalist habits** (Wilhite, 2016). This research suggests that sustainability transformation might not come about through the mere addition of supposed ‘solutions’, values or social imperatives (e.g. Leff, 2010), but rather by **subtracting** problematic existing institutions, forms of knowledge, **practices**, imaginaries, **power structures**, and human-non-human **relations** in the first place.

A recent approach proposed by Feola (2019) similarly **rejects** the assumptions of **‘automatic’ displacement** of extant socio-economic regimes as a **consequence** of the addition of socially, technically, or culturally innovative ‘solutions’. Rather, this framework proposes that actually **existing** prefigurative and propositional initiatives entail an element of ‘**unmaking**’ modern capitalist configurations in order to ‘make space’ for alternative, post-capitalist realities. Unmaking is referred to as ‘a diverse range of interconnected and multilevel (individual, social, socioecological) processes that are deliberately activated in order to ‘make space’ (temporally, spatially, materially, and/or symbolically) for radical alternatives that are incompatible with dominant modern capitalist configurations’ (Feola 2019: 979).

Building on the above framework, in this paper, we call for a research agenda on sustainability transformation that is sensitive to and theoretically equipped for the analysis of transformation as a multifaceted, multilevel process that entails the deconstruction of capitalist modernity or elements thereof, as well as the construction of post-capitalist realities. We demonstrate the usefulness of a lens that attends to processes of making and unmaking in sustainability transformations by applying it to the analysis of an ongoing sustainability transformation. We are guided by the following research question: How are processes of unmaking of capitalist modernity and making of post-capitalist realities entangled in sustainability transformation?

To answer this research question, we examine the case of el Territorio Campesino Agroalimentario del Norte de Nariño y Sur del Cauca, one of a growing number of territorios campesinos agroalimentarios (TCA; agro-food farming territories) that have emerged as a Colombian peasant movement that is seeking to realize societal transformation beyond capitalism at territorial level. We introduce an inventory of theories and concepts of deconstruction, rupture and disarticulation drawn from across the social sciences and apply it to identify processes of unmaking of capitalist modernity within a territorio campesino agroalimentario. We describe their diversity in a manner that extends beyond siloed paradigms or disciplines and show how they concretely interplay with the construction (making) of post-capitalist realities. We disentangle processes of deconstruction (unmaking) and construction (making) as two sets of complementary and reinforcing but nonetheless distinct processes. In doing so, we show how processes of unmaking are generative in that they interrupt the routines, structures and relations that impede the constitution of post-capitalist realities.

2. Theoretical context: Unmaking and making in sustainability transformation

2.1. Knowledge gaps and theoretical shortcomings

Theories of sustainability transformation have generally suffered from an ‘innovation bias’ in the sense that they have overly emphasized the emergence of novelty and undertheorized the deconstruction and disarticulation of existing socioecological configurations. Research on prefigurative social movements has tended to emphasize the ‘construction of the future in the present’, the ‘viral’ diffusion of grassroots prefiguration, and the disruptive effect of such prefiguration on the status quo (e.g. Maeckelbergh, 2011, Monticelli, 2018).

Similarly, socio-technical and sustainability transition studies have long assumed that the disruption of the dominant socio-technical regime is an automatic effect of innovation and have therefore largely undertheorized the former aspect of socio-technical change (Shove and Walker, 2007). Shove (2012) lamented that although the emergence of innovations often implies the disappearance of older socio-technical arrangements, the details of such declines and supersessions rarely receive adequate attention. Along similar lines, Davidson more recently noted the persistence of innovation bias, which in her view can be explained because innovation ‘is far more politically palatable after all, because it does not threaten any vested interests in the current regime. Innovations are also new and exciting; the stuff that wins awards, launches careers and stimulates stock markets’ (Davidson, 2019:255).

Theorizations of **sustainability** transformation in the field of social-ecological systems (SES) studies have suffered from a similar limitation. Bringing forward **complexity** and **systems dynamism**, frameworks for understanding social-ecological transformations have dedicated considerable attention to social innovations and the emergence of new ways of thinking, doing and organizing (Park et al., 2012, Moore et al., 2014, Olsson et al., 2014, Haxeltine et al., 2017). Considerations of disruption have been **limited** to a pre-transformation phase, whereby disruption is usually regarded as an **effect of external events** such as an ecological crisis rather than a result of deliberate action.

Researchers in both of the above-mentioned fields have more recently studied processes of destabilization and disruption. In the field of sustainability transitions, the notion of destabilization—i.e. ‘the process of weakening reproduction of core [socio-technical] regime elements’ such as routines, technical capabilities, strategic orientations, and mindsets (Turnheim and Geels, 2012, p. 35)—challenges the assumption that this process is an inevitable by-product of the emergence of innovation. Rather, the notion of destabilization conceptualizes the ‘unlocking’ of existing socio-technical regimes as a condition for innovation (Turnheim and Geels, 2012, Turnheim and Geels, 2013). Another emerging notion of disruption in this field is that of exnovation: ‘a conscious decision to phase out technology or practice, to decommission it, and to withdraw the corresponding resources and use them for other purposes’ (Kimberly, 1981:91). Exnovation includes the deliberate termination of existing (infra)structures and products to pursue ideological, economic, ecological or other objectives which are perceived as desirable (Heyen et al., 2017). The notion of exnovation, which has so far mostly been applied to specific technologies in the energy sector, rests on the assumption that innovations alone often prove insufficient for replacing established unsustainable infrastructures (David, 2018, Davidson, 2019). Similarly, a recently proposed framework of socio-ecological transformations in SES studies acknowledges the importance of challenging incumbent paradigms on the micro, meso and macro social levels in order to contribute to a parallel process of change facilitation. Within this framework, Sievers-Glotzbach and Tschersich (2019:6) **explicitly** identified the need to challenge crucial **capitalist modern paradigms** such as ‘materialistic culture and growth’, the ‘**control** and **autonomy** of humans over nature’ and ‘expert knowledge and specialization’ in order to pursue socio-ecological transformation.

However, although these theories of destabilization, exnovation and disruption are useful in unpacking some aspects of the entanglement of unmaking and making in sustainability transformations, they hardly offer conceptual tools to examine sustainability transformation in terms of transformation of and beyond capitalist modernity. Indeed, capitalism has by and large been taken for granted in dominant theories of sustainability transitions (Feola, 2020, Newell, 2020), which has limited the scope for imagining alternative futures, policy options and strategies for transformative change. Furthermore, theorizations of sustainability transformation have often given **scarce consideration** to normative and ontological **pluralism**, which has contributed to the **rigidity** of de-politicized techno-centric responses to global environmental change and undermined the **transformative** co-production of political economies, cultures, societies, and biophysical relations (Nightingale et al., 2019, Pelling et al., 2012, Stirling, 2011, Turnhout et al., 2020). The contributions of **subaltern** and **indigenous** scholars on alternative knowledge systems, **resistance to capitalism** and social transformations (e.g., Nelson, 2008) have **rarely** been acknowledged in these debates (Latulippe and Klenk, 2020, Turnhout et al., 2020).

In turn, social, political or economic actors with vested interests in the status quo have often co-opted and consequently deplenished the term ‘transformation’ of its progressive meaning, as can be observed in instances of ‘greenwashing’ operated by some actors in the business sector (Blythe et al., 2018; Pelling et al., 2012). In this respect, one significant limitation has been a lack of attention to power relations and the politics of sustainability transformations: as transformation becomes an ubiquitous policy imperative—albeit only nominally, such scant consideration of power and politics has reduced the space for other political strategies to face global environmental change, including the potential of resistance and conflict to initiate the early stages of a transformative process (Eriksen et al., 2015, Manuel-Navarrete and Pelling, 2015, Patterson et al., 2017, Blythe et al., 2018, Nightingale et al., 2019 Pelling et al., 2012).

In contrast to sustainability transition and SES studies, autonomous and anarchist geographies, degrowth, and community economies studies have deeply engaged with post-capitalist futures (e.g. Graeber, 2004, Gibson-Graham, 2006, Holloway, 2010, Chatterton, 2016, White and Williams, 2012, Demaria et al., 2019, Schmid, 2019, Schmid and Smith, 2020). Autonomous spaces ‘where people desire to constitute non-capitalist, egalitarian and solidaristic forms of political, social and economic organization’ (Pickerill and Chatterton, 2006:730) exist against (in opposition to) and beyond (as a prefiguration of alternative futures to) modern capitalist socioecological relations (Holloway, 2010, Chatterton and Pickerill, 2010, Chatterton, 2016). Given the pervasiveness of capitalism, ways of living otherwise also necessarily exist within the dominant (albeit not monolithic) system that they seek to overcome (Gibson-Graham, 2006, Wright, 2013). Thus, the emergence and consolidation of autonomous spaces entails both destruction and construction, resistance and experimentation, refusal and proposition. This tension between the making of post-capitalist realities and the unmaking of capitalist ones underscores the critical function of the latter in the non-binary, nuanced in-against-and-beyond character of existing attempts to realize and prefigure sustainability transformation.

However, by and large, this literature has combined thick descriptions of single case studies and weak theory (Gibson-Graham, 2014), which has been pivotal for producing a performative rethinking of the economy but also has hindered more structured theoretical generalizations of transformation processes, specifically with regard to the entanglement between unmaking and making of concern in this paper. Sustainability transformation scholars have repeatedly called for a more **in-depth engagement** with theories of social change (e.g. Feola, 2015, Fazey et al., 2018) and **lamented** the inability of existing research and research frameworks to **integrate** different ontologies about the nature of social and socioecological change (e.g. Sunderlin, 1995, Geels, 2010). Despite attempts to combine, for example, the personal, political and practical dimensions of transformation (O’Brien, 2018), research on transformation has too often struggled to **capture** and **comprehend** the widely diverse forms and arenas of struggle for transformation and their productive interconnections. Thus, sustainability transformation scholars have also **critiqued** the lack of frameworks that can support a **multi-level analysis** of sustainability transformation. For example, the frameworks used in sustainability transition and SES research do not lend themselves to supporting the analysis of micro and individual level processes, whereas those used in research on post-capitalism and autonomous spaces place individual, micro- and meso levels in focus but are less sharp on macro-level processes. Sievers-Glotzbach and Tschersich’s (2019) framework might be a possible exception to this norm; however, the applicability and added value of this framework remains to be proven in empirical research.

In summary, the scholarship on sustainability transformation is rich and diverse; however, theorizations of **processes of sustainability** transformation—how such transformations come about, how they unfold, and how they achieve desired outcomes or fail to do so—suffer from **important** gaps and theoretical shortcomings that have **narrowing** and **siloing** effects on our perspective on the entanglement of processes of **construction** (making) and **deconstruction** (unmaking) in sustainability transformation.

2.2. A perspective on the unmaking of capitalist modernity in sustainability transformation

In response to the above shortcomings, the following perspective expands on Feola (2019) by introducing an inventory of theories and concepts of deconstruction, rupture and disarticulation drawn from across the social sciences (Table 1). This perspective contrasts with theories of sustainability transformation that foreground ‘windows of opportunity’ or the capacity for innovative ‘solutions’ to outcompete or disrupt established socioecological configurations (Feola, 2019). Consistently with Feola’s proposal, which draws attention to the deliberate unmaking of socioecological configurations, these theoretical tools conceptualize processes of deconstruction, rupture and disarticulation as conditions for rather than consequences of social and transformation, and they can be used to inform thinking about the role of unmaking of modern capitalist relations in sustainability transformation beyond capitalism.

[Table omitted]

This inventory is consistent with an understanding of unmaking as a combination of situated processes, whereby acts of unmaking are not end points but rather means inscribed in the performance of historically and spatially situated individual, social and socioecological transformation (Feola, 2019). Processes of **unmaking** involve both **symbolic** and **material** deconstruction and often entail **contradictory** personal experiences, which open up spaces for different ways of being that are enabled by the **rejection** of modern capitalist rationalist and utilitarian subjectivities but which might involve compromises, negotiations, setbacks, and dilemmas (Feola, 2019). Unmaking can occur through public actions (e.g. civil disobedience, protests) and disruptive public discourse but are more often private or even covert, and hence less prone to co-optation by states and markets (Feola, 2019). Unmaking is also generative; it interrupts the reproduction of capitalism, thereby opening possibilities otherwise out of reach, and it entails the withdrawing of support from a dominant system in favour of alternative ethical allegiances (Feola, 2019).

The utility of these concepts is illustrated using the case study of a territorio campesino agroalimentario. We adopt an **interdisciplinary approach** to explore the potential of our framework to **inform** the analysis of processes of unmaking as conditional components of **sustainability** transformation **beyond capitalism**. In doing so, we stretch these theories **beyond** their conventional application, which has not necessarily been to questions of sustainability or post-capitalist transformation. We show their applicability to and significance for the study of the unmaking of capitalist modernity and the making of post-capitalist realities. In concrete cases of sustainability transformation such as that studied in this paper, none of these existing theoretical perspectives **in isolation** can **explain** the unmaking of capitalist modernity because **different forms** of unmaking may be at play and interact with others at **multiple** levels (from the individual to the socioecological) in distinct cases of sustainability transformation. Thus, the interdisciplinary application of these theories and concepts shatters the paradigmatic and disciplinary silos that have reproduced the fragmentation of this scholarship. Furthermore, the inventory does not aim to offer an integrated theory of unmaking, but rather is designed to direct attention in research on sustainability transformations to important processes that may otherwise be overlooked within present frameworks. This framework may be subject to further refinement and extension on the basis of future research.

# 1AR

### K

#### Futurity is valuable---the ALT does violence to precarious subjects.

Manalansan 15. Martin F. Manalansan IV - Associate Professor of all of the following at The University of Illinois: Gender and Women's Studies, Asian American Studies, Anthropology, Latin American and Caribbean Studies, LAS Global Studies, Center for East Asian and Pacific Studies, and Center for Global Studies. The author holds a Ph.D. in Social Anthropology from The University of Rochester and studied philosophy, Asian Studies and anthropology at the University of the Philippines. As part of claims about futurity, the author references lived excahnges with queer trans women of color. The author also references concurring professional exchanges with David L. Eng, Professor of English at the University of Pennsylvania; Gayatri Gopinath, who is an associate professor of Social and Cultural Analysis and director of Asian/Pacific/American Studies at New York University.; Roderick Ferguson, who is a professor of African American and Gender and Women's Studies in the African American Studies Department at the University of Illinois, Chicago; Chandan Reddy, who is an Associate Professor of Gender, Women & Sexuality Studies at the University of Washington; and the late José Esteban Muñoz, was an American academic in the fields of performance studies, visual culture, queer theory, cultural studies, and critical theory; “A Question from Bruno Latour” This article is part of the series Queer Futures. Fieldsights - Theorizing the Contemporary, Cultural Anthropology Online, July 21, 2015 - https://www.culanth.org/fieldsights/703-a-question-from-bruno-latour

My response to the question of “no future” comes from my encounters, engagements, and conversations with colleagues under the aegis of queer-of-color critique, scholars like David Eng, Gayatri Gopinath, Roderick Ferguson, Chandan Reddy, and the late José Esteban Muñoz, among others. We appreciate the renegade antireproductive stance of the “no future” camp, which states that we should not subscribe to a future that is entrenched in heteropatriarchal dreams of marriage and procreation. However, there was a general sense among us that the issue of “no future” comes from a vantage point and a comfortable perch of privilege. As a scholar invested and immersed in the plight of queers of color, futurity is not just a possibility but a necessity. To paraphrase my queer-of-color critique colleagues, we cannot not think of a future—it is the very fuel of existence, the pivot that animates and propels energies, performances, feelings, and other bodily capacities. The promise and peril of queer, both as a stance and as a field of study, is precisely in its anticipatory and hopeful dimensions. Queer is constituted by a yearning and a longing for something better than what is here right now. It is, as Muñoz would say, a horizon that we are drawn to and which is not yet here. Consider the group of undocumented immigrant queers of color in New York City whose lives I have been following for years. Dwelling in cramped domiciles and working in contingent jobs, there is very little to witness in their lives that suggests a kind of gay/lesbian triumphalism or the bright markers of the new normal. In fact, they live in precarious conditions but—a very important caveat—they live in moments that showcase fleeting gestures and images of fabulosity set amidst the squalor and mess of their lives. These moments, while fleeting, provide some way for them to think of another day, giving them a brief glimpse of a time and a place where there are sequined gowns, plush salons, and many sparkling things. While this might be called naïve hopefulness, thinking of a future that is an alternative to the present is a potent way to think beyond and against the status quo—to plant the seed for social transformation. In other words, there is a political potential to queer futurity. Or, to put it another way, we need to complicate and unravel the negativity inherent in the “no future” stance and to be open to the various alternative ways a future or futures can be imagined, particularly by those in the margins. Otherwise, we can all just pack our bags, go back home, put on some makeup, close the door, and hide under the bedcovers.