



This is a peer-reviewed, post-print (final draft post-refereeing) version of the following published document, Reproduced by permission of Oxford University Press, the intended reuse is for scholarly purposes. and is licensed under All Rights Reserved license:

**Goodwin-Hawkins, Bryonny ORCID logoORCID:
<https://orcid.org/0000-0002-9399-5486> (2022) Animal
Organisation Studies and the Foundational Economy:
Infrastructures of everyday multispecies life. In: The Oxford
Handbook of Animal Organization Studies. Oxford University
Press, Oxford, UK, pp. 227-240. ISBN 9780192848185**

Official URL: <https://global.oup.com/academic/product/the-oxford-handbook-of-animal-organization-studies-9780192848185?cc=gb&lang=en&#>

EPrint URI: <https://eprints.glos.ac.uk/id/eprint/11631>

Disclaimer

The University of Gloucestershire has obtained warranties from all depositors as to their title in the material deposited and as to their right to deposit such material.

The University of Gloucestershire makes no representation or warranties of commercial utility, title, or fitness for a particular purpose or any other warranty, express or implied in respect of any material deposited.

The University of Gloucestershire makes no representation that the use of the materials will not infringe any patent, copyright, trademark or other property or proprietary rights.

The University of Gloucestershire accepts no liability for any infringement of intellectual property rights in any material deposited but will remove such material from public view pending investigation in the event of an allegation of any such infringement.

PLEASE SCROLL DOWN FOR TEXT.

Animal Organisation Studies and the Foundational Economy: Infrastructures of everyday multispecies life

Bryonny Goodwin-Hawkins

Countryside and Community Research Institute

University of Gloucestershire

bgoodwinhawkins@glos.ac.uk

Introduction

I write this chapter as the world enters a second year of a viral pandemic. Economies have stuttered, and the once familiar rhythms of daily life have given way to a locked down “new normal”. COVID-19 will be remembered as a punctuating crisis for economics as much as for health. And, as crises are wont to do, the pandemic has and raised critical questions about the lives we want to live, the world we want to bequeath to future generations, and the economic structures that enable – or disable – those visions.

Of course, there is nothing new about questioning modern, capitalist, globalised economies. Critical questions have flown for generations, from politicians’ benches to philosophers’ armchairs (and probably to therapists’ couches). Debates have long simmered over what has value (Mazzucato 2018), how governments should intervene (Mann 2017), and who really benefits (Piketty 2014). Into the new millennium, economic questions have increasingly engaged with our planetary capacities (Raworth 2017) and the ecological and climate consequences (Moore 2015). Already several years before the pandemic, the OECD’s (2012) *Environmental Outlook* concluded that business as usual could no longer be an option.

If we are to truly re-imagine economies for just, inclusive and sustainable futures, we need remember that those futures are made upon a shared planet – shared among humans, of course, but also shared between humans and animals. With this posthumanist perspective in mind, in this chapter I bring animal organisation studies into conversation with emerging thinking on the ‘foundational economy’ – the goods, services and infrastructures that support our everyday lives. A growing number of foundational economy thinkers are interested in how these everyday necessities can be provided equitably, produced sustainably and valued appropriately as the fundamentals for wellbeing. My contribution in this chapter is to apply

these tenets to everyday life that are shared with animals, and to foundational economic activities that incorporate animal lives, labour and products.

I approach this task as an interdisciplinary researcher in rural and regional development. My guiding belief is that all places and their (multispecies) inhabitants matter, deserving positive futures, good work and good lives. Too often, policies give preference only to certain places – usually large cities – as the ‘engines’ of economic growth; too often, presumptions about idyllic rurality mistake impoverished places for nature and nostalgia. My interest in the foundational economy is hence as an alternative to the economic structures and values that perpetuate uneven development. My interest in animal organisation studies arises from my awareness that rural places are working places – and that work, labour and organisations are not the domains of humans alone.

The chapter proceeds as follows. I begin below by outlining the growth of foundational economy thinking, and sketching some of the key ideas. Following this, I discuss the absence of animals in foundational economy thinking to date, identifying potential ways to review our economic foundations through a multispecies lens. I then think through these animal-foundational interconnections using examples from the agri-food sector and working across three key themes: shared everyday life, revaluing human-animal foundations, and prioritising wellbeing. My ultimate aim is to draw connections between the foundational economy and animal organisation studies, encouraging you – the reader – to delve deeper and ask critical questions of your own.

The Foundational Economy

The foundational economy emerged as a concept only recently, offering a radical approach to economic policy (Bentham et al. 2013). Observing that “the relationship between growth, jobs, prosperity and wellbeing has broken down” (Heslop et al. 2019: 5) in our current economic paradigm, foundational economy thinkers join those who, like advocates for ‘doughnut’ economics (Raworth 2017) or the circular economy (Ellen MacArthur Foundation 2013), seek sustainable and inclusive alternatives to profit and growth at all costs.

Importantly, the concept of a foundational economy draws from understandings that contemporary economies are diverse and plural, rather than singular and all-encompassing (Gibson-Graham 2008). While aggregate statistics like GDP portray ‘the economy’, in reality economic development happens through multiple “zones of activities with different characteristics” (Froud et al. 2020: 317). The foundational economy forms one of these ‘zones’,

and comprises “the group of heterogeneous activities delivering goods and services which *meet essential citizen needs and provide the infrastructure of everyday life*” (Froud et al. 2020: 319, my emphasis). These essential, everyday economic activities can be divided into a *material*, domain, including the food we eat, the utilities that power our homes, or the pipes that run water to our taps, and a *providential* domain, including social ‘goods’ like education and healthcare (Foundational Economy Collective 2018). Together, these provide “the basic requirements of civilised life for all ... irrespective of their income and location” (Heslop et al. 2019: 6). In other words, the foundational economy undergirds everyday life for everyone, everywhere.

Being essential does not mean the foundational economy is fixed and unchanging. We will always need food, water and shelter, but the foundational economy should not be confused with a simple hierarchy of needs. Everyday essentials evolve (Froud et al. 2020: 319). Broadband internet, for example, is widely recognised today as an essential infrastructure, but barely existed just a few decades ago. The foundational economy can change, adapt and innovate. All too often, however, parts of the foundational economy are overlooked and taken for granted. Few in developed countries give much thought to running water – until we need a plumber. The COVID-19 pandemic has in some ways made the foundational economy more visible, with governments around the world flexing otherwise stringent lockdown restrictions to keep ‘key workers’ – from hospital staff to bus drivers and fruit pickers – on the job. The broader picture of an ‘overlooked’ economy also includes some things that are not essential *per se*, but nevertheless matter for our wellbeing (Froud et al. 2019). Again, the pandemic has highlighted some of these broader ‘goods’. For instance, hair salons have often been prioritised for reopening.

A mistake that may lurk here is equating the foundational economy with low wage and low productivity sectors. Many ‘key workers’ are poorly paid. But far from being an innate characteristic of the foundational economy, low wages reflect deep-seated problems with what and who our current economic paradigm values. As the economist Mariana Mazzucato (2018: 271) observes, our current paradigm is locked in the tautological false belief that price *is* value: “as long as a good is bought or sold in the market, it must have value ... rather than a theory of value determining price, it is the theory of price that determines value.” Similarly, many everyday services are characterised by low productivity. But to view this as a problem is to value outputs over outcomes – from healthcare to hairdressing, raising the output per worker is rarely a reasonable goal. What defines the foundational economy is *not* the economic

performance of its parts, but “the social value of services produced by the foundational economy and their contribution to well-being” (Froud et al. 2020: 318).

For foundational economy thinkers, the need to prioritise social value over economic measurement is critical. All too often, policies are designed to please statistics, rather than support wellbeing. GDP, for example, has become vaunted for measuring macroeconomic success, comparing development and diagnosing progress. Yet measuring GDP largely works to map ‘winners’ and ‘losers’ according to a narrow view of what counts, which offers little scope for alternative visions (Jones et al. 2020), including the foundational economy’s ‘unglamorous’ yet essential contributions to human flourishing (Calafati et al. 2019, Heslop et al. 2019). As Martha Nussbaum (2011: 5) observes, “real human importance is located not in GDP but elsewhere.” Recognising the foundational economy as an intimate part of that ‘elsewhere’ requires also recognising that a flourishing foundational economy cannot be measured by consumption nor wholly provided through market-based competition (Heslop et al. 2019), but must instead be pursued through objectives for wellbeing (Calafati et al. 2019).

There are already encouraging examples from policies and practices that support the foundational economy. Heslop et al. (2019) identify three trends that link the foundational economy to other emerging efforts to foster wellbeing through economic alternatives. First, local ‘anchor institutions’, such as schools and hospitals, are being increasingly encouraged to use their roles as employers, asset owners and purchasers to strengthen local foundations and share the benefits with their communities. The ‘Preston model’ for community wealth-building, pioneered by local government in the post-industrial town of Preston, Northern England, is a widely cited example. Second, policy shifts are enabling some public services to be transferred (fully or partly) back to local ownership and/or decision-making. Community energy is a notable example here. Third, the rise of sharing economies and mutual aid has helped grow sharing and caring networks for everyday essentials, from hyper-local food co-operatives to community-led housing schemes. To date, the most explicit national policies have appeared in Wales, where the Welsh Government’s Foundational Economy Challenge Fund has joined an agenda set by the *Well-being of Future Generations Act* (Jones et al. 2020) to shape initiatives that “directly target liveability and sustainability” (Froud et al. 2020: 317).

In this section, I have positioned foundational economy thinking as a necessary response to what Kate Raworth (2017) characterises as ‘twentieth century economics’ – a limited and limiting view of what progress can and should be that has prioritised competition and consumption over wellbeing and sustainability. Revaluing the foundational economy does not ask us to abandon growth for good or give up on technological innovation (as the example

of internet access shifting from a novelty to an essential demonstrates), but it does require attending to the everyday ingredients of good lives for all people, wherever they may live, and within the capacities of a healthy and habitable planet. Of course, this is a shared planet, and it is to our planet's animal inhabitants that I now turn.

The Foundational Economy and animals

To date, foundational economy thinkers have had little to say about animals. Their concern, following a path to wellbeing framed by Nussbaum (2011) and Amartya Sen (1993) amongst others, has primarily been with people and places. In terms of countering the inadequacies of the current economic paradigm, this is a laudable concern and by no means a failing. However, as 'posthumanities' theorist Rosi Braidotti (2019: 40) observes, our growing realisation that continued economic exploitation is unjust and unsustainable – and disastrously so in ecological terms – is also a call to move “beyond humanist exceptionalism”. We are not, Braidotti reminds us, an exclusively human ‘we’, but relationally dependent upon multiple non-human others. If the goal of foundational economy thinking is to call attention to the foundations for wellbeing, then those foundations necessarily include human-animal relationships and that wellbeing cannot be reserved to humans alone.

In this sense, animal organisation studies offers a useful bridge. Thousands upon thousands of organisations are nested within the foundational economy. Indeed, delivering the material goods and providential services necessary *every day* requires densely layered, intricate organisation. As an economic domain, the foundational economy is also an inherently organisational domain. More so, viewing the foundational economy from an organisational perspective helps refine focus from the generalised ideals of policy critique towards the practical realities of how goods are created and services are provided. What a multispecies perspective adds here – and why animal organisation studies bridges concepts – is analytic purchase on the intrinsic role of animals and human-animal relations in many forms of work and organisation.

Animal organisation studies reflects an ‘animal turn’ in the social sciences (Buller 2013), amidst wider critical recognition that disciplines fostered to focus on humanity and society originate in a ‘Myth of Man’ (Braidotti 2019) that has proved both partial and harmful (Haraway 2016). The ‘posthuman predicament’, as Braidotti (2019: 8) terms this scholarly *zeitgeist*, “is not just a critique of Humanism ... [but] also takes on the even more complex challenge of anthropocentrism.” Influential interventions have ranged from theorising ‘cyborg’

hybridity (Haraway 2016) to re-enchanting vital materialism (Bennett 2001). I acknowledge these literatures here as a backdrop to animal organisation studies, yet set them aside as beyond my primary concern. I do, however, want to note two points. First, although posthumanism (and adjacent ideas) and heterodox economics emerge from different disciplinary lineages, they share a common conviction that existing paradigms have damaging consequences, and that redressing this ‘predicament’ requires approaching an entangled world through newly reappraised values and ways of noticing. Second, the posthumanist call to widen ‘our’ conceptual frames to include non-human others is directly applicable to rethinking economies.

Applying an animal organisation studies lens on work and organisations to the foundational economy offers, I consider, perspectives that can beneficially expand both concepts, while magnifying the space for their common ground. Just as foundational economy thinking shifts attention to those sectors that are fundamental to our wellbeing, animal organisation studies reveals the multispecies relationships within everyday economic activity and, more so, suggests that supporting ‘our’ wellbeing should include the wellbeing of non-human others, too.

These are broad brush principles, but we can readily begin to fill in some of the practical detail. Members of the Foundational Economy Collective (2018) suggest thinking about breakfast as a simple heuristic exercise. For most of us, the products, services and infrastructures we interact with on a typical morning between waking up and eating breakfast are part of the foundational economy. Making a list is a startling exercise in noticing how many economic activities underlie our morning routines: water running from our taps, gas firing our central heating, the aroma of coffee, food to prepare. Where are the animals? Perhaps breakfast features milk, cheese, bacon or honey; even cereals were partly produced by busy pollinators, and those keeping kosher diets will be all too aware that many fruits and vegetables harbour insect stowaways. Of course, before enjoying our own breakfasts, those of us with four-legged family members will be reminded whose hunger to prioritise; pets also interact with foundational infrastructures, from a filled water bowl to a warm radiator. Delving deeper, animal legacies might appear, too. In the UK, one well-known oats and muesli brand uses a horse and plough logo – a reminder that animal labour once played a central role in agriculture (as it continues to do elsewhere in the world). Today, oat production is mechanised, and the packets make their way to British supermarket shelves through supply chains travelling trunk roads that are, in another reminder of foundational animal labour, still called ‘carriageways’.

As I hope this discussion has begun to tease out, multiple species are present within the foundational economy in multiple ways. Animal products and animal labour are certainly

foundational. But domestic animals are also a reminder that there is not a clear-cut division between animal production and human consumption. Different species may produce and consume within the foundational economy in different ways at different times. The point is that the foundational economy is a multispecies domain, shared every day in interconnected relationships.

In the previous section, I noted three key themes in foundational economy thinking: attending to the everyday, revaluing what matters most, and, linking these ideas, prioritising wellbeing over macroeconomic performance. In the next two sections, I shift these themes from their initial humanist frames to encompass animal interconnections. I draw my examples from the agri-food sector for convenience and consider mammals for simplicity, but of course the land-based food system is not the only foundational sector wherein animals produce and consume, nor do human-animal relationships within the foundational economy exclusively involve mammals (Buller 2015). I suggest some routes towards broadening future research beyond these initial beginnings in my conclusion to follow.

Of milking parlours and breakfast tables

Just above, I suggested breakfast routines as a way to start thinking through how the foundational economy is present in our own lives – and then to follow the animals. I want to sit with that theme a little longer, beginning with the example of milk. In many European countries (and those influenced by their colonial and/or culinary legacies), dairy products are a breakfast staple. This has a long agricultural history, and a shorter economic narrative. Eurasian peoples began consuming milk from cows, sheep and goats at much the same time as these animals were being domesticated during the Neolithic period (Valenze 2011) – the ‘dawn’ of agriculture. Making butter and cheeses emerged as a preservation method; in England, dairy became ‘white meat’ for the medieval poor, while the Low Countries were known for their milk production from around the fifteenth century (Valenze 2011).

Milk, of course, requires milking – bringing humans and animals into intimate proximity. Historically, milking was typically a household activity, and humans and cows, for example, shared close connections. While we should avoid romantically imagining a friendly cow in every backyard, rural vernacular architectures offer a glimpse into everyday proximities. In the South Pennine uplands in Northern England, where I have carried out fieldwork, the ‘laithe houses’ of the seventeenth and eighteenth centuries combined living

quarters for humans and animals in the same doughty stone building. Shared shelter made for shared sounds and smells, amid the shared rhythms of milking time.

Today, milking is still defined by close human-animal labour, but commercial dairy farmers no longer milk by hand. Milking machines of various kinds were pioneered in the mid-nineteenth century. By 1961, 85% of the dairy herds in the UK were machine milked (Brassley 2000). But this transition was viewed with anxiety by observers at the time: as well as raising new concerns about animal welfare, machine milking created dismay about monotonous human labour (Holloway & Bear 2017). Monotonous or not, milking parlours are now highly organised workplaces. Over half a century of further development has seen technologies become increasingly sophisticated, with equipment able to record milk composition, detect potential animal health problems, and operate with lessening need for human intervention. These technologies both arise from and affect what humans and animals do in the milking parlour, reflecting agencies and subjectivities and equally mediating these (Holloway & Bear 2017). For example, machine milking responds to a farmyard rhythm, but also requires that cows live in herds. Because machines are more efficient, herds have been able to grow larger, and milk volumes have increased – and here I shift from production to consumption.

Historically, dairy produced at a domestic scale was often for household consumption, although surpluses were certainly sold or exchanged. Dutch farmers, for example, realised early that better nutrition for cows would increase milk yield and make a good profit (Valenze 2011). However, growing urbanisation was the crucial factor in commodifying milk. In his 1826 treatise *Der Isolierte Staat* (The Isolated State), German economist Johann Heinrich von Thünen pictured a central city surrounded by a providing countryside. In von Thünen's ideal model, concentric circles radiating from the city contained different types of agricultural land use (Woods 2020). Dairy was prominently placed in the first circle: a vision of milk production ringing the city, so that perishable products could be quickly brought to market. Domestic dairy had become foundational.

Into the twentieth century, dairy grew as a significant industry. Production increased exponentially, and supply chains became longer and more complex. Partly, this was a story of modernisation, enabled by research and technology and encouraged by national policies. Standardising milk's fat, protein and sugar content, for example, became both possible and desirable, making milk less of the farmyard and more of the factory (Atkins 2010). Economic recovery after the Second World War brought a renewed 'productivist' drive in agriculture (Ilbery & Bowler 1998). Fertilisers, insecticides and hormones were developed to raise yields, production was intensified, and government subsidies supported price. Of course, large

volumes had to be sold, and modernisation and productivism were matched with the marketing of milk as pure and wholesome (DuPuis 2002). Indeed, milk became a daily breakfast table staple not because it really reflected a traditional rural human-animal rhythm but because products need consumers.

Recently, growing recognition of the animal conditions and environmental costs of the dairy industry has led to a backlash against milk (Clay et al. 2020). Plant-based alternatives – ‘mylks’ – have become increasingly ubiquitous, promising consumers thinner ecological footprints and consciences cleansed of animal welfare concerns. Clay et al. (2020) call this a ‘palatable disruption’, in which consuming one product over another is marketed as a solution to far more systemic problems. As they write, “Mylks ... encourage people to rebel just enough to switch from dairy milk to mylk while entreating them to remain devoted consumers of commodity mylk” (Clay et al. 2020: 945). I would also suggest that this palatable disruption deals with the posthuman predicament by creating a curious kind of ‘postanimal’ absence, in which animals are removed from consumption while animal products remain the norm. Like Britain’s carriageways, mylks in the supermarket dairy aisle reflect the stories of how human-animal relationships have structured and re-structured foundational economic activities.

I have only skimmed milk’s stories in this section, but I want to suggest that, if foundational economy thinking makes us more attentive to our breakfasts, animal organisation studies might make us aware that other morning routines matter, too. Milk is a reminder of shared everydays and entanglements, representing ordinary embodied actions and social, economic and technological histories alike. If food is a foundational good (Morgan 2015), then we need to reflect on valuing what good is. I turn to this in the next section.

Of rare breeds and knowing provenance

In her book *The Value of Everything*, Mazzucato (2018) recounts the shift from eighteenth century economic theories that located value in agriculture, to current celebratory perspectives on finance. I earlier cited Mazzucato’s concerns that contemporary economics has come to put a theory of price over a theory of value, and in this section I want to return to the question of value in agriculture in order to illustrate how we might re-value the foundational economy through a human-animal frame.

Just above, I noted that machine milking has enabled bigger dairy herds. But, while this is true of the *number* of cows, it is not true of their genetic diversity. The legacy of agricultural productivism runs through bovine bloodlines, with generations of animals descending from

systematic selection for favourable, productive traits. The typical dairy cow now produces around twice as much milk as a cow of forty years ago (Oltenucu & Broom 2010). In the US, where the Holstein breed accounts for some 94% of the national dairy herd and almost all of these cattle trace descent from one of two bulls, nine million cows are estimated to be the genetic equivalent of fewer than a hundred animals (Gressier 2021). There is evidence that selecting for milk yield has left these animals with deteriorating health and reduced lifespans (Oltenucu & Broom 2010). This is clearly a problem of what gets valued and why.

Rare breed farming begins to suggest different conceptions of value. So-called ‘rare’ or ‘traditional’ livestock breeds are typically those that fell from favour after agricultural modernisation meant more ‘economic’ breeds like Holstein cattle came to “embod[y] innovation in farming practice, progressive thinking, and efficient husbandry” (Yarwood & Evans 2006: 1311). Some rare breeds are today valued for their associations with particular places (Yarwood & Evans 2006); others affectively mingle human and animal stories in shared lineages (Gressier 2021). Reflecting on her ethnographic work with rare breed cattle farmers in Australia, Catie Gressier (2021) describes how these farmers understand the animals they breed and care for as a totality of traits: from their temperament and mothering ability, to their milk and meat. Here, a farmer’s proud eye for a good animal means more than the market value of animal products.

Rare breed farming should not be mistaken for a rural idyll. The reason many conventional farmers select for productive characteristics is precisely because making a living farming is a hard economic reality. Gressier’s (2021) farmers struggle to stay viable, and necessarily rely on off-farm income from a spouse or second job. Often, the holistic value they afford good animal lives is not matched by the prices markets place on animal products. This reflects the tremendous difficulties posed by an economic paradigm that tries to treat food as a tradeable commodity like any other (Morgan 2015).

One way to revalue food is to revalue where food comes from. Geographical Indication (GI) schemes do so by certifying provenance – situating certain foods in stories of place and process and conveying that value to consumers. In the EU, GIs have been most famously used to protect niche products like champagne from cut-price competition, but there can be meaningful benefits at a local level that matter for humans and animals alike. For example, lamb from the Cambrian Mountains in Wales was awarded European GI protection in 2013. The designation followed several years of collaborative local action to support sustainable futures in a struggling upland region beset by demographic change and beholden to economic fluctuations (Goodwin-Hawkins 2018). With farming a heartland for the Welsh language, the

slow loss of local communities was also a loss of culture. Founded with support from the Prince of Wales, the Cambrian Mountains brand aimed to build better prices for local products and improve livelihoods. Crucially, to use the brand farmers must commit to sustainable land management practices and high animal welfare standards (Goodwin-Hawkins 2018). The GI designation requires that: lamb is bred from ewes that are at least 80% Welsh hill breeds; at least 75% of the flock's annual dry diet also comes from the Cambrian Mountains; local slaughterhouses are used; and, the lamb is traceable from 'fork to farm'. The designation also celebrates the region's traditional *hafod a hendre* seasonal grazing practices, and a culture of *cefnwid*, or cooperation, between farms for human-animal activities like shearing and gathering (Goodwin-Hawkins 2018). For consumers, buying Cambrian Mountains lamb is buying a different set of values to commodity pricing. Value here is about the co-existing work and lives of humans and animals, through the seasons and across generations. Price can help sustain value in this holistic sense, but as I have been arguing, price poses problems when it becomes the driver for what *can* be valued.

I do want to sound a note of caution here, as conflating revaluing foundational sectors with re-pricing foundational goods returns us to the problematic tautology Mazzucato (2018) rightly critiques. From plant-based mylks to bucolic myths of artisanal production, consumerist solutions rarely redress systemic problems (Clay et al. 2020, Phillipov & Loyer 2019). Indeed, too many people already face food poverty, and predicating animal wellbeing on human ability to pay risks entrenching inequalities further. The key point I want to make here is that foundational economy thinking asks us to reconceptualise the limited and limiting notion that goods and services that sell for little are worth little. Foundational economy thinkers hence mobilise a broader concept of social value – the contribution an economic activity makes to societal wellbeing – over economic performance. Animal organisation studies suggests that *social* value alone might be all too exclusively human. There are no easy answers here, but beginning to notice the complex entanglements between humans and animals, economy and wellbeing, might help us ask better questions. With this in mind, I use the conclusion of this chapter to look towards future research.

Summary and future research directions

In this chapter, I have worked to draw initial connections between animal organisation studies and growing interest in the foundational economy. I began by describing the foundational economy as the material and providential goods, services and infrastructures that support our

everyday lives. This, I suggested, should make us reflect on the ways animals also share our everyday lives, whether through companionship, labour or the ecological capacities of a single, shared planet. In brief examples from the agri-food sector, I drew attention to the ways everyday lives and economic foundations entail human-animal entanglements, and to the consequences and complexities of a modern economic paradigm that has put productivity over wellbeing.

A thriving and appropriately valued foundational economy undergirds our shared wellbeing, exactly because the foundational economy provides the essentials for everyday lives. Good lives should not be a solely human prerogative. There are many inequalities that are of human making and require human action, but advancing human wellbeing at the expense of other species is fundamentally flawed and does little to ensure sustainable futures for a shared planet. To revalue the foundational economy is necessarily to redefine good lives as shared lives, and requires shifting how we count what counts from prices and macroeconomic indicators towards more holistic benchmarks. There is a lot of work to do – and organisation alongside.

I have only been able to stitch broad, initial ideas here in this chapter, but I want to conclude as I began by inviting others to pick up the threads. Let me thus offer five suggestions for future directions that research uniting animal organisation studies and foundational economy perspectives might fruitfully take.

First, foundational sectors include domains where animal lives, labour and products are particularly present. The food system is one example, but studies might tease out the animal implications of less obvious infrastructures and the human-animal interdependencies of other foundational goods. Scale matters, with room for ethnographic reflections on ordinary intimacies through to tracing dense supply chains. Second, understanding these interdependencies and the complexities they engender has important implications for how we approach revaluing the foundational economy. This should certainly include exploring how animal lives are valued in work, organisations and economies, but there is equally a need to expand foundational economy perspectives to encompass everyday *animal* needs for material infrastructures (like water and warmth) and providential services (like veterinary care). Third, there are hints of animal histories lodged within foundational goods, services and infrastructures from ‘carriageways’ to breakfast tables. Historical research on animals and animal products already exists, and there are opportunities to draw upon these findings to better historicise both the foundational economy and the origins of contemporary human-animal everyday lives. Fourth, alongside identifying animal presences, there is interesting potential to

explore animal *absences* in the foundational economy. Research here might examine instances of foundational activities unintentionally displacing animals, or untangle the human-animal organisational consequences of efforts to intentionally replace animal labour and animal products, such as plant-based diets or lab-grown meat. Last, these suggestions so far perhaps echo a ‘mammalian hegemony’ (Buller 2015). Foundational economy thinking’s concern with *human* everyday lives has also located work to date in terrestrial space. Which animal lives might become imbricated if foundational activities were explored from the air (Adey 2013) or the sea (Steinberg & Peters 2015), for example?

Doubtless, many more connections can and will be made. These will lead us to greater empirical understanding, while also increasing the philosophical and political, ethical and economic complications. For example, in this chapter I have repeatedly recalled that human and animal lives intertwine in everyday economic and organisational practices, but I have not substantively engaged with the philosophy of multispecies lives, including critical questions about the ethics of eating animals and animal products. These and other questions lurk, and here at least I will let them. Instead, I want to end with a rather more human-centric reflection. If we are to take multispecies ‘good lives’ as a normative – perhaps even utopian (Levitas 2013) – goal for shared and sustainable futures, then it is nevertheless human work to puzzle the paths forward and confront the ways we do and do not speak justly for animals. Although what we have lately witnessed of the capacity of microscopic viral bodies to throw economies into disarray reminds us that policy decisions are never quite made by humans alone (much the posthumanist point), we cannot leave responsibility for the infrastructures of shared everyday lives to the whims of an imagined ‘invisible hand’. We need to make the very real hands, and paws and claws, hooves and fins, that inhabit the foundational economy visible so that we can make shared futures viable.

References

- Adey, P. 2013. Air/Atmospheres of the Megacity. *Theory, Culture & Society*, 30(7/8):291-308.
- Atkins, P. (2010). *Liquid Materialities: A History of Milk, Science and the Law*. London: Routledge.
- Bennett, J. 2001. *The Enchantment of Modern Life: Attachments, Crossings, and Ethics*. Princeton: Princeton University Press.
- Bentham, J., A. Bowman, M. de la Cuesta, E. Engelen, I. Ertürk, P. Folkman, J. Froud, S. Johal, J. Law, A. Leaver, M. Moran & K. Williams (2013). *Manifesto for the Foundational Economy*. CRESC Working Paper No. 131.
- Braidotti, R. (2019). *Posthuman Knowledge*. Cambridge: Polity Press.
- Brassley, P. (2000). Output and technical change in twentieth-century British agriculture, *Agricultural History Review* 48, pp. 60–84.
- Buller, H. (2013). Animal geographies I. *Progress in Human Geography*, 1-11.
- Buller, H. (2015). Animal Geographies II: Methods. *Progress in Human Geography*, 39(3): 374–384.
- Calafati, L., J. Ebrey, J. Froud, C. Haslam, S. Johan & K. Williams (2019). *How an ordinary place works: Understanding Morriston*. Foundational Economy Research Report. Available at: <https://foundationaleconomycom.files.wordpress.com/2019/05/morriston-report-v6-13-may-2019.pdf>
- Clay, N., A.E. Sexton, T. Garnett & J. Lorimer (2020). Palatable disruption: The politics of plant milk. *Agriculture and Human Values*, 37: 945-962.
- DuPuis, E.M. 2002. *Nature's perfect food: How milk became America's drink*. New York: NYU Press.
- Ellen MacArthur Foundation (2013). *Towards the Circular Economy 1*. Available at: <https://www.ellenmacarthurfoundation.org/assets/downloads/publications/Ellen-MacArthur-Foundation-Towards-the-Circular-Economy-vol.1.pdf>
- Foundational Economy Collective (2018). *Foundational Economy: The Infrastructure of Everyday Life*. Manchester: Manchester University Press.
- Froud, J., C. Haslam, S. Johal & K. Williams (2020). (How) does productivity matter in the foundational economy? *Local Economy*, 35(4): 316-336.
- Gibson-Graham, J.K. (2008). Diverse economies: performative practices for 'other worlds'. *Progress in Human Geography*, 32(5): 613-632.
- Goodwin-Hawkins, B. (2018). Mynyddoedd Cambrian Mountains Initiative. Rapid Appraisal, Horizon 2020 ROBUST Project.
- Gressier, C. (2021). Bovine bloodlines. *Anthropology News*, Available at: <https://www.anthropology-news.org/index.php/2021/03/01/bovine-bloodlines/>
- Haraway, D. (2016). *Staying with the Trouble: Making Kin in the Chthulucene*. Durham N.C.: Duke University Press.

- Heslop, J., Morgan, K., & Tomaney, J. (2019). Debating the foundational economy. *Renewal: A Journal of Labour Politics*, 27(2), 5-12.
- Holloway, L., & Bear, C. (2017). Bovine and human becomings in histories of dairy technologies: Robotic milking systems and remaking animal and human subjectivity. *BJHS Themes*, 2, 215-234
- Ilbery, B. and I. Bowler (1998) From agricultural productivism to post-productivism. Pp. 57–84 in B. Ilbery ed., *The Geography of Rural Change* (London: Longman)
- Jones, R., B. Goodwin-Hawkins & M. Woods. (2020) From territorial cohesion to regional spatial justice: The Wellbeing of Future Generations Act in Wales. *International Journal of Urban and Regional Research*. 44(5): 894-912
- Levitas, R. (2013). *Utopia as Method: The Imaginary Reconstitution of Society*. Basingstoke: Palgrave Macmillan.
- Mann, G. (2017). *In the Long Run We Are All Dead: Keynesianism, Political Economy and Revolution*. London: Verso.
- Mazzucato, M. (2018). *The Entrepreneurial State: Debunking Public vs. Private Sector Myths*. London: Penguin.
- Moore, J.W. (2015). *Capitalism in the Web of Life: Ecology and the Accumulation of Capital*. London: Verso.
- Morgan, K. (2015). The moral economy of food. *Geoforum*, 65: 294-296.
- Nussbaum, M. (2011.) *Creating Capabilities*, Cambridge, MA: Harvard University Press.
- OECD (2012) *OECD Environmental Outlook to 2050: The Consequences of Inaction*. OECD, Paris.
- Oltenu, P.A., & D.M. Broom (2010). The impact of genetic selection for increased milk yield on the welfare of dairy cows. *Animal Welfare*, 19(1): 39-49.
- Phillipov, M. & J. Loyer (2019). In the wake of the supermarket ‘milk wars’: Media, farmers and the power of pastoral sentimentality. *Discourse, Context & Media*, 32.
- Piketty, T. (2014) *Capital in the Twenty-First Century*. Trans. A. Goldhammer. Cambridge, Mass.: The Belknap Press.
- Raworth, K. (2017) *Doughnut Economics: Seven Ways to Think Like a 21st Century Economist*. New York: Penguin.
- Sen, A. (1993) Capability and well-being. In A. Sen and M. Nussbaum (eds.) *The quality of life*, Clarendon Press, Oxford.
- Steinberg, P. & K. Peters (2015). Wet Ontologies, Fluid Spaces: Giving Depth to Volume through Oceanic Thinking. *Environment and Planning D: Society and Space*, 33(2): 247-264.
- Valenze, D. (2011). *Milk: A Local and Global History*. New Haven: Yale University Press.
- Woods, M. (2020). Rural-urban linkages. In J. Duncan, M. Carolan & J.S.C. Wiskerke (eds.), *Routledge Handbook of Sustainable and Regenerative Food Systems*. London: Routledge. Pp. 363-376.
- Yarwood, R. & N. Evans (2006). A Lleyn Sweep for Local Sheep? Breed Societies and the Geographies of Welsh Livestock. *Environment and Planning A: Economy and Space*, 38(7): 1307-1326.