

Profit, plague and poultry

The intra-active worlds of highly pathogenic avian flu

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In 2006 we awoke, in Europe at least, to the odd situation in which twitchers – obsessive birdwatchers who spend much of their leisure time on the far-flung edges of countries – are being reinvented as the eyes and ears of the state, helping warn of new border incursions. These incursions are posited as taking an avian form that may bring with it very unwelcome pathogens. Everyday avian observations and knowledges of migratory routes are being reinvented as a kind of border patrol, a first line of veterinary surveillance. Birdwatchers and others are being asked to look out for any signs that wild birds may be dying from the highly pathogenic form of avian influenza known as H5N1, one of sixteen or so strains of flu virus endemic to wild birds and transferable to domestic poultry and also, in the right circumstances, to pigs and other animals.

Such appeals to amateur enthusiasts, walkers, farmers, and even hunters are not new. In 1933 the renowned animal ecologist Charles Elton called for amateur naturalists to act as the eyes and ears of ecological research centres such as the Bureau of Animal Population at Oxford University.¹ Elton argued that local observers could be useful for amassing empirical knowledge of animal populations, just as they were at giving information to detectives at Scotland Yard (the headquarters of the Metropolitan Police) about crimes. In the 1930s this worked in ways which allowed ecologists to popularize their nascent discipline, involving amateurs while holding on to their own cultural authority in professional centres of calculation. The difference today is that supranational state organizations are now taking on the ecologists' previous role. For example, the UN Food and Agriculture Organization (FAO) now argues that farmers, and others, should be enrolled to act as early-warning networks. But the FAO is also proposing high-tech surveillance – for certain wild birds to be fitted with 'backpacker' telemetry systems networked to satellites and computers to monitor wild birds' annual migrations.²

As such, the knowledges of birdwatchers, and others, are being reconfigured (albeit as a minor part) in a renewed bio-geopolitics: the monitoring of animal health, locations and routes in the service of potential disease- (or, as Foucault would have had it, plague-) control, a management and surveillance of wild and domestic animal populations in the service of the health of human populations. The big fear is that this 'new' strain of avian virus may spread to farmed bird populations, increasing the possibility of rapid mutation and the risk of generating a new pandemic virus for humans via avian-human linkages, and a potential repetition (though in different ways) of the influenza pandemic of 1918–19 that killed upwards of 40 million people across the globe.

The dominant media stories that follow the above narrative are somewhat oversimplified, and national governments and supranational organizations such as the FAO, the World Organization for Animal Health (OIE), and World Health Organization (WHO) are doing little to counter such media reporting – at least in their public pronouncements. It also increasingly appears that media, agribusiness, governments and global veterinary surveillance organizations are conspiring to blame wild birds, and small-scale poultry producers, just when much other evidence is pointing to large-scale factory poultry farms as the disease factories of highly pathogenic avian influenza (HPAI) strains.³ These same organizations and governments seem to be colluding in claiming that ‘closed’ export-oriented factory farms are the answer to preventing avian flu outbreaks.

We need to see how this fear of avian flu is being used by, and draws attention to, the practices and public discourses of governments, corporations, and transnational animal and veterinary organizations that have sought to police trade in domestic animals, and the movements of pathogens among livestock and poultry, since the early twentieth century. In short we need to look beyond the often simplistic media narratives focusing on bird migratory routes and their supposed ability to spread highly pathogenic viruses, and to question the ways food is produced and traded, as well as the harm being done – ecologically, socially, and to animals – by agribusiness.

With the attempts to extend social health and veterinary surveillance around the world, especially more fully into the modernizing nations of Southeast Asia, we see a further merging of biopolitics with geopolitics. There is a proliferation and globalization of what sociologist Nikolas Rose calls a demand for collective biopolitical risk management, where contemporary biopolitics becomes risk politics.⁴ For example, with regard to avian flu some scientists and politicians argue that just one territory lacking effective veterinary surveillance can open all other territories to possible pandemics. The EU, the USA and Japan, as well as the World Bank, promised over US\$1 billion in early 2006 for *biosecurity* so that developing countries can operate effective surveillance and monitoring systems of people and animals. These monies are undoubtedly needed to develop laboratories, social health systems and the like, to be able to protect their populations from potential harm – at least in the immediate future. Yet, as with all regimes of biopower managing life from ‘above’, there is also a deeply troubling aspect to how states and suprastate organizations – often with close relations to the World Trade Organization and a wider neoliberal politics – will operate such systems and who will benefit from them. Moreover, the reasons why such developing countries have not been able (or at times willing) to develop such health systems for themselves is casually overlooked. Here we might ponder on how more than two decades of neoliberal restructuring, massive national debts, corruption, arms selling/buying, and other factors have contributed to a state of affairs in which health-care systems in the developing world have been rendered moribund for the majority of their populations.

Bird spaces

The geographer Steve Hinchliffe has argued that ‘viral patterns are often tragic patterns. They are also sometimes revealing patterns’.⁵ Some of these revealing patterns have emerged in reports from the Thai-based organization Focus on the Global South on the emergent H5N1 avian flu outbreaks in Southeast Asia. They show how large export-oriented poultry factory corporations in Thailand, especially, have been seeking to extract commercial advantage from the recent outbreaks. Until 2004 Thailand was the fourth largest poultry exporter in the world, mostly to the EU and Japan. Thai corporations dominate the whole Southeast Asian region in a vertically integrated production process. Like the USA – which dominates the global poultry industry



– much of the production is done on highly intensive family-run farms that have little bargaining power with the huge corporate ‘integrators’ that provide the chicks and feed, and buy the product. Focus on the Global South point to how the Bangkok-based Charoen Pokphand Group (CP) has, in league with the Thai government, sought to put blame on small-scale poultry farmers for the transmission of avian flu from wild birds to domestic poultry, falsely claiming that large farms were free of bird flu.⁶ At the height of the outbreak in Thailand the deputy prime minister argued for the avian flu crisis to be turned into an opportunity – this opportunity was, of course, one only for CP and its like. Similarly, the corrupt and authoritarian Egyptian government sought to blame backyard and roof-top poultry production in rural and urban areas when H5N1 was confirmed there in February 2006 – and this at a time when the majority of the population are increasingly impoverished and undernourished.⁷

In this process small peasant farmers are likely to be denied their ability to produce their own food. Compensation for slaughtered poultry, if available, is often woefully inadequate and may have encouraged people not to report disease outbreaks. The crucial fact that peasant farmers are losing an important source of much-needed cheap food and income has been sorely missing in many discussions of the potential pandemic in mainstream media scare stories focusing on wild birds. Moreover, this opportunistic use of the avian flu outbreak by business and government elites for their own purposes is threatening to sabotage developing movements to encourage and improve urban and peri-urban agriculture that could (if best practices are encouraged and developed) improve access to food and provide much-needed income for some of the poorest people in the rapidly growing cities of the developing world.

Recently, the FAO has also argued that it is small-scale poultry producers that provide the main access point for highly pathogenic avian flu virus from wild birds. As the campaigning group GRAIN has argued, hardly a doubtful word has been said by the FAO and WHO about large-scale intensive poultry production in their various public reports on avian flu.⁸ Moreover, it seems that evidence for the supposed need to move poultry production into intensive units – as, it is claimed, these units have higher standards of biosecurity – is weak to say the least.

Looking more closely at the arguments blaming small-scale poultry production and wild birds problematizes them. First, it is claimed that avian flu is a problem among wild birds that is then easily transmissible to free-range or backyard poultry. Yet conservation organizations such as Birdlife have argued that the media depictions of H5N1 as a wild bird phenomenon just do not add up.⁹ Notably, the routes of H5N1 outbreaks

do not correspond to wild bird migrations. In the UK we have seen the media and the government implying that birds move geographically from China and Southeast Asia to Russia, Turkey, eastern Europe, then to western Europe and beyond in some inexorable flow from ‘the Orient’ – with all the connotations that still has. But this does not correspond to Birdlife’s considerable knowledge of wild bird migrations. For example, they have argued that it is unconvincing to blame wild birds for the hotspots of avian flu around places like Qinghai lake in China. First, birds that died there did so after being there for several weeks. Second, the lake is surrounded by large poultry operations and an interlinked fish farm industry that uses chicken faeces as feed. Birdlife argue that it is more likely that the poultry operations are infecting the wild birds with their waste and that the subsequent outbreaks around the region show more of a correlation with road and railway connections than with bird migratory routes. Why, further, if wild birds were the vectors of this disease, is it not found in more of the main bird migratory routes, and why do countries such as Laos (situated close to Thailand, Vietnam and Cambodia – where outbreaks have been greatest) only have outbreaks in the areas of the few factory farms (owned, incidentally, by the CP Group from Thailand)?

Avian flu strains are endemic in wild birds and probably have been so for millennia, yet until recently it has rarely killed birds, seeming to exhibit low evolutionary rates of change. While it is true that most of the sixty-two deaths of people in Vietnam, Thailand, Cambodia and Egypt have been small farmers and their families, poultry production has grown enormously in recent decades in Asian regions. China alone produces over 9 million tonnes per annum, a tripling of production in the 1990s. Nearly all of this increase has taken place in intensive factory production units. Outbreaks of differing strains of avian flu have also been growing hugely over the past decade. As both GRAIN and Mike Davis (in *The Monster at Our Door*, 2005) argue, what has occurred fairly recently, and through complex interlinked social, economic, ecological interventions, is that avian influenza has taken on new qualities in recent years. As GRAIN argue:

The highly pathogenic strains of bird flu develop in poultry, most likely in poultry exposed to milder strains that live naturally in wild bird populations. Within crowded poultry operations, the mild virus evolves rapidly towards more pathogenic and highly transmissible forms, capable of jumping species and spreading back into wild birds, which are defenceless against the new strain. In this sense, H5N1 is a poultry virus killing wild birds, not the other way around.¹⁰

In a commentary on avian flu in the *Korea Herald* (14 November 2005), that great advocate of animal ethics Peter Singer also blames factory farming for causing highly pathogenic strains like H5N1. He argues that the billions of dollars so far spent by the US government on stockpiling flu vaccines (and on biosecurity worldwide), or on encouraging US pharmaceuticals companies to come up with a vaccine, is really a subsidy to the intensive poultry industry. Animal production in capitalism is full of such subsidies of course. It is also not often enough stated that in many ways modern factory production of meat encapsulates, and often leads, capitalist reorganizations and suffuses every aspect of society. Indeed, the networks of modern intensive farming are so vast we cannot see the ‘bare life’ of the animals for the industry.

Media panic or ‘the monster at our door’?

It is often claimed that the potential avian flu pandemic has been hugely overstated, that the mass media have latched on to a story of potential catastrophe and wildly exaggerated the threat in order to profit from fears that they themselves have helped generate. It is likely that in some ways this is indeed the case. Various media sources have used

aspects of our indeterminate knowledges of avian flu to make their own points based on, for example, fears of other people's eating practices, and ways of raising animals, and of travelling – exploiting an ontological insecurity linked with Orientalist notions mixed into contemporary consumer practices.

Governments, businesses, media, scientific organizations, and even leftist critics such as Mike Davis have all been criticized for exaggerating the possibilities of avian flu. Claims have been made about profiteering by drug companies – especially the makers of Tamiflu – and patent systems that deny drugs to those most in need.¹¹ Yet, while valid in many ways, these critical claims about the avian flu scare as media panic miss other political processes working around it. This might also be to take a too developed-world perspective of the global and regional scales of food production. As such, it ignores the environmental degradation of this global trade, the exploitation of farmers forced into highly exploitative relations with CP and other food corporations in Southeast Asia (or for that matter the USA, and many other countries) and the control corporations have over the whole production process of poultry in countries like Thailand. It also ignores the ways in which US poultry producers are opportunistically looking for excuses to close down backyard poultry production in the developing worlds for their own benefit, and the role of supranational surveillance organizations like FAO, WHO, OIE, who, in their call for effective veterinary surveillance systems, seem to be playing into the hands of corporate intensive animal production. As such, it may well be to ignore how geopolitics is being brought further together with biopolitics in ways that extend the real subsumption of society under capital.

Nikolas Rose has recently argued that contemporary biopolitics has become molecular politics due, among other things, to developments in biomedicine.¹² But there is another sense in which molecular politics is also reconfigured around risk. Late capitalism is characterized by greater and longer circulations of bodies across borders – by increasingly globalized, speeded-up economies of exchange and circulation of myriad materials. This creates increased possibilities and risks for all kinds of mixings with other bodies and other phenomena, in forms that differ widely in the ways power and agency are acted and enacted in these spaces of circulation. There are increased opportunities for recombinations of viruses moving with greater ease geographically within and across differing spatial scales. This was shown in the recent SARS outbreak where, within months, the pathogen was transmitted to over thirty countries in every continent, through contacts made in hotels, airports, planes, and hospitals, and other spaces of intense mobility.

SARS probably emerged from a rare recombination of viruses – of avian and mammalian coronaviruses (a virus in the same family as the common cold) mutating and transferring in a highly virulent and contagious form to humans in and through the 'wet markets' of wild and non-domesticated farmed animals (such as civet cats) that have increased in recent years to cater to a burgeoning middle-class consumer demand in wealthier provinces of southern China, such as Guangdong, and in Hong Kong and Beijing, where the SARS outbreaks were worst.



SARS, like highly pathogenic avian flu, has highlighted the current inability of national and international veterinary and biomedical surveillance regimes to cope with such emergent pandemics. We are told that SARS was reputedly a rare event, emerging from wild animals (often referred to as bushmeat) and commercially farmed 'wild' animals being brought into contact with industrially produced poultry, pigs, and other animals in markets, creating in such spaces an environment for viruses to mix, mutate and spread into large urban populations of people. The bushmeat market, also often fuelled by migration, travel, commercial and illegal logging of forests (as well as the increasing tendency for the EU and Japan, for example, to buy out the fisheries of impoverished countries, leading to periodic shortages of protein in local populations), increases opportunities for potential mixings of viruses as more wild animals are hunted for food and brought into contact with people. Avian flu is potentially more extensive than SARS in its forms, being tied more tightly into the global poultry industry (in its myriad forms) and trade in animals (both legal and illegal).

Intra-active worlds

This draws attention to the complexities of intra-actions (a term that the feminist philosopher of science Karen Barad uses to emphasize that natures and cultures do not simply *interact*, but are always already mixed – intra-acting) in our diverse ecologies,¹³ to the many unruly bodies in our worlds and their potential to throw up all kinds of emergent forms of 'life' – some perhaps benign, others potentially pathogenic, others somewhere else, for now. The various strains of HPAI are only one example of a number of potential zoonoses (defined by WHO as diseases and infections which are '*naturally* transmitted between vertebrate animals and humans', though this *naturally* hides the possibilities of what this may involve) that are emerging in different geographies. Yvonne Baskin, writing about invasive species (of which humans are the major example) argues that about three-quarters of the 156 emerging infectious diseases affecting people in the USA today are zoonoses.¹⁴ Taking a wider geographical view, we might argue that zoonoses are becoming one of the central concerns of global geopolitical–biopolitical medical surveillance in the twenty-first century.

Yet, in thinking about zoonoses like the current strain of highly pathogenic avian flu or SARS, we might begin to move in a direction which resists seeing these phenomena as specific objects with predetermined properties and boundaries that simply flit from other predetermined bodies, whether human or non-human: the model upon which much scientific and veterinary surveillance policy and practice seems to be based. As such, we might resist the urge to imagine that HPAI seems to do things by itself – killing some birds, or (tragically and painfully) killing some people, making other people very ill, and all the other things that happen around it. But, concomitantly, we might also avoid the tendency to see the potentialities and realities of avian flu as *just* the result of human activities that make these zoonoses do the things they seem to do. For both these positions rely on a view of natures battling and *interacting* against cultures, or vice versa, in particular contact zones. Given the complexity of many emergent human-to-animal diseases (and of everyday life generally), this overlooks the ways in which natures–cultures–technologies are always already mixed up and mixing up – *intra-acting* – in what we might better describe, think of and practise as techno-natures or socionatures, bearing in mind that these mixings can happen in disparate ways, depending upon the different forms of intra-action involved.

We engage with our worlds in ways in which agency is relationally dispersed, where agency is an enactment, not a property that someone or something just has. We need to take a non-representationalist perspective engaging avian flu as an emergent phenomenon made tangible only within complex open-ended networks and discursive practices; to see highly pathogenic avian flu in terms of more-than-human worlds

– the boundaries of which potentially extend massively, and which always contain potentialities of an *excess* that can give rise to new productions of things. These complex spaces of avian flu are ‘bewildering spaces’, to use a term coined by Sarah Whatmore.¹⁵

We might then argue that avian flu does not exist in and of itself as an object (for even if it is argued by some that it can be identified in a scientific lab it is only rendered visible within specific agencies of observation). Avian flu, in its differing forms has diverse materialities. It is always a part of various bodies, ecologies, networks of (in)adequate technologies of surveillance and biosecurity, which include all kinds of rules, veterinary techniques, forms of production, transport networks, slaughtering practices, laws, and more. It may be emergent, but it seems there are many ways of seeking to bring about its move back into its previous background than are presently being admitted by global veterinary surveillance organizations. If so, this will be a complex, ongoing and difficult practice, one that needs to be integrated within goals to help provide good-quality, cheap food for the poorest in modernizing worlds, to end corporate exploitation and intensive rearing regimes, and to improve animal lives, whilst also reducing risk of viral mixings. Blaming wild birds, or seeking to ban small-scale poultry production at the expense of supposedly biosecure intensive factory farming units, is not going to make avian flu go away. Intensive factory-farmed production of poultry, pigs and other (formerly wild) animals looks more likely to be another intervention within complex political–economic–ecological systems that have helped facilitate the *involution*s (rather than evolution) of avian flu viruses into highly pathogenic new forms. Where the current concerns about zoonoses may help – if fear and panic are not allowed to dominate our actions in the search for the health and veterinary surveillance systems that are urgently needed in modernizing regions of the world – is in focusing on the development of another biopolitics: forms of biopower from below. What could these be? And how could they somehow include nonhumans in more open and ethical ways in new political practices?

Notes

1. Charles Elton, *Exploring the Animal World*, Allen & Unwin, London, 1933.
2. FAO press release, ‘Free as a Bird – or Under Surveillance? Plan for Global Wild Birds Tracking System’, 1/6/06, www.fao.org/ag/againfo/subjects/en/health/diseases-cards/special_avian.html.
3. FAO press release, 1 June 2006: ‘Wild Birds’ Role in HPAI Crisis Confirmed. But Scientific Conference Fingers Poultry Business’. This press release focuses on wild birds, despite the claim that scientists have pointed to the intensive poultry business as being the ‘factory’ of HPAI.
4. Nikolas Rose, ‘The Politics of Life Itself’, *Theory, Culture & Society*, vol. 18, no. 6, pp. 1–30.
5. S. Hinchliffe, ‘Viruses’, in S. Harrison et al., eds, *Patterned Ground: Entanglements of Nature and Culture*, Reaktion, London, 2004, p. 228.
6. Isabelle Delforge, *Thailand: From the Kitchen of the World to Food Sovereignty*, Focus on the Global South, September 2004, www.focusweb.org/content/view/499/; Chanida Chayapate and Isabelle Delforge, *The Politics of Bird Flu in Thailand*, Focus on the Global South, April 2004, www.focusweb.org/content/view/273/.
7. GRAIN, *The Top-Down Global Response to Bird Flu*, April 2006, www.grain.org/articles/?id=12.
8. GRAIN Briefing, *Fowl Play: The Poultry Industry’s Central Role in the Bird Flu Crisis*, February 2006, www.grain.org/front/?id=84.
9. See Birdlife’s website, www.birdlife.org/action/science/species/avian_flu/.
10. GRAIN Briefing, *Fowl Play*, p. 8.
11. GRAIN also point to how data collected by WHO-collaborating laboratories (many financed by the US government) on avian flu outbreaks is often not made public. Instead, it seems to be available to pharmaceuticals companies. See GRAIN, *The Top-Down Response to Bird Flu*, p. 2.
12. Rose, ‘The Politics of Life Itself’.
13. Karen Barad, ‘Meeting the Universe Halfway: Realism and Social Constructivism without Contradiction’, in L. Nelson and J. Nelson, eds, *Feminism, Science, and the Philosophy of Science*, Reidel, Dordrecht, 1996, pp. 161–94.
14. Yvonne Baskin, *A Plague of Rats and Rubbervines*, Island Press, Washington DC, 2002.
15. Sarah Whatmore, *Hybrid Geographies: Natures Cultures Spaces*, Routledge, London, 2002.