



LIBERATING SICK BIRDS: Poststructuralist Perspectives on the Biopolitics of Avian Influenza

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In a passage of *The Savage Mind* often read with both admiration and skepticism (Leach 1970, 140), Claude Lévi-Strauss (1966, 204) draws a contrast between the sociality of birds, characterized as “metaphoric,” and the sociality of cattle, described as “metonymic.” Metaphoric and metonymic are linguistic terms describing distances and proximities in relations between humans and animals. Birds, he writes, “form a community which is independent of our own, but precisely because of this independence, appears to us like another society, homologous to that in which we live: birds love freedom; they build themselves homes in which they live a family life and nurture their young; they often engage in social relations with other members of their species; and they communicate with them by acoustic means recalling articulated language.” This description in the language of early 1960s ethnozoology may retain its relevance for current biosecurity practices in the management of diseases transmitted between animals and humans, or zoonoses.

True, *The Savage Mind* is a book about different strategies for making sense of an event. By claiming that structural anthropology constitutes another way to

practice philosophy, Lévi-Strauss opens an alternative to Jean-Paul Sartre's existentialism in connecting social organizations and subjective freedom. When a being appears, such as diseases or newborns, humans have to twist their classification to give it a name. Following this method, one might ask: What is the difference between the sociality of birds and the sociality of cattle in regard to emerging infectious diseases? How do new diseases recast complex entanglements of freedom and care in the relations between humans and animals? Does the anthropomorphic, highly political notion of freedom capture the aerial sociality of birds threatened by emerging diseases, or is it too affiliated with the human space of domestication?

Lévi-Strauss himself provided answers to this question when he wrote about the case of mad cow disease in 1996. Following the public announcement of the transmission of a new variant of Creutzfeldt-Jakob disease from cows to humans, he reflected on the idea that cows had been turned into “cannibals” by the recycling of animal foodstuff, considered a major factor in the spread of the disease. He used the term *cannibal*—coined in the sixteenth century to give meaning to the unforeseeable encounter between Europe and America—to suggest a feeling of disgust: if cows had been turned from herbivores to carnivores, mad cow disease revealed a monstrous shift away from nature. But Lévi-Strauss had no interest in crude juxtapositions between cannibal cows and natural cows. In his 1974 lesson at the Collège de France, he argued that cannibalism constituted the opposite of communication in a gradient of sociability, and that ingesting the other was a way of identifying with him or her in the inverse of communication. This led him to claim provocatively in 1993 that “we are all cannibals,” meaning that cannibalism, as a form of identification with the other, represented an ordinary phenomenon. The distinction he makes between two kinds of cows as a utopian solution to mad cow disease can therefore be understood. Some, considered as machines for the production of meat, would return to a vegetarian diet. Others, still fed with animal proteins, would be used for the “surveillance of sources of energies and machines,” and eaten with the same respect as the enemies that American Indians considered custodians of wild animals (Lévi-Strauss 2001, 13). In place of the mediatic opposition between natural cows and monstrous cows, Lévi-Strauss suggests a continuity in modes of identification between humans and cows.

I want to follow this provocative suggestion when thinking about the relations between birds and humans. It is striking that avian influenza emerged in Asia at the same time as mad cow disease broke out in Europe. As a new pathogen,

H5N1 raised the same catastrophic scenarios as the prion, whose uncertainty was mitigated by the use of the precautionary principle. The media showed similar images of carcasses, animals killed to eradicate the reservoir of zoonoses, raising the same complex feeling of compassion and disgust. Pathogens crossing borders between species reveal identities and differences between humans and other animals. From the perspective of eradication, the life of a human has more value than the life of an animal confronted with the same pathogen, but animal life can take on new value if we consider it from the perspective of surveillance.

Taking the ambivalence of pathogens crossing species barriers as an invariant, I ask how these pathogens are perceived in different societies and for different species. The comparison between Europe and Asia constitutes a methodological step to shift perspective on the same phenomenon: from mad cows to birds with flu, and then to birds monitoring flu. Following [Eduardo Viveiros de Castro \(2014\)](#), I ask: can we look at pathogens from the perspective of birds that transmit them to humans? Working on societies of the Tupi-Kawahib area, Viveiros de Castro follows Lévi-Strauss's intuitions on cannibalism. When humans become the animals they eat, they can take those animals' perspective on the relations between living beings. Much like Jacques Derrida and Gilles Deleuze, Viveiros de Castro claims that this poststructuralist shift takes place in *The Savage Mind*, when Lévi-Strauss moves from systems of classification to lines of identification and transformation.

In societies that Viveiros de Castro calls "animistic," animals may be considered shamans' partners, or even shamans themselves, if they have an abnormal capacity to perceive invisible beings ([Stépanoff 2011](#)). Indeed, Lévi-Strauss's analysis of mad cow disease through the perspective of "cannibal cows" can be considered as an Amazonian view on the spread of pathogens. There is no separation between "good natural cows" and "bad agri-culture," but a series of small differences—machine-cows, cannibal-cows doing surveillance of the machines, humans—in how the microbes affect these entities. This position can be called multinaturalistic: every species operates discontinuities in a continuum of perception. Following this method, it is possible to ask what difference birds make in the spread of emerging pathogens in comparison to cows.

Clearly, an immediate difference appears in categorization: birds are categorized as wild or domestic, while cows are more often referred to as traditional versus industrial. This is a way to reframe Lévi-Strauss's distinction between birds having "metaphoric" societies while cows live in "metonymic" ones: birds offer perspectives on the threshold of domestication, while cows induce us to differ-

entiate within that process of domestication. When pathogens emerge from wild birds, as can be the case with avian influenza, we do not regard the birds as cannibals, but rather as terrorists bringing threats from the sky. “Nature is the greatest bioterrorist threat,” influenza experts often claim.

To read through the various perspectives on infected birds with a poststructuralist agenda, it proves useful to place the work of [Philippe Descola \(2013\)](#) into dialogue with that of [Viveiros de Castro \(2014\)](#). While Viveiros de Castro marks a contrast between two “ontologies” that can be called “naturalism” and “animism,” Descola adds a third ontology, which he calls analogism and describes as a proliferation of properties that can be connected through correspondances and fixed through sacrifice. Rather than as an arbitrary classificatory game—why have four ontologies combining two terms?¹—we can see this process as a demultiplication of critical positions. Lévi-Strauss opened a critical perspective on mad cow disease when he proposed an animist view of cannibal cows. But what if we take an analogous view on the spread of avian influenza in Asia? Can we describe more differences in the same process: the transmission of pathogens between species?

Descola raises two questions that shed light on the anthropology of avian influenza. First, he asks how different ontologies, such as animism and analogism, orient the process of domestication. Animist hunters and analogist pastoralists will handle the same species differently: hunters need to take the point of view of the animals they trap, while pastoralists consider a flock as a set of properties to manage. Second, Descola claims that sacrifice is available only in analogism, and not, as for Viveiros de Castro, in animism. The hunter who identifies with the prey cannot take all perspectives on the ritual scene of identification, while the pastoralist can take a perspective from above on the properties of the flock that need to be fixed.

Poststructuralist anthropologies of human-animal relationships shed new light on the biopolitics of avian influenza. [Michel Foucault \(2003\)](#) introduced the notion of biopolitics in 1976 to describe a form of power that targets living populations through techniques of individualization. This description resonated with a shift in the management of public health by liberal forms of governance. Yet it appears striking that in the same year, 1976, the first cases of Ebola alerted international health authorities to the emergence of pathogens caused by transformed relations between humans and animals, such as the deforestation that brought Central African bats closer to human habitats. Foucault’s notion of biopolitics therefore needs to be completed by a consideration of the ontologies of coevalness between living species. We could also argue that Foucault left aside

the question of wilderness in the management of public health: bats and birds constitute the animal reservoir of many infectious diseases, creating new relations between the wild and the domestic.

The distinction Foucault makes between sovereign power and biopower, however, takes a specific meaning for an anthropology of human-animal relationships. If he describes biopower as the power to “make live and let die”—and many criticisms have been raised about populations “left to die” because of “neglected diseases” in new models of global health governance (Farmer 1999)—sovereign power is the power to “make die and let live.” While it is easy to see that the eradication of the animal reservoir affiliated with emerging infectious diseases has led to massive forms of “making die”—millions of cows and poultry by the end of the 1990s—little attention has been paid to what Foucault meant by “let live.” What does it mean to let live animals in a world where they could potentially transmit pathogens to humans?

If Foucault’s question has always concerned the possibilities of freedom in different regimes of knowledge and power, it is fascinating to think of the freedom of animals under the biopolitics of zoonoses. And here, Lévi-Strauss’s intriguing analysis of mad cow disease sheds light on Foucault’s concept of surveillance. If cannibal cows operate surveillance on machine-cows, however utopian this hypothesis might appear, then animals are considered free inasmuch as they intensify the human perception of other cows. Freeing cows from domestication does not mean releasing them into the wild, but transforming them into humans’ allies in the population’s management—in other words, into subjects of neoliberal governance.

Paul Rabinow (1996) has coined the term *biosociality* to describe the formation of groups under the production of biological knowledge, as on the genes engaged in rare diseases. Following his later work on biosecurity, it is possible to ask: what is the biosociality of animals when biological knowledge is produced in conditions—ecological or genetic—under which pathogens cross species boundaries? Andrew Lakoff and I have proposed to call the non-human beings that send early warning signals of catastrophes still invisible to humans “sentinel devices” (Keck and Lakoff 2013). Birds infected with avian influenza raise an alarm about the emergence of a new pathogen that might cause a pandemic if it is not stopped at the human-animal interface.

What does it mean to let live sentinel animals? Contrary to those killed because they are considered a reservoir for zoonotic pathogens, sentinel animals are not sacrificed: they do not die for a higher purpose such as the sovereign’s

good health. They are used as surveillance operators, as overseers: the word *sentinel* comes from *sentire*, which indicates acute forms of perception, an intense form of vigilance comparable to Viveiros de Castro's shamanic perception. But if sentinel birds are released and yet are still used for surveillance, their let live also becomes a way to make live. They are situated at the crossroads of sovereign power and biopower. Or, to borrow terms from the anthropology of nature, they circulate between different ontologies: animism (souls that can enact revenge), analogism (proliferating entities that must be fixed by sacrifice), and naturalism (bodies carrying pathogens). The anthropology of nature pluralizes the analysis of biopower and multiplies the perspectives on sentinel animals. Could it be that birds leave space for a wider pluralization of emerging infectious diseases because they introduce aerial life into contemporary biopolitics?

When I started my research on avian influenza in Hong Kong, I was struck by the images of chickens killed in regular culling operations. Avian influenza was presented as a threat coming from the skies and spreading through industrial farms and live poultry markets. Since it is impossible to prevent wild birds from flying, killing live chickens presents a way to stop the disease at the densest site of interaction between humans and birds. In France, where I had started my research on mad cow disease, the first cases of avian influenza in 2006 clearly opened new lines of blame and suspicion: it came from wild birds, from Asia, and industrial breeding simply amplified the problem.² In Hong Kong, the first cases of avian influenza in chickens in 1997—five-thousand chickens infected, twelve humans infected, eight of whom died—were traced to previous cases in geese in Guangdong: the virus supposedly came from across the border, either through migratory birds or smuggled chickens.

Killing chickens around infected farms and markets was considered a way to mitigate the threat. Farms were confined, which meant that instruments of biosecurity strengthened their borders with the outside world: nets, ponds, boots, vaccines. Material equipment reaffirmed the distinction between wild and domesticated birds. The head of the Public Health Department of the Hong Kong government, Margaret Chan, who was later to become the head of the World Health Organization, announced to the media, "I eat chicken, you can eat chickens too." A similar gesture occurred in Europe during the outbreak of mad cow disease, when prime ministers performed eating beef as a media spectacle. At the borders between Hong Kong and mainland China, posters showed that it was forbidden to smuggle poultry, and trucks carrying chickens from mainland China underwent severe controls.

The management of avian influenza by the Hong Kong government clearly marked sovereignty. At the time of Hong Kong's handover to China, when many uncertainties remained concerning the frontier between the two territories, blaming birds for a disease and killing them to protect humans could appear as a way to fix the borders. It was not the border between humans and animals, or between culture and nature, that required restoration, as in the case of Europe's management of mad cow disease, but the border of the territory under the gaze of the new sovereign. I was struck by the public visibility of the slaughter of potentially infected chickens in the Central Market of Cheung Sha Wan, while in Europe the killing of cows had remained hidden from the media. At the same time, poultry breeders I interviewed seemed to identify with their chickens: "Hong Kong people live like chickens in a cage. That's why they are so stressed." The slaying of chickens did not appear as a return to nature but as a necessity in an economy premised on the dense circulation of living beings. *Renliu wuliu* means the intense trafficking of persons and things during the Chinese New Year, and *liu* is the term both for circulation and for influenza. The political meaning of the culling seemed to be: act on animals to show humans that the government cares for them—or as the saying goes, it was a matter of "killing the rooster to frighten the monkey."

As I looked for other perceptions of birds, I met [Tik-Sang Liu \(2008\)](#), who had worked as an anthropologist on traditional poultry breeding in the New Territories of Hong Kong. Chickens, he showed, were considered as symbols of completeness. That is why hosts present them live to a guest before cooking them in a soup for special occasions such as Chinese New Year. Liu recommended that I go to a *jiao* Taoist festival in Lam Tsuen to see how local people handled diseases. For three days, members of the village gathered for vegetarian meals and offered prayers and food to the gods of the mountains. A rooster was to be slaughtered at the beginning of the festival, its blood spread at the four corners of the village. But due to the risk of avian influenza, this practice was forbidden. The vegetarian meal and the territorial logic of the ritual appeared as an alternative to sacrifice following genealogical lines in traditional clans: it was a form of letting live rather than make die: a respect for the forces in the environment, for which birds act as intermediaries.

Yet this cosmological description, juxtaposing local knowledge of the environment with the global norms of biosecurity, remains too structuralist or too totalizing. It can be described, following Descola, as developing possibilities of analogism, with its opposite poles of sacrifice and proliferation. But how, in a

poststructuralist mode, to consider birds as actors of surveillance? How, in other words, to introduce an animist perspective into this analogical cosmology?

I found an intriguing controversy between birdwatchers and Buddhist monks on what it meant to let live birds in the context of avian influenza. The Hong Kong Birdwatching Society had published a map showing that most cases of H5N1 in wild birds within the territory of Hong Kong were found not in the natural reserve of Mai Po—a traditional shrimp-harvesting location administered by the World Wildlife Federation as a feeding site for migratory birds—but around the Bird Market of Mong Kok, one of the densest places in Hong Kong. They explained that Buddhist practitioners bought illegally traded birds, often from distant places, to release them in natural parks around the market for spiritual purposes. Most of the released birds, they claimed, died of stress or infectious diseases.³ This map produced a shift in the spatiality of avian influenza: dangerous wildlife—nature as a bioterrorist threat—came not from the border but from the center.



Figure 1. Bird release in Hangzhou, June 2009. Photo by Frédéric Keck.

After the map's publication, discussions ensued on how to change the practice of bird release (called *fangsheng*, literally, "let live") to make it compatible with public health and environmental risks. Buddhist officials proposed different

compromises. Some practitioners released birds with a mask, implying a contradiction between the good of the birds' souls and the threats of their bodies. Some officials advised replacing the birds with turtles, frogs, fish, crabs, or shells, so that the possibly lethal outcome of the release would remain hidden in the depths of the sea. Some published leaflets explaining how to release wildlife in a proper environment. These different suggestions revealed an attention to the harmful potentialities of a practice intended to do good, or to the lethal outcome of aerial spatialities. How to think that releasing life could turn into releasing death (*fangsi*)?

But the birdwatchers themselves proposed the most interesting compromise. They invited Buddhist monks to their own bird releases. When illegally traded birds are caught at the border under stressful conditions, environmentalist groups take care of them and return them to the wild with a GPS to follow their movements via a satellite tracking device. While this technique of “wired wilderness” has a long history in environmental movements (Benson 2011), it has a distinctive meaning in the controversy involving the Buddhist practitioners. While Buddhists believe a bird's suffering limits the movements of its soul, birdwatchers see the death of a bird as a sign of the extinction of its species. These different interpretations are compatible within the same gesture of liberating a bird equipped in such a way that it communicates with humans from the sky. The terms *equipment* and *communicate* must be taken here in both their technological and ontological meanings. If environmentalists take care not to hamper the flight of birds by the GPS, Buddhists will take care to release the animals in the proper environment. Here, different ontologies (that we can call, following Descola, animism and naturalism) become compatible at the level of the gesture of releasing a threatened bird. These ontologies do not just constitute “constructions in the sky”; they are ways to make sense of the contradictions of a gesture that connects humans on earth and birds in the sky.

A bird released with a GPS is a paradoxical figure as a sentinel device. Half-wild, half-domesticated, the wired wild bird gives indications about the evolution of a population, much as a “sentinel chicken” indicates the presence of an infectious disease in, or around, the farm. By shifting between different scales of threat—the extinction of a species or the eradication of humanity by a pandemic—sentinel birds act as operators of translation. We can say, following Thom van Dooren (2014), that birds really act when they die of a threat that affects other members of their species, and that the loss of individuals therefore becomes meaningful in

environmental narratives. The point is how to build a narrative of species extinction that makes sense of a gesture connecting subjects in a space of freedom.

Rather than saying that people in Hong Kong identify with the birds killed en masse by their government during a time of emergency, or that the birds symbolize the completeness of their clans and villages through the image of poultry, it seems more accurate to say that Hong Kong people become like sentinel birds, equipped with systems of information that produce early warning signals about global threats. Tim Choy (2011, 26) thus shows that the notion of endangerment opens spaces of comparison between Hong Kong people and natural species in ways that are “good to think with,” because it connects forms of life that “threaten to become extinct in the near future.”

Finally, we can contrast the sentinel bird with the cannibal cow in Lévi-Strauss’s meditation. While cannibal cows produce surveillance on machine-cows and are eaten with respect, sentinel birds send warnings about the fate of their species and must be handled with care. The main difference between birds and cows confronted with emerging threats is that, as Lévi-Strauss noted, “birds love freedom.” In the practice of liberating birds potentially infected with avian influenza, in the equipment used to transform them into sentinels communicating with humans about the fate of their species, there is a self-reflection on threats to our freedom and the use of our freedom to produce knowledge about threats: freedom is both the cause and the remedy for those threats. The biopolitics of avian influenza constitutes more than the control of living beings that fly across continents—as is implicit in popular sayings such as “viruses know no borders” or “dead birds can’t fly.” In the biosociality of sentinel birds, a paradoxically equipped freedom produces signals on threats that range from trans-individual contagion to species extinction, and in practices that simultaneously connect and distance humans and birds.

ABSTRACT

How can birds take part in the surveillance of animal diseases under contemporary biosecurity practices? Combining Claude Lévi-Strauss’s analyses of bird sociality and mad cow disease, this article looks at the multiple ways of releasing birds in Honk Kong. It suggests the possibility of an animist perspective on birds in the neoliberal governmentality of epidemics. [avian influenza; sentinel; surveillance; governmentality; ontologies; Hong Kong]

NOTES

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1. Descola (2013) adds a fourth ontology, totemism, which appears as symmetric to analogism. It remains to be seen how “totemic societies” perceive pathogens crossing species, for instance in Australia. This is one of the objectives of a project supported by the Axa Research Fund at the Laboratoire d’anthropologie sociale.
2. Many questions have been raised about specific locations in mainland China where a range of migratory birds mixed with domestic birds, particularly ducks, such as the Qinghai or the Poyang Lakes (see Fearnley 2013).
3. The justification for this long-known practice was to “increase merits” by producing mercy in a cycle of psychic metamorphoses (Handlin Smith 1999).

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