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More than one world, more than one health: Re-configuring interspecies health

Steve Hinchliffe

Geography, College of Life Sciences, University of Exeter, Exeter EX4 4RJ, UK

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ABSTRACT

'One World One Health' (OWOH), 'One Medicine' and 'One Health' are all injunctions to work across the domains of veterinary, human and environmental health. In large part they are institutional responses to growing concerns regarding shared health risks at the human, animal and environmental interfaces. Although these efforts to work across disciplinary boundaries are welcome, there are also risks in seeking unity, not least the tendency of one health visions to reduce diversity and to under-value the local, contingent and practical engagements that make health possible. This paper uses insights from Geography and Science and Technology Studies along with multi-sited and multi-species qualitative fieldwork on animal livestock and zoonotic influenzas in the UK, to highlight the importance of those practical engagements. After an introduction to one health, I argue that there is a tendency in OWOH visions to focus on contamination and transmission of pathogens rather than the socio-economic configuration of disease and health, and this tendency conforms to or performs what sociologist John Law calls a one world metaphysics. Following this, three related field cases are used to demonstrate that health is dependent upon a patchwork of practices, and is configured in practice by skilled people, animals, micro-organisms and their social relations. From surveillance for influenza viruses to tending animals, good health it turns out is dependent on an ability to construct common sense from a complex of signs, responses and actions. It takes, in other words, more than one world to make healthy outcomes. In light of this, the paper aims to, first, loosen any association between OWOH and a one world-ist metaphysics, and, second, to radicalize the inter-disciplinary foundations of OWOH by both widening the scope of disciplinarity as well as attending to how different knowledges are brought together.

1. Introduction – common ailments and common sense

One World One Health (OWOH)[1] signals greater collaboration in the face of shared health risks that exist at the human, animal and environmental interfaces. As a concept it has reached particular prominence in the last decade, in part as a response to the perceived rise in emerging and re-emerging infectious diseases, a majority of which are zoonotic (Taylor et al., 2001) and many of which are either food borne or vector borne, and/or implicated with animal and environmental health. In particular, and in the one medicine one health versions (Kaplan et al., 2009), many diseases pose a common threat to people and animals, with convincing numbers used to back up this claim. So, "of the 1461 diseases now recognized in humans, approximately 60% are due to multi-host pathogens characterized by their movement across species lines. And over the last three decades, approximately 75% of new emerging human infectious diseases are defined as zoonotic. Our increasing interdependence with animals and their products may well be the single most critical risk factor to our health and well-being with regard to infectious diseases" (AVMA, 2008, p. 3).

There's a matter of fact-ness or common sense to One World One Health that is immediately appealing. No one can be against a set of discourses and practices that emphasize the shared health of people, animals and environment. And yet, there are important social science qualifiers to this appealing truism, qualifiers that need to be taken into account if OWOH is to achieve its goals. The paper proceeds in three stages. First, after a brief history and outline of the concept, it contends that OWOH tends to imply and amplify a particular understanding and approach to disease while at the same time running the risk of obscuring alternative formulations and methods of dealing with shared health issues. Building

E-mail address: Stephen.Hinchliffe@exeter.ac.uk.

[1] OWOH is institutionally distinct from other initiatives like One Medicine and One Health, although all share a focus on cross-disciplinary working in conditions of shared human, nonhuman and environmental vulnerability. This paper focuses on OWOH, but the common characteristic in all these approaches of highlighting a single medicine for a single world should be borne in mind.

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on from this, and second, I introduce a theoretical argument which critiques one world-ism in terms of its spatial and ontological simplicity or reductionisms. Thirdly, this political and theoretical context is used as a basis for an elaboration of a social science approach that foregrounds the diverse logics, objects and knowledge practices involved in making health. I use case material from a larger project concerned with how life is made safe (biosecurity) in order to demonstrate the need for diverse approaches to shared health concerns. The focus throughout is on influenzas, which circulate and move between avian, porcine and human hosts. A new common sense is offered, one that emphasizes the ability to produce health through the practical articulation of more than one world.

1.1. Common sense and its exclusions

While not new, a unified and holistic approach to health took shape in 2004 at a New York meeting hosted by a US conservation organization (the Wildlife Conservation Society). At the meeting the 12 'Manhattan Principles' defining cross-sectoral and integrated approaches to health were adopted and, indeed, branded as 'One World One Health'. The concept immediately gained a foothold in national and international human and animal health related institutions. OWOH provided a space for conceptual agreement (it was and is 'common sense' after all) and a chance to interrogate and overcome institutional, disciplinary and other barriers to its realization. Nevertheless, common sense is rarely a simple, let alone coherent, matter. As social scientists influenced by Gramsci (1971) have long been accustomed to thinking, common sense is always a mixed blessing. On the one hand, it is based on popular understanding, is democratic, and can provide the seeds for new practices. On the other hand, common sense is also often embedded within forms of consent to established and often rather staid understandings of the world we live in. It is this mixed blessing that this paper interrogates.

The OWOH concept was most readily taken up within or at the edges of national and international animal and public health bodies where practitioners could see the advantages of working on health and disease problems in ways that defied established disciplinary and institutional boundaries (FAO et al., 2010). Indeed, if the OWOH concept did anything, it helped its champions seek funding for and promote interdisciplinary solutions to long-standing epistemic and political tensions that existed within and between public health, animal health and agriculturally focused organisations. International agencies including the World Health Organisation (WHO), the World Organisation for Animal Health (OIE) and the Food and Agricultural Organisation (FAO), have traditionally tended to act within their medical/health, veterinary/trade and agriculture/development domains respectively. As Chien (2012) explains, during the first major highly pathogenic avian influenza (H5N1) scares in the early years of this century, the WHO prioritized pandemic preparedness, the OIE concentrated on ensuring virus eradication in poultry while the FAO initially focused on the need to reduce potential disease transmission in backyard farms between wild and domestic birds and then between people and their poultry. Tensions though started to mount as disagreements on poultry culling policy revealed differences in terms of priorities and means of disease control. These tensions lay as much within organisations as between them, but in short the favoured option within the WHO of widespread culling of potentially infected flocks encountered resistance within the FAO and OIE as economists and others questioned the effectiveness of the culls as well as their consequences in terms of livelihoods, food security and ultimately human health. In this sense it was clear that more joined up approaches to shared matters of concern were necessary.

This analysis is taken further by Scoones and Forster (2011). As well as noting the differences between the institutions, they highlight the similarities and the collective sanctioning of some simple and reductionist accounts or narratives of disease. In doing so, they start to identify a potential problem with seeking unity across disciplines and domains. Using interview material generated across the range of international health-related organizations, and building on Wald's (2008) identification of dominant disease narratives, they refer to three 'outbreak narratives' that existed within international health-related institutions. Each narrative had, they argue, overlapping yet relatively distinct matters of concern. The first was centred on animal health. In this case, Avian Influenza (AI) was a disease of birds, affecting the poultry industry and livelihoods. The response was one of making production more secure, restructuring the industry, particularly in the global south where initially at least the response to AI targeted backyard production, informal exchange and live bird markets (Hinchliffe and Bingham, 2008). Second, there is the public health narrative, which related to the transmission of AI to and between people. The response here was based on provision of anti-virals, development of vaccines and behaviour change. Third there was pandemic preparedness, focussing on "civil contingency planning, business continuity approaches and containment strategies" (Scoones and Forster, 2011, p. 21) with the broadest array of actors involved in a scenario based attunement of government, police, health providers, business, schools, civil society and so on in the development of a readiness to act. Despite their differences and competition for attention and resources (between and within organisations), each of these narratives shared a single set of core values. Not only did they all assume the compelling outbreak narrative whereby recognition of human/nonhuman animal interdependence and shared pathogens is succeeded by human mastery (Wald, 2008), but they also relate to a particular version of disease – one which emphasizes what Rosenberg (Rosenberg, 1992) called 'contamination'. The latter takes contact as its issue of concern and focuses attention upon preventing disease transmission (or at least being prepared for any eventual transmission events). Rosenberg contrasted this to a 'configuration' approach to disease, where the focus is less upon pathogens and their unregulated movements and rather on the context and therefore the pathogenicity of the disease (see also Farmer, 2004; Leach et al., 2010). It is configuration, Scoones and Forster argue, that has been most readily erased from 20th and 21st Century disease narratives and associated management regimes, and has been regularly downplayed in responses to avian influenza. Vulnerabilities, differentials in social and ecological resilience, accountabilities and risk geographies, abilities to dissimulate – all these are conditional on livelihoods, uneven access to political and other resources, and make any response that is solely based on outbreaks and contamination to be partial at best and missing the point at worst. The analysis can be extended to programmes like 'One Flu for One Health', which protagonists argue can be a model for the implementation of the One Health vision in terms of improving surveillance and understanding of epizootic and zoonotic disease dynamics (Capua and Cattoli, 2010; Peiris et al., 2012). Again, the focus is on viral evolution and transmission, with little explicit resource invested in understanding the socio-economic conditions that 'configure' the disease.

In contrast, ethnographic work on influenzas emphasizes the ways in which local political resources, economics and social relations configure avian influenzas and render them more or less tractable problems. Forster's (2011) ethnography of avian influenza in Indonesia highlights the ways in which AI resists being managed through top down implementation of anti-contamination technologies (like new, centralised market buildings designed to replace informal wet markets). Rather, the disease is configured