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# PATHOLOGICAL LIVES DISEASE, SPACE AND BIOPOLITICS

Steve Hinchliffe, Nick Bingham, John Allen & Simon Carter

WILEY Blackwell

## Pathological Lives

Disease, Space and Biopolitics

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To the memory of Professor Doreen Massey An infectious intellectual, colleague and friend

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### Foreword

Pandemics, epidemics, zoonoses and food-borne diseases have, for some at least, become key challenges for contemporary global society. They threaten progress in global health, compromise food security, and, along with climate change and global terrorism, seem to usher in a state of emergency and a radically uncertain future. Just as importantly, they are associated with often painful and life altering illnesses that can exact suffering on the part of people and animals as well as social and economic hardship.

Many of these diseases are associated with what have become known as emerging and re-emerging infections, a term that is often associated with a dynamic and unpredictable microbial world of recombinant viruses, resistant bacteria and mobile microbial genes. These microbes are testament, if any was needed, to the liveliness of the non-human world.

And yet these diseases are more than a matter of microbes alone. They are instead a product of relations that involve microbes, their hosts and their social as well as physical environments. That is, they are the result of bio-social clusters that involve and re-format economies, social practices, living bodies and microbes.

So rather than disease being 'out there' or 'to come', in the form of a pathogen waiting to attack, we prefer to think of life as to greater or lesser extents pathological, or prone to disease. For us, it is the configuration of various matters and living processes that makes life more or less healthy.

This is not to say that all lives are equally diseased, or that disease is everywhere, or that it is somehow already present. Clearly there are disease and illness events that mark distinct and often irreversible ruptures in daily life. But it is to say that we can usefully identify some lives and ways of living as more pathological than others. How these pathological lives fare is dependent, we argue in this book, on the quality of the spatial relations from which they are made.

So, rather than focus on pathogens and their exclusion from everyday living spaces as a means to address the threat of emerging disease, we take a different tack. We use pathological lives as a means to understand how so many contemporary

human and non-human animal lives are living on a knife-edge. In this view, the apparent stability of modern lives may, paradoxically perhaps, exhibit a form of fragility that is borne from their being lived at a threshold. It may take little, in other words, to push them over the precipice and into a pathogenic state.

#### Keywords

The book addresses a puzzle of how best to understand and respond to the rise of interest in and concern over emerging infectious and food-borne diseases. What is contributing to the recent growth of disease threats? How can we account for their persistent presence on political and public health agendas? In order to answer these questions we have mobilised some key terms that we will briefly introduce here before they are developed in detail in later chapters. These terms are not fixed in stone, but we hope they provide a handhold through the book's chapters and to the issue of pathological lives.

The first key term is pathogenicity, a word we use to highlight that infectious disease is always more than a matter for pathogens alone. In its more scientific usage, the term refers to the potency or effectiveness of a particular pathogen (a bacteria, virus or other parasite for example). But here we mean to underline the relational ways in which infectious diseases are made. In the simplest of senses this can refer to the basic notion that diseases are made from host-pathogen and environmental interactions. Pathogenicity is in this understanding borne out of the kinds of relations that hosts have with bacteria and viruses, their vectors and so on. A healthy host within a healthy population and environment is likely, for example, to reduce the pathogenicity of a microbe. In conditions of vulnerability, however, an otherwise inconsequential infection can take on life-threatening qualities. In this book we supplement this epidemiological 'matter of fact' with other relations that contribute to pathogenicity. They include economic relations generated through markets for livestock and their produce, labour relations that format the interrelations between human and animal hosts, governmental relations that affect the ways in which diseases are monitored and so on. Our argument is that it is the intensities of these relations, their spatial interrelations, that constitute the pathogenicity of a disease. Pathogenicity, or the ability for diseases to amplify and reach new levels of intensity, is an outcome of these and many other spatial and socio-material relations.

The second key term is **disease diagrams**. Diagrams refer to the ways in which diseases are understood and acted upon. For example, an infectious disease may be diagrammed as something to keep out through the installation of a barrier. Or it may be something to intervene in through the production of a vaccine, or other medicine. As might be obvious, there is often more than one of these diagrams in play at any one time, and the relative emphasis given to one diagram, or the specific mix of diagrams in play, can have effects on how a disease

evolves, how it interrelates with other diseases, where authority lies in relation to disease and who is deemed as responsible for health. How people respond to this diagramming of disease becomes a critical issue for disease management.

The third key term is **disease situations**. If we take the socio-material intensities that generate pathogenicity along with the specific suite of disease diagrams that are mobilised to both understand and intervene in disease dynamics, then together they start to define what we are calling a disease situation. In using the term, we have the following intentions:

- Situations are, first of all, meeting places, where numerous actors, bodies, species, pressures, flows, issues, decisions and so on are organised or brought together, or held apart or worked upon. They are heterogeneous (formed from their differences and relations), more than human, and dependent not only on what is meeting up but also how those meetings are spatially configured.
- Situations, like pathogenicities, are relational that is their properties or character are generated by and generative of social, spatial and material relations. They are not structures. They are grounded in practices and orderings and are as such more or less open to change. Situations clearly owe a debt to the relational geographies that precede this work (Murdoch, 2005; Whatmore, 1997) as well as to a more general interest in spatial analysis and thinking topologically.
- Situations bear a family resemblance to the notion of assemblage, or the interrelations and co-production of various 'species' or unlike kinds (diagrams, microbes, populations and so on). Assemblage in our view is a process, and differs from a whole or a system in that these unlike kinds need have nothing in common. No one in that sense can speak for the whole situation. Nevertheless, these 'species' inter-mingle and can radically affect one another within their situation.
- Finally, and in a way that takes us beyond some treatments of assemblage, situations are more than descriptions of the atmospheres generated by the convergence and divergence of various interrelating practices and matters. They are also, crucially, eventful and as such may offer the ingredients for change and intervention. When you are in a situation you are invited to act. In other words, situations have a potentiality that can generate events, prompt a shift in attention and foment new actions. Situations are in that sense real and existing manifestations of multiple processes that also have a power to force thought. To be clear, this power is always 'a virtual one' that 'has to be actualised' (Stengers, 2005b: 185). How this power can be realised (by, for example, those who attend to the more than human details of a situation) is a matter that is taken up in later chapters in the book.

Together these terms help us to offer original insights into the current disease predicament. Once we take a situational approach, with its pathogenicities and diagrams, we can identify the ways in which many current approaches to infectious and food-borne diseases tend to miss some vital clues in terms of how to make life safe. Or, worse, how these same approaches may in fact, and paradoxically, make life even less safe. Our contention is that once we take disease situations seriously we can start to question the norms and assumptions that so often underline current re-investments in life politics. Our argument is that we need to move away from a version of life politics (bio-politics) where norms are policed and re-enforced (often materially with a system of barriers and boundaries) to a lively politics (cosmopolitics) where we can use current disease situations to start to trace counter-norms, to identify suppressed modes of existence and in doing so find possible ways out of the current predicament.

#### Reading Pathological Lives

In order to develop these arguments, we have divided the book into two main sections. In Part I (Chapters 1 to 3) we introduce the book's approach and expand on the conceptual and methodological issues that relate to emergency diseases and pathological lives. We start by asking how emerging infections and foodborne diseases have been conceptualised or framed, and how these have informed approaches to disease management. Working spatially, in Chapter 2 we adopt the term 'disease diagram' to chart the history of approaches to and interventions in infectious disease and follow this with an account of how and why current approaches to disease tend to involve a particular mix of disease diagrams. The particular mix of diagrams is, we argue, both a matter for empirical enquiry and a key feature of what we call a disease situation. In Chapter 3 our attention becomes more methodological as we expand on what we mean by 'disease situations' and ask how we might re-configure conventional approaches to infectious disease. We outline some of the shifts required as we move from a geometry or topography of disease, with its focus on disease spread or extension over space, to one that is more attendant to the topologies of disease situations. The latter is concerned with the spatial intensities and relations that are generated in particular set ups and that make disease more or less likely.

Having set up diagrams and situations in Part I, in Part II we focus on a range of disease situations, or specific cuts through those situations. Following a short introduction to Part II, we start, in Chapter 4, in the hen house and look at the poultry industry as a main player in the re-diagramming of avian and zoonotic diseases. We then move, in Chapter 5, to the pig sty, and chart not only the pressures that make a disease situation but also the efforts by farmers and others to patch and piece together healthy lives. Food-borne diseases are our concern in Chapter 6, as we leave the farm and look at the ways in which food chains are understood and regulated. If Chapters 5 and 6 introduce the fraught politics of attention into pathological lives, Chapter 7 asks how likely this different politics

of life might fare in what we call disease publics. Chapter 8 uses fieldwork on wild and domestic birds, and on viruses, to look for a different kind of life politics that may be developed from these situated knowledges. Finally, in the Conclusions, we spell out what a re-oriented and spatialised politics of life means for the infectious disease issue.

It is of course possible to read the chapters individually, and to move between the situations that we trace in Part II, but they are not entirely stand-alone. Our hope is that the narrative of the book will carry readers through the various arguments developed in Part I, to the more empirical treatments in Part II. Note however that we rarely treat the theoretical and empirical as distinct. The arguments in Part I are all empirically grounded, while the situations in Part II often involve conceptual development.

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## **Part I**Framing Pathological Lives