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The Ill-Health Assemblage: Beyond the Body-with-Organs

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Abstract

The ill-health assemblage comprises the networks of biological, psychological and socio-cultural relations that surround bodies during ill-health. The paper argues for health sociology to reject an organic body-with-organs as its unit of analysis of health and illness, and replace it with an approach to embodiment deriving from Deleuze and Guattari's ontology. I set out the three key terms: the *body-without-organs (BwO)*, *assemblages*, and *territorialisation*. These concepts will be applied to health and illness, to develop an understanding of an ill-health assemblage. I contrast this with the biomedicalised body-with-organs, and explore the shaping of the ill-health assemblage in a case study.

Key Words

Assemblage, biomedicine, body-without-organs, Deleuze and Guattari, ill-health

Introduction

Health and illness are phenomena that are material, experiential and culturally-contextual: diseases affect organs and cells, but also affect experience and identity, and manifest within contexts and across populations. They are shaped by social institutions and cultural beliefs (Cromby 2004: 798, Turner 1992: 36), as well as by biology.

In this paper, I shall suggest that – despite the elaborations of a social model of embodiment over the past 20 years -- sociologists often work with an implicitly or explicitly biomedicalised *body-with-organs* as the site of ‘health’ and ‘illness’, and as an ontological element of sociological analysis. The institutions of medicine established this organic model of the body, founded upon a medical discourse on the body that has been elaborated from Hippocrates and Galen to the present day. Foucault and others have described the development of this discourse over the past three hundred years, as modern hospitals emerged as locations for observation of the organic body (Foucault 1976), and the establishment of an archive in which the biomedical body is fully documented (Foucault 2002: 145). The *body-with-organs* is the focus for economic and political activity, for the disciplines of modernity and for the stratification of society by gender, ethnicity and age. This discourse has also entered the popular domain, and medical advice or self-help books about the biomedical body are legion (Bunton 1997: 232-4). These ideas about the body and health create the *body-with-organs* (Deleuze and Guattari 1988: 158) in which biology and the medical sciences define the body in health and illness.

I will apply an alternative perspective on embodiment and ill-health, deriving from the work of Gilles Deleuze, in partnership on occasions with Félix Guattari (see, for example, Deleuze and Guattari 1984, 1988, 1994). Deleuze’s perspective on the body first emerged from his reading of Spinoza (Deleuze 1992), in which the focus is not upon what a body *is* but upon its relations and its capacities to affect and be affected. Deleuze contrasted the medicalised *body-with-organs* with a *body-without-organs*, an organic/non-organic confluence of biology, culture and environment (Deleuze and Guattari 1984: 9). The *body-without-organs* emerges from a sea of relations that may be physical, psychological or cultural. This approach de-centres the biological aspects of embodiment, while retaining biology and physicality as a (necessary but not privileged) component of the body.

This perspective, I will argue, holds substantial promise, focusing on health and illness as *assemblages* of the relationships and connectivities that constitute non-organic *bodies-without-organs* (networks that may incorporate other bodies, inanimate objects, technology and ideas). Within these assemblages, organs are but one element, and neither biology nor the social is privileged over the other. Health and illness assemblages are disseminated effects, no longer properties of an organic body, but emergent features of relationships between bodies and other elements (Buchanan 1997, Duff 2010, Fox 2002, Fox and Ward 2008a).

The paper is structured as follows. I will first summarise the three key elements in Deleuze and Guattari's theoretical position: the *body-without-organs (BwO)*, *assemblages*, and *territorialisation*. These concepts will be applied to health and illness, to develop an understanding of an ill-health assemblage. I contrast this with the biomedicalised body-with-organs, and explore the shaping of the ill-health assemblage in a case study.

Deleuze, Guattari and embodiment

Deleuze and Guattari's materialist ontology denies privilege to the physical body, seeing embodiment as a wider process, emerging from an active engagement with the physical and social world (Deleuze and Guattari 1988: 149-51). The *body-without-organs (BwO)* is the locus for this dynamic encounter; *assemblages* of relations establish the limits that comprise the BwO; and *territorialisation* and *deterritorialisation* by assemblages define what (else) a body can do.

The Body-without-Organs

For Deleuze and Guattari, the body does what it does because of the dynamic interaction between two elements. On one hand there are the relations (inward and outward) that a body has with its physical and social context, enabling it to affect and be affected (Fox and Ward 2008a: 1008). On the other, there is an active, experimenting, engaged and engaging agency, with the capacity and motivation to form new relations (Buchanan 1997: 83). This contrasts with deterministic biological or social explanations, which can give the impression that the body is totally 'written' by its genes or by human culture, with little room for any originality. In Deleuze and Guattari's model, the body is creative and engaged both biologically and socially, not a passive vehicle for the environment or the social context to mould.

This creative motivating force is a feature of all living organisms, according to Deleuze and Guattari (1988: 315). A bacterium, an insect, a bird or a domestic cat are all driven in ways appropriate to their nature: to find food and an environment niche, to find a mate and reproduce, perhaps to care for their offspring. This motivation interacts with the relations to establish the limits of what the insect's or the cat's body can do (its capacities to affect and be affected). 'Hard-wired' instincts drive non-human animals to fulfil their needs for food, shelter and reproduction, though these motivations are mediated through learning and experience to shape each animal's idiosyncratic behaviours. For human beings, things are more complicated (but the dynamic remains the same) because of the extent and diversity of our potential relations, our self-aware reflexivity, and our capacity for complex social organisation, economics, politics and culture. We have relations which are proper to our physiology, to our environment, and to our aspirations to talk, to work, to love, to reason or whatever. Humans develop broad (and highly individualised) capacities to affect and be affected by these myriad relations.

Deleuze and Guattari call what emerges from this confluence of relations and creative potential the '*body-without-organs*' (Deleuze and Guattari 1988: 149ff), often shortened to *BwO*. For them, the biological body of biomedicine (the 'organism' or *body-with-organs*) is unimportant. From the moment of birth -- perhaps even before -- the BwO is constituted out of this confluence between relations and creative capacity. The BwO of the newborn infant is delimited largely by the drives for food, comfort and warmth. Maturation and experience bring a multiplication of the range of relations, until for an adult human, they are myriad: physical, psychological, emotional, and cultural (Duff 2010). The discipline of the nursery and the schoolroom, the gendering and sexualisation of adolescence, the routines of work and the growth and disillusionment of ageing progressively create the relations that establish the limits of the body (Fox, in press). Indeed, this is the easiest way to understand the BwO, as the limit of what a body can do.

Assemblages

Humans do not respond like computers to stimuli, but in complex and sometimes unpredictable ways that indicate an active, motivated engagement with living, the capacity to make choices and act on the world around us. Deleuze and Guattari deny that a body's relations (all the physical, psychological and social relations described earlier) directly

determine what it can do. Rather the relations contribute to what they call *assemblages* (Deleuze and Guattari 1988: 88).¹

Assemblages emerge from the interaction between a body's myriad relations and affects (its capacity to affect or be affected), and develop in unpredictable ways 'in a kind of chaotic network of habitual and non-habitual connections, always in flux, always reassembling in different ways' (Potts 2004: 19). Deleuze and Guattari use the metaphor of a machine to describe how assemblages connect body relations together (Bogue 1989: 91): they argue that every aspect of living, and our experience of the world, contribute to these assemblages. However, within an assemblage

the relations between bodies, technologies, discourses, regimes of signs and power relations intersect in a manner in which no one term functions as determinant and in which the autonomous specific status of each, as different, in and of themselves, can be accounted for. Dominant relations of power/knowledge are never stable or eternal and as functional elements of an assemblage, they are open to becoming otherwise in shifting fields of connection (Currier 2003: 336).

Assemblages are thus elaborated from disparate elements that can be material, psychic, social or abstract/philosophical. For instance, there is an 'eating assemblage', comprising (in no particular order), at least:

mouth – food – energy – appetite;

there is a working assemblage comprising, at least:

body – task – money – career;

a sexuality assemblage comprising, at least:

sex organ - arousal – object of desire,

a health-care assemblage comprising, at least:

pathology - health professional – therapy

and so forth. The relations can be drawn from any of the domains, material or non-material, but in each case, the assemblage is dynamic not static: it is about the embodied process of eating or working or sexual desiring, not about a state of being. Furthermore, the assemblage will vary from person to person, contingent on the precise relations that exist as a consequence of experience, beliefs and attitudes, or from bodily predispositions.

Because humans have the capacity for psychological processing and social and cultural interactions, it is virtually impossible for their assemblages to consist merely of biological components. While a new-born infant's eating assemblage may comprise:

hunger - mouth –food

It is quickly elaborated into

hunger - mouth –food – nipple – mother

During childhood it will be further elaborated into

hunger - mouth –food – appetite – tastes – mother – nipple

with the relations to nipple and mother gradually fading in importance once weaned. For the adult, however, an eating assemblage might comprise:

hunger - mouth –food – appetite – tastes – money – shopping – dietary choices – time and many other relations particular to the context and experiences of the individual. A vegetarian's eating assemblage will include a commitment to ethics or ecology, while that of a food allergy sufferer will involve not only a negative relation to nuts, dairy products or whatever, but also the experience of an allergic reaction. Both have emerged from an infantile relation to food, but in very different directions. These differences explain why the embodiment of one person differs from another.

The totality of assemblages creates the BwO, and thereby the conditions of possibility for the body. Assemblages link the individual's body to the social and natural environments (Bogue 1989: 91), creating the substrate that both defines a person's capacities and her/his limits. As a consequence, bodies should be understood as

neither fixed nor given, but as particular historical configurations of the material and immaterial, captured and articulated through various assemblages which to some extent determine them as particular bodies, but never manage entirely to exclude the movement of differing and the possibility of becoming otherwise (Currier 2003: 332).

In a sense, the body is lived through the assemblages, which as note earlier, are always processual: they are about doing, not being. Unpacking an individual's assemblages can enable understanding of how a person may respond to her/his environment, her/his experiences of illness and healthcare, and may be the basis for therapy or support (Fox and Ward 2008a).

Territories of the Body

A body may have a physical relation to gravity, a psychological relation to its parent, and a cultural relation to a nationality. In each case, behind the relation, there is a force (strong or weak) at work. Gravity acts on the physical body to constrain its movement, the parent acts psychologically as a force over behaviour and attitudes that may weaken over time as a body moves from child to adulthood. Nationality is a force affecting embodied sense-of-identity and perhaps choice of partners or associates. Each body has its own relations, but in all cases these relations bring to bear forces, pushing or pulling the body (more properly, the BwO) in one direction or another (Duff 2010: 625).

It follows that the BwO (with its assemblages of relations) is a *territory* constantly contested and fought over by rival forces. The assemblages determine the overall shape, intensity and direction of the consequent vector of forces. Importantly, in Deleuze and Guattari's approach, there is no need to differentiate the realm from which a force derives: physical, psychological and social forces can all be treated together. An eating assemblage might include physical resources (scarcity or plenty of specific foods), psychological preferences and tastes, and cultural restrictions such as kosher requirements. A vegetarian eating-assemblage will include physical, psychological, social and philosophical and ethical relations, with their associated forces (Fox and Ward 2008b: 2587). The outcome vector of these disparate forces limits the body to a vegetarian diet, except perhaps in circumstances where hunger becomes more dominant than ethical attachments, in which case the assemblage will modify, altering the body's affects regarding meat and its ethical principles.

Territorialisation shapes the BwO (Deleuze and Guattari 1994: 67ff.), producing identity or definition. The force of the sun's gravity territorialises the earth as it travels through space, turning it into a 'satellite'. Biomedicine territorialises an individual consulting a health professional, transforming her/him into a patient, and her/his malaise into a disease. But all forces may be resisted. The earth does not succumb entirely to the sun's gravitational pull: its velocity through space acts as a counter-force that always seeks to escape the sun, and move away on its own trajectory. The resultant orbit is the vector of force and counter-force. The BwO is thus both the site where the body's relations territorialise, but also the site of resistance and refusal. In this way, the BwO is constructed and reconstructed (re-territorialised) continually. For example, an individual consulting a health professional may

resist and refuse the patient role, and find an alternative embodiment, such as a 'consumer' of health services (Fox et al 2005).

As a model of embodiment, territorialisation provides an explanatory framework for how the forces of the social impinge on individuals or cultures, from class, gender and ethnic stratification through to the creation of subjectivities in people as, for instance, 'women', 'husbands', 'patients' and 'risk takers'. De-territorialisation can shift the balance of these forces, either by application of cultural, economic or physical resources, or with outside assistance. While physical forces may be overcome only through training or with the aid of technology (a Scuba suit will allow a human body to breathe under water), most social territorialisations involve some act of interpretation, so there are endless possibilities for de- and re-territorialisation. Where forces are too strong to resist, outside help from a friend, another citizen or a caring professional may offer the necessary counter-balance to oppression (Fox 1999: 77ff).

The Ill-health Assemblage

This Deleuzian model of BwO, assemblages and territorialisation can be applied to explore the processes associated with health and illness. Within this perspective, 'health' and 'illness' are not as 'states' of an ontologically-prior body, but assemblages that actually construct the body (BwO) itself, and determine its limits (what else it can do).

An ill-health assemblage is constituted from the myriad physical, psychological and social relations and affects that surround a body during an episode of ill-health. At its simplest, we could imagine an assemblage comprising:

organ - virus – immune system – symptoms

However, for an adult, many other psychosocial and cultural relations will contribute:

organ – disease – doctor – biomedicine - health technology – daily responsibilities - fear.

Ill-health is shaped by these relations, which may have more to do with the emotional meaning of illness and the cultural contexts of ill-health than with the disease itself. For instance, there is an assemblage with particular significance for the anorexic or the dieter comprising:

mouth – food – body shape – control (Fox et al 2005).

Potts (2004: 22) describes an impotence treatment assemblage that includes the penis, the sufferer's partner, doctors, and Viagra or other pharmaceuticals.

Ill-health assemblages are not just constituted from such generalised relations. At other times in history, or in other cultures, the ill-health assemblages will differ, contingent upon how diseases and illnesses were understood, and upon the institutions that cater for the sick. Reading Jane Austen's *Sense and Sensibility* offers an insight into a Georgian ill-health assemblage in which forces of disease can strike at times of emotional imbalance, thrusting a body into fever and possible death, while Foucault's (1967) *Madness and Civilisation* demonstrates the various assemblages surrounding mental health in past times. Inevitably there will be also many relations and affects unique to the setting, circumstances, past experiences and other aspects of illness: people's differing responses to illness and to health care are explained by the idiosyncrasies of their own particular ill-health assemblage.

Figure 1 maps the breadth of relations that may contribute to ill-health assemblages. They include biological factors, psychological and cultural responses, institutional structures, as well as concepts, theories, models and philosophies of health and illness, and the technologies that treat or manage ill-health. Many of these relations are of course familiar to sociologists of health and illness, and to compare and contrast a traditional and a Deleuzian reading of ill-health, I have used the three-way distinction between *disease* (a biological state resulting from an infection, an impairment or some other divergence from a biomedically-defined norm of bodily function), *illness* (an experiential state) and *sickness* (the social response to an episode of illness) (Eisenberg 1977: 11, Kleinman 1978) as one axis, mapping these against the categories of 'biological/physical', 'psychological/emotional' and 'sociocultural and philosophical' relations.

Insert Fig 1 about here

Unsurprisingly there is some congruity between these two categorisations, with most physical or biological relations being associated with 'disease'; psychological relations associated with the experience of illness: and most sociocultural relations associated with how societies respond to ill-health (sickness). However, in the Deleuzian model, the categorisation of relations is of less importance: all relations that a body has may contribute to the assemblage, regardless of whether they are 'physical', 'social' or 'abstract' in character. More important are the connectivities that are established between relations, which shape the assemblage and in turn territorialise the BwO and 'what else the body can do'.

The ill-health assemblage is thus constituted from the unique patterning of relations and affects upon the body, deriving not only from the relations in Figure 1, but also from the idiosyncratic mix of relations accruing from an individual's past experiences, beliefs, attitudes and commitments, and their idiopathic response to disease. It follows that ill-health assemblages will differ from person to person, from episode to episode, as BwOs are differently territorialised by these ill-health assemblages. Ill-health will tend to produce 'sickening-bodies', in which the capacities of the body will reflect differing patterns of biological and social engagements from that of a body in 'health'. However these capabilities will depend upon the assemblages that produce them.

This perspective on ill-health requires that we re-evaluate some of the fundamental building blocks of health sociology. Ontologically, ill-health does not act on a prior body. Rather the body (or BwO) emerges and is shaped by the ill-health assemblage. Bodies are not the locus at which forces act, they are the production of the interactions of forces. The concepts of 'disease', 'illness' and 'sickness' are similarly effects of culturally-contingent assemblages of relations. 'Disease', for example, is an effect deriving from a biomedical and scientific assemblage of relations in the top row of Figure 1; 'illness' from experiential and 'humanistic' relations in the next row and so forth.

The 'Health' Assemblage

A health assemblage does not exclude the relations noted in Figure 1. Many of these will be present in a health assemblage, but their capacity to affect the BwO will be attenuated by myriad other relations. In Buchanan's (1997) essay on Deleuze, he appropriates the term 'health' as a metaphor for the body's capacity to form relations, and to affect and be affected (Buchanan 1997: 80-82). It follows that 'health' is not just an absence of 'ill-health' relations (as suggested in the biomedical model), but the opposite: the proliferation of a body's capacities to affect and be affected.

If the sickening-body has restricted or re-directed capacities, health might be defined in terms of a body's widened capacities to make, resist and transform its relations. These capacities include the body's biological functions, its psychological well-being and the social and cultural 'capital' it can draw upon. Friends, family and health professionals may be important in enhancing these capacities, tipping the balance towards health by providing

physical, psychological, economic or sociocultural support and encouragement. The 'health' of a body is influenced by

... refracted and resisted relations, biological capabilities or cultural mind-sets, alliances with friends or health workers, struggles for control over treatment or conditions of living. Health is neither an absolute ... to be aspired towards, nor an idealised outcome of 'mind-over-matter'. It is a process of becoming by (the body), of rallying relations, resisting physical or social territorialisation, and experimenting with what is, and what it might become (Fox 2002: 360).

Health is never a final outcome in this Deleuzian perspective. Rather it is a process, a becoming-other that fluctuates along with the body's capacities. The BwO marks the limits of what (else) a body can do, but this is always in flux, always becoming other. Rather than saying a body is healthy, we might talk about its 'becoming-healthy', or about the 'healthing' of a body, to remind us of the active processes involved and the fluctuating nature of embodied health.

Both in the broad and the narrow sense of health, a person's health or ill-health assemblage can be explored empirically, by examining its constituent relations and affects -- an approach that Deleuze called 'ethology' (Duff 2010: 625). Duff (2010) argues that this kind of ethological approach may be used to explore human development from cradle to grave, in the 'five developmental domains of social, cognitive, emotional, material and moral development' (Duff 2010: 629). Fox (2005) assessed the biological, psychological and cultural relations that influence what an ageing body can do, exploring the combinations of relations that make ageing an individual experience. Potts (2004) has explored how new pharmaceutical technologies such as Viagra that apparently enhance a body's capacities may in fact limit what a body can do, with consequences both for those using the technology and those around them. Fox and Ward (2006, 2008a) found a range of territorialisations of those using healthcare products, ranging from a traditional 'patient' strongly territorialised by biomedicine, through to a resisting consumer.

The full import of this methodology for the analysis of bodies, ill-health and health emerges when applied to explorations of contemporary healthcare. In the rest of this paper I want to

assess the relevance of the ill-health assemblage for the politics of healthcare: focused around struggles over the ‘body-*with*-organs’.

The Body *with* Organs

Deleuze and Guattari were keen to distance their perspective on embodiment from the biomedicalised *body-with-organs* or *organism* (Deleuze and Guattari 1988: 158). This, they suggest, is a narrow territorialisation of the BwO, but one that is of particular relevance for those engaged in health care. The *body-with-organs* is the outcome of powerful forces surrounding the professions and institutions of biomedicine, manifested on a daily basis in the medicalising processes that turn bodies into patients, healers and carers into health professions, chemicals into medicines, and episodes of ill-health into case histories and archives of disease (Foucault 2002: 145). The sick, the convalescent, the disabled and the aged are all part of this territorialisation; the history of health has been written, and continues to be written within this territory of the body-without-organs.

The *body-with-organs* offers a model of the body so invested with power and ‘knowledge’ that it can be hard to imagine an alternative, particularly when the subject of this territorialisation is sick, vulnerable and dependent on health professionals who apply this model of the body to inform their work and their interactions with patients (Kleinman 1988). However, the Deleuzian perspective suggests that this *body-with-organs* is only one territorialisation among many. Social studies of health have been only partially successful in offering a rival territorialisation, rarely questioning the ontological basis for disease (for exceptions, see Figlio 1978, Foucault 1976: 9-10).

Using Deleuze and Guattari’s model, we can understand the ‘patient’ and her/his ill-health in terms of the relations, forces and assemblages that construct her/his BwO: the limit of what their bodies can do. If a BwO is also a *body-with-organs*, then this is a body fully defined by biomedicine. An assemblage may be dominated by a few relations and affects:

disease – doctor – biomedicine - health technology - hospital

This powerful territorialisation diminishes the totality of relations and affects that shape the body’s assemblage, making it hard to achieve subsequent de-territorialisation (Buchanan (1997: 8ff, Deleuze and Guattari 1988: 150, Fox 2002): Being a ‘patient’ or receiving care can close down possibilities, creating a BwO defined and dependent: the cancer patient is in

remission, the noisy child has ADHD, the veteran has become geriatric. Singularity of purpose leads not to transcendence, but to death (Deleuze and Guattari 1988: 149).

Foucault's work (1967, 1976) has pointed the finger at biomedicine in establishing the 'discourse' of the patient, or as Deleuze and Guattari put it, a body-with-organs. However, the analysis developed here suggests that the ill-health assemblage derives from a multiplicity of biological, psychological and cultural relations. I want to explore this further, by examining a contemporary case study of the body-with-organs.

A Case Study of the Ill-health Assemblage

In a series of studies, Fox and Ward (2006, 2008a) looked at the emergence of 'lifestyle' pharmaceuticals: those intended or used for a purpose that 'falls into the border zone between the medical and social definitions of health' (such as male hair loss or erectile dysfunction), and those that 'treat diseases that derive from a person's lifestyle choices' (for example, obesity or nicotine addiction) (Lexchin 2001: 1449). I want to explore the ill-health assemblage surrounding one such treatment: the range of medicines such as sildenafil (Viagra) and tadalafil (Cialis) that can be used to counter male erectile dysfunction. I will begin with one short but evocative comment from a user.

My best friend at the office introduced me to Viagra a week after he saw my attitude change at the office due to my noticeable depression. Thanks to Viagra, I felt I am gaining my manhood again, but now lazy of doing sex without the blue pill. I am now becoming a big fan of Viagra, and afraid of having sex without Viagra. (George)

This extract fuels the sociological imagination immediately. There is a medicalisation of sexuality; the user has accepted the medicine as a magic bullet that can restore 'normal' function (Marshall 2002: 133); he has accepted responsibility for finding a solution to his problem through information gathering and responsible consumption (Appelbaum 2006: 446, Fishman 2004: 202). The medicine establishes a health identity in the user as dependent upon the medication to resolve their problem of living (Fox and Ward 2008a). We may conjecture a Viagra-assemblage (cf. Potts 2004: 22):

Viagra or other pharmaceuticals - erectile dysfunction - biomedicine – partners – doctors -
Viagra-fied penis.

However, we can also see the broader forces at work in creating an erectile dysfunction ill-health assemblage. First, there is a demand from the medical professions to find treatments for problems and conditions of the patients who consult them. Professionals may feel impotent to address problems at the limit of what might be called disease, and welcome new treatments to meet their patients' demands. Second, there is the emergence of new scientific discoveries that can be developed as treatments for lifestyle conditions such as over-weight, impotence and hair loss. Sometimes these discoveries are intentional, with others are serendipitous, as in the case of the drugs mentioned earlier that can be used in male pattern baldness. Thirdly, the profit-orientation of, and competitive marketplace inhabited by industries such as pharmaceutical companies drives the continual search for new compounds that can be developed for market, or adapted to a new use. The pharmaceutical industry is the most profitable sector of commerce, with a global market for prescription drugs worth around \$700 billion in 2010, and annual growth of 10 per cent (Henry and Lexchin 2002). Business success or failure will depend upon developing new technologies and generating new demand. Finally, the emergence of health consumerism fuels demand for effective treatments for problems and conditions, and creates a ready market for new products (Featherstone 1991: 172).

These four forces accrete the Viagra ill-health assemblage in various ways. These businesses produce not only drugs but also the medico-scientific knowledge that justifies the product's value as the solution to a problem. Drugs such as Viagra were promoted 'through scientific claims about the medical benefit, efficacy and necessity, supposedly revealed by objective clinical research' (Fishman 2004: 189). Decisions by a government to fund a product for certain categories of patient may depend upon defining a body condition as pathology. In the UK, Viagra is only available on NHS prescription for men whose erectile dysfunction is due to an underlying medical condition, or causes them 'severe psychological distress' (Sairam et al 2002). In the US, a drug can only gain Food and Drugs Administration (FDA) approval if it treats an established 'disease' (Fishman 2004: 192). Sometimes the emergence of an effective treatment may tip a body condition into a disease. This was the case with the medical-sounding *erectile dysfunction*, which prior to Viagra's launch was commonly known as *male impotence*, a term implying weakness (Newman 2006: 5). Shyness has morphed into 'social phobia', to be treated with Seroxat (Lexchin 2001), while the development of Ritalin may have hastened the acceptance of Attention Deficit Hyperactivity Disorder as a disease (Fishman 2004). Health technology companies market their products to the medical

professions, and to consumers where legally permitted. The manufacturers of Viagra and rival compounds all adopted popular sporting figures to front their US marketing campaigns, to attract a secondary market of younger men who wanted 'to improve the quality or duration of their erections' (Newman 2006: 12).

The ill-health assemblage of a Viagra user thus may be strongly shaped by economic, political and cultural relations, as well as by many more personal and micro-sociological affects. Any or all of the relations listed in Figure 1 may contribute to the assemblage. Biological, psychological and social relations shape the ill-health assemblage and consequently the BwO of the user of a health technology such as Viagra. The Viagra assemblage unsurprisingly works closely (though not exclusively) with a biomedicalised body, establishing a body-with-organs that will accept its definition in biology, though also encouraging reflexivity as an active, consuming body.

Discussion

The body-with-organs is a seductive model for embodiment: biological in essence, individual, imbued with independent agency and located within a social, economic and political nexus that applies and requires this model of embodiment (Deleuze and Guattari 1988: 159). In the case study, I have shown how biomedicine and capitalist production collude to produce scientific knowledge of the body-with-organs, along with the technologies to 'treat' its ill-health. There is an economic imperative to the proliferation of the body-with-organs in modernity, as well as a disciplinary one. Sociology, if it adopts this organic substrate for its explorations of embodiment, also colludes within this hegemony.

Deleuze and Guattari strongly rejected the territorialisation of the BwO into the organism, arguing for a *line of flight* into a new embodiment (ibid: 55). In relation to mental health, they called this process 'schizoanalysis' (Deleuze and Guattari 1984: 273); more generally as a political strategy for living, they called it 'nomadology' (Deleuze and Guattari 1988: 23). The model of the ill-health assemblage set out in this paper suggests an ontology in which the body is no longer individual and organic; in which health and ill-health are marked not by aspects of an individual body but by connectivities and relations between bodies, objects and ideas; in which healthcare is re-focused upon these nexi of relations, and encompasses biological, psycho-social and cultural realms of action.

Health sociology can benefit from this alternative ontology. In Deleuze and Guattari's model, the body (BwO) is clearly both biological and social, and by focusing not on what a body is, but upon what relations a body has with the physical, psychological and cultural environment that surrounds it, we are released from a nature/culture dualism. The BwO emerges from assemblages of physical, psychological and social relations of a body, combining in unique ways that are always in flux. It is like an uncharted territory, but one whose possession must be fought over, inch by inch, as it is endlessly territorialised, de-territorialised and re-territorialised. The endless permutations of living: of health, illness, sexual desire, ageing and death open up possibilities for resistance and for the sociological imagination. Sociological research and social action can subvert the body-with-organs (and the institutions that succour, invest in and suck it dry), and supply a line of flight away from this organic territorialisation of the body.

In this alternate ontology, ill-health and health are located beyond the physical body of biomedicine, within the network of relations that sociology studies. 'Health' is the body's capacity to affect and be affected, to form new relations, and thus to *resist* forces of territorialisation that limit these capacities. The 'health' of a body is the outcome of biological capabilities and cultural mind-sets, alliances with friends or health workers, struggles for control over treatment or conditions of living. It is neither an absolute (defined by whatever discipline) to be aspired towards, nor an idealised outcome of 'mind-over-matter'. It is a process of becoming, of rallying capacities, resisting physical or social territorialisation, and experimenting with what is, and what might become. Health sociology can pull apart, intellectually and in practice, the ill-health assemblages that affect the material lives of people and the public health of nations.

This perspective makes health and health care intrinsically political. For 'patients' and for everyone, the politics of health and illness are about engaging with the real struggles of people as they are territorialised – by biology *or* by culture, as they resist, and as they encourage others in their aspirations, development and lives. Health is processual, and both at the level of the individual and the wider public health, this is a process that encompasses natural and social science disciplines. For health sociology (as for social care, education, citizenship and every aspect of social action), the analysis developed from the work of Deleuze and Guattari suggests an agenda for its practitioners that fosters deterritorialisation in the bodies of those for whom they care (Fox 1999) and generates a politics of health that

transcends economic and management perspectives. To engage productively with such agendas collapses disciplinary boundaries and establishes a pressing need for collaboration between medical and caring professions, social and political scientists, social activists, indeed between every body.

Note

1. 'Assemblage' is a somewhat uncomfortable translation of the original French *agencement*, which has the sense of 'fitting out' (Phillips 2006: 108) or of creating a collage of different elements. Both these aspects of *agencement* emphasise the act of *making connections* between disparate components.

References

- Applbaum, K. (2006) Pharmaceutical marketing and the invention of the medical consumer, *PLoS Medicine*, **3** (4), 445-7.
- Bogue, R. (1989). Deleuze and Guattari. London: Routledge.
- Buchanan, I. (1997). The problem of the body in Deleuze and Guattari, or, what can a body do? Body & Society, **3**, 73-91.
- Bunton, R. (1992) 'More than a woolly jumper': health promotion as social regulation. *Critical Public Health*, **3** (20), 4-11.
- Cromby, J. (2004) Between constructionism and neuroscience: the societal co-constitution of embodied subjectivity. Theory and Psychology, **14**(6), 797-821.
- Currier, D. (2003) Feminist technological futures: Deleuze and body/technology assemblages, Feminist Theory, **4**(3), 321-38.
- Deleuze, G. (1992) Expressionism in Philosophy: Spinoza. New York: Zone Books.
- Deleuze, G. and Guattari, F. (1984). Anti-Oedipus: Capitalism and Schizophrenia. London: Athlone.
- Deleuze, G. and Guattari, F. (1988). A Thousand Plateaus. London: Athlone.
- Deleuze, G. and Guattari, F. (1994). What is Philosophy? London: Verso.
- Duff, C. (2010) Towards a developmental ethology: exploring Deleuze's contribution to the study of health and human development. Health, **14** (6), 619-34.

- Eisenberg, L. (1977) Disease and illness. *Culture, Medicine and Psychiatry*, **1**, 9-23.
- Featherstone, M. (1991) The body in consumer culture. In: Featherstone, M., Hepworth, M. and Turner, B.S. (eds.). The Body. London: Sage, pp. 170-196.
- Figlio, K. (1978) Chlorosis and chronic disease in nineteenth-century Britain: the social constitution of somatic illness in a capitalist society. Social History, 3 (2): 167-197.
- Fishman, R. (2004) Manufacturing desire: the commodification of female sexual dysfunction. *Social Studies of Science*, **34** (2), 187-218.
- Foucault, M. (1967) Madness and Civilisation. London: Tavistock
- Foucault, M (1976). The Birth of the Clinic. London: Tavistock
- Foucault, M. (2002). The Archaeology of Knowledge. London: Routledge.
- Fox, N.J. (1999). Beyond Health. Postmodernism and Embodiment. London: Free Association Books.
- Fox, N.J. (2002). Refracting health: Deleuze, Guattari and body/self. Health, 6(1), 347-64.
- Fox, N.J. (2005). Cultures of ageing in Thailand and Australia (What can an ageing body do?). Sociology, 39 (3), 501-18.
- Fox, N.J. (2012) The Body. Cambridge: Polity Press.
- Fox, N.J. and Ward, K.J. (2006) Health identities: from expert patient to resisting consumer. *Health*, **10** (4), 461-479.
- Fox, N.J. and Ward, K.J. (2008a) 'What are health identities and how may we study them?' Sociology of Health and Illness. 30 (7), 461-79.
- Fox, N.J. and Ward, K.J. (2008b) 'You are what you eat? Vegetarians, health and identity'. Social Science and Medicine. 66 (12): 2585-95.
- Fox, N.J., Ward, K.J. and O'Rourke, A.J. (2005). 'Expert patients', pharmaceuticals and the medical model of disease: The case of weight loss drugs and the Internet. Social Science and Medicine, 60(6), 1299-309.
- Henry, D. and Lexchin, J. (2002) The pharmaceutical industry as a medicines provider. *Lancet*, **360**, 1590-95.
- Kleinman, A. (1978) Concepts and a model for the comparison of medical systems as cultural systems. *Social Science & Medicine*, **12**, 85-93.

- Kleinman, A. (1988) *The Illness Narratives*. New York: Basic Books.
- Lexchin, J. (2001) Lifestyle drugs: issues for debate, *Canadian Medical Association Journal*, **164** (10), 1449-51.
- Marshall, B.L. (2002) 'Hard science': gendered constructions of sexual dysfunction in the 'Viagra age'. *Sexualities*, **5** (2), 131-158.
- Newman, R. (2006) 'Let's just say it works for me'. Rafael Palmeiro, major league baseball, and the marketing of Viagra, *NINE: A Journal of Baseball History and Culture*, 14, 2, 1-14.
- Philips, J. (2006) Agencement/Assemblage. *Theory, Culture & Society*, **23** (2-3) 108-9.
- Potts, A. (2004). Deleuze on Viagra (Or, what can a Viagra-body do?). *Body & Society*, 10(1), 17-36.
- Turner, B. (1992). *Regulating Bodies*. London: Routledge.

Figure 1: A typology of ill-health relations

	Physical and biological	Psychological and emotional	Socio-cultural and philosophical
‘Disease’	Genetic diseases Pathogens Time, ageing and degenerative diseases Pollutants and environmental hazards Impaired immunity Therapeutics, physical therapies and prostheses	Environmental stressors Health behaviours Psychological and neurological diseases	Biomedicine Healthcare professionals Social deprivation Cultural practices ‘Life events’ Social isolation Public health and epidemiology Health technology providers
‘Illness’	Pain Placebos	Health, illness and risk behaviour Health beliefs Psychological therapies Trust and compliance	Culturally-specific explanatory models Lay networks and folk remedies Popular culture health representations
‘Sickness’	Pain Stigmatising symptoms or impairments	Fear and other emotional responses to ill-health Dependency and independence	Biomedical model of health and illness Cultural expectations of health and illness Social organisation and management of disease Economics and politics of health care and technology Social attitudes to health and illness

