ABSTRACTS

C7.4 Philosophy of Medicine

Disease definitions and the case of Morgellons
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Caplan (1992) notoriously argued that the philosophy of medicine did not engage with matters of interest to medical practitioners. This is typified by attempts to define disease. As Ereshefsky (2009) argues, these accounts – exemplified by Boorse’s (1975) naturalist position – have failed in the respect that they do not capture that which is of most interest to health professionals.

In the case of contested diseases, they are unable to perform the one useful task practitioners might expect of them: to demarcate disease in the light of confusing and potentially spurious clinical indicators. This paper uses the controversial example of Morgellons to explore how such explanations - in particular (but not limited to) naturalistic ones - fail to adequately explain how a disease concept operates in society or indeed how it could be more useful at helping us treat such conditions. Morgellons is a highly contentious disease which would seem to accord with both naturalist and normativist accounts, but which in reality struggles to achieve legitimacy as a disease.

The gap between the philosophy of disease and the manner in which classification occurs in actuality is something that should worry us. This example fits alongside others such as Gulf War Syndrome, Chronic Fatigue Syndrome and Fibromyalgia in demonstrating how attempts to create an all-encompassing ‘theory of disease’ are futile in the face of the sheer variety of modern disease entities.

In highlighting these problems, my aim is to move towards more pragmatic, fit-for-purpose models of disease which attempt to address issues associated with classification of disease, conflict resolution as well as throwing new light on thinking about psychosomatic and behavioural conditions.

References:
Boorse, C. ‘On the distinction between disease and illness’ in Philosophy of Public Affairs, 1975, Vol. 5, pp. 49-68

Individuating Pathologies
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The definitions of health and disease have been of longstanding interest within the philosophy of medicine. Distinctly less well discussed is how diseases are identified and individuated within organisms. It is one thing to know that an individual organism is sick (some pathology is present); it is another to be able to identify whether one or more different diseases is present, and to understand how and why such diseases are individuated. One underlying disruption within the body can have multiple effects, disturbing the functioning of multiple further parts and processes. In such cases, should further effects be regarded as parts of one disease, or as multiple different pathologies? On this question, medical usage is, in many ways, inconsistent.

In some cases, further disruptions are regarded as symptoms of a particular disease (e.g., kidney failure as a symptom of a specific infection). In others, a specific pathology is regarded as causing a second, separate pathology (e.g., heart disease might cause a further problem, acute kidney failure). Thus, while the causal relationships present would appear to be relevant to disease individuation, an underlying problem simply being a cause of a further disruption is often not regarded as sufficient for both to constitute a single pathology.

Ultimately, this paper aims to make progress towards an account of disease individuation. It contrasts “ontological” accounts that would focus on features of the underlying biological structures with “functional” or “physiological” accounts that would emphasize the effectiveness of interventions at different places within the organism. On this latter understanding, the ability to successfully treat a particular disruption independently provides the basis for regarding it as an independent pathology.

Animal Predictions of Human Responses
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This paper defends the notion that biomedical animal models can predict successfully human responses to medical treatments and health hazards against some recent critiques. The thesis is that proofs for the predictive power of animal models are available when their predictive success is evaluated on a case by case basis.

According to a recent challenge, animal models, especially in toxicology and pharmacology, are not reliable predictors of human responses (Shanks et al. 2009). Since the assumption that the reactions of animals to
experimental manipulations are similar to those of humans is central for biomedical animal experimentation, this challenge may undermine the validity of basic biomedical practices and thus threaten the legitimacy of experimental biomedical science.

Shanks et al. focus on a few unsuccessful experiments but draw conclusions about animal models in general. However, in a number of cases, well developed and standardized animal models are successful in predicting human responses. This suggests that the predictive validity of animal models should be assessed on a case by case basis. It may be the case that what makes some models successful doesn't work for others. It could also be the case that unsuccessful models are stages in the development of successful models. Because this challenge targets animal models in pharmacology and toxicology, I develop two case studies to show how the predictive validity of animal models is assessed in these fields. The first case analyses the procedures used for the validation of a domestic fowl chick model of the anxiety-depression continuum in psychopharmacology (Sufka et al. 2009, Warnick et al. 2009, and Hymel 2010). The second case focuses on the standardization of a test battery developed for rat models in behavioral teratology and toxicology (Vorhees 1987). These examples show that there are animal models that are quite successful in predicting human responses.

The concept of animal in husbandry and impact on therapeutical choices
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Reification is the general position of animal breeders practising rational (also so called industrial) husbandry: the animal has to be treated well in order that production may reach an optimum. The situation is very similar to the one found in experimental premises for research: animals are treated well in order that they may produce high quality scientific results. In such a world of rationality, the affect may be considered as a deviation from “good practices”. It is obvious that treatments for recovering health and production status rely only on wellknown efficient therapeutics, e.g. resources of conventional medicine. One may consider that animals are sentient beings (Singer) and thus husbandry should be reduced as much as possible since we cannot avoid suffering of the sentient beings during their life and at the slaughterhouse. We then use the best resources available of chemotherapy and are thus inclined to prefer conventional therapies. Intermediate positions in husbandry may pretend that husbandry is a part of our culture, that we need animals for food and presence, and thus a good husbandry animal life can be the pretext for animal sacrifice at slaughterhouse (Porcher). In this situation, the farmer is open to risk: risk of killing loved animals, risk of treating his animals with drugs being untested properly for efficacy or toxicity. The non-conventional therapies (phytotherapy, homeopathy, and other alternative medicines) are then preferred. The animal concept is thus a determinant key in the choice of therapies used in animal husbandry.