

Animal do have rights

SIR — As an occasional contributor¹ to the burgeoning philosophical literature on animal rights, I find myself dismayed by both the content and tone of your editorial, "Animal rights nonsense" (*Nature* 13 October, p.562). The editorial appropriately bemoans the absence of "the voice of reason from the middle ground. . ." but unfortunately exemplifies this lacuna in its snide treatment of its subject.

No philosopher has seriously proposed granting animals ethical or legal rights that are fully equivalent to those possessed by normal human beings. Discussions of the "responsibilities" of animals, while perhaps clever in a sophomoric sort of way, simply fail to engage the moral question at issue. The question of the treatment of animals in experimentation, agriculture or in any other setting concerns not the status of animals as moral agents but the legitimacy of their status as objects of moral concern and consideration. The philosophical question fuelling concern with animal rights is whether animals have any moral standing at all, not whether we should place them on juries or place them on trial for their misdeeds as responsible and culpable moral agents.

If you really want to seek the middle ground in the animal rights debate it would be more to the point to address the following philosophical conundrums; what properties confer moral worth on a creature, be it human or animal, what should we do when the needs of human beings come into conflict with the interests of animals and what principles of morality should govern the conflicts that inevitably arise among and between both animals and humans in a world of scarcity, uncertainty and risk?

The last question is the one that philosophical proponents of animal rights have failed adequately to address. Like their conceptually muddled forerunners in the abortion debate, many animal rightists seem content with the demonstration that animals have some rights. This being achieved through the invocation of various criteria such as sentience or purposiveness, proponents of animal rights think matters closed — if animals have rights then humans must respect them.

However, the demonstration of a basis for the moral standing of animals hardly ends moral discussion. Indeed, one can only begin an ethical examination of the human treatment of animals on the basis of the fact that animals have some rights worth talking about! The nub of the matter in need of resolution is what to do when rights or, as I much prefer, interests come into conflict. On this thorny point, animal rightists and, sadly, it would appear from the intemperate editorial, the editors of *Nature* have found common ground — neither has yet been able to say anything useful about what moral principles policy

makers, legislators and the scientific community ought to use in resolving the unavoidable conflicts of interest that sometimes exist between animals and humans.

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Sutton's role

SIR — In the otherwise excellent article (*Nature* 13 October, p.575) regarding the well-deserved prize and recognition of Barbara McClintock, I found erroneous the statement, (her) . . . "observation, which may be regarded as the foundation of cytogenetics". I believe that Walter S. Sutton is usually credited with having established this foundation in an article entitled "The Chromosomes in Heredity"¹. His beautifully reasoned work is cited often in this context; for example in *Classic Papers in Genetics*:² "Today the two fields are permanently linked . . . and Sutton's paper can be considered the beginning of the field called cytogenetics". And J. D. Watson wrote "Sutton's paper . . . brought together for the first time the independent disciplines of genetics (the study of breeding experiments) and cytology (the study of cell structure)"³.

Interestingly, as you mentioned, McClintock's first studies were based on early work done at the University of Missouri with corn while Sutton's first work, not very far away at the University of Kansas, was with the giant chromosomes of the grasshopper.

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• Dr Grisolia is right — Editor, *Nature*.

Schizophrenic terms

SIR — A footnote to the comment by Iversen *et al.* on schizophrenia and the claimed "causal" role for dopamine or noradrenaline¹. The caution with which the authors disclaim "cause" in favour of some sort of correlation and a role of neurotransmitter in the mediation of the therapeutic effect of drugs is helpful. However, in the interests of getting our thinking straight about the complex phenomenology of schizophrenia, can they — and your other correspondents — be encouraged to avoid the use of the term "schizophrenic brain" to refer to post-mortem samples of brain tissue derived from patients diagnosed as schizophrenic? Schizophrenia is a term used to describe a particular pattern of behaviour and

expressed feelings in an entire human individual in his or her multiple interactive relationships with fellow humans. To reduce is — at best — to assume what the biomedical model of schizophrenia is trying to prove. At worst, it is a step down that same reductionist path that leads to "genes" for depression, or indoctrination or homosexuality — or even "selfish" DNA. Anthropomorphizing non-human animals is bad enough; anthropomorphizing tissues or molecules is just sloppy. Pleading that it is only a shorthand, and we all *really* know what we mean don't we, is no defence, granted the poor history of clear thinking in this terrain^{2,3}.

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The "wine-dark" sea

SIR — R.H. Wright and R.E.D. Cattle ingeniously suggest (*Nature* 303, 568; 1983) that Homer called the sea "wine-dark" because his wine, when mixed with water with a high pH factor, turned blue. However, we know from other references that his wine was red (*Odyssey* 5.165; 9.163), black (5.265; 9.196, 346) or dusky (*Iliad* 1.462, 4.259), hence probably like modern Mavrodaphni wine. He also describes cattle as "wine-dark" (*Odyssey* 13.32; *Iliad* 13.703) — surely not blue!

The October issue of *Greece and Rome* provides another possibility. High dust content in the atmosphere gives a dark red sunset. When this sunset is reflected in a dark, oily sea, it gives a colour and texture very close to that of Mavrodaphni. I first observed this phenomenon in a tidal estuary of the Damariscotta River in Maine, under the dust cloud from an eruption of Mt St Helens on the west coast.

Further examination of the references to "wine-dark sea" shows that the phrase is normally used of weather conditions at dusk. All but two formulaic uses of the phrase without context can be explained as references to a dark red sea (once under a dark storm cloud, once as a simile for the colours under a storm cloud, *Iliad* 5.770-2). Except when the colour is caused by storm, it would be a good weather sign for ships steering at night by star navigation. Dusty skies are a reliable sign of good weather behind. Ancient ships preferred to sail by day, hugging the coast, but we assume that for long voyages over open ocean they preferred nighttime star navigation, on which there was an ancient manual, and set out under favourable weather signs such as a "wine-dark sea".

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