

permeates her discussion, Ritvo does not always make it clear what level of understanding of the real significance of their actions is being attributed to the agents involved. Examples are her reference to "the rhetoric of conquest that [Sir Stamford] Raffles planned to embody in the Regent's Park Zoo" (p.206), and to the desire of Londoners to "view exotic animals in chains and cages" (p.207). Londoners were anxious to view the animals; and the animals were — perforce — caged. It by no means follows that the people concerned desired to view caged animals as such. Overall, there is a hint of caricature in the picture.

What we cannot now see as anything



"Poor Pussy's scratch is as bad as her bite" — anti-rabies measures inspired this Punch cartoon of 1889.

but caricature are the 190 or so animal trials, which took place throughout Europe and North America between AD 824 and the nineteenth century. In 1906 E.P. Evans rescued records of the trials from oblivion, and we can only be grateful to Nicholas Humphrey for the timely reprint of his book.

The unlikely work of an unlikely man — an American professor of modern languages, of Welsh extraction, who lived in Germany and wrote about animals — *The Criminal Prosecution and Capital Punishment of Animals* has an endless capacity to surprise and challenge the reader. Evans records how assorted domestic animals, rodents, insects and other creatures were variously excommunicated, hanged, burned, strangled or 'knocked on the head' for crimes ranging from crop damage to homicide. What is remarkable is neither the killing of the animals nor the manner of their deaths; rather it is the fact that they were subjected to the full panoply of the law, extending, for example, to the engagement of advocates and the provision of the 'King's bread'.

Even more remarkable, in their way, are the occasional glimpses we get of mercy tempering justice. In Austria in 1519, moles were guaranteed safe-

conduct (from the predations of dogs and cats), and the pregnant females, with their young, were granted an extra 14 days leave, before being obliged to vacate their existing premises; they were, it so happened, considerably inconveniencing the local residents. In a sodomy case at Vanvres in 1750 a she-ass was adjudged to have been raped, and therefore saved from execution, after testimony as to her good character from the priest and other worthies of the town.

Humphrey suggests we see behind these trials the need to make sense of seemingly inexplicable events by redefining them as crimes, thus implying, for example, that "the pig knew very well what she was doing" (p.xxvi). Curiously enough, however, although Evans expostulates over the "irrational and absurd" nature of the trials, he too believes that "animal intelligence is capable of distinguishing between right and wrong" (p.247). In fact he holds that the capital punishment of an insane

person (and even of an ox) would be justified if it deterred other insane people (or other oxen). Moreover, it needs to be said that although Humphrey rightly directs us to the fascinating question of the thinking behind these trials (how *much* we would understand if we could understand that!), what his foreword does not prepare us for is the fact that Evans's review of the trials is but one half of a thesis. The other half is that contemporary treatment of human criminals tended towards excessive commiseration and "maudlin sympathy" (p.203) explicable only as the 'violent recoil' from previous practices — and almost equally to be denigrated. Evans was a man who recommended the sterilization of the unfit (p.221), and was someone for whom the electric chair was the last word in modern consideration for the criminal (p.210). □

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Selected passages

Niles Eldredge

The Essential Darwin. Edited by Mark Ridley. Unwin Hyman, London: 1987. Pp. 271. £14.95.*

IT MUST be a source of wonder to scientists not daily engaged in evolutionary biology that the words of Charles Darwin continue to have such import in the discipline he founded. We read Darwin because he had it right, or nearly so, about many of the fundamentals of the evolutionary process. In particular, of course, Darwin was able to specify the nature of the dynamic process underlying the design of organisms — namely, "natural selection", the deterministic (if stochastic) governor of stasis and transformation of organismic phenotypes. It is instructive that he did so despite holding erroneous conceptions of the underlying processes of heredity; wisely, Ridley has included these as well as the more enduring ideas in his collection of darwinian excerpts.

Because Darwin knew that organisms vary within local populations of species — so that in a world of finite resources some would be bound to fare better than others — and because he saw that offspring tend to resemble their parents, he realized that the features of the more successful members of a generation would tend, on average, to be passed along preferentially to the next generation. The details of how the heredity process actually works are irrelevant to the basic conceptualization of natural selection. Darwin's was a

genuine discovery. Being the first on the block, so to speak, Darwin devoted his considerable talent and tenacity to re-writing the biology of his day "in the light of evolution", to borrow Dobzhansky's phrase. Much of his explorations of the implications and ramifications of evolution remain important today. Indeed, as one example, Darwin's distinction between natural and sexual selection (not articulated until the *Descent of Man*, 1871) has only recently begun to receive the attention and acceptance that it has always deserved.

For these reasons alone, Ridley's compilation of passages which, to his generally judicious eye, best spell out the important ideas in nine of Darwin's books, is most welcome. As an undergraduate, I approached the *Origin* with trepidation. Overawed by Darwin's reputation, and cowed by Victorian English usage, it took a while for the clarity of Darwin's thought and the gentleness of its expression to come through to me. I hope that, in producing this anthology, Ridley will succeed in his quest to bring Darwin closer, especially to students — whetting their appetites and inspiring them to explore Darwin further on their own. □

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• For those who prefer the unabridged version, Pickering & Chatto, London, and New York University Press are in the process of publishing *The Works of Charles Darwin* in 29 volumes, edited by Paul H. Barrett and R.B. Freeman. Volumes 1–10 are published in 1987, and include a general introduction to Darwin's work, the zoology of the Voyage of HMS Beagle, and two essays on the foundations of the origin of the species. Volumes 11–29 are due out in 1988.

*In the United States published by W.W. Norton as *The Darwin Reader*, price \$19.95.