

**Why Does My Horse...?**

P McGreevy (1996). Published by Souvenir Press Ltd, 43 Great Russell Street, London WC1B 3PA, UK. 241 pp Paperback (ISBN 028563562) Price £9.99

In "*Why Does My Horse...?*" Paul McGreevy sets out to categorise and provide explanations for observed equine behaviour. He states that "I believe that by learning how a horse thinks and what motivates him, we can use more enlightened methods to achieve the behaviours we prefer". This statement, which appears in the first pages of part one of the book, raises questions regarding our ability to determine motivation, and whether our preferred behaviour meets the best interests of the animal.

The book is written by a veterinary surgeon and members of the veterinary profession will recognise the descriptions of 'problem behaviours' presented to them by owners. The questions and answers format in the last section of the book reflects this and, whilst aimed primarily at the horse owner, the book also provides a useful resource for vets and trainers. The author notes that owners should seek the advice of their veterinary surgeon and trainer before applying the advice contained in the book.

The book is divided into three sections. Part one describes behaviour, the effect of biology and experience on observed behaviour and in this part, the author attempts to explain why horses behave in particular ways. Part two summarises the origins of domestic horses and categorises 'normal horse behaviour' in an A-Z format. Part three is a questions and answer section on equine behaviour.

Observations of equine behaviour are accurately recorded. The book's strength is in defining the expected behavioural repertoire for horses and reviewing behaviour observed in domesticity. Thus, behaviours which some owners find difficult to deal with, such as aggression, rearing, fear and failure to perform certain actions, such as jumping fences, are rationalised. So-called stable vices are dealt with convincingly. Whilst prevention is the most humane approach, the author recognises in part one that animals with established stereotypical behaviour may suffer from attempts at correction, as the observed behaviour may help the animal to cope.

The author draws on personal experience, and on behavioural science. Observing and recording animal behaviour is recognised as an essential part of animal welfare assessment. Behavioural indices can be used to assess the outcomes of particular systems of management. However, the difficulty that animal welfare scientists and behavioural scientists face is in attributing motive to observed behaviour. The introductory chapters of part one make a number of subjective assumptions about behaviour: statements such as "the same elevation of the tail by a Dartmoor pony would indicate a display of amazement or exuberance" do not do justice to the excellent questions and answers section of the book. The author correctly states that both the biology of the species and experience determine the behaviour of individuals. Aversion and reward provide

explanations for learned characteristics, but ascribing emotive motivations such as 'exuberance' need to be handled with caution. However, most owners of horses would empathise with anthropomorphic interpretations of behaviour.

In part two, the section on 'normal equine behaviour' is very well written and handles subjectivity in the explanations of observed behaviour better than part one. There is a wealth of information on all aspects of behaviour, which will resonate with anyone who has ever worked with horses. In 'Play' and Social Learning' the author touches on social behaviour. Given that there is increasing awareness of the importance of social interaction between equine animals, it is surprising that part two does not contain a section bringing together observations on social behaviour, and the importance of meeting animals' social needs in domestication. The book does deal with social behaviour in several places, particularly in part one under 'management', in relation to stabling and opportunities for social grazing. The reviewer would have found it helpful to have had the information collated into a separate section. Such a section would also have helped to promote the importance of social behaviour to owners.

Part three follows logically from part two and is the main strength of the book: it offers answers to frequently asked questions about equine behaviour. The book makes a positive contribution to animal welfare in that it offers a humane approach to preventing and managing perceived behavioural problems. Traditionally, training of equine animals and correction of behaviour seen as undesirable has relied heavily on punishment (negative reinforcement). Positive reinforcement, with rewards is advocated for a number of problems, illustrated by the approach to horses that refuse to jump, found in part three. Counter-conditioning is briefly covered. The author cautions against the routine use of twitches and notes that: "the point at which a young horse starts to throw his weight around is precisely when you should begin a serious education programme". If owners of young horses follow this advice and seek professional help, the number of privately owned horses that are difficult to examine, aggressive and sometimes downright dangerous (known to all vets in equine practice) should fall. The apparent effectiveness of twitches is explained as being dependent on an endorphin response. This should be met with caution, as the role of endorphins in horses in moderating the awareness of pain is less well understood than in primates.

As with any book that offers solutions based on experience, there will inevitably be disagreement about specific advice or practices advocated. However, none of the advice given is unduly controversial, provided that the rationalisations of why horses behave in particular ways are read critically. The question raised above was whether the preferred behaviour of our horses was in the best interests of the animals' welfare. The relationship between the owner and horse is important, in that the owner must be aware of the animal's needs and know how to meet them. Although the

author does not claim that his advice will improve this relationship, it is nonetheless a reasonable assumption that a better understanding of equine behaviour, behavioural needs and an understanding of positive training methods will lead to better human-animal relationships and thus better welfare.

This book should be essential reading for horse owners, veterinary surgeons working with horses and horse trainers. It offers practical and pragmatic advice, based on a sound understanding of equine behaviour, and it should make a positive contribution to equine welfare, by promoting the humane management of horses.

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**The Laboratory Primate: The Handbook of Experimental Animals Series**

Edited by S Wolfe-Coote (2005). Published by Elsevier Academic Press, available in Europe, Middle East and Africa from Elsevier, Customer Service Department, Linacre House, Jordan Hill, Oxford OX2 8DP, UK, and in the USA and Canada from Elsevier, Customer Service Department, 11830 Westline Industrial Drive, St. Louis, MO 63146, USA. 650 pp Hardback (ISBN 0 12 080261 9). Price £125.00.

The other books, on the rat and the mouse, in this series of weighty tomes will be familiar to many. This one on primates is equally large — 621 pages divided into 4 major parts, with further subdivision into 35 chapters. The overall presentation of the book is pleasing on the eye with headings and page numbers at the side of each page which makes it easier to find what you are looking for, the index seems to work well and each chapter has numerous references. The typeface and layout are good, the photos of rather variable quality but many are excellent.

Part 1, The Definition of the Primate Model, deals with taxonomy, anatomy, similarities to humans and goes through pathology of non-infectious diseases, viral and parasitic diseases and male and female reproduction. The final chapter in this section covers primate natural history and social behaviour and the implications this has for laboratory housing. The chapters in this section are well written, interesting and provide a good background of knowledge for anyone carrying out biomedical research using primates. The conclusion of the final chapter however misses an opportunity to make any statements about how to improve welfare. After detailing that monkeys live in complex social environments and that both movement and exploration are important behavioural responses, the conclusion lamely states “a number of environments might suffice depending on the setting and research protocol”. Suffice? Is merely sufficient an adequate way for a book of this type to recommend housing an experimental primate?

Part 2 covers Primate Management so I read eagerly, looking for inspiration and innovative ideas. I wasn't merely disappointed, I was quite frankly appalled. The

chapter on management of Old World primates (10 pages) does contain a sentence referring to welfare but the supporting pictures of rows of individual small, metal cages suspended over a washable floor gives no evidence that welfare is genuinely a consideration, let alone a priority. There are only two references cited in this chapter, from 1984 and 1985, leaving the reader nowhere to go to find alternative sources of information and no up-to-date information at all. The chapter on management of new world species is better, and quite comprehensive, but suffers from poor proof-reading and lapses into an irritating note style. The chapter on nutrition is mainly concerned with formulations and requirements and makes no mention of foraging, but there are two pages on feeding as enrichment in the chapter on environmental enrichment by Victor Reinhardt. This is an adequate review of the literature on enrichment and there is one page on training primates. The conclusion recommends pair housing, foraging and a trust-based relationship with attending personnel but misses the opportunity to provide inspirational guidance for future developments. This section also has chapters on development of SPF (specific pathogen free) colonies of primates and a very good chapter on medical care which will be useful for vets with no previous experience of working with primates. The section concludes with a chapter on the factors affecting the choice of species.

Part 3 is on Research Techniques and Procedures and contains chapters on anaesthesia, endoscopy, ultrasound imaging, functional magnetic resonance imaging, radiographic imaging and positron emission tomography using primates. Each one is a good overview of the subject, supported by plenty of references. The endoscopy chapter is illustrated with some excellent photographs, unfortunately spoiled somewhat by the omission of the illustrative arrows referred to in the legends.

Part 4 covers Current Uses in Biomedical Research. The first introductory chapter does have a sub-section entitled welfare considerations and refers to the necessity to provide psychological well-being programmes for non-human primates. The remaining chapters cover the use of the primate in models of chronic disease, in pharmacological studies, in models of ageing, neurological disease, respiratory disease, studies of reproduction, in virological research and in disease due to parasitic infection. There is also a survey of primate genetics and its application to biomedical research. These all provide a very useful and interesting background to the various subject areas and will be invaluable reading to those moving into these fields.

This book will undoubtedly find itself on the shelves of many libraries across the world and will establish itself as THE textbook on the laboratory primate. From a scientific viewpoint, this is good as it should help ensure that researchers not only choose the right model but also understand the background and limitations. Also it should mean animal care staff have a greater knowledge about the relevance of the primate model and perhaps understand a little about its use. Unfortunately from an animal welfare perspective this book is a disaster. On the back cover it