Book Reviews

Robert Kirk
Zombies and Consciousness
Oxford: Clarendon Press, 2005, 235pp.,
ISBN 0-19-928548-9 (hbk).

Reviewed by John McCrone

Having popularised philosophical zombies in the 1970s, Nottingham University's Robert Kirk now thinks it is past time to kill them off. But despatching the undead was never going to be easy. *Zombies and Consciousness* has two aims. First, Kirk hopes to show that the notion of a zombie — a person of flesh and blood but without the inner light of experience — lacks logical conceivability; it is incoherent and thus cannot be used as grounds for proposing a 'Hard Problem' of consciousness. Second, he wants to go the next step and show that ordinary physicalism can completely account for consciousness. He identifies a set of psychological functions, each of which is plausibly physical in its causation and, when bundled together, should result in a conscious being with no further (mental or otherwise non-physical) aspects left dangling. Consciousness would be just the sum of these material activities and nothing more.

The zombie story is that it is possible to imagine a creature which is exactly the same as you and me in every physical detail. It would have a brain that processes information and act as if it can 'see', 'think', 'imagine', and 'feel'. But the final essential ingredient would be missing. It would not benefit from a parade of subjective experiences — qualia. All would be dark inside. Kirk tells how he originally became a zombie enthusiast following a naive question from a first-year student at a tutorial. As he thought about it, the materialist position just melted away and for some years he was an ardent convert.

Zombies do not actually have to exist. Just the fact that we agree the idea to be a logical possibility opens the door to Cartesian dualism. If all the physical circuitry does not necessarily entail the mental states,

then physicalism is not up to the job of explaining consciousness. The mind is still the ghost in the machine. It's old idea, as Kirk acknowledges. In the 1930s, G.F. Stout used zombie-type examples to argue against epiphenomenalism. Stout said it was 'incredible to Common Sense' that there could be human bodies lacking mental experiences that would still go through the motions of making and using telephones and telegraphs, writing and reading books, speaking in Parliament, even arguing about materialism.

For a long time, zombies played only a minor role within consciousness studies. Searle's Chinese Room — which appealed better to the artificial intelligence community — hogged the limelight. But Chalmers (1996) put zombies centre stage in the late 1990s when he used them to argue that a physicalist approach to mind could never work. The logical conceivability of zombies proved there was an explanatory gap between the objective realm of the brain and the subjective one of mind. In philosophical circles, however, dualism is a monster that many would like to see buried once and for all. So there would be plenty of people to cheer on Kirk if he has now put paid the zombies that he used to love. Does he succeed?

As a warm up exercise, he starts with the jacket fallacy. Some properties can be imagined as capable of being shrugged off — like a person might remove a jacket. Nothing essential changes. The wearer is merely now *sans* jacket. However other properties are central to the definition of what it is to be that thing. The performance of a car cannot be altered except by fiddling with some physical part of its machinery. It makes no sense to think of two cars identical in every mechanical detail, yet one has 'performance', and the other lacks it. Of course this Rylean category-error style rejection of dualism may be considered facile. To zombie-mongers, the performance of a car is merely an emergent property. The mind appears actually different in kind. Stronger arguments are required.

Kirk then mounts his own e-qualia argument ('e' for epiphenomenal the reader is left to presume). His angle is that e-qualia are a necessary corollary of zombiedom. For zombies to exist, e-qualia would also have to exist as the precise type of mental experience that the zombies so sadly lack. And then comes the clever bit. If we feel that his description of these e-qualia is incredible and quite contrary to common sense, the original idea of a zombie must be incredible too. The downfall of one is automatically the demise of the other, for they would be two sides of the same coin.

So what would e-qualia have to be? In the spirit of zombiedom, we would begin with the suggestion that the world has a part that is

physical and closed in its causation. That is, every physical event within it is a result of other physical events. This physical part would then be used to construct a body with a brain that does complex cognitive processing. Just like a zombie. Then along comes the extra bit that makes this creature instead conscious. It would enjoy a parade of non-physical e-qualia. For some reason the physical activity would generate an epiphenomenal, causally inert, glow of experience. The qualia are there but they have no effects and do no cognitive work. This logically is what we must suppose if e-qualia are then to be the kind of thing that can be stripped away without altering the physical activities of a brain in any way.

So Kirk presents us with a conscious being that can be turned into a zombie through the loss of its e-qualia. It all seems conceivable — so far. At this point Kirk hopes to snatch the rug from under the argument. Consciousness involves one further necessary aspect he says. We apparently have epistemic access to our mental states. They are the subject of much noticing, attending, remarking and comparing. How, for example, could we ever choose between the taste of two wines unless we had access to qualia that are the subject of the mental contrast? We have no good explanation of this kind of access, he says, but even zombie enthusiasts feel that we possess it. Therefore e-qualia, in the sense of qualia which are so completely epiphenomenal they do not even do indirect work by way of being noticed and acted upon, cannot exist. If this kind of pure epiphenomenalism is inconceivable, as even zombie 'ultras' must admit, then zombies become inconceivable as well.

Kirk dismisses the obvious counter-argument. Zombie supporters would reply that zombies are able physically to feign all our complex mental responses. This would be so by definition. They would process a lot of information and give every outward impression of admiring two fine wines. They would fake a sense of attentional effort and deliberation if necessary. So again there would be a dualistic position in which a physical world of itself cannot entail the presence of mental states. The existence of qualia remain extra to any materialistic story. This misses the point, says Kirk. We *know* we have access to our conscious states, so the idea of zombies as just us minus e-qualia is the thing that is inconceivable. It is not about what level of clever behavioural simulation might be possible but about whether we really have something inessential that can be stripped away.

Does his argument work? Well not really. Perhaps I am missing something here myself, but it could be true that we really need our mental states to operate and yet it is also conceivable that a zombie

might not. This is the essence of the argument. Of course we are actually conscious (we think). But it is unclear how that consciousness is entailed by any physical mechanism. It is a case of in for a penny, in for a pound. Once we grant that a zombie can feign the presence of everything else, like perception, thought and imagery, then why not also epistemic access? Thus it remains open to us to suppose that we have e-qualia and are merely being fooled by our remarkable cognitive machinery into believing our mental states are both necessary and causal to our intellectual functioning.

Kirk's case is not helped by his principal follow-up argument, the sole-pictures story (a pun on soul-pictures). He asks us to imagine a zombie whose physical processes produce the particular epiphenomenal effect that it has qualia-type pictures, like little television images, playing on the soles of its feet. Whatever the zombie feigned seeing would in fact show up somewhere as an actual activity. The point is that we would not expect the zombie to have an epistemic relation to this activity merely because it happened to be occurring. But this is weak. Flickering images projected on the soles of the feet would be a physical process as Kirk himself agrees. And the dualistic position is that, being mental, the epiphenomenal states under discussion are of a different kind. *Res cogitans* not *res extensa*. Thus it is not where they show up that matters — either in the head, or on the feet — but the fact they exist.

So Kirk has not killed off his zombies. Must we then believe in the resulting explanatory gap? Not at all! I would argue that the hard problem is created by a basic assumption of the brand of logic that philosophers generally choose to deploy. Being axiomatic to the logic, this same logic can hardly be used to defeat it. The arguments of Kirk, Chalmers and others depend on a 'mechanical' logic based on the law of the excluded middle. Everything is either a this or a that, one kind of thing or another. Crisp binary divisions are taken for granted. But there is an alternative or indeed complementary view, which I call organic (Kahn, 1960; Peirce, 1980), where middles only become excluded in the course of a process. On this view the question becomes, not how the physical could ever produce the mental, but how they ever became separated.

In the organic view, everything begins mixed together as a vagueness — the unbounded apeiron, or naked Aristotelian potential. Then this vagueness divides dichotomously. It tends towards opposed limits. The Peircean firstness of monadic vagueness becomes the secondness of a dyadic separation through interaction. Then, out of

this separating, arises the thirdness, the triadic richness, of hierarchical complexity. A bootstrapping story of 1, 2, 3.

This is not the place to defend organicism as an alternative logic. But we can sketch its key consequences for theories of mind. It implies that every dichotomous outcome begins in the commonality of a vagueness. And the division does not bring absolute separations, only relative ones. Limits arise, but they are limits that can only be approached, never actually reached. To fully attain them would be to break the world apart and leave no middle ground of interaction. If we follow this logic, which could be said to *exude* limits rather than *exclude* middles, we can see that the apparent opposition of mind and matter is in fact an outcome of the dichotomous separation of a single potential. Although the two may now seem far apart as kinds, they must remain connected in terms of causality. They are the mutual product of a process of dependent co-arising or *paticca samuppada* (Macy, 1991). As a necessary fact of logic, therefore, the physical and the mental are to be regarded as joint products of a process of development. There can be no hard problem because, like figure and ground or *yin* and *yang*, one could not exist without the other.

This easy victory does have its troublesome consequences. The same logic requires that all of the physical world must be connected to the mental world in some real manner. This does not necessarily entail panpsychism; the idea that the material world — objects such as stars, rocks and water molecules — has qualia. But it does lead us to pansemiosis, a view of reality organised in a holistic or hierarchical fashion by a top-down, mind-like in the broadest sense, knowing. This is not so outlandish as it may sound. Physics already has universal laws that look down to constrain every local event. Relativity and quantum theory are both observer-dependent models of reality.

For the moment it does not really matter how the concept of mind would be deconstructed under a pansemiotic and organic approach to the modelling of the wider world. It is enough to show that zombies and their detached e-qualia are highly dependent on a system of logic that assumes what it then proves. There is hidden tautology in the arguments of this book as well as in those of zombie enthusiasts. Mechanical logic is in its way dichotomistic. But because of its reliance on the law of the excluded middle, mechanical logic leaves no option but to say that reality is either dualistic or monadic. Either the world is made of fundamental twonesses — such as chance and necessity, stasis and change, atom and void, discrete and continuous, substance and form, simple and complex, particular and general, matter and mind — or one of these two is taken as the fundamental and the

other the derived or constructed. Every one of the above mentioned dichotomies has been the subject of Hard Problem type wrangling. Is the world fundamentally continuous or discrete, random or determined, a flux or a frozen spacetime block, a formless chora or the shadow cast by Platonic ideas? It is simply the nature of the beast. A discourse founded on the law of the excluded middle has no choice but to vacillate between monism and dualism, finding neither satisfactory when it comes to the deep ontological questions.

So it would be astonishing if Kirk, armed with standard logic, could fulfil his first aim and finally dispose of zombies with the dualism they imply. To start with the physical and then to try to build up to the mental is a doomed project because the connecting middle ground that must bridge the gap has already been excluded in the formation of the dichotomy. Zombies and e-qualia may be incredible to common sense, but dualism remains the inevitable destination for this way of thinking.

The second half of the book is taken up by Kirk's other aim; an attempt to define consciousness in terms of a bundle of functions. He reviews the rise of awareness in the animal kingdom and says the essence of subjective awareness is being a decider. This ability to decide involves a 'basic package' which includes processes such the initiation and control of behaviour, the acquisition, interpretation and retention of information, the assessment of situations, and the choice of alternatives guided by goals. Then, to ensure this basic package of cognitive skills is conscious, there has to be one final thing – directly active information. What comes into the mind must have immediate impact and gain processing priority. What he is hoping to achieve here is to outline a set of functions which, when combined together, would leave out nothing that a mind is capable of doing. You could hand over this wish list to a clever hardware engineer and get back a conscious system. If his list sounds believably complete and implementable, we should find it easier to accept that mind is material.

Why does this approach seem so inadequate? Again because it is mechanical — based on the atomistic and reductionist approach by which humans build machines. Kirk is saying the mind can be created by putting together a system of particulars. Each of the functions is some particular skill, a component or a module. By careful choice of particulars, a mind can be constructed. An organic metaphysics suggests quite a different approach, for it treats mind as a fundamental category. Mind is an extreme to match that other extreme, brute inanimate matter, and so is a general rather than a particular. It has to be

approached in terms of its universal laws rather than as a set of locally contingent specifics.

This is the message we should be taking from the 'Hard Problem'. The material realm is indeed not enough. Mind is something other. But this does not mean we have to accept dualism. What we have are two limits approached from a *shared* middle ground. As scientists we should aim to model each kind of limit in terms of universal laws. A heap of particulars would always be the wrong approach for dealing with something that is actually fundamental. Can mind in fact be treated as a universal? Yes, of course. An organic metaphysics — such as Peircean semiotics, for example — treats mind as the upper boundary, the realm of downward acting constraints. The whole that shapes up the parts. Organicism works as philosophy and it also works as science. Once we know what we are looking for, we can appreciate the progress already made towards modelling the universal laws of mind with anticipatory systems (Grossberg, 1995; Rosen, 1985), autopoietic systems (Maturana and Varela, 1992), complex adaptive systems (Waldrop, 1992), and hierarchy theory (Salthe, 1993; Pattee, 2000). All these approaches share similar principles and lead towards generalised mathematical ideas. And while they have been prompted by the need to explain (mainly) biological complexity, there is no reason why they cannot be extended to cover physical simplicity – the 'simple' world of particles, stars and universes. This is the future of consciousness studies, in my opinion anyway. We are working towards a theory of how wholes can organise their parts, regardless of whether these wholes are organisms or entire worlds.

Kirk's zombies are lumps of physics that have lost their minds and no amount of mechanical complexity is ever going to restore them. But the organicist's idea of mindfulness as the organising, constraining, downwardly-acting, aspect of a dichotomised reality could bring mind back to the entirety of existence. Now that would be quite an achievement for consciousness studies, wouldn't it?

References

Chalmers, David (1996), *The Conscious Mind* (Oxford: Oxford University Press).

Grossberg, Stephen (1995), 'The attentive brain', *American Scientist*, **83** (5), pp. 438–49.

Kahn, Charles (1960), *Anaximander and the Origins of Greek Cosmology* (New York: Columbia University Press).

Macy, Joanna (1991), *Mutual Causality in Buddhism and General Systems Theory* (Albany, NY: State University of New York Press).

Maturana, Humberto and Varela, Francisco (1992), *The Tree of Knowledge* (Boston, MA: Shambhala).

Pattee, Howard (2000), 'Causation, control, and the evolution of complexity', in *Downward Causation*, ed. Anderson *et al.* (Århus: Aarhus University Press).
Peirce, Charles (1980), *Selected Writings* (Mineola, NY: Dover).
Rosen, Robert (1985), *Anticipatory Systems* (New York: Pergamon).
Salthe, Stanley (1993), *Development and Evolution* (Cambridge, MA: MIT Press).
Stout, G.F. (1931), *Mind and Matter* (Cambridge: Cambridge University Press).
Waldrop, Mitchell (1992), *Complexity* (New York: Simon and Schuster).

Tamar Szabó Gendler and John Hawthorne (Eds)
Perceptual Experience
Oxford University Press, 2006, 550 pp. ISBN 0 199289 75 1

Reviewed by Michael Beaton

Perceptual Experience is a significant book. Among its fifteen papers are some likely to be widely cited in future. The central theme is the following epistemological question — what is experience, that it should enable us to know the world? As the editors emphasize in their introduction, philosophical discussion of this question was dominated, for most of the last century, by the arguments from hallucination and illusion[1]. The central premise here is that such states can be indistinguishable from veridical perception. It is hence argued that states of perceptual experience do not necessarily involve objects in the external world. This typically leads either to *skeptical* conclusions (we cannot be sure that any experience puts us in contact with the external world) or at least to *error theories* of perception. On such an account the naïve view, that perception puts us in direct contact with the world, is wrong: perception provides at best indirect access to the world, and the nature of that indirect access is the proper topic of the philosophical study of perception.

Many of the papers in this collection accept some such conclusion, then ask what we can say about our indirect perceptual access to the world. Chalmers' fascinating contribution sets forth his novel theory of *Edenic content*. This works as follows. Perceptual experience — of color, say — presents the world as if it were made up of smooth continuous substances (e.g. perfect blue, which is not instantiated by some chemical microstate, but is simply that: continuous, perfect blue). For our perception to be perfectly veridical, the world would have to be Edenic — to be made up of perfect, continuous substances. But we have fallen from Eden. We now know that our world is not like that. Chalmers thus proposes that our perception has a *Fregean content* which derives from its Edenic content. Chalmers is following

[1] Arguments whose modern form is traceable to Locke and Hume.

Frege's (1892) distinction between *sense* (what you pick out) and *reference* (how you pick it out). We pick out as blue those things which standardly (in good lighting conditions, etc.) cause the phenomenal experience of Edenic blue. Our perception of something blue is veridical (as veridical as it can be) if it is of something whose role in causing experience, in this world, matches the role that perfect blue plays in Eden. On this two stage view, Edenic content determines the phenomenology of our experience, and Fregean content determines its truth conditions. Chalmers (briefly) shows how his account can be extended to other sensations (texture, smell, sound, etc.). Edenic content is a fascinating technical device[2], but it is more than this. It is an approach to taking seriously the phenomenal content of experience, which doesn't require (though it may well be compatible with) the property dualism (Chalmers, 1996) that many people have found problematic elsewhere in Chalmers' work.

Chalmers denies that his is an error theory of perception, but certainly it puts some distance between the way we naïvely take things to be and the way they are. Martin, on the other hand, wishes to close the gap opened by the argument from illusion. Martin is, famously, one of the proponents of the — at first sight incredible — *disjunctivist* position, which claims there is nothing fundamental in common between an experience and a subjectively indistinguishable illusion. (The view is named disjunctivism because an experience, of a table say, is either a veridical perception of a table, or a subjectively indistinguishable illusion.) Martin's paper is a significant contribution. He provides a tightly argued summary of the disjunctivist position as he has defended it elsewhere, but here goes further to engage with the reasons why so many have found disjunctivism unacceptable. The central reason for disjunctivism, on Martin's account, is precisely that it allows a form of *naïve realism* to be true. On this natural view, veridical experience puts us in direct contact with objects and properties in the world. On a disjunctivist view, the arguments from illusion and hallucination cannot block this claim because the only thing we can say about illusory experience (*qua* experience: the disjunctivist can accept that there may be neural facts in common between illusion and veridical perception) is that it is indiscriminable from the corresponding veridical experience. At base, then, the argument for disjunctivism rests on the intuition that veridical perception puts us in direct contact with the world. Conversely, the argument against

[2] Chalmers' Edenic content is evocative of Sellars' manifest 'image' (1962), but it would take (at least) a very strong conceptualism about sensory experience (see below) to demonstrate that it was the same idea.

disjunctivism rests, Martin says, on a competing intuition: namely that there is a common aspect to perceptual and illusory experience, and that we can know this to be so via introspection. In the dénouement of the paper, he argues that this anti-disjunctivist intuition is an appealing but misguided response to certain forms of skepticism. It could only be correct if introspection were (at some level, or meta-level) infallible. Even those who are no friends of disjunctivism will find much here that demands to be taken seriously.

Some of the papers refer to empirical results only to provide additional support for essentially conceptual work; others focus on empirical data. Hurley gives us a useful, updated review of her 'Shared Circuits Model' — which is a detailed, empirically informed and testable, view as to how the tight connection between perception and action might be realized in creatures like us. Dretske offers a welcome attempt to re-engage philosophy with the theoretical framework developed by psychologists working on implicit and explicit (i.e. non-conscious and conscious) cognition. Philip Merikle and his associates have argued widely that a *subjective measure* of consciousness (that is, a record of whether or not a cooperative subject claims to have been aware of a stimulus) is the only theoretically defensible measure on which to base a conscious/non-conscious distinction. Whilst early statements of this view have a beguiling simplicity (Cheesman and Merikle, 1985), the current literature is replete with competing claims and conceptual frameworks (e.g. Snodgrass, Bernat *et al.*, 2004). Dretske does not aim to completely overthrow Merikle's subjective measure, but wants to add sophistication by bringing out the justificatory relationship between perception and perceptual judgment. On Dretske's view we are perceptually conscious of something if, and only if, information about it is perceptually available to us as justification for what we subsequently choose to do.

There is, in fact, something approaching a consensus nowadays that one of the key defining features of perceptual experience is that it provides reasons for the perceiver. These include, but may not be limited to, reasons for believing that the external world is as it seems to be in perception. And one of the central debates in the field is over whether it is logically possible for a subject to appreciate something as a reason other than by bringing it under concepts. The traditional *conceptualist* view takes it that concepts are the components of categorical, rational thought about objects, events or processes. The conceptualist further argues that any appreciation that the world seems to be a certain way necessarily involves the exercise of exactly the same conceptual

abilities utilized in subsequent thought.[3] *Non-conceptualists*, on the other hand, argue that the conceptualist view manifestly fails to do justice to the richness of sensory experience; further, it does not allow for conscious experience in animals or in pre-linguistic humans (some — certainly not all — conceptualists are happy to agree on this latter point). Conceptualism remains the majority view within analytic philosophy, but non-conceptualism is currently in vogue. Much that is true about perception is written on both sides of the debate; any eventual resolution is likely to have important implications. Several papers in the volume argue more or less directly for a non-conceptualist view (Crane, Dretske, Johnston, Tye — with Tye providing a valuable overview of the arguments *pro* and *contra*), and several others espouse it less directly (including Siegel and Martin). Noë retains conceptualist sensibilities (Noë, 2004), but his position is recognizably influenced by non-conceptualism. He continues to provide ever more compelling accounts of the importance of 'presence in absence' in perception (our sense of the parts of the cat not seen behind the slats of a picket fence, or of the invisible side of the apple). Here, he suggests that this 'virtual presence' is what perception is like all the way in; that we never grasp features of the world in isolation, but rather have a mastery of their availability within a structured experiential field. As a concept empiricist (Prinz, 2002), Prinz is also seeking to close the gap between concepts and experience, but the view he develops here also contains more than a nod to non-conceptualism (and to traditional empiricism), in allowing non- (or at least pre-) conceptual sensory representation in consciousness.

Other papers (Gupta, Johnston) make substantial contributions to the analysis of relationships between knowledge and experience, or to clarification of the representational view of experience (Siegel, Lormand), or demonstrate links between more traditional epistemological questions about perception and current enactive approaches (Campbell). Shoemaker provides a valuable position paper, giving the current version of his slowly evolving, but always influential, view on the nature and status of qualia.

The breadth of coverage in this volume is its strength, but also its main weakness. Whilst the papers are all of near uniform high quality, not many researchers could be actively interested in every topic. Moreover a few papers are mainly reviews of their authors' previous writings — though useful ones. If you had to choose a single book on

---

[3] As McDowell (1994) makes explicit, this view has a lineage which leads rather directly to Kant.

any of the individual topics covered here, it would not be this one. Fortunately, we are not so limited. There is much of quality here, and those interested in serious research in any of the topics covered will not want to be without this book, and will find much to capture their attention outside their own specialism.

References

Chalmers, D.J. (1996), *The Conscious Mind: In Search of a Fundamental Theory* (New York: Oxford University Press).

Cheesman, J. and Merikle, P.M. (1985), 'Word recognition and consciousness', in *Reading Research: Advances in Theory and Practice*, ed. D. Besner, T.G. Waller and G.E. MacKinnon (New York: Academic Press), **5**, pp. 311–52.

Frege, G. (1892), 'Über Sinn und Bedeutung.' *Zeitschrift für Philosophie und Philosophische Kritik*, **100**, pp. 25–50.

McDowell, J. (1994), *Mind and World* (Cambridge, MA: Harvard University Press).

Noë, A. (2004), *Action in Perception* (Cambridge, MA: MIT Press).

Prinz, J. (2002), *Furnishing the Mind: Concepts and Their Perceptual Basis* (Cambridge, MA: MIT Press).

Sellars, W. (1962), 'Philosophy and the scientific image of man', in *Frontiers of Science and Philosophy*, ed. R. Colodny (Pittsburgh: University of Pittsburgh Press).

Snodgrass, M., Bernat, E. *et al.* (2004), 'Unconscious perception at the objective detection threshold exists', *Perception & Psychophysics*, **66**(5), pp. 888–95.

Lynne Sharpe
Creatures Like Us?
Exeter, Imprint Academic (2005)

Reviewed by Athar Yawar

Our time is that of the inanimate triumphant. We live surrounded by brick and concrete; the paths of our lives tarmac and steel, paced by the ticking clock. Animals, meanwhile, are increasingly regarded as decorations or intruders, to be viewed through the microscope or at the end of a telescopic lens — their habitats burnt, poisoned or ploughed. Their interests, it seems, do not coincide with ours.

Lynne Sharpe counters that animals should have rights equivalent to ours. *If you prick us, do we not bleed? If you tickle us, do we not laugh?*[4] She asks why, since animals experience pain and longings, they are not accorded the same rights to welfare, freedom from unnecessary pain and to life itself, as we give ourselves. Granting such rights may be safer than to deny them. The rights of animals and man are interwoven, she avers. We and domestic animals can live together in extended families; wild animals are valuable not least because they

[4] If Shylock should be surprised at hearing his words applied to non-human animals, he may consult Panksepp(2001) for evidence of rats laughing when tickled. — Ed.

contribute to the ‘integrity, stability and beauty of the biotic community’. Indeed, she considers that our relationships with animals should be taken into account when it comes to assessing their rights: a dog who has been an intimate companion for years may merit precedence over a human stranger.

Sharpe’s argument that animals have desires and can experience loss has overwhelming face validity and plenty of experimental support — and it seems inexorably to lead to the conclusion that animals should have at least some rights. Nonetheless, she has to contend with the views of a range of philosophers who caution against this line of reasoning. Their claims have included:

(1) Appearances are deceptive, and in fact animals have no feelings. Sharpe describes ‘Cartesian physiologists who subjected dogs to vivisection … with assurances that the cries of tormented animals were no more significant of distress than the squeaking of clockwork’. To this day, Sharpe reports, 60% of animal experiments are conducted without anaesthetic.
(2) While animals may have instincts, they cannot be said to *value* their lives, as, while they do indeed cherish their lives, they are not aware that they hold their lives to be of value.
(3) Animals do not consider themselves to be the same individual in different frames of time and space, and therefore to accord them rights as individuals is incorrect.
(4) They are pre-linguistic and therefore do not have thoughts as we know them.
(5) They are lacking in intelligence.
(6) They do not live similarly to man.
(7) Their lives are not terribly rich, and therefore one deprives them of little by taking their lives.

Quite how such conclusions were reached is open to question. Sharpe provides convincing evidence that, as regards feelings at least, animals are replete. The argument about animals not valuing their lives sounds to her more like a linguistic feint than a serious point; after all, if human beings were to be robbed of what they do not directly and consciously value, they would lose a great deal — including vital functions. She rightly adds that we should not allocate rights according to language, intelligence or similarity of way of life. Animals may arguably be more helpfully viewed, in these respects, as different rather than inferior. To the idea that animals lose little when killed, she remarks that this is a case of *from he that hath not, even that which he hath shall be taken away.*

Sharpe disposes of such philosophical claims meticulously — perhaps too painstakingly indeed, as they could arguably be dismissed in a briefer and more systematic fashion. Nevertheless they have sometimes been given a prominence out of proportion to their apparent worth, so there may well be some purpose in dismantling them piecemeal. Mary Midgley, in her review of the book, aptly commented that Sharpe 'clears out a pile of bad philosophy'. The book also provides a vivid and thought-provoking account of both man's relationships with animals, and animals' relationships with one another.

However, there remain many unanswered or partially answered questions. One is to do with value. While (rightly) dismissing alleged intelligence, linguistic prowess and similarity of lifestyle as primary, Sharpe leaves us with a host of subsidiary questions. How extensive are animals' rights? It is inevitable that sometimes they will conflict, at least superficially, with those of man — and then how do we resolve the dilemma? How much can we rely on relationships and affections? How do animals' rights differ between different species, and which should have precedence? Should I, for instance, allow a starving tsetse fly to bite my cattle — or indeed me?

The book also raises issues about philosophy itself. How can published — and in some cases acclaimed — philosophers produce arguments so evidently lacking not only in face validity but in humanity and coherence? Sharpe suggests that this failure was due, in at least one case, to a basic misunderstanding of rationality. Relationships and affections were disregarded because held to be irrational, when in fact they are not only part of the human condition but can be eminently rational. In other cases, she says, personal experience of animals has apparently either been lacking or not allowed to inform theory.

This book therefore raises questions of central importance to philosophy. How should we allocate value? How can we integrate the world of theory with the world of values? How may we prevent preconceptions from distorting our ideas? Many of the anti-animal arguments have also been used in relation to fellow humans — with disastrous consequences. L Frank Baum, for instance, the author of *The Wizard of Oz,* wrote just before the massacre of Wounded Knee:

> The nobility of the Redskin is extinguished, and what few are left are a pack of whining curs who lick the hand that smites them. The Whites, by law of conquest, by justice of civilisation, are masters of the American continent, and the best safety of the frontier settlements will be secured by the total annihilation of the few remaining Indians. Why not annihilation? ... Better that they should die than live the miserable wretches that they are.

Perhaps we need to revise our epistemology. For four hundred years, we have anatomized, isolated, manipulated, measured and theorized. That is how we have constructed a body of knowledge. It is a method that has helped us immensely in relation to the inanimate world, which we quarry, manipulate and burn with ever-increasing expertise. But it is not necessarily sufficient in relation to the animate world, perhaps especially when it comes to fellow humans, whom we also tend to burn.

I would argue — although this is not the place for a detailed exploration — that within prevailing patterns of thought lie several inbuilt errors. Objects do not exist in isolation, and isolating them and manipulating them as we see fit does not necessarily help us to understand their natural function. Moreover, until we understand context, meaning and purpose, we do not fully comprehend even the simplest thing. *In the shop of the sightless jeweller, the ruby and the pebble are the same*. To address our blinding or distorting preconceptions is a moral and personal affair as well as a scientific one. Indeed the ethical and scientific goals — both of which involve seeing clearly — are intertwined. As things are, we often see only what our preconceptions prepare us for, and resemble the characters in an e e cummings poem:

maggie and milly and molly and may
went down to the beach(to play one day) . . .
. . . For whatever we lose (like a you or a me)
it's always ourselves we find in the sea.

They found nothing that they had not brought with them.

BOOKS RECEIVED

Mention here neither implies nor precludes subsequent review

Coward, L. Andrew, *A System Architecture Approach to the Brain: From Neurons to Consciousness* (Nova Science 2005)

Hopkins, Jeffrey, *Absorption in No External World: 170 Issues in Mind-Only Budd*hism (Snow Lion 2005)

Moseley, Ken, *Ultimate Reality* (Shepheard Walwyn 2006)

Nagajuna, *Letter to a Friend*, with commentary by Kangyur Rinpoche (Snow Lion 2005)

Rosenthal, David M., *Consciousness and Mind* (Oxford University Press 2005)

Rose, David, *Consciousness: Philosophical, Psychlogical and Neural Theories* (Oxford University Press 2006)

Terrace. Herbert S. and Metcalfe, Janet, *The Missing Link in Cognition: Origins of Self-reflective Consciousness* (Oxford University Press 2005)