The question whether brutes have experiences has been granted as obvious in recent times, and in one sense of the term “experience” no doubt it is so. But not, I shall argue, in the sense that makes their experiences an appropriate object of moral concern.

I

Since Thomas Nagel’s seminal paper “What is it Like to be a Bat?,”† it has become generally accepted that a creature may be said to have experiences if and only if there is something that it is like to be that thing (even if we cannot know what). But this identification of experience with subjective feel is false. There are, in fact, many experiences that do not feel like anything.

Consider some familiar examples. While driving the car over a route I know well, my conscious attention may be wholly abstracted from my surroundings. I may be thinking deeply about a current piece of writing of mine, or phantasizing about my next summer’s holiday, to the extent of being unaware of what I am doing on the road. It is common in such cases that one may suddenly “come to,” returning one’s attention to the task at hand with a startled realization that one has not the faintest idea what one has been doing or seeing for some minutes past. Yet there is a clear sense

* I am grateful to Clare McCready for discussions that stimulated the writing of this paper, and to A.D. Smith for his comments on an earlier draft.

in which I must have been seeing, or I should have crashed the car. My passenger sitting next to me may correctly report that I had seen the lorry double parked by the side of the road, since I had deftly steered the car around it. But I was not aware of seeing that lorry, either at the time or later in memory.

Another example: when washing up dishes I generally put on music to help pass the time. If it is a piece that I love particularly well, I may become totally absorbed, ceasing to be conscious of what I am doing at the sink. Yet someone observing me position a glass neatly on the rack to dry between two coffee mugs would correctly say that I must have seen that those mugs were already there, or I should not have placed the glass where I did. Yet I was not aware of seeing those mugs, or of placing the glass between them. At the time I was swept up in the finale of Schubert’s “Arpeggione Sonata,” and if asked even a moment later I should have been unable to recall at what I had been looking.

Let us call such experiences nonconscious experiences. What does it feel like to be the subject of a nonconscious experience? It feels like nothing. It does not feel like anything to have a nonconscious visual experience, as of a lorry parked at the side of the road or as of two coffee mugs placed on a draining rack, precisely because to have such an experience is not to be conscious of it. Only conscious experiences have a distinctive phenomenology, a distinctive feel. Nonconscious experiences are those which may help to control behavior without being felt by the conscious subject.

These points – intuitive as they are – are already sufficient to show that Nagel is wrong to identify the question whether a creature has experiences with the question whether there is something that it feels like to be that thing. For there is a class – perhaps a large class – of nonconscious experiences that have no phenomenology. So, the fact that a creature has sense organs, and can be observed to display sensitivity in its behavior to the salient features of its surrounding environment, is insufficient to establish that it feels like anything to be that thing. It may be that the experiences of brutes (that is, of some or all nonhuman animals) are wholly of the nonconscious variety. It is an open question whether there is anything that it feels like to be a bat or a dog or a monkey. If consciousness is like the turning on of a light, then it may be that their lives are nothing but darkness. In order to make progress with this issue, we need to understand the nature of the distinction between conscious and nonconscious mental states.

Before proceeding to that task, however, it is worth noticing a somewhat less familiar example of nonconscious experience, since this will help us to see how the conscious/nonconscious distinction may have a physical realization in the neurological structure of the human brain. The phenomenon I have in mind is that of blindsight. Human subjects who have suffered
lesions in the striate cortex (the visual center in the higher part of the brain) may lose all conscious experience in an area of their visual field. They insist that they can see nothing at all within that region. Nevertheless, if asked to guess, they prove remarkably good at describing features of objects presented to them in that area, such as the orientation of a line, or at pointing out the direction of a light source. They can also reach out and grasp objects. Indeed, if asked to try to catch a ball thrown toward them from their blind side, they often prove successful.3

The conclusion to be drawn from these studies is that, while blindsight patients lack conscious visual experience within an area of their visual field, they nevertheless have nonconscious experiences which are somehow made available to help in the control of their actions. It seems that the neurological explanation for the phenomenon is that information from the eye is not only mapped on to the striate cortex (in normal subjects) but is also sent to a second mapping in the midbrain. It is presumably this latter mapping which is made available, in blindsight patients, to be integrated with the subject’s goals and other perceptions in controlling behavior. It is also possible that it is this midbrain information which underlies the everyday examples of nonconscious experience outlined above. But we should beware of concluding that any creature with a striate cortex will be the subject of conscious visual experiences. The phenomenon of hindsight shows only that a functioning striate cortex is a physically necessary condition for conscious visual experience, not that it is sufficient. It may be that in the case of everyday nonconscious experience the striate cortex is indeed active, but that its information is not made available to whatever structures in the human brain underlie consciousness. And it may be that nonhuman animals with a striate cortex do not possess those structures at all.

It is worth stressing that the various nonconscious experiences we have considered do genuinely deserve to be counted as a species of experience. For not only is incoming information processed to quite a high degree of sophistication, but the states in question conform to the practical-reasoning model of explanation. Thus, the car driver behaved as he did because he wanted to reach his destination safely and saw that the lorry was an obstacle in his path. And the blindsight patient picked up the ball because he wanted to comply with the request of the experimenter and saw that the ball was on the edge of the desk. But if someone really insists that experiences are conscious states by definition, then the conclusion of this section may simply be rephrased. It is that, since there exist in humans similar levels of cognitive processing and behavior control to those displayed by brutes, which do not involve experiences, it is an open question whether brutes have experiences at all. In the discussion that follows, however, I shall assume, as seems most natural, that not all experiences are conscious ones.
What distinguishes conscious from nonconscious experiences? The question is best raised in connection with the distinction between conscious and nonconscious mental states generally. Since David Armstrong’s early work, it has been usual to characterize conscious mental states as those which give rise (noninferentially) to an activated second-order belief in their own existence. Thus, a conscious belief that $P$ is one which, besides being available to enter into the causation of the subject’s behavior, is apt to cause in them the activated belief that they believe that $P$. Similarly, a conscious visual experience is one that, besides causing beliefs about the matter to which the experience relates, and being made available to nonconscious motor control processes, is apt to give rise to the belief that just such an experience is taking place.

If such an account were correct, then it would be very doubtful whether many species of animal could be said to enjoy conscious experiences. For only the most anthropomorphic of us is prepared to ascribe second-order beliefs to toads and mice; and many of us would have serious doubts about ascribing such states even to higher mammals such as chimpanzees. At any rate, behavioral evidence for the possession of such states in higher mammals is contentious, whereas their absence from lower mammals, birds, reptiles, and fish is surely uncontentious. I shall show, however, that the proposed account is definitely incorrect. But this result is not a defense of conscious experience for brutes. Quite the contrary: the account of consciousness which emerges will make it even less likely that any non-human animals have conscious experiences.

I begin with an example I owe to Tim Williamson, designed to show that one cannot equate conscious believing that $P$ with an activated second-order belief that one believes that $P$. In the course of a discussion of the merits and demerits of functionalism in the philosophy of mind, I might realize that I had for some time been speaking of functionalists as “we,” also becoming angry when the views of functionalists were maligned, thus manifesting the activated second-order belief that I believe myself to believe in functionalism. But this might strike me with the force of self – discovery. If anyone had asked me previously whether I were a functionalist, I might have expressed uncertainty. In which case it would seem that the possession of activated second-order beliefs is not sufficient for conscious believing.

Another argument with the same conclusion is that the proposed account gets the focus of attention of conscious believing quite wrong. Conscious belief is surely world-directed in precisely the way that belief itself is. If I entertain the conscious belief that the world is getting warmer, then the primary object of my belief is the earth and its likely future temperature.
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Whereas if the proposed account were correct, the primary object of the conscious belief would be myself (I should be believing of myself that I possess a particular first-order belief), only focusing on the world indirectly, via the content of the first-order belief in question.

This point holds also for the proposed account of the distinction between conscious and nonconscious experience. Conscious visual experiences, too, are primarily world-directed. When I consciously see that there is a dagger on the desk before me, the primary focus of my attention is the dagger itself. In normal cases of conscious perception, our experiences are, as it were, transparent: representing the world to us without themselves being objects of attention. It is of course possible to pay attention to one’s conscious experiences, as when I attempt a phenomenological description of my visual field. But this is a sophisticated and relatively unusual thing to do. Whereas on the proposed account it is the normal case: to perceive consciously that there is a dagger on the desk would be to have activated the belief about myself that I have an experience of there being a dagger on the desk.

Is it possible to do better? Indeed it is. A conscious, as opposed to a nonconscious, mental state is one that is available to conscious thought – where a conscious act of thinking is itself an event that is available to be thought about in turn. (When we think things consciously to ourselves, the events that express our thoughts are themselves available to be objects of further thoughts – I can think to myself that my thought was poorly formulated, or hasty, or confused, or whatever.) In the case of belief, a conscious belief (qua standing state) is one that is apt to emerge in a conscious thinking with the same content. This is then able to handle Williamson’s example: the reason why I had not consciously believed functionalism to be true is that I failed to have any disposition to think to myself, “Functionalism is true.” The account also has the advantage that conscious beliefs have the same primary world – directedness as beliefs. For the conscious act of thinking, aptness to emerge in which is the distinctive mark of a conscious belief, is an event with the very same (world-directed) content as that belief itself. What makes my belief that the earth is getting warmer a conscious one is that I am disposed in suitable circumstances to think to myself, “The earth is getting warmer”; in both cases, the direction of focus is on the world, rather than on myself.

In the case of experience, a conscious experience is a state whose content is available to be consciously thought about (that is, which is available for description in acts of thinking which are themselves made available to further acts of thinking). In this case, I say “available to be thought about,” rather than “apt to emerge in thinkings with the same content,” because it is plausible to claim that most experiences have a degree of complexity and richness which may outreach our powers of accurate description.
Nevertheless, every aspect of the perceived scene is made available to thought, even if only the thought that things are now subtly different. (Although the manner in which the leaves of a tree are shimmering in the breeze may defy description, I must at least be able to think to myself that the pattern of movement is now slightly altered, if it is.) Here, too, we can retain the primary world-directedness of conscious experience, since the normal way for information that is made available to thought through perception to emerge in acts of thinking is in thoughts about the object perceived – as when I think to myself that the dagger on the desk is richly ornamented.

When we turn to consider, not conscious experience of something in the world, but the more sophisticated state of consciousness of that experience itself, it is important to note that the suggested account is consistent with the existence of unanalyzable qualia. It may indeed be the case that the distinctive feel of my experience of a warm shade of red is incapable of further analysis, or even of nonrelational description. But I claim that what constitutes that feeling as a conscious rather than a nonconscious state is that it is available to be consciously thought about. It is the status of qualia as conscious states, not the individual qualia themselves, which is being analyzed on the proposed account.

Besides the virtues mentioned above, my account provides a natural treatment of the examples of nonconscious experience with which we began. The reason why my perception of the double-parked lorry was not conscious, is that, while information about the lorry was somehow made available for integration into my actions, it was not available to my conscious thoughts. Similarly in the example of nonconscious perception of mugs on a draining board, what makes the experience nonconscious is that there was, in the circumstances, nothing available for me to think spontaneously about those mugs.

The issue of spontaneity is important in handling the blindsight examples. For although in these cases the visual information is, in a sense, available to be thought about (since if asked to guess what is there, subjects will generally guess correctly), it is not apt to give rise to spontaneous thoughts in the way that conscious experiences do. In the normal course of events, blindsighted people will have no thoughts whatever about objects positioned in the blind portion of their visual field. Indeed, when they do think about the matter, they are strongly inclined to believe that they see nothing.

One final virtue of my account is that it is able to explain why so many philosophers have been inclined to connect possession of conscious mental states with the ability to speak a natural language. For such a connection is at its most plausible (though still denied by many) where conscious think-
nings are concerned. The idea that the ability to think things consciously to oneself is tied to the possession of a natural language has an immediate (if defeasible) plausibility. Whereas a similar thesis applied to the capacity for conscious experience seems much more puzzling. For why should it be supposed that language mastery is a necessary condition for a creature to enjoy conscious visual experiences? If the account sketched above is correct, then there may indeed be such a connection, but at one remove: it is because conscious experiences are those which are available to conscious thinkings. Now, although I am in fact one of those who maintain that language mastery is at least contingently connected with the capacity for conscious thought, I shall not argue for this here. Nor is such a thesis necessary in what follows.

Are there any other alternatives to my account? I can think of only three. First, it might be said that the distinctive feature of a conscious experience is that it is recorded in short-term memory (this being the explanation of why such experiences are, in humans, available to be thought about). But the trouble with this is that there is nothing here to distinguish conscious from nonconscious short-term memory. (My own account, in contrast, is reflexive: conscious thinkings are ones that are themselves available to be consciously thought about.) Second, it might be said that a conscious state is one that is available to the organism as a whole. But the trouble here is that the experiences of any earthworm or slug will turn out to be conscious ones, on this account, whereas the experiences of my car driver are not. Third, it might be claimed that the distinction between conscious and nonconscious states is simple and unanalyzable. But this surely cannot be right. It cannot be merely that we are capable of recognizing, straight off, whether or not a given state is conscious (in the way that we are capable of recognizing whether or not a given shade of color is green); for nonconscious states, precisely because they are nonconscious, cannot be immediately recognized as such. Yet if it is said to be the availability for such immediate recognition which constitutes a state as a conscious one, then we appear to have returned to a version of my own proposal.

If my account of the distinction between conscious and nonconscious mental states may be taken as established, then the nonconscious status of most animal experiences follows with very little further argument. For if it is implausible to ascribe second-order beliefs to mice or fish, it is even more unlikely that they should be thinking things consciously to themselves – that is, that they should engage in acts of thinking which are themselves made available for the organism to think about. Indeed, it seems highly implausible to ascribe such activities to any but the higher primates; and, even then, many of us would entertain serious doubts. In the discussion that follows, I shall confine attention to those species for which I take it the above thesis
will be noncontroversial. I shall assume that no one would seriously main-
tain that dogs, cats, sheep, cattle, pigs, or chickens consciously think things
to themselves (let alone that fish or reptiles do). In which case, if my account
of the distinction between conscious and nonconscious experience is
 correct, the experiences of all these creatures will be of the nonconscious
variety.

III

It goes without saying that pains, too, are experiences. Then two questions
remain. First, does pain, like any other experience, admit of a conscious/
nonconscious distinction? If so, then the pains of brutes will be non-
conscious ones, according to my general account of this distinction. Second,
are nonconscious pains an appropriate object of sympathy and moral
concern? If not, then the sufferings of brutes will make no moral claims
upon us.

There are no noncontroversial examples of nonconscious pain in humans
to parallel our everyday examples of nonconscious visual experience. There
is an obvious reason for this, since part of the function of pain is to intrude
upon consciousness, in order that one may give one’s full attention to taking
evasive action. But possible examples come from cases where someone is
concentrating very intently upon a task, and where they later report having
felt no pain upon injury, but where they nevertheless display aversive
behavior. For instance, a soldier in the midst of battle may be too caught
up in the fighting to notice any pain when he badly burns his hand on the
red-hot barrel of a gun, but an observer would see him jerk his hand away
in the manner characteristic of someone in pain. Should we feel sympathy
in such a case? Clearly we would be sympathetic for the soldier’s injury;
but not for his suffering, since he in fact felt no pain. This sort of example
is incapable of carrying very great weight, however, because the pain
behavior displayed is hardly paradigmatic. Since the episode is so brief and
unstructured, it may perhaps be thought of as a mere reflex, rather than a
genuine instance of non-conscious pain perception.

Can there be cases of pain parallel to those of blindsight? That is, cases
where the full (or nearly full) range of pain behavior is displayed, but in
which the subject is not conscious of any pain. So far as I am aware,
no such cases have actually occurred; but the neurophysiology of pain
perception suggests that they are, in principle, possible.10 Pain in humans
is mediated through two types of nerve, which generate distinct projections
in the brain subserving distinct functions. Very roughly, the “new path” is
fast; it is projected into the higher centers of the brain, and is responsible
for precise pain location and fine discriminations of feel. The “old path”
is, by contrast, slow; it is projected primarily to the more ancient limbic system in the brain, and gives rise to aversion (the desire for the pain to cease).

Some types of morphine can suppress the activity of the old path, while leaving the new path fully functioning. Patients report that their pain is still just as intense (it feels the same), but that it no longer bothers them (they no longer want it to stop). It seems unlikely, in contrast, that there will be any drug, or any naturally-occurring lesions, which suppress the activity of the new path while leaving the old path functioning. For, unlike the case of vision, the nerves of the new path have no specialized projection area in the higher cortex, but seem rather to be mapped in a complex way into many different regions throughout it.\(^{11}\) This suggests that phenomena similar to blindsight could only occur as a result of direct surgical intervention. But they do seem to be possible, in principle.

Let us then imagine a case for pain similar to that of blindsight. Suppose that a particular subject, Mary, is never conscious of any pains in her legs. But when she suffers injury in that region, she displays much of normal pain behavior. If we jab pins into her feet, she tends to try very hard to make us stop, she grimaces and groans, and severe damage causes her to scream. But she sincerely declares that she feels nothing. Perhaps she initially found her own behavior disquieting, but now she understands its basis and merely finds it a nuisance. When she twists her ankle, she does not ask for something to alleviate the pain (she says she feels none), but for something to help her relax, and to stop her from grinding her teeth and limping when she walks.

This case is clearly imaginable. It is a possible example (physically possible as well as logically so) of nonconscious pain – that is, of events which otherwise occupy the normal causal role of pain,\(^{12}\) but which are not available to be thought about consciously and spontaneously by the subject. Ought we to feel sympathy for Mary? We might perhaps feel sympathy for her general condition, since it is in many ways a disturbing situation in which to find oneself. But we should not feel sympathy on specific occasions of injury, since it is clear that she does not suffer. Not being conscious of any pain, her mental state is not an appropriate object of moral concern. (Her injury itself might be, however, because of its indirect effects upon her life, and hence her conscious desires and disappointments. There are many things that you cannot do with a twisted ankle, even if you feel no pain.) Similarly then in the case of brutes: since their experiences, including their pains, are nonconscious ones, their pains are of no immediate moral concern. Indeed, since all the mental states of brutes are nonconscious, their injuries are lacking even in indirect moral concern. Since the disappointments caused to a dog through possession of a broken leg are themselves
nonconscious in their turn, they, too, are not appropriate objects of our sympathy. Hence, neither the pain of the broken leg itself, nor its further effects upon the life of the dog, have any rational claim upon our sympathy.

Of course, it is one thing to reach an intellectual acceptance of such a position, and quite another to put it into practice. Are we really capable of suppressing our sympathy when we see an animal (especially a cuddly one) in severe pain? Not only is it possible that this should occur – after all, the history of mankind is replete with examples of those who have eradicated all feelings of sympathy even for members of other races, by telling themselves that they are not “really human” – but it is a moral imperative that it ought to. Much time and money is presently spent on alleviating the pains of brutes which ought properly to be directed toward human beings, and many are now campaigning to reduce the efficiency of modern farming methods because of the pain caused to the animals involved. If the arguments presented here have been sound, such activities are not only morally unsupportable but morally objectionable.13

Consider once again the case of Mary. Suppose that you are a doctor who knows the details of her condition, and that you happen to be on the scene of an accident in which her legs have been badly injured. A number of other people are obviously injured and in pain, but Mary is screaming the loudest. Ought you to treat her first? Clearly not, other things being equal (e.g., provided that she is not bleeding badly); indeed, it would be moral weakness in you to do so. For you know that she is not really suffering, since her pains are nonconscious, whereas the sufferings of the others are real. Similarly then in the case of brutes: since their pains are nonconscious (as are all their mental states), they ought not to be allowed to get in the way of any morally-serious objective.

It is worth drawing a contrast at this point with the case of very young children. I presume that the pains of babies, too, are nonconscious; for no one will seriously maintain that they consciously think things to themselves. Nevertheless, it is important that they should continue to evoke our sympathy. For a baby’s pains and injuries, and our attitudes toward them, are likely to have a significant effect upon the person the baby will one day become. There is a parallel here with the case of language development. As every parent knows, one naturally becomes possessed by a sort of necessary insanity, talking to young children as if they could understand. This is no doubt essential if children are to develop into skilled practitioners of their native tongue. In both cases, one engages, and should engage, in a useful fiction: ascribing to the baby thoughts that it does not in fact possess.

There is no such rationale in the case of brutes. For our sympathy and concern for their pains and injuries cannot be said to have an effect on the persons they will one day become. Nevertheless, it is hard, especially in a
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culture such as ours where animals are often used as exemplars in moral training (we tell children that it is cruel to pull the whiskers out of the cat), to eradicate our feelings toward them. Indeed, in such a culture we may have reason to look askance at people who can be wholly indifferent to an animal writhing in agony before their very eyes. (We say, “How can you be so inhuman?”) But what should be said is that we are obliged to set such feelings aside whenever they threaten to have a morally significant effect upon other humans. And it also follows that there is no moral criticism to be leveled at the majority of people who are indifferent to the pains of factory-farmed animals, which they know to exist but do not themselves observe.

Notes

2 This has been researched by a number of investigators. See in particular L. Weiskrantz, “Varieties of Residual Experience,” Quarterly Journal of Experimental Psychology, XXXIII, 3 (1980): 365–386.
3 For these last two facts, I rely upon personal communication from A.J. Marcel, Applied Psychology Unit, Cambridge, who will be publishing details shortly. Subjects displayed 80%–90% of normal accuracy in reaching out for objects of varying sizes and orientations, placed at varying distances. For examples of other experimental data suggesting the existence of nonconscious perceptions of quite a sophisticated sort, see Marcel. “Conscious and Unconscious Perception,” Cognitive Psychology, xv, 2 (1983): 197–300.
5 A belief is activated when it becomes engaged in the subject’s current mental processes.
6 For a useful review of the evidence of various levels of cognitive organization in a range animal species, see Stephen Walker Animal Thought (New York: Routledge & Kegan Paul, 1983).
7 The account that follows is modelled on some of Daniel Dennett’s suggestions in “Toward a Cognitive Theory of Consciousness,” in Brainstorms (Montgomery, VT: Bradford, 1978), 149–173. But Dennett, implausibly, connects consciousness directly with the ability to give verbal reports. If there is such a connection, it needs to be established at least in part by empirical investigation, not fixed by definition.
9 See the very sensible discussion of the cognitive powers of chimpanzees in Walker, op. cit.
10 In what follows, I rely largely upon the account provided by Dennett in “Why You Can’t Make a Computer that Feels Pain,” in Brainstorms, ch. 10.
This is not strictly correct, since part of the normal causal role of pain is to give rise to a conscious desire that the pain should cease, whereas I am supposing that Mary's avoidance behavior is motivated by desires that are nonconscious. (This is merely for ease of presentation: Mary cannot consciously desire that her pain should stop, since she feels none. But she might in fact have a conscious desire that whatever is going on in her ankle should cease.) The adjustment is allowable in this context, since the desires of brutes, as well as their pains, will be nonconscious ones.

Peter Singer has been prominent in defending the moral significance of animals, from a broadly utilitarian perspective. See, for example, his *Practical Ethics* (New York: Cambridge, 1979). But he makes no attempt to take account of the distinction between conscious and nonconscious experience. Indeed, he does not notice it. There are, of course, other moral perspectives, from the standpoint of some of which the moral significance of animals may be attacked; for example, versions of contractualism which place a premium upon rational agency. But my argument is the more fundamental, since even contractualists should find a place for compassion.