

Theodicy and Animal Pain

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The existence of evil is compatible with the existence of God, most theists would claim, because evil either results from the activities of free agents, or it contributes in some way toward their moral development. According to the 'free-will defence', evil and suffering are necessary consequences of free-will. Proponents of the 'soul-making argument'—a theodicy with a different emphasis—argue that a universe which is imperfect will nurture a whole range of virtues in a way impossible either in a perfect world, or in a totally evil one.¹ The pain of animals is widely thought to constitute a major difficulty for both of these accounts, for if we ask whether the only evils present in the world result directly from the free actions of created agents, or contribute in some way to 'soul-making' of such agents, we are bound to admit that, on the face of it, much animal pain does not.

I

The problem which animal pain presents to the theist admits of two kinds of solution. One is simply to deny that animals experience pain, the other is to find a way of showing animal pain to be consistent with the goodness of God. Both kinds of solution have been offered in the past. In the seventeenth century Descartes proposed that animals were simply machines who were unaware of sensations of any kind—sights, sounds, smells, and crucially, pain.² Descartes did not, we should note, deny animals life, he denied them awareness. Animals, for him, were like trees which had developed the art of locomotion. The theological significance of Descartes' assertions was not lost on his contemporaries. Pierre Bayle observed that the Cartesian view, while 'so far from being probable', was 'of very great advantage to the true faith' and that this for

¹ Modern accounts of these theodicies may be found in Alvin Plantinga, *God and Other Minds* (Ithaca: Cornell University Press, 1967) chs. 5 and 6; and John Hick, *Evil and the God of Love* (London: Fontana, 1968).

² René Descartes, *A Discourse on Method*, trans. John Veitch (London: Dent, 1957) pt. v (44ff.); Letter CXCII (to Mersenne), in *Oeuvres de Descartes*, Charles Adam and Paul Tannery (eds) (Paris: L. Cerf, 1897–1913) III, 85.

many people far outweighed its improbability.³ As Bayle went on to point out, the 'advantage' lay in this: If we hold that misery results from sin (the essence of the free-will defence), then either the beasts suffer unjustly, in which case God is culpable, or the beasts only appear to suffer. Descartes, in upholding the latter possibility, protected the righteousness of God.⁴ Descartes' speculations, however, were accompanied by serious difficulties. Notoriously, mind–body dualism, upon which his view of the nature of animals ultimately rests, gives rise to a number of paradoxes, the most serious of which concerns the interaction of mind and body. More than internal philosophical difficulties, however, it was the acceptance of evolutionary theory which led to the demise of the animal-machine. The evolutionary model, which stresses continuities between human and animal realms, displaced the quasi-religious Cartesian model with its emphasis on the immortal soul and on the privileged position of man in creation.

An alternative avenue is to suggest that a variety of physical evils—animal pain included—result from moral evils. According to this view, God has linked the fate of the whole created order to human destiny. The moral fall of man occasioned a corresponding fall in nature, animate and inanimate. It is for this reason that the world displays such imperfections as earthquakes, volcanoes, disease, and animal pain.⁵ The objection that animals were experiencing pain for millions of years before the fall may be met by the proposal that prior to the emergence of man there existed non-human free creatures—'fallen angels', if you will—who were, and are, responsible for natural disasters and animal pain.⁶

An ad hoc hypothesis which invokes mythological beings lacks a certain credibility. Its success, or rather its acceptance, is due less to its cogency than to the fact that there seems to be no other way of reconciling animal pain with the goodness of God. As Richard Swinburne expresses it, the attribution of animal pain to the activity of demons is 'not *clearly* false' and 'may indeed be indispensable if the

³ Pierre Bayle, 'Rorarius', note 'B', *Historical and Critical Dictionary*, selected and trans. by Richard Popkin (Indianapolis: Bobbs-Merrill, 1965) 215f. In remark 'E' of the article 'Pereira', Bayle began to set out a history of views on the nature of the soul of animals. This history was completed in the article 'Rorarius'.

⁴ Bayle, 'Rorarius', note 'C', *ibid.*, 220.

⁵ See, e.g., C. S. Lewis, *The Problem of Pain* (London: Fontana, 1957), 121–124; E. L. Mascall, *Christian Theology and Natural Science* (London: Longmans, Green and Co., 1956) 301–302; D. B. Webb, *Why Does God Permit Evil?* (London: Burns, Oates and Washbourne, 1941) 33–35.

⁶ See, e.g., Lewis, *The Problem of Pain*, 121–124; Alvin Plantinga, *God and Other Minds* 149 f.

theist is to reconcile with the existence of God, the existence of passive evils of certain kinds, e.g. certain animal pain'.⁷ It is quite uncontroversial to conclude that this 'indispensable' view is the weakest link in current theodicies. If a choice must be made between the two explanations so far offered, the Cartesian alternative is far more plausible. To work properly it must assume God's activity in human beings, correlating bodily events (the flame burns my hand) with mental states (I feel pain). This 'occasionalism' is admittedly also ad hoc and mythological, but less so than attributing earthquakes, floods, volcanoes, disease and animal pain to demonic activity. If theodicians feel that the pains of animals must be explained at all costs, they might do better with Descartes than with Plantinga. I wish to show that Descartes' view of animal pain, along with its concomitant theological advantages, can seriously be entertained without the necessity of subscribing to Descartes' unfortunate ontology.

II

No strict argument can be mounted for or against the existence of animal pain. Indeed it is difficult to see what form such an argument might take, for it is the essence of pain that it is a private experience. Accordingly, my chief means of persuasion will be centred on our own experiences of pain, and the ways in which they might or might not be analogous to the experiences of animals in comparable situations. But first I will examine some of the reasons for our assumption that certain animals suffer pain in the way that we do.

The animal-machine model fell from favour at least in part because of the acceptance of an evolutionary model which stressed the continuities between human beings and animals. It is commonly believed that evolutionary thinking entails the view that the differences between human beings and animals are quantitative rather than qualitative. From an anatomical and physiological perspective, this is undeniably true. However, in the animal kingdom we find nothing equivalent to our cultural achievements, either in degree or kind, and this is usually attributed to the fact that we have acquired some unique characteristic—intelligence, language, symbolic activity, sentience, creativity, awareness—call it what you will. Now this difference is often blurred in our attempts to define precise and tangible traits which lie at the basis of

⁷ Richard Swinburne, 'The Problem of Evil', *Contemporary Philosophy of Religion*, Steven M. Cahan and David Shatz, (eds) (Oxford University Press, 1982), 12 f.

our distinctiveness.⁸ For the purposes of this argument I propose that human beings are different in at least these three respects: (1) We are not subject to the vicissitudes of natural selection to the same extent as other species; (2) We exercise freedom of choice; (3) We have a 'continuity of consciousness'. These last two criteria, I am aware, are neither clear nor indisputable at this point, but we shall come to them later. For the moment I wish to consider the implications of the first characteristic.

An easy case can be made that at least certain kinds and degrees of human pain exist because we are not subject to the same sorts of selection pressures as animals. Many of the pains we experience go far beyond what is necessary to ensure our survival. As well as the capacity for severe physical pain, we experience a whole range of 'mental' pains—the disappointment of unrequited love, the grief of loss, the dissatisfactions and frustrations of life. These latter mental states would hardly increase an animal's chances of survival, nor indeed our own. The canons of evolutionary dogma do not enable us to entertain the view that animals might be love-sick or grief-stricken, because such behaviours would not confer any obvious selective advantage, but rather the contrary. The same is true of debilitating physical pain. Any pain or mental state which impinges upon an animal's normal routines—the things it needs to do to survive and reproduce—are counter-productive and serve no obvious function in the economy of natural selection. In human beings on the other hand, even the most severe and debilitating pains do not, in themselves, threaten our physical existence. They are part of the cost exacted for our having thwarted natural selection. It is for this reason that pain researchers have been baffled by many aspects of human pain. As a major text on pain indicates:

... the idea that pain is always a beneficent mechanism constitutes 'an extraordinary error, which has no justification.' Under conditions where it becomes nagging and persistent, pain impairs the sufferer's ability to work and to think clearly, prevents his sleep, abolishes appetite, lowers morale, and may even destroy his will to help himself survive.⁹

⁸ We ask the question: What is it by virtue of which we differ from the animals? The answer is given: Intelligence. But what is 'Intelligence'? Intelligence is defined. But animal X displays intelligence. Oh, perhaps it is the ability to use language, then. But Lucy the chimpanzee was able to learn American Sign Language. Could the difference be Creativity . . .? And so the original distinction is forgotten in our concern to label an attribute which accounts for our being different.

⁹ J. C. White and W. H. Sweet, *Pain: Its Mechanisms and Neurosurgical Control* (Springfield, Ill.: Charles C. Thomas, 1955) 68.

Pain is described by other authors as 'a baleful gift' which makes the subject 'more ill than he would be without it'; it is a 'mystery', a 'senseless element of life', and 'an obstacle and a threat'.¹⁰ Pains of this type, which have no obvious survival value, we could not reasonably assume animals to experience. At the very least, then, we can say that the evolutionary model does give us grounds for asserting a significant difference between man and beast, and that our capacity to experience pain is directly related to that difference.

III

To say that animals feel less pain than we might think falls some way short of saying that they feel no pain at all. While it might be agreed that those sorts of pains which have no apparent selective justification are unique to the human species, other kinds of pains have an obvious adaptive value in that they enable us, and presumably animals, to avoid tissue damage. Those rare individuals who are born with complete insensitivity to pain experience serious injury and even death as a direct result of their condition.¹¹ Some pain serves a useful function. It can be reasonably assumed, *mutatis mutandis*, that pain enables animals to avoid tissue damage, and that therein lies its adaptive value. What strengthens this view is that in many instances higher animals seem to react to painful stimuli in much the same way that we do. Accordingly, we tend naturally to assume that their experience of the stimulus is similar to our own.

This common-sense analogy, however, breaks down on a number of fronts. First, we become entangled in the language of stimulus and response. Stimuli as such are not painful. Most often, painful experiences result from intense sensations from benign stimuli—heat, cold, pressure, etc.¹² 'Pain', says one researcher, 'may arise from virtually *any* type of stimulus or may be the result of afferent patterns which may travel via *any* available pathway'.¹³ More importantly, if we allow our language to be shaped by the evolutionary model, we should speak of animal responses, not as reactions to pain, or expressions of pain, but

¹⁰ René Leriche, *The Surgery of Pain*, ed. and trans. by Archibald Young, (Baltimore: Williams and Wilkins, 1939) 23; F. J. J. Buytendijk, *Pain: Its Modes and Functions* (University of Chicago Press, 1962) 40.

¹¹ On chronic insensitivity to pain and its consequences, see Ronald Melzak, *The Puzzle of Pain* (New York: Basic Books, 1973) 15–16.

¹² See *ibid.*, 85.

¹³ W. Noordenbos, *Pain: Problems Pertaining to the Transmission of Nerve Impulses Which Give Rise to Pain* (New York: Elsevier Publishing Co., 1959), 176.

rather as adaptive behaviours and physiological reactions to potentially damaging stimuli. Their function is not primarily, or even at all, to express some internal state, but to adapt the organism behaviourally to a harmful aspect of its environment. If we adopt this admittedly cumbersome form of expression, we are in a better position to see why our common-sense analogy leads us astray—and it leads us astray in two ways. First, we tend to presume that certain animal behaviours are expressions of pain—an internal state—whereas they should properly be construed as adaptive behaviours which probably have some social significance. Second, we assume, again on the basis of our own experiences, that to produce these adaptive behaviours it is necessary for the organism to suffer pain.

The fallacy of the first assumption can be illustrated by reference to actual animal behaviours. A chimpanzee with a thorn in its foot screams out (as if in pain), while on the other hand, a wildebeest being torn apart by wild dogs or other predators dies in silence.¹⁴ In the first instance the chimp communicates to its peers so that they might come and render aid; in the second, the opposite is the case. In each example the behaviour enhances the survival of the species and it would be crudely anthropomorphic to declare that the antelope suffers with stoic dignity, while the chimpanzee screeches in a most craven fashion. On reflection, it is understood that we resist these expressions because neither the chimpanzee nor the antelope had any choice in the matter. This brings us to the second assumption—the belief that animals must suffer to produce the appropriate behaviours. If no ‘choice’ is involved in animal behaviour, why should they suffer pain—to *compel* them to behave in certain ways? No, for surely their behaviour is determined in a way that does not require the superfluous promptings of pain. Again, an illustration might help us understand this principle. Every biology student learns, at one time or another, about reflex pathways. The finger touches the hot iron. A message passes along a sensory neurone to the spinal chord where it intersects with other neurones. One impulse travels to the brain, another to an appropriate muscle. The finger is reflexively removed before any conscious action is possible. Only after or during the response is there conscious knowledge of what is taking or has taken place. The message to the brain might well be labelled ‘For your information’. The point is that an appropriate response can be elicited without the necessity of a feeling of pain, or a conscious decision. I am not claiming with this example that all animal behaviour is of this reflexive type, but rather illustrating the principle

¹⁴ David McFarland, ‘Pain’, *The Oxford Companion to Animal Behaviour*, David MacFarland (ed.) (Oxford University Press, 1981), 439.

which we tend in our ways of speaking to overlook, that responses to damaging stimuli do not require the experience of pain.

What the above discussion shows is that the question we should be asking is: Why do we feel pain if animals do not? What feature of our unique status makes pain a necessary part of our existence? The answer is already provided in the determined nature of animal behaviour. What is distinctive about the human race is our ability to choose, to determine our priorities, to be above unreflective reaction. We are free, in painful situations, to damage our bodies if we believe that there is a higher priority. We have the choice because in human life there are considerations more important than our survival, and these considerations arise out of our not being subject to selection pressures as are animals. Pain frees us from the compulsion of acting instinctively; it issues harsh warnings, but they are warnings which may be ignored. It is our capacity for pain which has given rise to those uniquely human attributes of courage, resignation, self-control, perseverance, endurance, and their opposites, and it is significant that we reserve these terms for ourselves.

The free-will defence, albeit in a roundabout way, thus can at once account for our pains, and discount those of animals, without recourse to legions of devils. Free-will is at the high cost of suffering, but it is a suffering which is rightly restricted to the human realm.

IV

With the failure of the analogical case for animal pain, there remains one argument to be answered before we progress to the outright assertion that animals do not suffer pain. While there are important differences between man and beast, the extent to which the differences are reflected anatomically and physiologically is minimal. It has been argued that the functioning of the nervous systems of the higher animals so closely resembles our own that there can be little doubt that these creatures feel pain as we do.¹⁵ This case is strengthened by the fact that pain research carried out on animals can be applied to human beings. Moreover, our pain killers are tested on animals and animals can be conditioned by 'pain'.

To rule physiological evidence as inadmissible we might resort to the problem of other minds. That is to say, for one who is sceptical about the existence of other minds, it is hardly appropriate to adduce evidence

¹⁵ See, e.g., John Hick, *Evil and the God of Love* (London: Fontana, 1968), 346 f.; Richard Serjeant, *The Spectrum of Pain* (London: Hart-Davis, 1969) 72; Peter Singer, *Animal Liberation* (London: Jonathan Cape, 1976) 13 f.

which shows that other putative individuals have physiologies identical to one's own. The problem of other minds, and indeed the problem of animal pain, it might be said, is a philosophical issue, not a neuro-physiological one. This is a last resort, which must end ultimately in solipsism, and in any case there are other grounds for showing that anatomical similarities are no basis for equating states of consciousness.

From earliest times there has been discussion of whether pain can properly be categorized as a sensation. Aristotle thought not, and discussed it in the context of virtue. Spinoza deemed it an emotion. In our own century, Ryle has similarly argued that we are mistaken when we categorize pain with sensations.¹⁶ It has long been recognized, in other words, that pain is associated with 'higher' faculties, the study of which is more properly psychological than physiological. The importance of this association has been brought home by a number of studies on the psychology of pain.

The pain of childbirth, for example, commonly held to be one of the most severe kinds of pain, is almost negligible for women in some cultures. In certain instances the man experiences pain and remains in bed with the baby while the woman returns to her normal duties.¹⁷ There are, moreover, considerable differences in 'pain thresholds' for different individuals, which are related to a variety of non-physiological variables.¹⁸ Similarly, individuals in ecstatic or hypnotic states, sportsmen and soldiers at the peak of the game or the battle often simply do not 'feel' pain as they might under more normal circumstances.¹⁹ The operation of certain analgesic drugs is also suggestive. Opiate painkillers act not upon nerve impulses carrying messages of 'pain' to the brain, but upon the 'psychological context' of the pain. Placebos seem to work in much the same way.²⁰ I cite this evidence not in order to argue that animals are like human beings in ecstatic or drugged states, but rather to show that our feelings of pain are not simply a function of neuroanatomy, but also of psychological and cultural factors—factors

¹⁶ Aristotle, *Nicomachean Ethics*, Bk. II, ch. iii; Bk. III, ch. xi; Baruch de Spinoza, *Ethics* III, prop. lv; Gilbert Ryle, *The Concept of Mind* (New York: Barnes and Noble, 1949), 203.

¹⁷ Melzak, *The Puzzle of Pain*, 22. Cf. Grantly Dick-Read, *Childbirth Without Fear* (New York: Dell, 1962).

¹⁸ J. W. Clark and D. Bindra, 'Individual Differences in Pain Thresholds', *Canadian Journal of Psychology* 10 (1956), 69–81.

¹⁹ Melzak, *The Puzzle of Pain*, 29–31.

²⁰ Harris Hill *et al.*, 'Studies on Anxiety Associated with Anticipation of Pain: Effects of Morphine', *AMA Archives of Neurology and Psychiatry*, 67 (1952), 612–619; Cf. Henry K. Beecher, *Measurement of Subjective Responses: Quantitative Effects of Drugs* (New York: Oxford University Press, 1959), *passim*.

which could play but a minimal role in animals' lives. There is no simple equation from equivalent physiology to equivalent experience of pain. More than this, however, these examples show that at least in some cases it is our human consciousness which determines whether certain nerve impulses will cause suffering or not. Nor is it a question of mind over matter, as if our consciousness can somehow over-ride the 'natural' experience of pain. This is redolent of Cartesian dualism. In fact, ironically, it is partly the residual influence of Cartesian thinking which leads us to persist in attributing the experience of pain to animals. We sunder physical pain from other aspects of human suffering, assuming that it belongs to our bodies while other sorts of pains—bereavement, anxiety, frustration—belong to our minds. Because animals have bodies but no minds, or so we think, we assume that they share our bodily pains but not our mental pains. All human experiences of pain, I have argued, are functions of our distinctive consciousness, and thus cannot be shared by our furry friends.

I am not alone in espousing this particular view of human suffering. David Bakan, for example, observes that:

. . . unless there is a psyche, unless there is an awake and conscious organism, there is nothing to which one can sensibly refer as pain. Pain exists only in a conscious ego . . .

Pain, having no other locus but the conscious ego, is almost literally the price man pays for the possession of a conscious ego . . .²¹

Wittgenstein expresses a similar sentiment in this way:

Pain has *this* position in our life; has *these* connexions; (That is to say: we only call 'pain' what has *this* position, *these* connexions).

Only surrounded by certain normal manifestations of life, is there such a thing as an expression of pain. Only surrounded by an even more far-reaching particular manifestation of life, such a thing as the expression of sorrow or affection. And so on.²²

What I have tried to do is to point out the implications of such views for the problem of animal pain.

V

By now it should be clear that there are good reasons for questioning the traditional view that animals feel pain. The difficulty is that our

²¹ David Bakan, *Disease, Pain and Sacrifice: Toward a Psychology of Suffering* (University of Chicago Press, 1968) 70.

²² Ludwig Wittgenstein, *Zettel* (Berkeley: University of California Press, 1970), Nos. 533, 534 (94 ff.). Cf. Ivan Illich: 'The act of suffering pain always has a [sic] historical dimension', *Limits to Medicine* (Ringwood: Penguin, 1977) 148.

language and many of our practices conspire to maintain us in that traditional belief. We are unable to envisage what it must be like for a patient not to feel pain, and yet react as if it does. In this last section I want to see if we can conceptualize what it might mean to encounter a painful stimulus, to react to it (physiologically and behaviourally), and yet not feel pain. This is, admittedly, a speculative exercise, but I believe that our own experiences can show that this state of affairs is possible, and even probable in the case of animals. Consider the following three examples.

Jones has the most terrible nightmares. It is common for him to cry out in fear, to moan as if in pain, even to break into a cold sweat as he sleeps. He never wakes during these episodes, and upon waking in the morning has no recollection of them. (Psychologists inform us that we only remember dreams if we wake up during or shortly after them.) Jones only knows of his nocturnal behaviour because he is informed of it by his observant and long-suffering wife. On being told that he has had another of his frightful nightmares his only reaction is one of mild curiosity, and concern that his wife has lost sleep. There is no sense in which he feels that he has 'suffered' during the night, that he has felt fear or pain, for there is no conscious continuity between his waking self and his dreaming self. Whatever the external signs might lead us to think about his mental state, there is no 'experience' of this mental state which the waking Jones regards as being of any significance. Now, you might say, this is because the 'pain' and 'fear' in Jones's dream were illusory. In a sense this is true, and Jones would agree, but without access to Jones's own thoughts on the matter we would probably infer from his reactions that he was undergoing an unpleasant experience, albeit 'in his mind'. This might prompt us to ask if there were any circumstances under which Jones might experience those nightmares as pain, for otherwise it might be objected that our example was not really analogous to pain, but rather dreams about pain. We are asking, in other words, if dreams about pain (nightmares) can really be painful. I think we can elaborate our example to show that they can. One night, Jones wakes in the middle of one of his nightmares, and for the first time is conscious of his own reactions. He feels his heart pounding, the sweat on his brow, he personally identifies with the victim of his dream. Having woken in mid-dream, Jones has established a link between his 'waking self' and his 'sleeping self', and he can now 'own' the terror which 'he' experienced in his dream. In that no-man's-land between waking state and dreaming, Jones has been able to correlate the physical reactions which his wife habitually observed, with his own inner state—that is, the Jones of every-day, waking existence. What is the difference then, between experiencing a bad nightmare and merely showing signs of experiencing a bad nightmare? The answer has to do with continuity

of consciousness. Animal 'awareness' thus might be something like a succession of dream states.

A second example concerns a hypothetical drug which we shall call an 'amnesiaesthetic'. This is a drug which works on both the voluntary nervous system, to induce paralysis, and the memory, to bring about memory loss.²³ Let us suppose that doctors come to rely on amnesiaesthetics to replace conventional anaesthetics in surgery because their side-effects are virtually nil. The operation of amnesiaesthetics, we should bear in mind, is quite different from that of conventional anaesthetics. The new drug seems merely to paralyse the patient during surgery, and then wipe out all of his memories of the event. Whether the patient experiences any pain during the operation seems to be a moot point, for while there is no way for the patient to communicate his experiences during the course of the operation, upon recovery there is no recollection of what took place on the operating table. The anti-vivisectionists might take up cudgels against the new practice, but it would be unlikely that they could find patients to testify against the use of the drug, for none recall having experienced any pain and most are grateful that they were free of the side-effects of more conventional anaesthetics. To all intents and purposes, amnesiaesthetics give the same results as anaesthetics without the side effects. For the patient to 'own' the pain of surgery, again, some continuity must exist between the patient who is undergoing surgery, and the patient who is recovering from surgery. The drug acts to break this continuity of identity, and thus while a patient might grant that *pain was experienced* during the operation, he would not be inclined to say: *I experienced pain*. I do not mean to imply here that animals suffer chronic forgetfulness and cannot recall their pain, for this would imply that they would also fail to recall things that they had learned. Rather they are like (hypothetical) chronic amnesiacs, who lose their identity at every instant of time. A chronic amnesiac, we might suppose, could not own the pain of a previous self, yet could still walk, talk, drive a car and do many of the things that he or she had learnt as a previous self. There is continuity of a kind in higher animals, for how else could they learn, but this does not entail owning the pain of the lessons learned.

One final example concerns personal identity and early childhood. There are things from my childhood which I can recall, there are some which I could in principle recall, but which I have forgotten, and there are some events which I cannot recall, and could not possibly recall. My inability to recollect events in my foetal life, or in my earliest childhood, is not due to defects in my memory, but rather results from the fact that

²³ Wittgenstein once asked what difference it would make if anaesthetics only made us forget pain. This example is developed from that question.

there was no single identity to which all my various 'experiences' could belong. I assume, as a baby, that I had many painful experiences. Birth presumably caused me some discomfort, as did that battery of injections which I received soon after. But like Jones, who slept blissfully through his nasty nightmares, or the amnesiaesthetized patient who knows nothing of the pain of surgery, I cannot 'own' those painful experiences. I am not implying here that painful experiences which are forgotten were never painful to start with. The pain of that very first injection is of quite a different status from that injection which I received when I was four, but have since forgotten. When I was four I had the ability to correlate a whole range of sensations and conceive of them as happening to *me*. There was, at that later time, not simply a painful stimulus and an appropriate response, but an ongoing context in which that event took place, and a conscious 'I' who was the recipient of the stimulus, and the initiator of the response. The continuity of my present self does not extend back to birth or beyond, but to some time after; hence I am unable to own those early experiences of pain, unable to say 'they *happened to me*'.

Irrespective of the way we speak about babies and pain, a number of our practices show that we regard neonatal pain as less significant than pain which is experienced later in life. Birth, it is agreed, is a time of great pain for the mother, but little sympathy is directed towards the child. If you are told that yours was a painful birth, it is not because you are perceived to be the recipient of pain, rather, if anything, the cause of it. So too, conventional wisdom dictates that the early years are the best time for circumcision, and few circumcised males would disagree. At a different level, if your father dies when you are one year old, no-one in later years will offer condolences on account of the grief you must have suffered. (You may well have suffered as a result of not having a father, but you would not as a one-year-old have suffered *bereavement*.) We tend to say of this example 'Ah, but you were too young to know what was really happening'. Surely this sentiment is as true of physical pain as of mental pain.

This last example is crucial, because it is during our earliest stages of development that our awareness is most like that of the higher animals. At least the evolutionary maxim 'ontogeny recapitulates phylogeny' (the development of organisms mirrors their evolutionary history) gives some justification for asserting this. Our own early experiences, or lack thereof, thus provide a link between these otherwise hypothetical states of consciousness and animal life.

The force of these examples should by now be apparent. The 'awareness' of animals is like that of the sleeping Jones, the amnesiaesthetized patient, the neonate. They encounter painful stimuli, they react to them, but there is nothing to which that pain can belong. The animal,

and, dare I say it, the neonate, have no self, and their pains are rather successive states which lack the connexion which would render them 'painful experiences'.²⁴ Putting it more formally:

1. Continuity of experience is the crucial aspect of the human awareness of pain.
2. Animals lack that continuity of experience, and therefore,
3. Animals do not experience pain as we do.

Two final objections should be considered. First, if animals lack a continuity of identity as I have suggested, we might wonder how it is that they can learn from painful experiences, for we tend naturally to think that there must be something to recall the pain of a past event and correlate it with a present one. Again, I believe this natural way of thinking to be mistaken, for it involves a faulty concept of memory. Our 'chronic amnesiacs', for example, recall past lessons but not past identities/pains. In any case, we need only consider the learning processes of some organisms to see that this assumption is wrong. The very simplest of organisms—the *Protozoa*—exhibit rudimentary learning in their ability to distinguish habitual stimuli from novel stimuli. Once these habitual stimuli are identified, the organisms no longer react to them.²⁵ Thus, habituation, admittedly the simplest kind of learning, is displayed by single-celled organisms in which there is not even a nervous system, far less what we might call 'awareness' or 'memory'. I am not claiming here that all learning processes work in the same way as those of the *Protozoa*, but simply making the general point that learning can take place without the requirement of consciousness.

A second objection concerns God and the problem of animal pain. A critic might complain that having shown that animals do not really experience pain, I am left with a God who deceives us by making it appear as if they do. My dilemma is, he would say, that either the world is an arena in which animals suffer pain unjustly, or it is a theatre of deceit, in which we can never be certain of the evidence of our eyes. The suggestion that God has tricked us, by making it appear as if animals suffer while in fact they do not, can be answered by reference to my second argument. The import of this is that animals' reactions to painful stimuli should not be viewed as *expressions* of pain, but rather as examples of adaptive behaviours to dangerous stimuli. We are deceived only by our habits of mind.

The view of animal pain which I have outlined here has a number of implications. It should not be thought that I am advocating that we beat

²⁴ If I read him correctly, this is a line of argument which C. S. Lewis also adopts. See *The Problem of Pain*, 119 f.

²⁵ Nicholas Mackintosh, 'Learning', *Oxford Companion to Animal Behaviour*, 337.

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our infants and pets. There are other moral considerations which show this kind of behaviour to be wrong irrespective of what patients feel. On the other hand, if my view of animal pain is correct, such causes as animal liberation may need to be rethought. It is in the context of theodicy, however, that I believe these contentions to be most significant. This is because the theist has stronger reasons to believe them than most. The case I have presented is not clearly false, and at best is highly plausible. If an explanation of the puzzle of animal pain is crucial to theodicies, then I hope to have presented one which is at least more plausible than the alternatives.

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