

TALKING CLOCKS AND DERANGED SPRINGS; OR, DID DESCARTES *REALLY* NAIL CATS TO TREES?

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Towards the end of Meditation II, in the midst of the Wax Argument, Descartes criticises the assumption that it is the senses which give us knowledge about the world. For example, he says, on looking out of the window down into the street below, he sees various men dressed in hats and cloaks walking by.

In this case I do not fail to say that I see the men themselves, just as I say that I see the wax; and yet what do I see from the window beyond hats and cloaks that might cover artificial machines, whose motions might be determined by springs? But I judge that there are human beings from these appearances, and thus I comprehend, *by the faculty of judgment alone which is in the mind*, what I believed I saw with my eyes.¹

Thus, he argues, it is our intellectual *understanding* of the properties of matter which provide knowledge, and not the fact that we see this or that.

I have often wondered about this example. In the modern world, we have passed beyond the point where we associate “artificial machines” with “springs”. Perhaps today we would simply say ‘robots’. However, the point is the same: if we *are* to be fooled, it is by technology. In contemporary philosophy, this problem branches off in different directions: there is the *problem of other minds*, where we look for justification that other people (or creatures) have mental experiences like our own; there is the question of *artificial intelligence*, where it is considered whether it is theoretically possible to create a machine which thinks or is conscious. However, the issue I am interested in here is the related problem of animal consciousness.

I was once asked by a student (a vegetarian, and a keen anti-vivisectionist), “Descartes? Isn’t he the guy who nailed cats to trees?” To be honest, it was not a rumour I had heard at the time. Furthermore, a little research will reveal that it is not actually one that can be completely substantiated. In his excellent book on Descartes, André Gombay points out that there are various ingredients to the rumour. Firstly, Descartes was taught by Jesuits, and part of the school curriculum at the time apparently involved *vivisection*.² A visitor to one such school in the 1650s (shortly after Descartes’s death) reports that children nailed dogs to planks and dissected them, considering their cries of pain to be “nothing but the noises of some small springs that were being deranged”.³ Secondly, it is also true that Descartes did

¹ Meditation II, my italics. All quotes from the *Meditations* are from the John Veitch translation used for the online version on PhilosophyOnline.

² Vivisection is the act of operating upon living animals, most commonly for the purposes of scientific research.

³ Quoted in André Gombay, *Descartes* (Oxford: Blackwell, 2007), p.ix. The author’s general account of Descartes’s views on animals is worth reading – see p.40-6. Also, he notes that Descartes refers to “the ‘fears, hopes and joys’ of ‘dogs, horses and monkeys’” (whilst still denying that they have minds or thoughts) (p.44). This would be an interesting point to follow up further, perhaps, but my main concern here is to show how there is an inherent problem in Descartes’s views on animals.

undertake some anatomical dissection, and whilst he does not actually say so, it is likely – Gombay suggests – that “many of these observations were on live animals.”⁴

So, where does this leave us with the rumour? How should I have answered my student’s question? Perhaps the most honest response would be, ‘No – but...’ In other words, there is no evidence that he ever did anything so brutal as to hammer nails into creatures (presumably simply to keep them still); but there is suggestion that he performed live dissection (vivisection) – which to many people with belief in animal rights amounts to the same thing.

However, before we demonise Descartes completely (a malignant one perhaps?), we need to first identify what beliefs he held – and why – that might have allowed him to justify such acts.

DERANGED SPRINGS

Returning to the hats and cloaks example quoted at the beginning, a word jumps out at us: “springs”. It is the same one used in referring to the cries of the dogs by the visitor to the school: they are not *really* cries of pain, but simply mechanical noises (“deranged springs”) without real consciousness. This parallel suggests two things: that machines of Descartes’s time commonly utilised such things as springs (and no doubt also cogs, levers, etc.); and also that Descartes was not the only one to consider that the physical world (including nature and the animal kingdom) could be accounted for in this way.⁵ The seventeenth century is commonly acknowledged as a time when science and technology begin to find their theoretical feet. Descartes is credited with playing a key role in this development, but this growth also leads to the possibility of a different world view. From this new perspective, God is not seen as closely involved in his creation, but rather takes a back seat: he is a designer, who, having created his ingenious machine, sits back and watches it work. The world, then, and each creature in it, is more like a clock than a living thing.

One consequence of this view is that there would seem to be no difference between organic and inorganic matter – between trees and stones. If we can account for both in terms of mechanical processes, then things are much simplified. Modern scientists know that things have turned out not to be as simple as this picture suggests, but many still hold to the possibility that life can be explained purely in physical terms.⁶

⁴ Gombay (2007), p.43.

⁵ Of course, it is not impossible that Descartes’s ideas may have influenced the attitudes of the teachers at the school. However, given that it was a Jesuit school, and they were in general hostile to Descartes’s philosophy, it is more likely that either the attitude has another common source, or two different ones which share similar views.

⁶ That is, in terms of physics (involving particles, fields of force, etc.). This question has two aspects: whether life can ultimately be reduced to such particles, and whether life can be said to have naturally arisen from the interaction of such particles. The first aspect is a battle between *mechanism* and *vitalism*; between the view that life can be explained mechanically, and the view that there is some vital life force which is independent of the ‘cogs and wheels’. The second aspect is partly to do with origins: can life only come from life (*biogenesis*), or is it possible that it can come about merely from a special arrangement of atoms and molecules (*abiogenesis*). Modern science tends to favour mechanism and abiogenesis. For more on this, see <http://en.wikipedia.org/wiki/Abiogenesis> and [http://en.wikipedia.org/wiki/Mechanism_\(philosophy\)](http://en.wikipedia.org/wiki/Mechanism_(philosophy)).

For Descartes, the main thing which distinguishes matter from mind is the capacity for judgement. This does not mean that he ignores the relevance of sensation and feeling, but merely that he considers them to be activities which the mind performs when it is ‘turned out’ towards the world. In this sense, they rely in some respect upon the body and matter; however, in as much as he is purely a ‘thinking thing’, such activities are inessential to his true nature: he can be what he truly is without them.⁷

When we come to apply this distinction to animals, we can see that Descartes is presented with a quandary: animals seem to evidence conscious behaviour (they respond to their environment, they appear to feel pain and pleasure, etc.). However, in traditional theological terms, animals do not possess a soul, and therefore if – as Descartes has already concluded – the essence of soul (or mind) is thought, then it must mean that animals do not think, and are not conscious.

Let’s take a closer look at Descartes’s ideas concerning animals. The most detailed account of them can be found in Part V of the *Discourse on the Method*, which gives a summary of a previous work (*The World*), which Descartes had intended to publish some years before, but never did. In it, he sets out his scientific views on such subjects as astronomy, physics, biology, etc., and – which is most relevant to this discussion – what distinguishes man from “brutes”.

As already noted, such a view as Descartes’s sees God’s role in his creation as one of a craftsman or designer. Having created nature, Descartes says, God left “her to act in accordance with the laws which He had established.”⁸ Therefore, the world needs nothing more than the existence of these laws, which have been designed so that the present state of matter (as we now experience it) came to pass “little by little”, and was not “complete to begin with.”⁹ God, therefore, wound up the clock and set it going. In fact, Descartes himself uses this analogy to illustrate the workings of the physical body – of both humans and animals. Clocks, it would seem, are a favourite metaphor of Descartes’s (he uses it also in Meditation VI and a number of other places), and timepieces will eventually become synonymous with the idea of divine design through William Paley’s now famous analogy.¹⁰ (Did Paley read Descartes, I wonder?)

After describing how the blood circulates in living bodies via certain properties of the heart muscles, veins, and arteries, Descartes is at pains to point out that these actions

⁷ For Descartes’s account of imagination and sensation, see the beginning of Meditation VI.

⁸ *Discourse on the Method*, p.98 (hereafter *DOTM*). All page numbers refer to *Descartes – Key Philosophical Writings* (Hertfordshire: Wordsworth Classics, 1997), translated by Elizabeth S. Haldane and G. R. T. Ross.

⁹ It is interesting to note here that, had Descartes applied this idea to the existence of human beings, then he would have foreshadowed the theory of evolution. However, whether due to timidity, or to a genuine religious conviction, Descartes presents a traditional theological account of the creation of human beings – though it might have been interesting to find out his private thoughts on the matter, for by “creation” he may only be referring to the rational soul, leaving the possibility that the human body evolved by natural means.

¹⁰ William Paley was an eighteenth-century theologian who is now best remembered for a version of the Argument from Design. In his *Natural Theology* (1802), he argues that the natural world is so complicated and orderly, that it can only have come about through having been designed by God. For, he says, if we found a watch on the beach, we would assume that someone had created it (it is too complex to be naturally occurring); so, as with the watch, so with the world.

take place “without making use of any matter other than that which I had described”.¹¹ In other words, matter is merely physical; there is nothing ‘spiritual’ about it. At one point, in attempting to account for the workings of the nerves, he introduces the idea of what he calls the “animal spirits” (which were thought to flow along the nerves and ‘pump up’ the muscles, causing movement). However, even these are purely material, consisting merely of “a very subtle wind, or rather a flame which is very pure and very vivid”.¹² There is nothing, then, ‘immaterial’ or mysterious about matter, and what appear to be signs of conscious thought, are mostly just the workings of these ingeniously designed machines.

And this will not seem strange to those who know how many different *automata* or moving machines can be made by the industry of man, without employing in so doing more than a very few parts in comparison with the great multitude of bones, muscles, nerves, arteries, veins, or other parts that are found in the body of each animal. From this aspect the body is regarded as a machine which, having been made by the hands of God, is incomparably better arranged, and possesses in itself movements which are much more admirable, than any of those which can be invented by man.¹³

So, with bodies, we can completely understand them merely by analysing the interrelation of their parts, just as we could understand the workings of “a clock from the power, the situation, and the form, of its counterpoise and of its wheels.”¹⁴ Isn’t it obvious then that animals (and all physical bodies) are just God’s ‘clocks’?

TALKING CLOCKS

However, there is a problem here: some animals appear to ‘talk’, and to evidence intelligent behaviour. Can we, then, suppose that they are thinking? Descartes thinks not. There are two things, he says, which distinguish men from animals: speech and judgement. Concerning the first of these, he gives three main reasons to reject the proposition that animals have – or could have – speech:

- “It is not the want of organs”¹⁵ that is the reason animals have not developed human-like speech, for certain birds (such as parrots) can copy human words, and human beings born ‘dumb’ may still communicate intelligent ideas by other means. Therefore, if animals did have thoughts, they would have found a way to communicate them – or we would have found a way to understand them – by now.
- If the difference between humans and animals were merely one of degree (and that animals merely possess a more rudimentary language than us), then a parrot or a monkey would surpass “the

¹¹ *DOTM*, p.100.

¹² *DOTM*, p.106. For more on the animal spirits, and Descartes’s general view of animals, see John Cottingham, *Descartes* (Oxford: Blackwell, 1986), p.108-11.

¹³ *DOTM*, p.107.

¹⁴ *DOTM*, p.103.

¹⁵ *DOTM*, p.108.

stupidest child to be found”¹⁶ in linguistic skills – but this has not proven to be the case; even ‘stupid’ humans (he implies) are more advanced than the brightest animal.

- Nor must we think, “as did some of the ancients, that brutes talk, although we do not understand their language.”¹⁷ For if they indeed have their own language, then they have the potential to learn ours (just as English speakers have the potential to learn French) – or we might even learn theirs (*à la* Dr Doolittle).

Concerning his second criterion, that of judgement or reason, he argues firstly that the above reasons suggest that animals have *no* reason, for if they did, surely they would have evolved more linguistic capability than they display (in order to express their rational thoughts). However, he also argues – in rebuttal of those who point to animal ingenuity, or those abilities that animals seem to exceed humans in (such as knowing when rain is coming, perhaps, or reading body language) – that this does not prove that they possess a mind, but merely that certain creatures have greater natural ability than we do. Therefore:

It rather shows that they have no reason at all, and that it is nature which acts in them according to the disposition of their organs, just as a clock, which is only composed of wheels and weights, is able to tell the hours and measure the time more correctly than we can do with all our wisdom.¹⁸

In other words (to use a modern example), a calculator can outperform a human being, but we do not therefore consider that it can ‘think’ (as humans do).¹⁹ The real reason that animals are different from humans, therefore, is that they do not possess a rational soul, which itself cannot be “in any way derived from the power of matter”, but “must be expressly created” by God.

What Descartes is proposing here is therefore a type of Turing Test.²⁰ So, animals would fail the Turing Test in a similar way that a machine (or robot) would. If we were to imagine a machine, he says, “being constituted so that it can utter words, and even emit some responses to action on it of a corporeal kind”, we can see that it might “ask what we wish to say to it”, or “exclaim that it is being hurt”, if it has been designed to respond to certain stimuli. However, there would be a limit to this.

¹⁶ *DOTM*, p.108.

¹⁷ *DOTM*, p.108.

¹⁸ *DOTM*, p.109.

¹⁹ This is actually a controversial point in the philosophy of mind. Some philosophers argue that the ability to think IS only a sort of ability to perform very complicated calculations, and need not be conscious. This argument is sometimes backed up by pointing out that we can perform some very complicated actions (e.g. driving) whilst apparently completely unaware.

²⁰ The English mathematician Alan Turing proposed a test to determine whether a machine could be considered to possess intelligence. Simply put, he argued that, in a situation where human beings and machines were asked everyday questions, and could respond in a way that didn’t ‘give the game away’ (e.g. if responses were appeared on a computer screen), then any machine that could fool another human being by its responses could be considered intelligent (for more detail, see http://en.wikipedia.org/wiki/Turing_test). As we can see, Descartes’s criterion for distinguishing between humans and animals (or mere machines) is that only humans could really pass this test.

Ultimately, Descartes argues that we would either reach a point where it would fail to pass the test for one or both of the following reasons:

- It would “fail to reply appropriately to everything in its presence”,²¹ thus proving that it did not use words and symbols as the signs of thought (as humans do).
- It is conceptually impossible that a machine could be devised so as to account for every conceivable eventuality (i.e. a designer could not foresee every possible situation and programme in a response) – unlike human beings, whose reason can respond to an unlimited range of situations spontaneously.

Now, it is possible to respond to all of these points on some level. For instance, it may be argued that some primates (or dolphins) have acquired a fairly sophisticated form of language, and *can* communicate with humans. Also, it might be argued that intellectual thought is not a strictly human activity, and that machines can be programmed to think – or even to be conscious. However, whilst it is possible to argue against Descartes’s position from these perspectives, I want instead to point out what I think is an inconsistency in Descartes’s view of what sensations are, and therefore of what divides animals from humans.

A RATIONAL ESSENCE

The English philosopher Gilbert Ryle famously characterised Cartesian dualism as the doctrine of the “ghost in the machine”.²² By this, he meant that Descartes’s dualism leads us to an absurd and unfounded belief: bodily processes appear to run in parallel to mental ones, and yet the well-known problem of interaction would seem to leave no way for the ‘ghost’ (Descartes’s immaterial self) to influence the ‘machine’ (the physical body) – why then not simply say that only the ‘machine’ exists? If we did so, and thereby adopted a *materialist* view, we would greatly simplify the picture of what a human being is, and allow for a more unified understanding of the universe. What proof, then, does Descartes have for this distinction between humans and animals?

For Descartes, both human and animal bodies (and any physical processes at all) are mechanical. Even animal spirits are physical, which is a further illustration of how Descartes distinguishes between mind and matter. It is sometimes thought that, in proposing that the mind is an immaterial substance, Descartes has some idea of a ghostly entity that is able to walk through walls. Now, if his idea was something like that of animal spirits, then this might be true. But it is not. The fact that animal spirits are described as a subtle form of matter is a clear indication that this is NOT how he views the soul (as an even more subtle form of matter, perhaps) – in fact, he explicitly rejects this possibility in Meditation II (the Thinking Thing Argument).²³ Rather, the

²¹ *DOTM*, p.107.

²² Gilbert Ryle, *The Concept of Mind* (London: Penguin, 1949). See, for example, p.17.

²³ Meditation II: Speaking of his former beliefs, Descartes says that he thought he was an immaterial soul; “but what the soul itself was I either did not stay to consider, or, if I did, I imagined that it was something extremely rare and subtle, like wind, or flame, or ether, spread through my grosser parts.”

soul is characterised by its capacity for thought and rational judgement, and in as much as humans have physical sensations and sense impressions, these are merely an inessential activity of the mind in its relation to the body.

For Descartes, then, imagination and sensation are, in John Cottingham's words, 'hybrid' faculties.²⁴ By this, he means that Descartes acknowledges that both imagination and sensation involve consciousness (so they are related to the mind in some way), but they are also activated from 'outside' – in other words, images and sensations sometimes happen against his will, which suggests that there is some cause outside of his mind which is at some point responsible for the content of these faculties (which, he eventually decides, is the physical world itself). Therefore, since he cannot wholly control these images and sensations, and they are not therefore completely under the control of his will, then they do not belong to him (his essential self – the mind).

However, the problem here resides in the hybrid nature of these faculties. If I feel pain, then there is some conscious awareness involved: I am not, as Descartes himself points out, in my body as a mere passenger; it's not as if I'm driving my car and I get back home, only to discover that I've nicked the side panel whilst trying to park it. The pain I feel is directly communicated to me. This is because it is a conscious experience. Now, if we consider animal sensation, we can see that Descartes wants to say that all we see when an animal appears to be in pain is a sort of 'dumb show' without any actual experiential content. In other words, they do not *really* feel pain, but are just going through the motions (much as a robot which is programmed to say 'Ouch!' when you step on its foot).

If we look at Descartes's arguments for distinguishing between animals and humans (considered earlier), we can see that they centre on the main assertion that animals do not possess reason. Now, I skipped over these arguments quite briefly, but there was a reason for that: I do not think that whether animals consciously feel pain or not is linked to their possession (or lack) of a rational soul. Rather, I think that the essential question is whether they are *conscious* of their pain. And here we come to the crux of the matter: it would seem that Descartes wants to equate consciousness and rationality – in other words, to equate being subjectively aware with being able to frame thoughts, use language, etc. The reason for this would seem to be that, for Descartes, all knowledge is conceptual knowledge.²⁵ So, when he says, 'I am in pain', what he really (or partly) means is, 'I am aware of myself as something in pain'. This is once again illustrated by the wax example:

if the perception of wax appeared to me more precise and distinct,
after that not only sight and touch, but many other causes besides,

However, he will reject this, because he can conceive of himself as existing without physical (or semi-physical) parts (the Conceivability Argument).

²⁴ Cottingham (1986), p.122.

²⁵ That is, knowledge that involves a concept of something. However, Gilbert Ryle has argued that conceptual knowledge – what he calls 'knowing that' – is not the only sort, and that we may also have 'knowing how'. The latter is to do with behaviour, and involves the ability to *do* something (ride a bike, play a game). Obviously, there is debate about whether 'knowing how' can be reduced to 'knowing that' (and vice versa). However, as far as animal consciousness goes, it would seem that we could say that animals have 'knowing how' without 'knowing that'; that my cat 'knows how to hunt' without having the mental proposition 'there is a mouse over there'.

rendered it manifest to my apprehension, with how much greater distinctness must I now know myself, since all the reasons that contribute to the knowledge of the nature of wax, or of any body whatever, manifest still better the nature of my mind? ²⁶

In other words, the perception of outside things gives him more certainty of his own nature – that he is a thinking thing, that he exists, etc. Thus, he is not merely saying that his perceptions prove that he exists, but also (or mainly) that each thought in some way involves the idea of *himself*. ²⁷ In other words, ‘I am in pain’, ‘I am certain’, or ‘I am mistaken’ are thoughts that necessarily involve the concept of ‘I’, do not make sense without it, and – most importantly – provide proof of the existence of this ‘I’.

Now, having presented this interpretation of Descartes, I must admit that I am not completely convinced that this is always what he means: it might be, for instance, that he is unclear on this point, or that he switches between this and the more general contention that we can reason that we exist from the mere fact of our perceptions. However, whatever the case, what is clear is that Descartes argues that animals do not have an *idea* of themselves, and that it is this which distinguishes them from human beings. Put simply: they cannot think ‘I am in pain’, so not only is there no idea of self, there is *no self to be* in pain, because to have an idea of oneself is a condition of being a self.

The reason Descartes ends up in this position is, of course, that he wants to prove that reason is the basis of knowledge. So, in order to argue that our most certain knowledge involves a clear idea of what something is, he must show that knowledge is *essentially* conceptual: that, for example, the wax is not known by the senses, or by having some feeling or sensation, but rather by the mind’s apprehension of essential rational ideas and principles. In the same way, our knowledge of ourselves must come from the clear perception of the idea of what we essentially are (immaterial thinking things). Thus, because animals can frame no rational idea of what they are, then they *are* not anything; so, whereas human beings are essentially rational souls with bodies, animals are merely bodies.

NON-CONCEPTUAL EXPERIENCE

However, this leaves Descartes with a problem: proving that animals do not possess reason (if, for argument’s sake, that is true), does not thereby prove that they are not conscious. When human beings are in pain, they seem to be presented with an experience that has two aspects: there is (if we accept Descartes’s point), a conceptual awareness, ‘I am a being who is in pain’; but also, there is a non-conceptual or phenomenal awareness, ²⁸ which – although it does not consist in thinking ‘I feel

²⁶ Meditation II.

²⁷ This point is made by Gombay (2007), p.39-43.

²⁸ ‘phenomenal awareness’ – Consciousness to do with subjective experience. So, in terms of pain, phenomenal awareness of pain is *what it is like* to have that pain (how it feels). This may be contrasted with a *psychological* account of pain, which would explain it as a mental state (or brain state) which would cause other sorts of behaviour, thought, or belief. This distinction (between phenomenal and psychological consciousness) is used by David Chalmers in his book, *The Conscious Mind* (Oxford: Oxford University Press, 1996), where he uses it to explain the problem of consciousness. So, against Descartes, I am arguing that animals have phenomenal consciousness.

pain' (with a concept of self) – nonetheless has some real quality. Now, if we only had conceptual awareness, then we would be like zombies, or robots, or the man who notices later on that his car has been damaged. However, it is the phenomenal awareness or non-conceptual sensation which causes us to feel that direct connection with our bodies that Descartes was keen to highlight.²⁹

I think the main problem here is that Descartes does not seem to have a clear concept of phenomenal experience. He rejects the idea that animals have consciousness because he holds that all thought is conceptual. For, even when he talks about sense experience (e.g. that of colour), he is talking of the *knowledge* that this gives him (whether the idea is clear and distinct or not). Therefore, whilst I have been talking of conceptual thought and non-conceptual experience, Descartes simply has 'ideas' (which include sense impressions, mental images, and concepts), some of which are more *clear and distinct* than others. So, what I have been calling non-conceptual experience is simply, for Descartes, an *unclear and indistinct* idea. This means that the idea is therefore *not real*, because reality for Descartes consists in an idea possessing clear conceptual boundaries.

THE CONSCIOUS CAT

Many philosophers want to argue³⁰ that non-conceptual (phenomenal) consciousness is a real aspect of mind that cannot be explained away. As we have seen with Descartes, he does not really seem to have any such concept: for him, all thought is conceptual; those thoughts with clear conceptual boundaries give us knowledge, whilst those without give us less or none, and are not real. However, even with unclear and indistinct ideas, human beings still possess a concept of themselves – for, to be deceived (by unreal, indistinct and unclear ideas) is still to exist (to have a concept of oneself) – the *Cogito* argument. But animals cannot even have unclear and indistinct ideas – they can have no ideas *at all* – and since Descartes would seem to hold that non-conceptual experience is impossible without the potential for conceptual thought, then animals cannot even be said to have experiences (it would seem). In other words (to set out the argument formally):

- P1: To have experience, one must possess a self (a concept of 'I');
- P2: To possess a concept of 'I', one must be capable of conceptual thought;
- C: Therefore, a being without capacity for conceptual thought has no experience.

Stated this simply, we can see that the problem lies in the assumption contained in P1. The argument is valid,³¹ and P2 is fine (to have concepts, we must be capable of understanding or creating concepts), but what justification does Descartes have for

²⁹ In Meditation VI, in the 'Separation of Mind and Body' argument, as I have termed it, where he says that "I am not only lodged in my body as a pilot in a vessel, but that I am besides so intimately conjoined, and as it were intermixed with it, that my mind and body compose a certain unity."

³⁰ About "two or three to one", according to David Chalmers – see *The Conscious Mind*, p.xiii.

³¹ An argument may be valid (formally correct), but not sound (actually true). So, an argument is valid if the premises necessarily lead to the conclusion (P1 and P2 together necessarily entail that C is true). However, this does not guarantee that the argument as a whole is true (sound). For instance, the following argument is valid, but not sound: (P1) all animals are green; (P2) all cats are animals; (C) therefore, all cats are green. P1 is false, but the argument is still valid.

P1? Must one have a concept of 'I' in order to experience anything? Is all experience conceptual? His only evidence for P1 is his own experience, and therefore his argument is circular: all my experience is conceptual, and so experience requires conceptual thought; all experience requires conceptual thought, because all my experience is conceptual.

We could try to argue against Descartes on this point: a large part of experience IS non-conceptual (such as pain). However, though this is arguably true, it does not completely defeat Descartes's position (that a concept of self is required in order for there to be experience). For, he could still argue that, even if we admit that phenomenal consciousness is real, it is reliant upon a self to experience or reflect upon it. So, what we in fact need to prove is that phenomenal consciousness is possible without conceptual thought. However, the problem here stems from the way in which we investigate our experience: even if it were possible that we occasionally have non-conceptual experience, when we think about it, we involve conceptual thought ('I remember being in pain').

To recap, then, the possibility of proving Descartes wrong regarding animal consciousness is dependent either upon showing that (a) animals do in fact possess rational thought, or (b) not all experience is conceptual. I have chosen not to follow up (a) – although one could – but rather to focus on (b). At the very least, then, we can argue that Descartes has no proof for P1 (his argument is circular). Also, to invoke the problem of other minds, he has no proof that animals *do not* possess conscious experience – it is only an assumption based on their supposed lack of conceptual thought.

I think, however, that there is one possible way out of the woods. In arguing that animals have no rational thought, Descartes is using the *argument from analogy*: in other words, seeing that animals have no sophisticated language, he concludes that they have no rational thought, because humans *do* have a sophisticated language, and *do* possess rational thought. This is a standard type of response to the problem of other minds: faced with one unknown (another person or creature's mental experience), we use our own experience as a basis for comparison (or analogy). So, when I smile, I feel *this* emotion; therefore, when someone else smiles, they feel the same (or similar). It is not a form of argument which is immune to scepticism – we can never *totally* be sure that the experiences are similar (or even present). However, it is one of the things we assume in everyday life without question. If we now turn back to animals, we can see that Descartes has already used this argument in a *negative* sense – to argue against the assertion that animals have conceptual thought – but can't we use it in a *positive* sense – to argue that animals have non-conceptual (phenomenal) experience? In other words:

- P1: animals behave as if they are consciously experiencing pain;
- P2: when we behave in a similar way, we have phenomenal awareness of being in pain;
- C: therefore, animals have phenomenal awareness of being in pain.

So, when I accidentally step on my cat's paw, she reacts by screeching, jumping out of the way, licking her paw, etc., which are forms of behaviour that I can understand, and would use (with the exception of licking my paw) if something similar happened

to me. Therefore, I want to conclude, it is just as legitimate to argue that a cat possesses non-conceptual experience, as it is for Descartes to argue that they do not possess conscious thought, for both are based on the argument from analogy.

The upshot of the above analysis is therefore that the mechanistic clock analogy falls down when it comes to explaining certain forms of higher life. Animals are not clocks, and whether they have a designer or not, or possess conceptual thought or not, there would seem to be ample evidence for treating them as sentient, conscious creatures (in one sense of consciousness at least). Furthermore, it reveals a confusion in Descartes's thought: in treating non-conceptual experience as merely a less (or not at all) clear form of conceptual thought, he seems to end up as treating it as unreal, or as not even really existing. Therefore, his attempt to reduce everything mental to the conceptual distorts our experience, and leaves us with an unnatural divide between animal and human experience, where we speak of 'rational souls', on the one hand, and 'deranged springs' on the other.

Finally, then, returning to the opening question, I think it is possible to at least come to a partial answer: whether or not Descartes did nail cats to trees, he really shouldn't have.