

Should Vegetarians Play Video Games?

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1. An Absurd Question?

Many video games feature animated agents that the player attacks with the aim of maiming or killing. Less dramatically the animated agents may be treated instrumentally, herded or goaded with no regard for potential suffering, injury, or death. Such activity would be utterly unacceptable if directed at people. And for many, but clearly not all, it would be repugnant if directed at animals. For simplicity, if not accuracy, let me call those who do take the latter attitude ‘vegetarians’. In this paper I want to raise the question of whether such vegetarians ought to refrain from playing video games on the grounds that the animated agents in the game require of us the same sort of treatment as animals do in our natural environment. Should, that is, vegetarians play video games?

My answer may strike some readers as absurd, for I shall argue, with some important qualifications, that vegetarians should *not* play video games. That is, I shall argue that between real animals and some of the animated agents that feature in video games there are no differences that make a moral difference, and hence no ground for a difference in treatment. Of course, many readers may share with me the overwhelming intuition that there *must* be some relevant difference, and this may suggest that there is something awry with my arguments. But if this is so, I shall at least have shown that the relevant difference is not obvious, and, hence, that the vegetarian has work to do in justifying her playing of video games.

There are two very different strategies that one can pursue in arguing that vegetarians should not play video games. One, which I intend to pursue at length in the paper, argues against such game playing on the grounds of the harm it does to the animated agent. The other, which draws on a famous argument from Kant, argues against such game playing on the grounds of the harm it does to the player. I’ll briefly comment on this latter argument, so as to set it to one side, before turning to the former.

Very roughly, Kant argued that the reason you shouldn’t kick a dog is not that the dog might suffer, or that such an action exhibits a failure to respect the dog as an agent, but rather that in treating a dog this way you run the risk of making yourself a brutal person. A brutal person is one who is insufficiently resistant to mistreating other people. But why does kicking your dog brutalise you if it is not actually doing the dog any harm? After all, kicking a stone does not brutalise. I think the answer is simply this. If one denies, as Kant might as

well deny, that the dog itself is relevantly different from a stone, you still have its behaviour to contend with. When you kick her, a dog does a pretty good impression, as it were, of what a person does when kicked. We can say, then, that the dog *represents* a genuine agent, that is she *represents* the kind of agent for whom we ought to show a certain respect and moral concern. According to this sort of reasoning, then, kicking stones is not a problem, but kicking stones with, say, faces painted on them, may well be. Such stones are very poor representations of people, but they are representations nonetheless, and hence, presumably, carry some risk of brutalising the kicker.

If this argument is successful, then it looks as though the vegetarian is in trouble. For there are many video games which involve the representation of cruelty both to animals, which indirectly represent people, and to people themselves. Even if the processes in the computer are no more complex than the crashing together of a pile of rocks the images on the screen are often vivid representations of people. I have some doubts about the Kantian argument, but I shan't comment further on it here. Rather, I shall now turn to an independent argument to the same conclusion, an argument which turns on harm done to the animated agents in the video game rather than on any harm that might be done to the player.

My strategy is simple. I want to show that animals and some of the entities that populate video games fall under a common category, and it is all and only entities that fall under that category that are the proper object of the vegetarian's concern. In the next section (§2) I want to make a case for that common category. Then (§3) I shall say more about its nature and make a case for some video game entities falling under it. In the following sections (§4 and §5) I shall examine a number of criticisms against this case. Finally (§6), I offer some closing remarks about the nature of my argument and some of the issues it raises.

2. Creatures vs. Animals

Consider the difference between the concepts of person and of human being. It may be the case that every person we know is a human being, but it is surely not the case that this is necessary. If Martians came to visit us, learnt our languages, came to share some of social mores, and so forth, would we not treat them as persons, albeit non-human persons? The answer, surely, must be that, yes, we would, and that we would be right to do so. Whatever else really matters, when it comes to personhood, species origin, any more than racial origin, does not.

We can helpfully express the relationship between the concepts of person and human being by saying this: human beings are the local person variety. However, when we turn to the case of animals, it is not clear that we have a concept that distances us from local conditions in the same way. At any rate, I shall take it that the concept animal has fairly specific biological content, that is to say that to be an animal it is necessary to meet certain fairly specific metabolic conditions. Animal metabolism—that is the processes that govern growth, energy production, and so forth—is based on a particular kind of carbon chemistry. Such specific metabolic conditions might not be met by what appear to be animal equivalents on Mars. We might suppose these animal equivalents have a radically different kind of metabolism to our animals—perhaps based on a different set of chemical constituents—and yet play for Martian people and the Martian ecology the same sort of role as Terran animals play on earth.

Co-opting a familiar word, we can call both our animals and the Martian equivalents, *creatures*. Animals are our local creature variety. The Martian local variety are those entities that Martian people farm, keep as pets, visit at the zoo, and so forth.

The concept creature, like the concept person, demands no specific metabolic conditions for its application. But, for the vegetarian at least, the concepts do have moral implications: both persons and creatures, of whatever variety, have a moral standing. If Terran creatures have a moral standing, then so too will Martian creatures. Just as the moral standing of human beings arises from their falling under the more general head, person, so too the moral standing of Terran animals arises in virtue of their being creatures. Anything else that is a creature should, then, deserve the same status. Martian creatures, like the Martian people, should have the same moral standing as their Terran counterparts.

I should clarify this claim. First, I don't want to deny that we may have a special concern for our local creatures—surely we shall unless we are deeply committed to a demanding impartiality—but that need not prevent us acknowledging the moral standing of those outside our immediate sphere of influence. Second, I don't want to insist that all creatures have the same moral standing as one another. Just as we may make moral distinctions between animal species on grounds of intelligence or behavioural complexity, so too can we apply such methods to creatures. But where we have a kind of creature who, on non-metabolic grounds, is on a par with a species of animal to which we take a certain moral attitude, then we must take the same moral attitude to that species of creature.

The vegetarian, then, is someone who is committed to certain restrictions on the treatment of creatures. To make my case against the vegetarian video game player I need to show that some video game entities are creatures. Before this can be done in earnest, though, we shall need to understand better the concept creature.

3. Characterising Creatures

My aim throughout the paper is to avoid the chauvinism that comes with mistaking accidental features of the local variety of creature for essential features of creatures in general. In this section I shall pursue this aim by offering a very general characterisation of what it is to be a creature and using it to show that some video agents are, in fact, creatures.² In the following section (§4) I shall, in the face of various cogent criticisms, clarify the characterisation of what it is to be a creature and further defend the claim that some video agents are creatures.

To be a creature is, firstly, to exhibit various life-like properties and, secondly, to display some cognitive capacity. Animals are creatures because, firstly, they are living organisms, and, secondly, they are cognitive. Plants are not creatures, because although they are living organisms, they are not cognitive.³

In characterising creatures I have just said that they exhibit life-like properties, but not that they need be literally alive. It is not immediately clear whether the term ‘life’ does or should operate as the name for a local variety of a more general phenomenon, and hence be defined in relation to say, DNA chemistry, or whether it is a general term, akin to ‘person’ and to ‘creature’. I shall, for the sake of argument, assume that life is a local variety of a more general phenomenon. This means I am committed to saying that life is not a necessary condition of being a creature, which may seem strange. But it also means that I am not committed to saying that video agents are alive, which may be more plausible than saying that they are. This said, I could argue in a different way, claiming that life was a very general term, and need have no special connection with the biochemistry of its local instances. Were I to argue this way, I would press that being alive is a necessary condition of being a creature, and I would be committed to saying that the video agents are alive.⁴

If life is the local variety of a more general phenomenon, what is that more general phenomenon? It is, I suggest, simply one side of a division of the world into entities which do and entities which don’t ‘strive’ to achieve their goals. Living organisms are the local variety

of a more general class of striving system. Striving, unlike DNA chemistry, is a feature of the creatures around us (and any we might encounter elsewhere) that is indispensable. A putative creature that has ceased to strive, to strive to persist and to strive to pursue its goals, is a creature that either has expired or is expiring.

3.1 Staying Alive

The most basic goal of an animal is to stay alive. It is only by being alive that it can pursue its other goals, such as reproduction.⁵ To stay alive an animal needs to preserve its integrity. If you are made out of DNA based chemicals, as opposed to, say, Lego bricks, this is no small task in itself. Contrast a turtle with an electric kettle. In its ordinary environment the kettle need do nothing to preserve its integrity. But the turtle, despite its handy bone vest, must constantly maintain all its organs, it must clean and filter its insides, grow new parts as and when old ones wear out, which they do all the time. If the turtle fails in its constant self-maintenance programme its insides will quickly become unstable and the animal will die.

Some artificial mechanisms are rather like the turtle. An old fashioned steam engine needs constant adjustment, lubrication, cleaning, and so forth. Without such maintenance, the engine will cease to work properly, and might easily destroy some of its own more delicate parts. Modern combustion engines also require maintenance, but they have been designed to require the minimum of manual intervention. The steam engine and the turtle, being products of trial and error evolution, are such that persistence is not so much a side-effect of structure, as it is with the kettle, but a goal that must be actively pursued. For the turtle, an engine which never stops running, the issue is even more pressing.

My point here, then, is that before an animal even does anything else, we can be impressed at the highly adaptive goal-seeking of its metabolism. Given its constitution mere persistence is a huge achievement, for it requires constant adaptive self-maintenance. The kettle's persistence, on the other hand, is nothing to write home about. In persisting, the kettle gives no indication that it falls under the general category of a striving system. If the kettle's persistence is threatened, it never does anything to avert the danger. But when an animal's temperature rises to dangerous levels, all manner of strategies are employed to try to bring it down again. When it is attacked by a virus, a complex defence is mounted. In the way in which an animal faces all these potentially lethal problems, and then acts in order to overcome them, it displays its membership of the general class of striving system.

A worry about the entities in the computer system, the video agents, is that they appear to be more akin to a kettle than to a turtle. Their persistence is not an issue, but more or less guaranteed by their basic structure. In persisting, then, they don't strive. Their continued existence is not a success or a failure, it is not an accomplishment at all. Rather, as with the kettle, it is simply a by-product of their stable structure.

I have two responses to this worry. Firstly, there is no reason why video agents can not be such that they do need to strive to persist. There are examples of video agents where the video agent arises as a result of the interaction of more basic parts, where the behaviour of these parts is governed by a set of laws that themselves have nothing to do with video agency. Though very much simpler, the relation between the video agents and these basic parts is analogous to the relation between animals and their basic chemical constituents. As such, these video agents can, like animals, suffer a radical loss of integrity, their various sub-components ceasing to operate harmoniously, and the structures which make up the video agent collapsing altogether. If it could be argued that the striving to persist condition was indispensable, then, for the purposes of my argument, we could restrict our consideration to video agents that are constructed in the manner just described.⁶

However, my second response to the worry is to suggest that the striving to persist condition may well be dispensable. In nature striving for other goals is always dependent on the basic striving to stay alive, but this is a contingent connection. In the video realm we can have an agent that strives to achieve various goals, but does not need to strive in order to persist. That is, if an entity strives in other ways, then it is not clear whether it matters whether or not it also strives simply to preserve its structural integrity. A robot might, like a kettle, have little problem in simply persisting, but exhibit striving in different ways. It might exhibit great flexibility in achieving its goals by, for example, working out new solutions to various problems that the pursuit of its goals raises.

3.2 Cognition

Why must we insist that creatures engage in cognition as well as striving? We must insist on this, I think, if we are to maintain a moral distinction between plants and animals. Plants certainly strive, but we need not think that they also cognize. Consider the sort of distinction that Aristotle draws between plants and animals (*De Anima*, II.2). Plants engage in various processes aimed at their persistence, growth, and reproduction. Animals share this much with plants but in addition engage in 'sense perception'. They gather information from their

environment and use it to guide their actions. They have, then, cognitive states that are akin to, if perhaps importantly different from, the beliefs and desires of persons.

This sort of view can be criticised from two opposing directions. It can be argued that plants are not qualitatively different from animals, but, albeit rather slowly, engage in behaviour that is recognisably cognitive. This point seems less strange when one looks at footage of plants shot using time-lapse techniques. When we can see plant behaviour speeded-up, it is much less clear that it is qualitatively different from simple animal behaviour. Alternatively, of course, the Aristotelian view can be criticised by arguing that animals and plants should be grouped together, and that only creatures such as human beings, who are equipped with language, have cognitive states at all.

But the details of such disputes need not be relevant to our purposes here. We can note that the vegetarian does make a qualitative distinction between plants and animals. On what basis might this distinction be made? My argument suggests that it had better be made on some broadly Aristotelian lines, for, if it is not, it is hard to see how the vegetarian can avoid falling prey to prejudice.⁷ Suppose, for example, that she follows modern biology and exploits the sharp metabolic difference between plants and animals as the basis for her difference in moral attitude. How can this be anything other than metabolic prejudice? Would she persist in this attitude were she faced with a talking plant from Venus?⁸ On Earth the metabolic distinction between plants and animals may be a handy guide to a cognitive-cum-behavioural difference, it may even be an infallible guide, but that doesn't mean that metabolism is the relevant factor in characterising the difference.

3.3 Video Agents

Some video agents do exhibit the key characteristics of creatures. Take a video game where a range of entities, the A-blobs, roam around the screen in search of other entities, the P-blobs. To persist, an A-blob must regularly collide with P-blobs, at which point the P-blob ceases to be. Repeated failure to collide with a P-blob will result in the A-blob ceasing to be. In the game there may be a number of A-blobs, and they may use different strategies for tracking down the P-blobs.

The program behind an A-blob's behaviour may be such that the individual A-blob is capable of developing new behavioural strategies.⁹ Suppose that the program behind the A-blob's behaviour has access to some information about the A-blob's environment, e.g.

information about whether an A-, P-, or any other kind of blob is in the immediate area ahead. It can then try out different responses to this information, perhaps in the light of information stored about its recent activity. Those that lead to success, more P-blobs or more reliable acquisition of P-blobs, can be reinforced. Most crudely, the A-blob will quickly learn to move towards, rather than away from, P-blobs. But, depending on its range of ‘perceptual’ and ‘motor’ inputs and outputs, and also the extent to which it can store and make use of previously acquired information, the A-blob will be able to develop an elaborate range of behaviour.

The A-blobs, then, can learn. Depending on a particular A-blob’s history, and perhaps some chance factors built into the A-blob’s program, some A-blobs will become more successful than others. My brief story is made up. But there are plenty of examples of actual computer systems that generate video agents in the manner I have described.¹⁰ These video agents do pursue goals, and can do so more or less effectively. The A-blobs are striving systems and part of their striving involves cognition. Hence the A-blobs are creatures and should be treated as such by the vegetarian.

4. Some Initial Objections

Having helped myself to a generous characterisation of what it is to be a creature, I’ve offered the ambitious claim that some video agents are creatures. viz. the A-blobs. Although made up, there is no reason why they could not be real, and video agents very similar to my A-blobs have been constructed. But can it be right to say that a vegetarian should refrain from assaulting or destroying A-blobs? Given the bizarre nature of this suggestion, I must now ask whether I have been too generous in my characterisation of what it is to be a creature. Are there some criteria I have failed to appreciate, ones which will leave animals as creatures, but exclude each and every video agent?

The vegetarian video player is convinced that in seeking to avoid chauvinism, I have fallen prey to excessive liberalism. She, then, must try to show what difference there is between the video agents, to which she adopts no special attitude, and the creatures, such as animals, to which she does. In asking herself such questions she should get a better grip on what it is about creatures that make them special; or, of course, she might decide to give up playing a certain style of video game and perhaps even begin a campaign against them.

4.1 Striving and Heritage

It might be objected that mere computer-generated agents can't really strive. They have no genuine interests or genuine purposes in the way that living organisms have. But modern accounts of biological purpose make no reference to specific metabolic details. Rather, they concentrate on conditions such as fitness, history of selection, propensity for future selection, and so forth. All of these terms are metabolically neutral and hence can be applied to video agents just as well as they are applied to animals.

In a slight elaboration of the A-blob scenario, we can design the program that controls the A-blobs' behaviour in such a way that it is itself specified by a sequence akin to the gene sequence that specifies the initial structure and behaviour of an animal. Again, if the design is done carefully, it can be arranged so that two gene sequences can be combined in such a way that they will specify a new program, different from that specified by either on its own, but still, in a reasonable number of cases, a viable behaviour-controlling program. It is a small step, then, to arrange for pairs of A-blobs, following a special kind of collision, to produce an offspring A-blob, combining genetic material from the pair. Add to this a random factor that occasionally introduces a mutation, and we have, in the video environment, an example of the processes which drive evolution by natural selection. If we let this video game run then, providing the A-blob species doesn't die out, it will evolve in response to changing environmental pressures.

For example, if we arranged for the P-blobs to change from having a green appearance to having a brown one, we would expect individual A-blobs, or the species as a whole, to adapt, and to begin pursuing brown-looking blobs. Of course, they might not so adapt, and, denied sufficient P-blob resources, they would all die out.

In the revised scenario, we are in a position to talk, quite literally, about the fitness of A-blob variations and of the history of selection of certain behavioural traits. If evolutionary accounts provide (or fail to provide) a foundation for purposive descriptions of animals and their behaviour, then they must similarly provide (or fail to provide) such an account for video agents. Video agents, then, can strive just as effectively, just as genuinely, as animals.

A refinement of the striving objection might point not to the mere fact of a process of evolution by natural selection, but to the fact that animals, unlike the video agents, are the product of millions of years of evolutionary refinement. They have a very lengthy history. Could this be what makes it the case that animals are creatures, whereas video agents are not? I can readily concede that some evolutionary history might be a requirement of being a

creature, but why a very lengthy history?

It is hard to see how a ‘lengthy history’ view could amount to much more than prejudice. Moreover, it seems to suggest that the moral command that animals have upon us is akin to, say, the demands that our heritage makes on us to be documented, considered, preserved, and so forth. Perhaps the two cases *are* alike. If this is so, it is seldom acknowledged by the vegetarian. The heritage argument will give her what she wants, but it would be surprising, to say the least, if an entity could transfer from one moral category to another simply by being around for longer.

4.2 Suffering and Complexity

Surely, the vegetarian might press, these video agents can’t suffer, and, in particular, they can’t feel pain. But a reason, perhaps the central reason, for treating animals in a special way is that they *do* suffer, they do feel pain. One way to respond to this objection would be to offer up a fully developed account of pain and suffering and to try to show that, on that account, video agents suffered. But providing such an account is not something that I want to attempt here. Nor is it something I need to do.

What I need to show is not that the video agents do or don’t suffer, but that whether or not they do is not settled by their being video agents as opposed to animals. And to do this I need to show that whatever makes it the case that an animal suffers, it is not that it suffers because it has a certain sort of metabolism or physiology.

It has been established that, as much as an animal has, the video agent has interests and, further, that these interests can be thwarted. So the video agent can certainly suffer in the minimal sense that its interests can be thwarted. But is this the sort of suffering that the vegetarian is particularly concerned with? Is it the sort of suffering of which pain is one variety? Not quite, for in this sense of suffering a tree can suffer just as much as an animal and, indeed, an animal can suffer when it has been anaesthetised. The sort of suffering we are concerned with, the sort of which pain is one variety, involves an awareness on the part of the animal that some of its goals and interests are being severely and acutely thwarted. To suffer in this way one cannot merely be a striving agent, one must also be cognitive. So trees, not being cognitive agents, cannot suffer in this way.

Our criterion for saying an animal suffers is that an animal is aware of an attack upon or a thwarting of its interests. In the case of pain, it seems plausible to suggest that our

criterion is that an animal is aware of an attack on its integrity.¹¹ In any case, whatever the fine-grained details of our account of consciousness may be, it is criteria such as these, or something close to them, that the vegetarian uses when she says an animal suffers. So why, other than because of a prejudice about metabolism, should we refuse to follow the same criteria in the case of a striving and cognitive video agent? Such a video agent can be cognisant of the thwarting of its interests, hence meeting the general criterion for (the relevant kind of) suffering, and can also be cognisant of an attack on its integrity, hence meeting the (tentative) criterion for ascribing pain.

There is no reason to pay any more attention to metabolic differences in this case than there was when we considered meeting Martian people. It would—it certainly should—be unthinkable to deny that what to all appearances are Martian persons feel suffer and feel pain just on account of their having different sorts of insides. And, if so, and if creatures suffer and feel pain, it should be as unthinkable to deny that the same is so of Martian creatures. Suffering and pain *are* issues for the vegetarian. But there is no good reason to think that they are issues that divide the status of animals and video agents. Perhaps a vegetarian will come to believe that neither kind experience pain and suffering, or that both do. My argument here is that it would be unreasonable to think that one kind does while the other does not.

Perhaps experiencing pain and suffering is not universal across the animal kingdom. We might suspect that ants don't suffer or feel pain, while armadillos and apes do. This feeling, one hopes, is not to do with size, but to do with cognitive complexity, as manifested in behavioural sophistication. Armadillos are just much more sophisticated than ants.

There might, then, be an objection that the A-blobs are akin to ants and quite unlike armadillos. Some A-blobs might be like ants, but there is no reason to think that the A-blobs necessarily must be no brighter. There is no reason to think that the A-blob game could not progress such that the A-blobs evolved into more complex agents, agents that, in terms of behavioural sophistication, were on a par with armadillos. Of course, for this to happen the A-blobs will need good luck. For them, as for other products of evolution by natural selection, the most common fate is an early demise.

5. Representation

My argument has emphasised the ways in which we describe and respond to the coloured shapes that move about the video screen. Noting this, the vegetarian might argue that these

shapes are mere representations. Just as a painted stone can represent a human face, so a moving blob can represent a creature. But, the vegetarian may press, in neither case is an agent present. There is only the appearance of an agent, only, as it were, a story told *about* an agent.

This is a powerful objection, and one that cuts to the heart of my claim. Nonetheless, I think it can be met. I begin (§5.1) by emphasising the difference between *mere* representation and what takes place in the video game. Whereas the activity of apparent agents in movies is ‘scripted’, the activity of video agents is ‘improvised’, that is, such agents can and do respond in different ways to different circumstances. This response is then refined (§5.2 and §5.3) by introducing a distinction between the creatures I claim can be present within a computer system and the coloured blobs which are our means of observing them.

5.1 Movie People

When we watch a movie we talk as if a person is talking, thinking, driving, and so forth. But this is merely a representation of a person. There is no real person doing any of these things. What we have is simply a (moving) picture of a person. And, similarly, the vegetarian may press, with a video agent we have a (moving) picture of a creature, but no more; there is no real creature lurking in the innards of the machine.

Of course, it *would* be absurd to say that when I watch a film or read a novel or even think to myself about a character that somehow, by mere production of representations of persons, persons are conjured into existence. Take the movie case. However well drawn a character may be, the sorts of causal processes that lie behind the production of the image on the screen are of a radically different kind from those that lie behind people. And, further, they are of a radically different kind from those that lie behind the video agents that I have been claiming are creatures.

Note, in the first instance, that the movie can only go one way. No matter how many times I run the film, the ending is always the same. Moreover, when, say, the hero appears to hear the sound of a gun shot, and rushes into the house, we know it is mere appearance. Turn off the sound track and the hero still follows his cue. Once the film is in the can, there is no causal connection (or no relevant causal connection) between the cause of the appearance of the gunshot and the cause of the appearance of the action. The movie is a clever trick that represents causal and cognitive processes, but none of these processes go on when we run the

movie.

Some video games mix in movie footage with real-time animation. With such games it is clear that what we are getting are ‘canned’ visuals. This is akin to the ‘canned’ speech used by computer systems that can answer the telephone. There is a limited stock of visual (or verbal) phrases that can be selected. The richness of each phrase impresses, for normally the production of such would imply the presence of a person. But we’re tipped off that the richness of the appearances is mere decoration, when we realise that the behavioural repertoire is severely limited. The computer voice *can*, as it were, wish us good morning, but it *can’t* come anywhere near discussing the weather. It would be a gross error, then, to think that the appearance of language production in some highly limited circumstances was a reason to suppose that there was, in the causal structure of the relevant device, an actual linguistic intelligence.

Some video agents, then, do work in the manner of movies, or, more subtly, by cutting and pasting visual phrases on the basis of a pre-figured set of rules. But the video agents in which I am interested work in a different way. Their behaviour is sensitive to what takes place in their environment. That is, there is a causal connection between events on the screen in a way that is quite absent in the movie. The causal structure that lies behind one appearance on the screen is what is responsible for changes in the causal structure that lies behind another appearance. The causal structure behind, say, a bright green P-blob is just what affects the causal structure that lies behind a roaming A-blob. The P-blob’s presence causes the A-blob to turn and approach. Take away the P-blob, or move it to a different place, and the A-blob will behave differently.¹² This is what is meant, then, by saying that the A-blob is genuinely sensitive to changes in its environment. It behaves differently depending on how it find things, and perhaps also depending on how it has found things in the past. Characters in movies, plays, and novels *appear* to do this, but do so only in virtue of the script.

5.2 Indirect Observation

The vegetarian might accept that there is an important difference between scripted movies and video games. But nonetheless, she may still press that, at root, what we are dealing with are the appearances of creatures and not the creatures themselves. When talking about the video agents we speak of them moving around an environment, as portrayed by movements on the screen, and as bumping into things. But, it can be objected, none of these processes

and encounters are real.

To respond to this objection I need to introduce a significant clarification of the relationship between the appearances on the screen (the blobs) and the video agents. For the most part I have treated the two as if they were identical, but the situation needs to be more complex. That is, to make the case that in playing the game one is interacting with creatures, I need to claim the following. Firstly, the (putative) creatures are electronic entities that exist within the structure of the computer system. And, secondly, the appearances on the screen are, in effect, the output from a scanning device, an observational tool, that is directed at some of the computer system's internal causal structures, i.e. the video agents and their environment.

Let me first clarify the relation of 'output from a scanning device' and 'scanned entity' by means of less controversial example. Imagine a species of fish that can only survive in water so murky that it is quite opaque to human eyes. Peter keeps such fish as pets. Unaided, Peter cannot observe, let alone interact with, his fish. But suppose he has an observational (cum interactional) tool. The tool might be based on sonar, radar, or even magnetic resonance techniques, such as those used in brain scanners. In any case, the first stage of the scanner produces raw electronic signals. These are then processed by a computer program and the data is rendered in the form of coloured blobs on a screen.

There are a number of points to note about Peter's scanner. Firstly, Peter depends on the scanner to observe his fish, but the existence of the fish in no way depends on the scanner. Secondly, in order to function effectively the scanner must make presuppositions about the identity and persistence conditions of fish. Faulty presuppositions might render a display where the colour blobs represented eddy currents, or where fish mysteriously appeared and disappeared for no apparent reason. Peter can't calibrate his scanner by checking its results against a direct observation of his fish. But he can tune and re-tune the scanner until the coloured blobs, and their interactions, begin to behave in a purposive (and fish-like) manner.¹³ On the assumption that Peter's fish are still alive, this, then, is evidence that the scanner has detected and is tracking them.

The third and final point about the scanner concerns the appearance of and relations between the fish as opposed to the appearance of and the relations between the coloured blobs on the screen. In this case the scanned entities do have determinate size and shape and location. The scanner could attempt to work as if it were a window on the tank, but it need

not. For example, height in the tank could be represented by vertical position on the scanner screen, but height could also be represented by the shading of the coloured blob that stands for each fish. Just as a set of figures can be presented in the form of a bar graph or a pie chart, so the set of current fish facts can be presented, by the scanner, in a number of ways. There is no necessity, then, for a successful scanner image to ‘look like’ the scanned entity.

The video agents are analogous to the fish in Peter’s tank. As with the fish, the coloured blobs on the screen are not themselves parts of the video agents, but merely the means by which we can observe and interact with them. *The movements and collisions portrayed on the screen are not literal movements or collisions. But they are literal somethings.* Just as a deepening of shade of a blob on the screen may correspond to the actual swimming upwards of one of Peter’s fish, so the moving of blob-7 towards blob-8, may correspond to an increase in the ‘degree of causal influence’ between two of the video agents that feature in the game.

One could claim that when Peter says ‘Look at that fish’ and points to his scanner screen he is making some sort of mistake. But, for most purposes, there is no problem with Peter collapsing the distinction between the scanner’s representations of the fish and the fish themselves. Certainly Peter can study and interact with his fish simply using the scanning equipment. Similarly, it is normally reasonable to say ‘Look at that video agent’ and point to the video screen. It is only when we ask about the underlying nature of the fish or of the video agents, as we are asking here, that we need to resist collapsing the distinction between scanner representation and scanned entity. In answering such questions we shall find important differences between the nature of Peter’s fish and the nature of the video agents. But these differences, I shall argue, don’t undermine the claim that video agents can be creatures.

Having clarified the relationship between the appearances on the screen and the underlying video agents, I am now in a position to address an important variation of the movie objection. Imagine a group of children playing a game in which each adopts a particular character. Unlike the movie, in this game there is no predetermined script; the play is improvised. But, clearly enough, the characters and their adventures are not real. Improvised behaviour, then, as opposed to scripted behaviour can’t be the critical issue. Rather, the mark of fiction is that when a character or entity is no longer represented—say, when the children finish their game—then the character or entity ‘vanishes’. (It doesn’t perish, since, strictly speaking, it never actually existed.) However, removing the A-blob representations does not

affect the persistence of the underlying video agents. The critical issue, then, is this: In movies and pretend play, the production of representations generates the fiction of actual entities and agents interacting with one another. Whereas in the video game (at least, in the type of video game at issue here), as with Peter's fish tank and scanner, the actual entities interacting with one another generate informative representations of their activity.

Similarly, an attack on, or any other interaction with, the character played by a child, can only ever be a representation of an attack. Of course, an attack on her character may annoy the child, and, if the play is rough, may even hurt her. But, if she acts out her character dying, nothing perishes, she simply represents the death of her fictional character. By contrast, the video game scanner, that is the computer display, is a two way device. That is when the player adjusts her controls in order to produce the representation of an attack on the display, this causes an actual attack to take place. Once again, what I mean here can be illustrated by Peter's fish. For Peter's scanner could also be made to work as a two-way device. That is, we could arrange that moving cross-hairs over one of the coloured blobs and hitting the 'X' key, caused the actual fish represented by the blob to be struck with, say, a low energy laser beam.

5.3 The Nature of Video Agents

As in the fish tank case, switching off the video screen has no effect on the activity of the video agents. To this extent, at least, their existence and activity is independent of their being scanned. But, it might be objected, in the fish case the scanner is picking up on an entity that actually exists whereas in the video agent case the scanner 'does all the work'. What I mean by 'all the work' is that the scanner itself is generating the patterns of interest, the patterns that encourage us to respond as if we were faced with striving cognizers. When, looking at the movements of clouds, we imagine that they have aims, imagine that one is pursuing another, we are over-interpreting. Is that what the scanner is (or we and the scanner are) doing with respect to some of the causal processes that take place within the computer system?

This worry can be rejected, or, at least, made wholly marginal. In the cloud case, we quickly become aware that we are over-interpreting and we do so because to maintain the coherence of our purposive description we need constantly to introduce ad hoc qualifications and details. Such ad hoc revision is not required in the case of animals, because the animals, as it were, 'do the work' in generating purposive patterns for us to respond to. It is certainly the case that with many video games we do over-interpret, and the shape of the coloured blobs

on the screen actively encourages this. But this need not be the case. It is possible for the causal processes within the computer system to generate the same sorts of purposive patterns as animals generate. And in this case, recognising that the video agents are creatures is not over-interpretation, but simply sensitivity to what is there.

The video output of the scanner is designed to help us to understand the activity of the video agents. It does this by presenting familiar images as of objects moving around in a spatial field. However, we might equally well use a more modest brand of scanning tool to track the creatures inside the computer system. A primitive scanner might just produce long lists of numbers. It would then take much time and skill to analyse the patterns of numbers in order to discern individual entities and track their encounters one with another. And indeed, without making some presuppositions, for example about aims and purposes, about relevant and irrelevant changes and fluctuations, such tracking would be impossible. A more advanced scanner might produce a textual transcript describing the causal encounters and changing properties of the various video agents. The video game scanner is yet more advanced. It automates the analysis process and summarises the results in graphical form. This, after all, is a helpful way to present the scanned data, just as a bar graph or a pie-chart is far more helpful than a list of raw figures.

Peter's fish are physically constituted objects. They have a (fairly) definite size and shape and can be spatially located. Can the same be said of the video agents? They too are physically constituted objects, they are constituted by the computer system's electronic and magnetic states.¹⁴ Typically, a video agent will be a program instantiation.¹⁵ Just as personal computers instantiate many programs at the same time (an emailer, a word processor, a file manager, and so forth), so too does the blob-world system instantiate multiple video agents. Each instantiation is made of physical parts, has causal powers, persists through time, persists through changes in its properties, and so forth.

But although the video agents are physically constituted objects, they are of an unfamiliar kind. They do not, for example, have even a relatively stable spatial structure. If they have a shape and size at all, it is likely to be constantly changing, as different microchips and disc surfaces are implicated in their persistence. Whereas spatial distance between familiar physical object is one of the most central factors in determining their interactions, this rule does not really apply to the video agents. Of course, there may be some feature of the agents (and of the master program) that influences their interactions in a way closely

analogous to spatial distance, and this, further, might be represented as spatial distance on the screen, on, as it were, the output of the scanner. But any sense we can make of the actual spatial separation of the entities will have little or no bearing on determining their causal interactions with one another. This factor, amongst others, makes the video agents a very unusual kind of physical entity, but there seems no reason to consider it a difference that could make a moral difference if, on other criteria, the video agents count as creatures.

The very ease with which we can observe and understand the animals that share our environment can obscure the parallels between animals and video agents. In the case of armadillos and ants, we have no need of special tools in order to see, study, and influence their activities. On the other hand, bacteria and other microscopic life are invisible without the aid of tools. Such tools generate for us a presentation of a reality that is invisible to the naked eye. The presentations of such tools may be constructed simply by the bending of light rays, as in the microscope, or they may be constructed through the extensive processing of electronic signals in order to construct video images, as in the fish scanner.

The microscope amplifies our already existing perceptual powers, but devices such as the fish scanner and, according to my argument, the creature scanner that forms part of the blob-world video game, do rather more than this. The scanners, for example, must introduce various presuppositions about how to carve up the raw data in terms of objects and agents. Is this difference important? The argument so far suggests not, and the suggestion is supported by two further considerations.

Firstly, we should remember that in observing animals we make use of highly specialised instruments, viz. the perceptual apparatus of the brain, tuned by millions of years of evolution to be sensitive to creatures, organisms, and objects with which historically we have had important causal commerce. Human brains make many presuppositions in order to enable us to detect and track plants, animals, and other human beings. We cannot complain, then, if some of our artificial observation aids also build in presuppositions. As with any observation, some presuppositions are required to cast into relief relevant patterns of activity—in this case, those patterns that are characteristic of creatures.

Secondly, from another perspective, we ourselves may be undetectable without special tools. Imagine a group of very large visitors from another world.¹⁶ Perhaps their limbs are so dense, and their muscles so strong, that they cannot detect the difference between thin air and a human body. A wave of their arm might pass through a person just as readily as it passes

through thin air. Such a creature would require very special equipment to observe a human being, to even become aware of the presence of a human being.

A video agent, then, is an unusual kind of physical object, one that can only be detected using an artificial aid. But this fact need not in any way undermine the thought that some video agents undergo the kind of internal causal development in concert with causal interaction with other video agents (and other video entities and, if a suitable interface is available, with agents and entities outwith the computer system) that is distinctive of being a creature.

6. Should Vegetarians Play Video Games?

It's no surprise that at first shot we take a very different attitude to animals and to video agents. We have evolved from and with other animals. Our perceptual systems are tuned to their particularities. In some cases we are even sensitive to one another's moods and emotions. In each animal, as it pursues its project, we can, to some degree, recognise ourselves. And, of course, they can eat us and we can eat them. But just as we can provide a naturalistic account of other forms of prejudice—racism, for example—a naturalistic account of the different attitude we *do* take is no justification for claiming that the difference in attitude is appropriate. Once we recognise that 'familiar to us' is not the criterion for being worthy of moral concern, but rather a much more liberal notion of 'person', then we should give up old prejudices. And the same must, I have argued, apply to certain kinds of sophisticated video agents. Of course they do seem to be the most extraordinary kind of creature, much stranger, surely, than any we might meet from Mars. But they are creatures nonetheless. Having once made them, the vegetarian may no more mistreat them than she may mistreat animals.¹⁷

I hope to have shown, then, that it is not obvious that the vegetarian should have no qualms about playing video games. There are many differences between animals and video agents. My contention, having looked at a number of these differences, is that none of them is fit to make a moral difference. Perhaps there are important differences that I have failed to flag, and perhaps some of the differences I have flagged do, after all, make a moral difference. In the mean time, however, as a vegetarian, my argument urges me to treat with all due respect and consideration the agents that populate ever more elaborate video games.

¹ Thanks to staff and students at the University of Stirling for their comments on earlier versions of this paper. Particular thanks go to my colleague, Antony Duff. Thanks also to Michael Pendlebury and an anonymous referee for alerting me to some critical shortcomings in a previous draft.

² The term video agent should not be read as presupposing any kind of agency. Rather, it is simply a convenient way to pick out the relevant video entities. Whether or not they are a certain kind of agent, whether, that is, they are creatures, is the central question at issue.

³ But see §3.2 and note 8.

⁴ For discussion of such issues see M. A. Boden (ed.) *The Philosophy of Artificial Life* (Oxford: OUP, 1996).

⁵ It is not strictly true that it is *only* by being alive that an animal pursues its goals. An animal may welcome death as a means to promoting an end, e.g. providing a food source for its offspring.

⁶ For a description of such video agents and a useful discussion, see D. C. Dennett 'Real Patterns' *Journal of Philosophy*, 88 (January 1991), 27-51.

⁷ Given this much endorsement of Aristotle, I might be pressed with the (broadly) Aristotelian objection that whereas animals are, in some suitable sense, self-standing subjects, the video agents are merely qualities or states of some other subject, namely, the computer system. I suspect this objection won't go through on the basis that the sort of grounds that challenge the self-standing nature of video agents could, with suitable modification, be brought to bear against animals. The sort of resources for making such an argument are hinted at in §5.2 and §5.3, but I shan't, in this paper, engage with this worry any further.

⁸ My argument raises problems for the vegetarian quite outwith the video realm. The argument claims that it is possible that some plants, on account of complex behaviour, fall into the same cognitive category as some animals. A case might be made, say, for a Venus fly-trap. If a plant did fall into the same cognitive category as an animal, then the vegetarian could not reasonably treat it differently from an animal.

⁹ If, indeed, there is a program. If the A-blob's are constructed out of more basic building blocks that have come together and are now operating as a unit (see §3.1) then there won't be an explicit program that guides its behaviour. Nonetheless, there will be internal processes that have various functional capacities, and that is all that is needed for the moves made in the following argument.

¹⁰ See, for example, the systems described in Boden, *op. cit.*, and C. G. Langton *Artificial Life* (Cambridge: MIT Press, 1995).

¹¹ See §3.1 for a comment on ‘integrity’. More could be said about the criterion for pain ascription, and perhaps the tentative suggestion here is not quite right. If the broader criterion of suffering is accepted, however, my basic point (that given the vegetarian’s criterion for ascribing animal suffering she must allow that some video agents could also suffer) should go through, and that is all I need for the argument here.

¹² Strictly speaking, as I go on to explain in §5.2, it is the causal structures that lie behind the blobs that are involved in the relevant causal relations, not the blobs themselves. These causal structures are involved in actual causal relations, relations that are then represented by the movements of the blobs. The movie agents also represent causal relations, as in the case of the gun shot and the rushing into the house, but the causal relations represented there are fictional.

¹³ Other means of calibration may also be available to Peter, e.g. poking a stick into the tank, and so forth.

¹⁴ The relation of constitution here is just that kind of relation that holds between, say, a statue and the bronze from which it is cast. That is to say, although the video agent is constituted by electronic and magnetic states, it is not identical with them. The electronic and magnetic states have no interests or goals, but, if the arguments of §4.1 go through, the video agent that is underpinned by them does.

¹⁵ They need not be. An alternative is that they are simply persistent configurations of more basic building blocks, see note 9.

¹⁶ cf. Voltaire’s *Micromegas*.

¹⁷ It is fascinating, and heart warming for the vegetarian, that some modern video games, whose video agents may even be creatures, emphasise nurturing rather than wanton destruction. See, for example, the description of the game ‘Creatures’ by Millennium Interactive Ltd. See S. Grand, D. Cliff, and Anil Malhotra ‘Creatures: Artificial Life Autonomous Software Agents for Home Entertainment’, CSRP 434, (University of Sussex: Department of Cognitive and Computing Sciences, 1996).