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## Australasian Journal of Philosophy

Publication details, including instructions for authors and subscription information:

<http://www.informaworld.com/smpp/title~content=t713659165>

### Human atoms

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**To cite this Article** Olson, Eric T.(1998) 'Human atoms', Australasian Journal of Philosophy, 76: 3, 396 — 406

**To link to this Article:** DOI: 10.1080/00048409812348521

**URL:** <http://dx.doi.org/10.1080/00048409812348521>

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## HUMAN ATOMS

Eric T. Olson

### I.

Philosophers of all sorts have often managed to persuade themselves that they are something other than animals. No human person, they say, is ever strictly identical with that human animal that they call 'his body'. They disagree about what we are instead. We might be wholly immaterial thinking substances. We might be material objects 'constituted' by our bodies—things made up of the same particles or the same stuff as those animals, and which exist in virtue of those animals, being a certain way. A few think that we are events, bundles of thoughts and experiences, properties, or abstract things analogous to computer programmes.

In this paper I shall explore a novel alternative to these familiar views. In his recent book *Subjects of Experience*, E.J. Lowe argues, as many others have done before, that you and I are not animals. It follows from this that we must be simple substances without parts. That may sound like Cartesian dualism. But Lowe is no Cartesian. He argues from premises that many present-day materialists accept. And he claims that our being mereologically simple is consistent with our having such paradigmatically physical properties as being six feet tall and weighing 160 pounds. You and I, he claims, are mereological atoms shaped like human beings.

Everyone will find something to disagree with here. Some of us think that we are animals. Most of us assume that a person could be made up of parts. Nearly everyone assumes that we have parts if we are material objects at all. For that matter, nearly everyone assumes that any extended object, especially one that looks like a human being, must have parts. Lowe's position flouts conventional metaphysical wisdom at every turn. It is perhaps the wildest view of personal identity on offer. Yet he claims that it follows from widely held assumptions. One cannot help but be intrigued.

For all that, my main task is not to praise Lowe's view but to bury it. (In my view the other alternatives to our being animals deserve burial as well. But that is a task for another day.) I will argue that Lowe fails to establish that you and I are not animals or that we are simple, and that his view that we are six-foot mereological atoms is at least dubious.

### II.

I imagine that most philosophers could rattle off half a dozen arguments against 'Animalism', as the view that you and I are animals is sometimes called. Here are a few favourites: (i) If you were an animal, you would be identical with your body (or at any rate with *some* human body). But no human body can think or feel or act, as you can. (ii) Persons and animals have different persistence conditions: the organism that is your body could outlive you (if you lapsed into a persistent vegetative state), or you could outlive it

(if your brain were transplanted and the rest of you destroyed). But a thing cannot outlive itself. (iii) Persons and animals have different criteria of synchronic identity: any human animal could be associated with two different persons at once (as in cases of split personality). Thus, no person is an animal. (iv) These experiences—the ones I am having now—are essentially mine. But they are only contingently associated with any particular animal. Hence, I have a property that no animal has.

Lowe endorses these familiar arguments.<sup>1</sup> Since they are not new or distinctive, though, I will pass over them and turn instead to what looks to be a novel argument against Animalism (14ff; [8] 90ff). Lowe's discussion is complex and difficult, and I shall do no more than sketch what I take to be its central strand. Whether or not it is quite what Lowe had in mind, the simplified argument deserves attention, as it is founded on premises that most philosophers will find attractive, and is probably about as persuasive as any other argument against animalism.

It begins with a general principle about kinds: If a kind *a* is subordinate to both of two more general kinds *b* and *c*, then either *b* is subordinate to *c* or *c* is subordinate to *b*. (One kind is subordinate to another if it is in some sense necessary that every member of the former be a member of the latter.) Snakes, for example, are both reptiles and vertebrates; and the kind *reptile* is subordinate to the kind *vertebrate*, in accordance with the principle. Roughly speaking, kinds—or at least genuine kinds—do not cross-classify. If we think of kinds as regions and their members as points within them, no two kinds will overlap without one falling wholly within the other; thus, we might call this the *Nesting Principle*.

The argument then goes something like this: If you and I were organisms—human beings or human animals—then the kind *human animal* would be subordinate both to the kind *person* (or *self*) and to the kind *mammal*. Now *mammal* is not subordinate to *person*, for many mammals are not persons. But neither is *person* subordinate to *mammal*, for it is not necessary that every person be a mammal, even if some are. (If there can be mammalian persons, why not amphibian persons?) This contradicts the Nesting Principle. Thus, you and I are not organisms.

One might complain that human vegetables, anencephalic babies, and even eight-week-old fetuses are human animals but not persons, at least if being a person implies having mental capacities of any sort. As a matter of empirical fact, *human animal* does not appear subordinate to *person*, even on the assumption that you and I are animals. But we might be able to fix this problem by replacing *human animal* with *human person*, since *human person* (a human animal that is a person) appears subordinate to *person* as well as to *mammal*. The revised argument would then look like this:

1. If you and I are human animals—or more generally, if some things are both human animals and persons—then the kind *human person* is subordinate to both *person* and *mammal*.
2. If a kind *a* is subordinate to kinds *b* and *c*, then either *b* is subordinate to *c* or *c* is subordinate to *b* (the Nesting Principle).
3. Neither *person* nor *mammal* is subordinate to the other.
4. Therefore you and I are not human animals.

<sup>1</sup> [1, 34, 31, 6]. All references are to Lowe [11] unless otherwise specified.

Why should we accept the Nesting Principle? There would appear to be counter-examples. If goats are animals, then the kind *goat* is subordinate both to the kind *mammal* and to the kind *vegetarian*. (By a vegetarian I mean an animal that is designed, as it were, to eat only vegetables. I take it that there could not be naturally carnivorous goats.) But neither *mammal* nor *vegetarian* is subordinate to the other, as the Principle would seem to require: there exist both carnivorous mammals and vegetarian non-mammals. Thus, if we can use the Nesting Principle to show that persons are not animals, it seems we can use it to show, absurdly, that goats are not animals either.

Lowe would presumably reject this 'parallel' argument on the grounds that *vegetarian* is not a *genuine* kind, and we should not expect the Nesting Principle to apply to it. But then why expect the Principle to apply to the kind *person*? In what sense of 'kind' is *person* (or *human person*), but not *vegetarian*, a genuine kind?

Part of Lowe's answer is that the Nesting Principle holds only for *natural* kinds, by which he understands those kinds that figure in natural laws—as opposed to kinds like *house*, whose members figure in natural laws only insofar as they exemplify natural kinds [3, p. 17]. But this can hardly explain why *person* but not *vegetarian* should be a genuine kind: why should there be natural laws about persons as such but not about vegetarians, as such? Nor is it clear why the Nesting Principle should necessarily hold for all and only natural kinds.

A better answer (no doubt part of what Lowe had in mind) is that *vegetarian* is not a genuine kind in the sense that it doesn't determine the essence or the identity conditions of its members. It doesn't tell us what they most fundamentally are. Perhaps every vegetarian (in my special sense) is essentially a vegetarian. But there are no unified identity conditions that necessarily apply to all and only vegetarians. What it takes for a vegetarian to persist through time has nothing to do with what it is meant to eat. The fact that something is a vegetarian tells us something about what it can *do*, but not what it *is*.

It is an interesting question whether the Nesting Principle holds for those kinds (if there are any) that determine the essence, and hence the identity conditions, of their members. Given the right account of 'essence-determining kind', I think it can be made plausible. If so, and if *person*, *human person*, and *mammal* are such kinds, Lowe's argument would appear to succeed. Similar arguments would show that no person could possibly be an organism of any kind, and no organism a person.

Of course, once we have admitted that *person* is an essence-determining kind, we can give a more direct argument against Animalism: If *person* is a genuine kind, then every person is essentially a person. Nothing could be a former person or a merely potential person. But it's hard to see how any *animal* could be essentially a person. Every human animal started out as an unthinking embryo, and may end up as an unthinking vegetable. It follows that no animal (or at any rate no human animal) could be a person. (This is a variant of Familiar Argument (ii), above.) Still, Lowe's argument from kinds has some independent merit. Some claim that human animals are essentially persons (Wiggins [19], p. 188; Wollheim [20], p. 9): human embryos and human vegetables, apparently, are either persons or not really human animals. They will reject the main premise of the 'direct' argument. But they will be vulnerable to Lowe's argument from kinds.

Either way, the crucial question is whether *person* is a genuine, essence-determining kind. Most philosophers assume that it is. This is evident from the way they usually put questions about the identity of persons: they ask what it takes for a person to persist

through time by asking what it takes for a person who exists at one time to be identical with a *person* who exists at another time. This embodies two assumptions: First, what it takes for a particular person to persist does not depend on what *kind* of person he is. If human persons had different persistence conditions from those of gods or angels or rational Martians, the question would have no answer, or at best a disjunctive answer, and the question of the identity of persons would be no more interesting than the question of the identity of, say, flying things. Nearly everyone assumes that this is not the case. The second assumption is that no person could start out or end up as a non-person. An answer to the question, What does it take for me to be identical with some past or future *person*? would say nothing about whether I was ever an embryo, or might one day be a vegetable or a corpse (assuming that embryos, vegetables, and corpses are not persons). If that were a possibility, we should have to ask when a person picked out at one time is identical with *something*—person or not—picked out at another time. Most philosophers don't put the question that way because they take it for granted that anything that is once a person is always a person. These two assumptions apparently force themselves so strongly upon the mind that few even bother to mention them, let alone argue in their defence.

They ought to. At any rate, if we assume, as most do, that being a person is a matter of having certain special mental capacities—and Lowe himself says that a person is 'a possible object of first-person reference and subject of first-person thoughts' (5)—it seems more likely that *person* is a 'merely nominal' kind like *vegetarian* or (to take an even clearer case) *flier* than a real kind like *mammal*. For on this assumption, the difference between persons and non-persons is a difference in what they can *do* (in just one of many things they can do). But a real, essence-determining kind is supposed to tell us what something *is*; and it seems just as appropriate to ask *what it is* that is thinking first-person thoughts as to ask what it is that is flying. Being able to think first-person thoughts seems no more essential to an individual person than being able to fly is essential to an individual bird or bee. We shouldn't be surprised if persons came in different kinds with different criteria of identity, according to whether they are animals, brains in vats, Cartesian egos, intelligent computers, or what have you—just as fliers do. Why suppose that any unified identity conditions apply to such disparate things as these?<sup>2</sup>

Thus, if it is plausible to suppose that *person* as philosophers typically understand it, is not an essence-determining kind, we cannot be confident that the Nesting Principle applies to it. In that case the argument from kinds does not conclusively show that you and I are not animals. What it does show is that anyone who thinks he is an animal had better deny that *person* is an essence-determining kind.

### III.

My objection to the argument from kinds is likely to be unpopular. Most will accept the argument, or if not that one, then one of the others for the same conclusion. In any case, let us grant Lowe the popular assumption that you and I are not animals, and turn our attention to his claim that we must therefore be mereological simples.

<sup>2</sup> For more on these issues, see Snowdon [16] and my [13], pp. 23–27 and 31–37. Lowe, to his credit, does argue that *person* must be a genuine kind: if it were not, he says, we should be unable to individuate or count persons [6], p. 115. I won't discuss that argument here.

Lowe writes,

But what now of my crucial claim that the self is simple, or lacks substantial parts? Well, what substantial parts *could* it have, given that the self is not to be identified with the body? Parts of the body cannot be parts of the self. If the self and the body had exactly the same parts, they would apparently have to be identical substances after all (certainly, standard mereological theory would imply this). Similarly, if it were urged that all and only parts of the brain, say, were parts of the self, this would imply that self and brain were identical. So I conclude that the self can have *none* of the body's parts as parts of itself, unless perhaps the self could have other substantial entities *in addition* to bodily parts as parts of itself. However, no other substantial entity *does* appear to be a tenable candidate for being a substantial part of the self, whether or not in addition to bodily parts. For instance, the self patently does not consist of a plurality of lesser selves acting cooperatively.... I conclude, therefore, that if the self is a substance, it must indeed be a *simple* substance, entirely lacking substantial parts. (39f, and [7], pp. 88f)

The Simplicity Argument, as I shall call it, has three main premises. First, I am not identical with my body. This follows from the denial of Animalism, together with the assumption that my body is an animal. Second, I am not identical with any part of my body. (A few philosophers think they are identical with their brains: they think that each of us is a two- or three-pound mass of yellowish-pink, spongy tissue, lodged within his own cranium. Lowe argues against this sort of view on the grounds that any body part could be shared by two persons at once [9], p. 27. I am happy to dismiss it without argument.) The third premise is the mereological principle that no two things can have exactly the same proper parts at once. We might call this the *Weak Principle of Mereological Extensionality*, or the Weak Principle for short. (Hereafter I shall take 'part' to mean 'proper part':  $x$  is a proper part of  $y$  if  $x$  is a part of  $y$  other than  $y$  itself.)

As I understand him, Lowe then argues as follows: The Weak Principle, together with the assumption that I am not identical with my body, entails that I don't have exactly the same parts as my body. Thus, if I have any parts at all, then either my body must have a part that is not a part of me, or I must have a part that is not a part of my body. Now if every part of me were a part of my body, but my body also had a part that wasn't a part of me, then by the Weak Principle I should be identical with some part of my body, contrary to another of our assumptions. Thus, if I have any parts, I must have a part that is not a part of my body. But what part could that be? There are no likely candidates for being parts of me other than parts of my body. Therefore I have no parts at all.

There are two complaints one might make about this argument. First, many philosophers believe that two different material objects can and often do have all the same parts at once.<sup>3</sup> Lowe does not argue for the Weak Principle. Why should we accept it?

<sup>3</sup> E.g. Sanford [14], Simons [15], p. 210), and Thomson [17]. Hirsch [3], p. 59, Kripke [5, n. 19], Johnston [4], and Wiggins [18] all reject an unspecified extensionality principle, saying that different objects can be made of the same matter at once.

More seriously, the argument is formally invalid. It does not follow from the Weak Principle, together with the claim that I am not my body, that I must either have no parts at all, be identical with a part of my body, or have a part that is not a part of my body. Imagine that both my body and I are made up entirely of atoms—the very same atoms. Suppose, however, that my *heart* is a part of my body but not a part of me (though of course the atoms that make it up are parts of me). In that case I should be neither identical with my body nor identical with any part of my body. The Weak Principle allows this, for my body and I should not have exactly the same parts. Thus, it is consistent with the premises of the Simplicity Argument that I have as many parts as you like.

Now we might wonder whether this story is in any sense possible. I certainly can't think of any reason to suppose that I might have exactly the same atoms as my body but that my body may have other parts, made of some of those atoms, that are not parts of me. But some hold that each human animal is 'constituted by' a certain mass of matter with which it shares all of its particles, but not all of its parts, because certain internal organs are parts of the animal but not parts of the mass of matter (e.g. Doepke [2], p. 51). Lowe himself says something similar, namely that a tree's roots are parts of the tree, but not parts of the mass of wood that coincides with the tree at any particular time (39 n.). But if the tree and the mass of wood have any parts at all, they are presumably made up of the same particles. So there may yet be grounds for accepting the premises of the Simplicity Argument but denying its conclusion.

On the other hand, there is a looser sense in which my body and I *do* 'have exactly the same parts' even in this fanciful case. For although some parts of my body would not be parts of me, there would still be things—certain atoms, for example—that *composed* both my body and me. My body and I should have a common *decomposition*. (Some things, call them the *xs*, compose something *y*—the *xs* are a decomposition of *y*—just in case each of the *xs* is a part of *y*, none of the *xs* share a part or are identical, and every part of *y* shares a part with one or more of the *xs*.) Thus, Lowe could block the objection by appealing to what we might call the *Strong Principle* of Mereological Extensionality, namely that no things—atoms, molecules, cells, or what have you—can compose two different objects at once, or in other words that no two things can have the same decomposition at once. The Strong Principle entails, but is not entailed by, the Weak Principle. Both belong to the 'standard mereological theory' that Lowe appeals to in his argument.<sup>4</sup>

This might seem like a natural move for Lowe to make on several grounds.

First, although there are other mereological principles that should make the argument valid, none, as far as I know, is as simple or as plausible as the Strong Principle.

Second, the Weak and Strong Principles go naturally together. The most common arguments for mereological extensionality go something like this: If there were two material objects made up of the same parts at once—whether the same atoms, or whether *all* the same parts—there would be nothing to account for their *difference*. Nothing could make one of the two objects a clay statue and the other a mere lump of clay, or one of

<sup>4</sup> At any rate both principles are entailed by those theories. Traditional 'mereologies' include no temporal operators, and are designed for an ontology of temporal parts.

them a tree and the other a mere mass of wood—or one of them a person and the other a mere body. Nor could anything account for their different persistence conditions—for the fact that the person, but not the body, would cease to exist if its cerebrum were destroyed, say. Two things made of the same parts at once would have to be alike in every way—both persons, bodies, lumps of clay, statues, or what have you. But then what could make it the case that the atoms composed *two* statues (say), rather than one, or seven, or some other number? (See e.g. Burke [1], Olson [12].) Whatever its merits, this sort of argument clearly supports the Strong Principle of Mereological Extensionality as much as it supports the Weak Principle. In fact I know of no one besides Lowe who accepts the Weak Principle but not the Strong one.

Moreover, endorsing this argument for the Strong Principle would answer the first complaint against the Simplicity Argument, by providing a reason for the rather unpopular view that any principle of mereological extensionality, weak or strong, is true.

As I hinted earlier, though, Lowe rejects the Strong Principle. I think he must reject it, given his remarkable conclusion that, despite having no parts, you and I have the size and mass of human animals (36). I will explain why in a moment. Meanwhile Lowe's conclusion, which I shall call Human Atomism, or Atomism for short, deserves a brief comment on its own, quite apart from its connection with the Simplicity Argument.

#### IV.

Is Atomism plausible? It is commonly assumed that having extension implies has having parts (e.g. Zimmerman [21], p. 8). How could a region be only partly occupied by an object without containing a part, or parts, of that object? I suspect that this is a Leibnizian dogma, and that Lowe is right to reject it. But I will say no more about it here. Let us assume for the sake of argument that a partless material substance could be six feet tall.

Even so, one might be forgiven for doubting whether *you* or *I* could be such things. Shouldn't we expect a spatially extended thing without parts, if there could be such a thing, to be internally homogeneous? Yet if you and I really do have the size, shape, and mass of human organisms, we presumably have the same sort of internal structure as those animals have. And to say that a human animal has a great deal of internal structure is an understatement. Each of our organs is made up of billions of cells, and each cell is itself a chemical factory of unimaginable complexity. A single protein molecule is made up of hundreds of amino acids, each of which comprises dozens of atoms, each made up of hundreds of elementary particles. And so on. How could something like *that* have no parts? How can we reconcile Atomism with what we know about human anatomy, let alone cell biology, biochemistry, and quantum physics.

A related worry is this. A human organism, surely, is a paradigm case of a composite material object: if *anything*, has parts, human animals do. But Lowe seems to be telling us that there are wholly partless things that are physically indistinguishable from human animals. This suggests that our ordinary beliefs about what counts as evidence for an object's having parts are badly mistaken. If something with the complex internal structure of a human animal could be partless, we can only conclude that a thing's physical properties are completely irrelevant to whether it has trillions of parts or none at all. In that case, how can we be confident that anything has parts? In particular, why do we suppose that organisms have parts? On Atomism it must be a real epistemic possibility that human

animals are themselves mereological atoms. (For that matter, it is consistent with the premises of the Simplicity Argument that my body is simple and *I* have parts.)

These complaints may be slightly unfair to Lowe. He does not actually say that you and I lack any parts at all, but only that we lack *substantial* parts. We do have 'merely spatial parts'—parts that are not substances because they could not exist unless we ourselves did. There is such a thing as your lower half, Lowe thinks, but it is a non-substantial part of you (36; [10], p. 539, 544). I have a hard time understanding how a massive object that takes up space, is made of matter, and has a surface could fail to be a substance. (Lowe's 'spatial parts' don't fall into any familiar ontological category.) In any case, I have worries about Atomism that cannot be allayed by appeal to nonsubstantial parts.

If you and I really are large, internally complex material objects, and if the basic building blocks of the universe are particles of some sort, then it seems natural to suppose that came into existence by virtue of some sort of rearrangement of particles that existed before we did, and that we shall one day cease to exist by virtue of a different sort of rearrangement of particles that will continue to exist after we have perished. But a mereological atom is not the sort of thing that could come into or go out of existence by virtue of the rearrangement of smaller things. A mereological atom can cease to exist only by annihilation. I don't mean that nothing can be 'left over' after the atom's demise. When you destroy an electron, you don't get *nothing*. But neither do you get things that it would be natural to say 'once made up the electron'. You don't get something that stands to the electron as a pile of wreckage stands to a house destroyed by a storm, something which, suitably rearranged, would make it the case that an electron existed once more. That, I take it, is the sort of thing that leads physicists to say that electrons are not made out of anything more fundamental than themselves. But you and I are not like that. If you are destroyed, something *is* left over that, suitably rearranged, would make it the case that a human person existed once more (not necessarily you, of course). Or so it would appear, anyway. To my mind, this strongly suggests that we are not mereological atoms, but are made up of substantial parts.

As we might expect, Lowe denies that you and I exist by virtue of the existence and arrangement of certain particles. His view seems to be that arranging particles in the way that 'your' particles are arranged would produce a human animal, but not necessarily a person, or anything with any psychological features at all (44–48). That is why he denies that the animals that are our bodies 'constitute' us. But this only makes it mysterious how persons come into existence, or why they are so intimately bound up with human organisms, or indeed why, given the physical structure of the universe, there are any persons at all.

A final complaint is that if Lowe is right, no human animal is rational, intelligent, or even sentient. For if the animal that is my body were sentient, it would presumably have the same experiences I am having, and I should not be in a position to know, of any experience of mine, that it is mine and mine alone. In that case I should not count as a person on Lowe's view (5). In spite of their highly developed brains, then, human animals are as stupid and insensate as trees. One cannot help wondering what that highly developed brain might be *for*, if not to produce thought—or what could prevent a human animal from using its brain to think. And what about other animals? Dogs appear to be sentient. But how could dogs be sentient if human animals are not?

Of course, this is a problem for anyone who rejects Animalism. (I find it an excellent reason to think that we *are* animals.) But Lowe gives the problem an interesting new twist by denying explicitly that any composite material object could have any psychological feature whatever (1). That leaves either the Cartesian view that dogs are brute automata, or the novel thesis that dogs are not animals at all, but rather simple substances whose 'bodies' are canine organisms. (Naturally, one might prefer to call the animals 'dogs' and say that it is really the dog's 'self' or 'soul', and not the dog, that is hungry. That seems to be Lowe's view (49 n.))

At this point, that may sound like just another bizarre claim on Lowe's part. But in fact he is only being honest where other anti-Animalists tend to dither. They too must deny that any animal can, in the strictest sense, think, feel, or have any other psychological feature. The reason is that there aren't *two* thinkers wherever we thought there was one, a person and a human animal. (That would be silly. How could I know which one I was?) If you and I are thinkers but not animals, no animal can think. Of course, human animals might still 'think' in the sense of being the bodies of thinking persons. But then they don't think in the strict sense in which you and I think. But if human animals can't think, neither can animals of any other kind. Hence, every anti-Animalist must say that dogs either cannot strictly think and feel, or are not really animals, but rather things that stand to canine animals as you and I stand to human animals.

For these reasons, I find Atomism more intriguing than plausible.

## V.

Now someone *might* say that you are not made up of anything like organs, cells, atoms, or elementary particles, but rather of some sort of unstructured, homogeneous material that for some reason has the same size, shape, and location as the animal that is your body. That would defuse all of my worries about Atomism but the last, which, as we have seen, is not special to Lowe's position. But Lowe does not say this. I think he cannot say it, for it is inconsistent with a crucial premise of the Simplicity Argument.

Suppose I weigh 160 pounds. Then presumably the animal that is my body also weighs 160 pounds. Yet when my body and I step on the scales 'together' they read only 160 pounds. Why not 320? The simplest answer is that I *am* my body: a thing and itself cannot weigh more than each weighs separately. The next-simplest answer is that my body and I are composed of the same parts: if one thing weighs  $n$  and another weighs  $m$ , their combined weight will ordinarily be  $n$  plus  $m$  minus the weight of any non-overlapping parts that they share. (More precisely, it will be  $n$  plus  $m$  minus the weight of any decomposition of the parts they share.) But what if my body and I each weigh something, yet share no parts? How could the weights of two massive objects with no parts in common fail to add up to something greater? The only reason I can think of is that my body and I *are* made of the same stuff or matter.

That would mean that things could be made of the same stuff without sharing any parts. The concept of stuff or matter would be in some sense more fundamental than the notion of an individual object, for there would be a notion of sameness of stuff that was conceptually prior to or independent of any notion of sameness of countable things. Lowe

himself rejects this dubious position: you and I, he says, are not made of anything ([7], p. 81).

More to the point, if you and I are made of the same stuff as our bodies, then we are not made of smooth, homogeneous stuff, for the stuff that makes up our bodies is as heterogeneous as can be. That makes it hard to believe that we have no parts.

We are now at last in a position to see why the Simplicity Argument fails, or at any rate stands in need of repairs that are beyond my powers to make. If my body and I weigh the same, yet weigh no more together than either weighs separately, then (if the 'Weight Argument' is correct) we must be made of the same stuff. Given Lowe's view that I am a material object different from my body, it then follows that two things can be made of the same stuff at once. But if different things can share the same stuff, why not the same particles? If the 'extensionality principle for stuffs' is false, how can we remain confident about the Strong Principle? Two principles so similar ought to stand or fall together. Since Lowe needs the Strong Principle, or something like it, to make the Simplicity Argument valid, he therefore appears committed to the extensionality principle for stuffs. But that principle, by the Weight Argument, entails that you and I are identical with our bodies, contradicting another premise of the Simplicity Argument. Apparently the argument can be made valid only by making its premises inconsistent.

There are two ways of defending the Simplicity Argument. One might try to cast doubt on the extensionality principle for stuffs while retaining the Strong Principle, or some other mereological principle strong enough to make the argument valid. I expect that this would require an ontology of stuffs radically different from anything yet seen. Or one could try to resist the Weight Argument. That should be easiest if we simply denied that we are material objects, thus giving the Weight Argument no purchase. But that is inconsistent with Atomism.

Lowe says that my body and I weigh together only as much as each weighs separately despite having neither matter nor parts in common, because my nonmental properties *supervene* on those of my body (37, and personal correspondence). But why do they so supervene? This only makes the relation between persons and their bodies more mysterious than it already is for the Atomist. Always candid, Lowe writes, 'I cannot see that the relation between a person and his body . . . is remotely like that between objects of any other two sorts' ([6], p. 120). That is an understatement.

I conclude that the Simplicity Argument is unpersuasive, even if we grant Lowe that we are not animals. For the present, anyway, we may reasonably go on believing that we have parts. It remains to be seen, though, whether the other alternatives to Animalism fare any better.<sup>5</sup>

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Received: October 1997.

Revised: January 1998.

<sup>5</sup> For comments on earlier drafts of this paper I am grateful to Katherine Hawley, Gonzalo Rodriguez-Pereyra, two referees and an Associate Editor of this journal, and especially Jonathan Lowe.

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