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Identifying Primitive Individuals

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According to a widespread contention, individuals are among the basic building blocks of the world. The contention, however, raises a perennial problem. If individuals are basic, they cannot be fully accounted for in terms of their empirically detectable qualities. But then, how can we detect, or know, or identify, individuals? Shamik Dasgupta has influentially argued that considerations along these lines, together with a lesson from the history of physics, should make us reject any picture on which individuals are basic constituents of reality. In this paper, I defend such a picture against Dasgupta's argument.

1. Introduction

In an influential essay, Shamik Dasgupta (2009, see also 2017) argues against the widespread contention that individuals are among the fundamental constituents of reality. As Dasgupta characterizes it, this contention has it that "the most basic, irreducible facts about our world include facts about what individuals there are and how they are propertied and related to one another" (2009: 36). This view, which he dubs "individualism," contrasts with the "generalist" claim that states, roughly, that the fundamental facts are exclusively about patterns of properties and relations and remain silent on *which* individuals, if any, exhibit these patterns. Suppose you believe that the fundamental layer of reality consists of facts about the properties and relations of elementary particles. Do you believe that these facts include facts about *which* individual particles these particles are? Do you believe, say, that the fundamental facts include the fact that *this very electron* exists or that *this very electron* bears such and such relations to other particles? If you think that the fundamental facts include such facts, you endorse a version of individualism. If you think, by contrast, that the fundamental facts are neutral with respect to the identity of the particles, you endorse a version of generalism. Or suppose you believe that there are fundamental facts about persons. Do you

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believe that there are fundamental facts about, say, Socrates or Plato? If so, you are an individualist. If you believe that, though there might be fundamental facts about persons, there are no fundamental facts about *these very persons*, Socrates and Plato, you might endorse generalism.

Dasgupta articulates his criticism of individualism in terms of "primitive individuals," which are (roughly speaking) individuals involved or featured in fundamental facts. If you think there are fundamental facts about *this* electron, then the electron at issue is a primitive individual on your picture, and the same goes for Socrates if you think that there are fundamental facts about him. Dasgupta's argument against individuals can be usefully reconstructed to proceed from two premises:

(1) If there were primitive individuals, they would be "empirically undetectable" and "physically redundant" within any remotely modern physical theory (i.e., any theory that has been a serious candidate for the truth from the Early Modern period onward).
(2) The history of physics teaches us that if we adopt a physical theory in which entities of a certain kind turn out to be empirically undetectable and physically redundant, we have good reason to think that entities of the kind don't exist.

Together, the premises yield an anti-individualist conclusion:

(3) We have good reason to think that there are no primitive individuals if we accept any remotely modern physical theory.

This argument is novel and powerful. Still, I believe that it fails.

My issue is with premise (2), which Dasgupta justifies by way of an observation about physicists' view of the case against *absolute velocity* in Newtonian Gravitation Theory. As I shall argue in this paper, this case doesn't bear out the premise. This is the negative claim I hope to establish.

More positively, I argue that understanding the reasons why the argument fails helps us recognize how we can resolve the perennial problem of how we can identify and know individuals even though they are something over and above their sensible (and detectable) properties. For even though Dasgupta's argument doesn't succeed, it does, I believe, lay bare the core worry about our ability to know and identify individuals.

I proceed as follows. After providing some largely terminological preliminaries in §2 and a more detailed reconstruction of Dasgupta's argument in §3, I offer a reply to the argument in §4. Sections 5 and 6 are devoted each to a rejoinder Dasgupta might plausibly want to make in view of this defense of individualism.

2. Individualism

Individualism is the claim that facts about individuals are among the fundamental or basic facts. Facts "about individuals," which Dasgupta dubs *individualistic* facts, include the facts that

> Socrates is snub-nosed,
> Plato is beardless,
> Socrates is distinct from Plato.

He contrasts such facts with ones he calls *general*, and which I'll call *qualitative*, which include the facts that

> someone is snub-nosed,
> someone is beardless,
> someone is distinct from someone.

An individual is *primitive* if and only if it is featured in a fundamental individualistic fact. Thus, individualism—the claim that there are primitive individuals—is true if and only if there are fundamental individualistic facts.

While a lot more could be said about the concepts involved in this brief introduction of the topic, let me just note four points. First, the distinction between individualistic and qualitative facts hearkens back to an analogous distinction between qualitative and individualistic (or "pure" and "impure") properties and relations. The property, say, of *being married to Socrates* is individualistic or impure, whereas the property of *being married to someone* is qualitative or pure. If a fact is qualitative, then all the properties and relations it involves must themselves be qualitative—given, say, that it is a qualitative fact that someone is snub-nosed, the property of *being snub-nosed* is itself a qualitative property. The question of how we can systematize the distinction between pure and impure properties and relations—and hence also between qualitative and individualistic facts—has been subject to longstanding debate.[1] Here, however, I will fol-

1. This distinction goes back to Carnap (1947), who framed it in linguistic terms: very roughly, impure properties are those that are expressed by predicates that contain proper names; similarly linguistic accounts can be found in (Hempel & Oppenheim 1948) and (Goodman 1979: ch. 3). For criticisms of linguistic accounts, see Adams (1979), Rosenkrantz (1979), and Cowling (2015). My own preferred way of spelling out the distinction between pure and impure properties is the one offered by Khamara (1988: 145), and further elaborated by Humberstone (1996), which runs in terms of second order quantification. As Dorr (2016) has shown, Khamara's account can be generalized to an account that covers the distinction between individualistic and qualitative facts as well. For a development of Khamara's proposal that is different from Dorr's, see Hoffmann-Kolss (2019); for a critical perspective on Khamara's general approach, see Plate (2022).

low Dasgupta in relying on our pre-theoretic understanding of these distinctions. This understanding is precise enough for the purposes of this paper, and my response to Dasgupta's criticism of individualism does not depend on any contentious assumption as to which fact, property, or relation qualifies as individualistic.

Second, Dasgupta assumes that the notion of fundamentality, basicness, primitivity, or irreducibility needed to articulate the issue between individualism and generalism can be spelled out in terms of *metaphysical ground*, and I'll follow suit for the purposes of this paper. The primitive facts, accordingly, are those that are not grounded in any further fact.[2] As with the distinction between individualistic and qualitative facts, there are many contentious issues about this approach to fundamentality. And again, the arguments of this paper do not depend on taking a stance on these issues that differs from Dasgupta's own.

Third, I should add a short note on the notion of *fact* I am working with. I take facts to be, roughly, worldly correlates of true propositions.[3] While my discussion does not depend on any one particular conception of facts, it does require that we make certain, general assumptions about them. First, I will assume that we can say that facts bear certain modal relations to each other. A fact, for instance, may entail another fact in the sense that it is necessarily true that, if the former fact holds, the latter does as well. Given this, I will further assume that facts are hyper-intensional in the sense that facts may be distinct even if it they mutually entail each other, and thus are necessarily equivalent. If we reject this, we cannot make sense of the dispute between individualists and their opponents, since, as Hoffmann-Kolls (2019) has shown, any qualitative fact is necessarily equivalent to an individualistic one. If this entailed that every qualitative proposition is *identical* with an individualistic one, the anti-individualist thesis that all fundamental facts are *only* qualitative would be incoherent. Furthermore, we must assume that the nature of facts, as it were, leaves open the possibility of individualism being true. We could construe, for instance, a version of Fregeanism that rules out individualism from the start. For suppose we held that facts are true propositions, which we in turn identified with Fregean Senses. And suppose further that we thought that proper names have senses (construed as ways of presenting their referent) that present their referents solely in terms of their qualitative properties. Given this, any proposition expressed by a sentence containing proper names would be a qualitative proposition. Then, it would seem impossible to even coherently articulate individualism. To avoid this, we need to

2. Some *loci classici* for the discussion of grounding are Schaffer (2009), Rosen (2010), and Fine (2012). My discussion is predicated on the idea that grounding is a useful notion to discuss issues in metaphysics. This is, of course, controversial; see Wilson (2014) and Koslicki (2015) for criticism; for vindications, see Schaffer (2016) and Berker (2018).

3. I am grateful to an anonymous referee for having helped me significantly improve this paragraph.

set aside views of facts and propositions such as the one just sketched. I venture that this is not a particularly contentious move, and most current views of facts and propositions, be they Russellian or Fregean, make room for individualistic facts and propositions. At any rate, Dasgupta's argument isn't predicated on any view of facts and propositions that by itself entails that individualism is false or incoherent. At least for the purposes of this paper, then, I will assume that the dispute between individualists and anti-individualists does not turn on the nature of facts, or that of propositions.

Fourth, and lastly, I will follow Dasgupta in assuming that fundamental individualistic facts are *modally independent* of qualitative facts: all the qualitative facts, taken together, do not entail any fundamental individualistic fact. Hence, the individualist holds that the world *could* be qualitatively just like it actually is, and yet some, or all, the fundamental individualistic facts could be different. According to this assumption, then, the individualist endorses a version of the view commonly called haecceitism.[4] The individualist not only holds that there are facts about which primitive individuals there are and how they are propertied and related, but also that these facts are not modally determined by the qualitative pattern of how their pure properties and relations are distributed. If Socrates is a primitive individual, it is possible for a primitive individual distinct from Socrates to have all the same qualitative properties Socrates in fact has—to occupy, as it were, Socrates's qualitative role. For the purposes of this paper, I will assume, with Dasgupta, that individualism stands and falls with this modal thesis.

3. Dasgupta's Analogical Argument

As mentioned, Dasgupta's objection to individualism draws an anti-individualist conclusion from two premises:

(1) If there were primitive individuals, they would be "empirically undetectable" and "physically redundant" within any remotely modern physical theory.

4. To be sure, the precise formulation of haecceitism is subject to some debate. Haecceitism is sometimes exclusively conceived of as a claim about *possible worlds*—as the claim, roughly, that there are possible worlds at which just the same qualitative propositions are true but not the same individualistic ones (this is the sense that is relevant, for instance, to Lewis's [1986: ch. 4] influential discussion). The sense in which I mentioned haecceitism here is closer to the one employed in Fara (2009); for debate about how to articulate haecceitism, see Skow (2008; 2011) and Torza (2011). I believe that Kment (2012) has put forward strong reasons to doubt that the anti-haecceitist enterprise can be successful. For a recent attempt at spelling out an anti-haecceitist and qualitativist view of modality, see J.S. Russell (2016; 2018).

(2) The history of physics teaches us that if we adopt a physical theory in which entities of a certain kind turn out to be empirically undetectable and physically redundant, we have good reason to think that entities of the kind don't exist.
(3) So, we have good reason to think that there are no primitive individuals if we accept any remotely modern physical theory.

Let me call this inference the *Analogical Argument*. I choose this label to highlight that the argument relies heavily on an analogy Dasgupta draws between the case of primitive individuals and that of absolute velocities in Newtonian Gravitation Theory. Appealing to the case of absolute velocity plays two important roles for the argument. First, it helps make more precise the notions of empirical undetectability and physical redundancy at issue and so prepares the ground for (1); and second, it is supposed to illustrate and underpin (2).

Let me thus begin with taking a closer look at Dasgupta's take on absolute velocities. When we talk of the velocity of objects, we usually have in mind their relative velocity only: the speed and direction of their movement relative to some object the location of which we treat as fixed. Thus, say, a car may travel at 55 mph relative to the highway, while, at the same time, it may be traveling at 10 mph relative to a train running in parallel to it. An object's absolute velocity, by contrast, is its speed and direction relative to absolute space, to something we not only *treat* as having a fixed location but that really *has* a fixed location. Now if we adopt Newton's view that material objects are located in absolute space, we are committed to absolute velocities—we are committed, for instance, to the assumption that the universe as a whole is either at rest in relation to absolute space or travels through it with some particular speed and in some particular direction. According to Dasgupta, it is, however, an orthodox view among today's physicists that, despite Newton's own commitment to absolute space, the *laws* he postulated in fact speak *against* the idea that objects travel at absolute velocities. More precisely, say that Newtonian Gravitation Theory (NGT) comprises Newton's three laws of motion and the inverse square law. Then, Dasgupta claims, it is "[t]he orthodox view these days" that "if we had reason to think that the laws of NGT were the true and complete physical laws of motion, that would give us reason to think that absolute velocity is not real" (Dasgupta 2009: 37).

Why? Because, Dasgupta claims, if motion were completely described by NGT, absolute velocity would be "*physically redundant* and *empirically undetectable*" (Dasgupta 2009: 38). This result, in turn, derives from the following observation:

> Given any two closed systems governed by (and only by) the laws of NGT, if at an initial time they differ only in facts about absolute velocity

> but are exactly the same in all other respects, including all facts about relative velocity, then they will continue to be exactly the same in all those other respects at all subsequent times. (39)

This makes absolute velocity empirically undetectable within NGT because, given NGT, "*we would be precluded from ever being able to distinguish between closed systems that initially differ in facts about their absolute velocity*" (2009: 39). Suppose we are in a universe such that NGT completely captures the laws of motion, and assume that the universe, which is a closed system in the sense at issue, is at constant rest. And now consider the possibility that the universe, again governed by NGT, as a whole travels at a constant velocity of 1000 mph in the direction from the current position of Earth to the current position of Alpha Centauri. We could never tell which of these universes we're in—all our measurements would yield precisely the same result in both universes. Because of this, Dasgupta concludes, we could not empirically detect the velocity of the universe, nor the absolute velocity of any other object.

Dasgupta's thesis that, given NGT, absolute velocity is also physically redundant rests on a similar consideration: "'mere' differences in absolute velocity do not give rise to any other differences at later times" (2009: 40). In the resting universe just mentioned, none of our physical explanations and predictions would depend on the fact that the universe is at rest, and so this fact seems redundant. Note, however, that this redundancy of absolute velocity depends on its undetectability: if we could detect the velocity of the universe, then, say, the fact that the universe was at rest at some previous point in time, surely *would* be relevant for both our explanations of its current velocity and our predictions of its future velocity. As Dasgupta (2016; 2022) admits, therefore, the crucial issue is undetectability. Because of this, I will in what follows set aside redundancy, and exclusively focus on undetectability.

At this point, then, Dasgupta takes himself to have identified the reason physicists believe that adopting NGT as a complete theory of motion would constitute a strong reason to discard absolute velocities: they would be empirically undetectable in NGT. He readily generalizes this lesson to the principle that adopting a theory in which a certain entity is empirically undetectable always constitutes a strong reason to reject the existence of the entities in question. And thus, he infers (2) from the case of absolute velocity.

To arrive at the full Analogical Argument, what remains to be done is to show that primitive individuals, in modern physical theories, are empirically undetectable *in all relevantly similar ways* in which absolute velocities are empirically undetectable in NGT. If this is true, we've arrived at (1), and both premises of the argument are in place.

So here's Dasgupta's case for (1). Just like mere differences in constant absolute velocity do not result in any other differences, it seems, mere differences in *individualistic* facts do not result in any *qualitative* differences:

> Given any two closed systems governed by (and only by) the laws of NGT, if at an initial time they differ only in their individualistic facts but are exactly the same in all other respects, including all general facts, then they will continue to be exactly the same in all those other respects at all subsequent times. (2009: 41)

Imagine that I hold a silver ring, a, in my left hand, and assume that a is a primitive individual. I throw a into the air and it eventually falls on the ground in front of me. Let t_0 be the exact moment the ring leaves my hand and let t_1 be the moment it comes to rest on the ground. Now, since a is a primitive individual, it is possible that at the initial time t_0, a different ring is thrown in the air while everything is just like it actually is, qualitatively speaking. Let w be a possible world in which this is the case, and let b be the ring in w. If the laws of NGT completely govern motion in both the actual world and w, b in w follows the exact same trajectory a actually does. For since at t_0, b in w has just the same qualitative properties as a has in the actual world, a and b at that time, and in their respective worlds, have just the same mass, velocity, acceleration, face the same air resistance, and so on. From the point of view of NGT, there is no difference between them that has any impact on their motion. Given NGT, therefore, b in w is in the exact same spot at t_1 as a is in the actual word at t_1. The mere individualistic difference at t_0 between w and the actual world results in another *individualistic* difference at t_1, but it does not result in any *qualitative* difference. Generalizing, mere individualistic differences have no impact on the qualitative course of events within NGT. This result, we should note, does not depend on the particular features of NGT as opposed to other modern physical theories. For no remotely modern physical theory states that mere individualistic differences in the initial state of any two closed systems result in any qualitative differences between these systems.

Assume again that I hold the primitive individual a in my left hand. Because no qualitative difference to how things actually are would ensue in w, we could not tell any difference if we were in w. The two situations, as Dasgupta (2009: 41) puts it, "look and feel and smell exactly the same."[5] And we also couldn't *build a device* that would register any difference. For given the same qualitative input, any measurement device, no matter how complex and sophisticated, returns the

5. This is not an uncontroversial statement, to be sure, as, for instance, Campbell (2002) has argued that phenomenal character of an experience varies depending on which individual is experienced.

same result. Thus, Dasgupta (2009: 42) concludes, "we cannot tell the difference between situations that differ only in their individualistic facts." And this conclusion, he assumes, is tantamount to (1).

4. Empirical Detectability and Knowledge: A Disanalogy

To see what's wrong with the Analogical Argument, it is helpful to take a closer look at the notion of empirical detectability. To streamline the discussion, let me dub this notion *D(asgupta)-detectability*. Although Dasgupta doesn't explicitly define the notion, his reasoning attests that he takes D-detectability to satisfy certain necessary and sufficient conditions. Absolute velocity, for instance, is not D-detectable in NGT because we can't distinguish between situations in which things travel at different (constant) velocities. Thus, a feature of the material world is D-detectable in a theory T only if it is possible to distinguish between all situations that differ with regard to that feature. Dasgupta also endorses the converse, writing, for example, that "when a feature of the material world is empirically undetectable, it is impossible (given the laws) to distinguish between situations that differ with respect to facts about that feature" (Dasgupta 2009: 46). Given these formulations, we can assume that D-detectability is governed by the following biconditional:

> [D] A feature of the material world is D-detectable in a theory T if and only if it is possible, given T, to distinguish between all situations that differ with respect to facts about that feature.

It is crucial to see that D-detectability needs to be distinguished sharply from empirical *knowledge*. Dasgupta (2009: 45–46) admits that, at least "in a colloquial sense", I can know what, or which, primitive individual is in front of me even if I can't D-detect it. Suppose again that the ring I hold in my hand is a primitive individual. I know, at least in a colloquial sense, which individual it is if I know that it has some unique property—I may know that it is the only silver ring I own or that it is the same ring I wore yesterday. Of course, given that the ring is a primitive individual, another ring *could* have just the same unique property. But the fact that the ring I'm holding is in fact the only one that has the properties at issue suffices for me to know which ring, or which individual, it is—again, at least in a colloquial sense of "know which." Dasgupta also doesn't deny that I could form *de re* beliefs about the ring—I could believe *of that ring* that it is the only ring I'm currently holding in my left hand, and I wouldn't form this same belief if the ring were a numerically different but qualitatively indiscernible primitive individual. I could furthermore introduce a rigid designator for

the ring by pointing to it or by tying the designator to the ring's *actually* possessing certain unique properties. Suppose I decide to call the ring "Lefty" in virtue of its being the ring in my left hand. Dasgupta wouldn't deny that, given this, I would know all sorts of individualistic facts about Lefty: I know that Lefty is in my left hand, that Lefty is the only silver ring I own, that Lefty is the same ring I wore yesterday, and so on. In ordinary situations, we wouldn't hesitate at all to say that I know *which* ring Lefty is if I know these sorts of facts. Even though the ring is not D-detectable, therefore, it is yet *knowable* in this ordinary or "colloquial" sense.

It is far from clear that the same holds true in the case of absolute velocity.[6] For there is a perfectly straightforward sense in which we could not know absolute velocities in NGT: if we were in a universe at constant absolute rest governed by NGT, we could not know that the universe is at constant rest as opposed to, say, travelling at a constant 1000 mph in some constant direction. It seems, accordingly, that the fact that absolute velocities are not D-detectable *does* somehow undermine our ability to know absolute velocities, even though it doesn't do the same in the case of primitive individuals. If this impression is apt (and I'll argue below that it is), there is an important *disanalogy* between the two cases: while, in NGT, absolute velocities are *both* D-undetectable *and* unknowable, primitive individuals, in modern physical theories, are D-undetectable but *not* unknowable. The following diagram illustrates the disanalogy:

	Absolute velocities (given NGT)	Primitive individuals (given modern physical theories)
D-Detectable?	No	No
Knowable?	No	Yes

The disanalogy brings into view an objection to Dasgupta's Analogical Argument, and, more particularly, an objection to the idea that the case of absolute velocity supports premise (2). He claims that physicists agree that proponents of NGT have reason to deny that there are absolute velocities because absolute velocities are D-undetectable within NGT. But given that absolute velocities are *also* unknowable in NGT, one might think that the *real* grounds for denying that there are absolute velocities given NGT consist in this unknowability, *rather* than D-undetectability. If this alternative analysis is correct, the core analogy at the heart of Dasgupta's argument fails: the reason to deny that absolute velocities are real in NGT doesn't translate to the case of primitive individuals in modern physical theories, as primitive individuals *are* knowable given those theories.

6. To be sure, and as we'll see below, Dasgupta would dispute this—he appears to believe that our knowledge of primitive individuals and our knowledge of absolute velocity (if these things existed) would be on a par. I think that's wrong for reasons I go into below.

Note that this criticism of the Analogical Argument is different from one recently advanced by Ted Sider, who argues that (2) relies on some sort of verificationism, and that "from a certain 'realist' point of view, the complaint about empirical detectability carries little weight" (Sider 2020: 106; see also North 2018 for a similar point). I believe that we should resist the Analogical Argument *even* if we admit that considerations about what we can and cannot know should be given weight in deciding questions of ontology (and so endorse "some sort of verificationism," albeit of a moderate and merely methodological kind). As I see it, the problem with the Analogical Argument is not that it draws ontological conclusions from epistemological premises, but that the epistemological premises it relies on are of the wrong kind—the only epistemological issues that should be given weight for ontology concern what we can or cannot *know*, not what we can or cannot D-detect.

To defend the Analogical Argument against the objection I have been levelling so far, Dasgupta has two options. First, he may reject the alternative analysis, offered above, of why physicists believe that NGT supports discarding absolute velocities. He may accordingly insist on the following claim:

(4) The reason to discard absolute velocities in NGT is *only* that absolute velocities are D-undetectable within NGT, *not* that they are unknowable.

Second, he may argue that there is no disanalogy of the sort at issue and maintain:

(5) Given NGT, we can know (or cannot know) absolute velocities *to just the same extent* as we can know (or cannot know) primitive individuals in modern physical theories.

Although Dasgupta doesn't explicitly discuss the objection I've offered, there are remarks that point in the direction of each of these two replies. In the next two sections, I accordingly take up (4) and (5) in turn, arguing that each of them is implausible.

5. What's so bad about D-undetectability?

Dasgupta is very clear that what matters for his criticism of individualism is not knowledge but D-detectability:

> … I claim that it is empirical detection, not "knowing what" …, that matters to the Occamist argument against primitive individuals. For when

> a feature of the material world is empirically undetectable, it is impossible (given the laws) to distinguish between situations that differ with respect to facts about that feature. The Occamist razor I wish to wield simply says that we have reason to dispense with the putative structure that differentiates between those situations. The fact that if individuals were real we could re-identify them over time or have de re beliefs about them is, according to this Occamist razor, neither here nor there. (Dasgupta 2009: 46–47)

It is not clear to me, however, what his grounds for this methodological thesis are.

One might think that Dasgupta simply wants to defer the matter to the scientists. Perhaps he thinks that they take a putative entity's D-undetectability within a theory, as opposed to its unknowability, to be a sufficient reason for holding that the entity doesn't exist, given the theory. To establish this observation, however, much more work would have to be done. Take the case of absolute velocity and suppose that in NGT absolute velocities are both D-undetectable and unknowable. How should we know that physicists take only the former but not the latter to carry any ontological significance?

And even if we somehow knew this, it would not seem to be very significant. For the distinction between D-undetectability and knowledge patently is a *philosophical* distinction. Engaging in the question of which of these things should matter for ontology is a philosophical enterprise. To the extent to which physicists take part in this endeavor, they are doing philosophy. And then they surely lose any special authority they have in their capacity *as scientists*—why think they are any better at resolving such philosophical issues than trained philosophers? This is not to say that we should dismiss the fact (if it is one) that physicists believe that NGT would give us a strong reason to deny that objects travel at absolute velocities. It is to say, merely, that the question of what precisely underlies this reason—D-undetectability or unknowability—is not itself a question of physics. Rather than deferring it to the putative authority of scientists, we should tackle it head-on.

So let's do this. What speaks in favor of giving ontological relevance to D-detectability rather than knowability? The answer, it seems to me, can only be that we lack something of value if we can't D-detect an entity *even if we know the entity*. If this is the case, there needs to be some defect, some important shortcoming, in situations in which we know but can't D-detect an entity. This idea, however, is hard to substantiate.

The challenge is to specify what the shortcoming in question could be. Given Dasgupta's characterization of D-detectability, which I have phrased in terms of [D] above, one might want to respond to the challenge in the following way.

We can't D-detect an entity in a given theory if, given the theory, we can't distinguish between all situations that differ with regard to the entity at issue. Apply this to the case in which Lefty is the ring in my left hand. We assume that Lefty is a primitive individual and thus not D-detectable. Hence I can't "distinguish" between my actual situation of holding Lefty in my left hand and a counterfactual situation in which the ring in my left hand is a different but qualitatively indiscernible primitive individual. If this is so, one might point out, my epistemic position is defective in some way. For one might think that if I can't "distinguish" my actual situation from a counterfactual one, *I don't know* which of these situations is actual. Suppose, for instance, that I can't distinguish my present situation of eating a vegan burger from one in which I'm eating a burger made of meat. If we endorse some pertinent version of a sensitivity requirement on knowledge, we believe that this inability entails that I don't know which situation I'm in. Similarly, one might think, I can't know that I'm actually in the situation in which the ring in my left hand is Lefty rather than a counterfactual situation in which it isn't.

This suggestion, however, is based on a confusion. For the sense of "distinguishing" situations at issue for D-detectability is not the one the suggestion assumes. Suppose I'm holding a ring in each hand and suppose that both rings are primitive individuals. Assume that I've decided to call the ring in my left hand "Lefty" and the ring in my right hand "Righty." In fact, then, Lefty is in my left and Righty in my right. But there's a possible counterfactual situation in which they swap places and qualitative roles. Can I distinguish the situations? I surely can. First, I know that they differ with regard to which ring is in which hand. Second, and more importantly, I can distinguish my actual situation from the counterfactual one in the sense that I know *which situation is actual*: I know, for instance, that I'm actually holding Lefty rather than Righty in my left hand. The only sense in which I can rightly be said *not* to be able to distinguish the situations is this: I *couldn't tell a difference* if I were in the counterfactual situation. This is all D-undetectability, on its own, amounts to.

Hence, if there's anything wrong here, it should be due to this inability to tell a difference in a counterfactual situation. One might again think that such an inability gives rise to a straightforward epistemic defect. If I can't tell a vegan from a meat burger by tasting it, I couldn't tell a difference in some situations in which the burger I'm eating is made of meat rather than vegan. But I might still *believe* that I'm eating a vegan burger. Since I now believe that the burger I'm eating is vegan, this puts me at a risk of being wrong: if I were wrong, I wouldn't notice any difference. So perhaps this risk of being wrong is what's wrong with D-undetectability. Again, however, the situation with primitive individuals is different. Given that the names I've introduced, "Lefty" and "Righty," are rigid designators picking out the individuals that *actually* happen to be in my left and

right hand, respectively, my belief that Lefty is in my left and Righty in my right hand should be seen as a *de re* belief: I believe of Lefty that it is in my left hand and I believe of Righty that it is in my right hand. If the rings swapped roles, I would still have introduced the terms "Lefty" and "Righty," but the two names would equally swap their referents. I would consequently belief *of Righty* that it is in my left hand, even though I would *express* the belief by uttering the sentence "Lefty is in my left hand." Analogously, though I would utter the sentence "Righty is in my right hand," I would believe of Lefty that it is in my right hand. Hence my beliefs about Lefty and Righty would *not be the same* as the ones I actually have. Importantly, my beliefs would change in a way that would make them *true*. Hence the situation I can't "distinguish" from my actual one is not one in which I'd form *false* beliefs. Even though I couldn't tell a difference if my current beliefs about Lefty were wrong, I don't run the risk of being wrong. So, in the absence of unknowability, D-undetectability doesn't put our beliefs at risk.

These considerations illustrate how difficult it is to pinpoint what's so bad about D-undetectability in cases in which we can know the D-undetectable entities. So far, it seems that we have no reason at all to care about D-undetectability in such cases. It accordingly is obscure why D-undetectability *on its own* should give us any reason to doubt, or even reject, the existence of knowable but D-undetectable entities. To be sure, I might have overlooked some defect in these cases—but I submit that the burden of proof here lies with Dasgupta. As long as we have no sense of what the defect might be, we lack any grounds to believe that D-undetectability gives us any reason to doubt or reject the existence of things we could know if they existed—things, that is, such as primitive individuals.

To be clear, I haven't argued that D-undetectability *never* has any undesirable effects. Take the case of absolute velocity in NGT. Above, I have mentioned in passing that it seems plausible to think that the fact that absolute velocities are not D-detectable is somehow responsible for our inability to know absolute velocities. If this is true, then we here have a case in which D-undetectability *does* have an unambiguously undesirable effect: it undermines knowledge. But this does not entail that D-undetectability has any undesirable effects in cases, such as that of primitive individuals, in which it does *not* undermine knowledge.

At this point, a defender of Dasgupta's argument might feel the urge to put an end to my line of reasoning. Here's one possible version of the complaint:

> You just admitted that D-undetectability sometimes gives rise to unknowability. But how can it be, as you claim, that it undermines knowability in some but not other cases?! Surely it is either true that the fact that a putative entity is D-undetectable in a physical theory always ensures that the entity is unknowable in scenarios in which the theory is

> true and complete, or it never does. But then, there is no disanalogy between absolute velocity and primitive individuals: we are either able to know them in both cases or we are equally unable to know them.

This complaint, in effect, is an attempt to buttress (4)—the claim that D-undetectability rather than knowledge is important for drawing ontological conclusions—by appealing to (5)—the claim that primitive individuals and absolute velocities are knowable, if they are, to the same extent. So let me move on to examine this claim.

6. D-Undetectability and Inexpressible Ignorance

I have mentioned that Dasgupta admits that we know primitive individuals in a "colloquial" sense. I haven't mentioned that he professes to think the same about absolute velocities: "Suppose I ask whether you know what your velocity is. In some contexts, it may be appropriate to answer 'Sure, I know that my velocity is the same as it was yesterday'" (Dasgupta 2009: 46). It is true, I think, that we could know some facts about absolute velocities if they were real, even in a world in which motion is completely governed by NGT. Suppose we live in such a world and assume that the velocity of the universe is zero. Assume we moreover decided to introduce a rigid designator for the velocity of the universe, "The Grand Velocity" or "TGV." We could then, presumably, know facts such as

[TGV1] TGV is the velocity of the universe.
[TGV2] TGV is the same velocity it was yesterday.

Compare these facts to facts we could know about the primitive individual Lefty, such as

[Lefty1] Lefty is the ring I'm currently holding in my left hand.
[Lefty2] Lefty is the same ring I wore yesterday.

These facts are similar in important ways: both the facts about TGV and those about Lefty concern unique properties of their objects, and in both cases, their objects possess these unique properties contingently. In some contexts, Dasgupta rightly observes, we treat knowledge of such facts as sufficient for *knowing which* thing the object at issue is. D-undetectability, furthermore, undermines this knowledge neither in the case of TGV nor in that of Lefty. So far, then, it does seem true that our knowledge of TGV is on a par with our knowledge of Lefty.

Of course, however, Dasgupta wouldn't deny that there is an utterly straightforward and natural sense in which we wouldn't know which velocity TGV is. In this sense, knowing which velocity TGV is would require knowing the fact that

[TGV3] TGV is the velocity of being at rest.

It is plausible that what undermines our ability to know this fact is the fact that TGV is D-undetectable. Consider our respective bases for knowing [TGV1] and [TGV2]. We can know [TGV2] because there would be a noticeable difference if the universe changed its velocity—if it accelerated, decelerated, or changed direction. So even though TGV itself is not D-detectable within NGT, we can still tell a difference in all situations in which [TGV2] isn't the case. The case of [TGV1] is a bit more complex: we can know [TGV1] because it merely reflects our introduction of the term "TGV" as a rigid designator for whatever happens to the velocity of the universe. Due to this stipulation, we know [TGV1] *a priori* even though it is a contingent fact.[7] So it seems that we have some basis to know both [TGV1] and [TGV2]. But we lack any basis to know, or even believe, [TGV3]. As far as we know, the universe could be at absolute rest, and thus TGV could be the velocity of being at rest. But as far as we know, the universe could also be travelling at 1000 mph in the direction from Earth to Alpha Centauri, and as far as we know *that* velocity could be TGV. In none of these situations could we tell a difference from how things actually are. And here, it is also true that we can't tell which of these epistemically possible situations is our actual one—there is no indication at all to this effect. Hence, TGV is D-undetectable in a way which makes it impossible for us to know [TGV3].

The question, however, is whether an analogous line of reasoning can be applied to primitive individuals. What we were looking for is a reason to think that (5) is true, that is, a reason for the claim that, given NGT, we can or cannot know primitive individuals to just the same extent as we can or cannot know absolute velocities. The fact that TGV is D-undetectable makes it impossible for us to know absolute velocities because it makes it impossible for us to know [TGV3]. If the fact that primitive individuals are D-undetectable makes it impossible for us to know primitive individuals, it would seem necessary that there be some analogue to [TGV3] in the case of primitive individuals—only then is there

7. One might object that we can know [TGV1] on the basis of our stipulation only if we antecedently know that the name "TGV" isn't *empty*, and so that TGV *exists*, that there *is* a velocity of the universe as a whole. One might think that we can't know this, and thus also can't know [TGV1]. This objection plays into my hands: if it is correct it shows that the disanalogy between the cases of absolute velocity and that of primitive individuals runs even deeper than I'm claiming here. I here want to waive the objection for the sake of argument—Dasgupta's analogy fails, I claim, *even* if granted that we can know facts like [TGV1] *a priori*.

any substance in the claim that we are ignorant of absolute velocities and primitive individuals *to the same extent*. What could this analogue to [TGV3] in the case of primitive individuals be? In one place, Dasgupta argues that, if a given thing is a primitive individual, there is, in addition to all the facts we can know about it, "a *further fact of the matter* concerning its identity" (Dasgupta 2009: 45). The difficulty, however, is to specify what that fact could be. In the case of absolute velocity, this task is easy and straightforward: over and above facts such as [TGV1] and [TGV2], there's a further fact of the matter about the identity of TGV, and this fact, that is, [TGV3], cannot be known. But what is this further fact in the case of Lefty and other primitive individuals?

The answer Dasgupta appears to prefer is that *we cannot say*. For in a later publication, he proposes that our ignorance of primitive individuals is what he dubs *inexpressible* ignorance (see Dasgupta 2015: 449–450). If we are inexpressibly ignorant of the members of a domain, "we arguably know all the *propositions* or *facts* there are to know about the domain" (Dasgupta 2015: 441) and still, somehow, don't know something crucial about them. As soon as we try to *specify* what we don't know about individuals, we specify something we can know—as soon as we articulate the fact, say, that Lefty and not Righty is the ring in my left hand, we've specified a knowable fact. But still, Dasgupta believes, the fact that primitive individuals fail to be D-detectable in some sense gives rise to ignorance: because worlds that differ only with regard to individualistic facts "are all indiscernible, […] there is no telling which world we inhabit, and so no telling which particular individual lies behind which constellation of qualities" (Dasgupta 2015: 450). Again, once we say *which* worlds are supposed to be "indiscernible," we can, as we've seen, know which of them is actual and which individual "lies behind" the qualitative properties we observe. But still, Dasgupta insists, there is *something* we don't know here—something inexpressible but yet so significant that it gives us some reason to think that there are no primitive individuals at all.

This suggestion, to be sure, somewhat weakens his claim that there is a close analogy between absolute velocity and primitive individuals: our ignorance of absolute velocity in NGT is very much expressible, after all. So (5) is on shaky ground even if Dasgupta's claim that we are inexpressibly ignorant of primitive individuals is granted. But set aside this worry. What is clear is that if we are to give credit to the idea that our ignorance of primitive individuals is inexpressible, we need rather strong grounds to believe that the putative phenomenon is real—that there *is* or *can be* inexpressible ignorance.

Dasgupta's case in favor of inexpressible ignorance is based on a couple of thought experiments all of which involve "eternal recurrence." Suppose that "every 3 trillion years, the history of the world repeats itself in all qualitative respects ad infinitum" (Dasgupta 2015: 447). In the first scenario, the sequence

of 3-trillion-years epochs is one-sided or one-way infinite: there is a first epoch but no last one. If we inhabit an epoch in this sequence, Dasgupta claims, "we are ignorant of which epoch we inhabit," and our ignorance can be expressed: we don't know if our epoch is the first, second, third, and so on (2015: 445). Now compare a two-way infinite sequence in which there's neither a last nor first epoch. Dasgupta argues that we should be said *not to know* which sequence we inhabit in this scenario as well: "[a]fter all, in both cases the epochs are all indiscernible, so in both cases there is a proliferation of indiscernible worlds that differ only with regard to which epoch we inhabit" (447). However, this ignorance is inexpressible. We can't specify any fact we don't know, as there is no specifiable place in the sequence of which we don't know if it is occupied by our epoch. And yet, it seems, there is a sense in which we don't know which epoch we inhabit.

To drive the point home, Dasgupta describes a third scenario: suppose "we live in a world just like the two-way recurrence world, with the one exception that the epoch three thousand cycles ago differs from the rest *just* in the fact that one electron is a *little* to the left of its counterparts in other epochs" (2015: 448). In this scenario, we can specify what we don't know: we don't know if, say, we live in the first, second, third, and so on, epoch after, or before, the deviant epoch. But now the view that there's *no* inexpressible ignorance would imply that "my ignorance of which epoch I inhabit *depends on* that electron's being where it is and not a little over to the right. Put differently, that view implies that, were that electron a *little* bit over to the right, I would not be ignorant of which epoch I inhabit" (2015: 448). This consequence, Dasgupta insists, is untenable: surely whether or not I can be said to be ignorant of which epoch I inhabit cannot depend on whether one electron was or wasn't in a slightly different place a quadrillion years ago. Thus, we should say that we don't know which epoch we inhabit even in the two-way infinite sequence of totally qualitatively indiscernible worlds. And hence there can be inexpressible ignorance.

This argument at first glance seems quite strong, and it would seem to be an argument of the right sort to show that we also don't know primitive individuals. For note that what gives rise to inexpressible ignorance in the two-way infinite indiscernible sequence, on Dasgupta's view, is precisely the fact that the epochs are D-undetectable: we wouldn't notice any difference if we were in an epoch different from the one we're actually in. This is what makes us ignorant of which epoch we're in in *all* of the recurrence cases. If so, it seems, it should also make us ignorant of primitive individuals, even if that ignorance happens to be inexpressible.

My reply is that we shouldn't accept Dasgupta's take on our epistemic situation in the two-way indiscernible sequence. Dasgupta needs to make two claims about this scenario:[8]

8. I am indebted to an anonymous referee for having pointed out various obscurities with my original version of the reply to Dasgupta's argument for inexpressible ignorance.

(6) If we're in the two-way indiscernible sequence, we cannot know which epoch we're in.
(7) If we're in the two-way indiscernible sequence, we have inexpressible ignorance of which epoch we're in.

It is not obvious that we must accept (7) if we accept (6). To see the problem, note that there seem to be many *expressible* ways in which we cannot know which epoch we're in in the two-way indiscernible world.

One is this. In the two-way indiscernible world, there is, in fact, no first epoch. But how can we know this? If we can't know whether there's a first epoch, it seems, we also can't know whether we *are* in the first epoch (or the second, and so on). Similarly, there is in fact no qualitatively aberrant epoch in the two-way indiscernible world. But again, it seems clear that we have no way of knowing this. Thus, even in the two-way indiscernible world, we cannot know if we are, say, in an epoch that immediately follows a qualitatively aberrant one.

Given this, (6) turns out true, but what makes (6) true doesn't compel us to endorse (7). We cannot know which epoch we're in in the two-way indiscernible world because we can't know, for example, whether we are in the first epoch, or the first epoch after a qualitatively aberrant one. This ignorance is expressible. Moreover, it is, patently, the very *same* ignorance, rooted in the *same* cause, as in the one-way indiscernible and the two-way almost indiscernible worlds: in all three scenarios, we ultimately cannot know which epoch we're in because we *lack epistemic access to epochs other than our own*. Because of this, we can't know about the qualitative make-up of such epochs, and we can't know whether any given epoch precedes or is preceded by any other epoch. And this lack of epistemic access to other epochs is why we can't know, in each scenario, which epoch we're in.

Dasgupta justifies his claim that our ignorance in the two-way indiscernible world is inexpressible with a brief and somewhat dubious semantical remark. As used by an inhabitant of the two-way indiscernible world, the sentence "I inhabit the first epoch," he argues, "does not express a hypothesis about which epoch I inhabit, since 'the first epoch' does not refer" (Dasgupta 2015: 447). But note that it is not at all clear that the definite description "the first epoch" can be used to express a hypothesis only if there is a first epoch—if definite descriptions are analyzed à la Russell, for instance, this would not be the case. And quite apart from this issue, we don't *need* "the first epoch" to refer in order to express our ignorance of which epoch we're in in the two-way indiscernible world. For consider the following sentence that explicitly states that there is a first epoch inhabited by the speaker:

[∃] There is an epoch x such that i) I inhabit x and ii) there is no epoch before x.

Whatever we think of the semantics of the sentence "I inhabit the first epoch," there is no doubt that [∃] can be used to express a hypothesis about which epoch we're in even in the two-way indiscernible world. Since there is no first epoch, in that world, [∃] will of course be false. But it still *expresses* a hypothesis, albeit a false one. And since we couldn't know that [∃] is false, we could use it to express our ignorance of which epoch we're in. So far, then, moving from (6) to (7) seems unwarranted: we cannot know which epoch we're in, but we can express that ignorance in various ways.

To *warrant* the move from (6) to (7)—to make sure that our ignorance of which epoch we're in in the two-way indiscernible world *must be* inexpressible—Dasgupta would have to make an extremely substantial assumption about our cognitive abilities. Suppose that we have (perhaps by employing a "cosmoscope" as described in [Chalmers 2012]) full epistemic access to other epochs in the following sense: we can somehow know about all qualitative facts about all past and future epochs and we can somehow know, of any given epoch, whether or not it precedes or is preceded by any other epoch. Equipped with such epistemic superpowers, we can know that we're in a two-way indiscernible world if we're in such a world: we can know that all epochs are qualitatively indiscernible and that there's no first or last epoch. If we *still* didn't know which epoch we're in, in the two-way indiscernible world, our ignorance would have to be deemed inexpressible. We can safely move from (6) to (7), then, if we assume that we possess epistemic superpowers of the kind just described.

But once we assume that we have such powers, Dasgupta's argument for (6)—for the claim that we can't know which epoch we're in in the two-way indiscernible case—evaporates. As we've seen, this argument proceeds from the premise that we cannot know which epoch we're in in closely similar cases: we cannot know which epoch we're in if we're in the one-way indiscernible world or the almost-indiscernible two-way world. If we possess epistemic superpowers, however, we no longer have any reason to think that this premise is true. If we can know, of each epoch, whether it is preceded by another epoch, we can know whether or not we are in the first epoch. If we can know all qualitative facts about all epochs, we can know that one particular electron, a quadrillion years ago, was slightly to the left of the position it has in all other epochs. Again, our situation in these two scenarios parallels our situation in the two-way indiscernible world: if we have epistemic superpowers, there's no obstacle to holding that we can know which epoch we're in in all three scenarios. On this assumption, then, the similarity to the one-way indiscernible and the qualitatively aberrant scenarios no longer supports the idea that we can't know which epoch we're in in the two-way indiscernible case. Thus, the argument fails to support (6), and, *a fortiori*, fails to support (7).

Summing up, the problem with Dasgupta's case for inexpressible ignorance can be put in terms of a dilemma. Either we possess epistemic superpowers or we don't. If, realistically, we don't have such powers, (6) is true but the move from (6) to (7) is unwarranted: we can't know which epoch we're in, but there are many ways, e.g. [∃], in which we can express this ignorance. This is one horn of the dilemma. The other is this: If we do have epistemic superpowers, we can know which epoch we're in in the one-way and the almost indiscernible two-way world. And then the argument for (6) breaks down—that is, we no longer have compelling reason to think that we can't know which epoch we're in if we're in the two-way indiscernible world. On both options, accordingly, nothing compels us to endorse (7): nothing compels to think that we have inexpressible ignorance of which epoch we're in in the two-way indiscernible world.

I believe that this dilemma reveals that Dasgupta's argument for inexpressible knowledge is unsuccessful.[9] I do not deny, to be clear, that the identity of our epoch is D-undetectable in the two-way case: if we were in an epoch other than the one we're actually inhabiting, we could not tell any difference. The question is whether this D-undetectability gives us sufficient reason to say that we couldn't *know* which epoch were in in the case at issue. My claim is that Dasgupta's argument for thinking that we do have such reason fails.

Some people might think, to be sure, that once we admit D-undetectability, *no further argument for admitting ignorance is needed*: that there simply *must* be something we don't know if we couldn't tell a difference if things were different from how they in fact are. If this ignorance turns out to be inexpressible, they might say, this only goes to show that ignorance *can* be inexpressible. I cannot disprove the contention that motivates this line of reasoning. But, as we've seen in the last section, it is far from obvious that D-undetectability involves any epistemic defect at all. What is left of Dasgupta's criticism of individualism at this point in the dialectic, then, is nothing but a bare insistence that D-undetectability somehow *must* give rise to ignorance, even if this ignorance can't be specified any further and even if there's no specifiable epistemic defect in our situation. If all it takes to resist Dasgupta's criticism of individualism is to resist this contention, I submit, the individualist shouldn't be too worried about it.

9. Dasgupta's considerations about inexpressible ignorance primarily target Maudlin's (1993) idea that we could know locations in Newtonian space (if we were in Newtonian space) because it is impossible to articulate propositions about such locations that we cannot know. If my reply to Dasgupta's argument succeeds, it also serves as a vindication of Maudlin's view of absolute locations.

7. Conclusion

To be sure, I have so far ignored an important question raised by my objection to (5), that is, by my objection to the claim that our ignorance of absolute velocities and primitive individuals is on a par. If D-detectability undermines our knowledge of absolute velocities but not that of primitive individuals, one might justifiably demand to know *why* D-detectability has such disparate outcomes depending on what kind of entity we consider. What is it about absolute velocities that makes them such that we can't know them if they're not D-detectable? And what is it about primitive individuals that makes them such that we can know them even if they're not D-detectable?

In a memorable passage, P. F. Strawson once suggested that the reason the day-to-day story of our world is "so rich in contingency, so essentially news, is just the fact that these objects [that is, individuals] have no *individual* essence" (Strawson 1997: 34). Because they lack individual essences, they can be identified, Strawson writes, "by this or that speaker or thinker, by this or that or the other of its unique characters or relations, but for no such object is there any unique character or relation by which it *must* be identified if it is to be identified at all" (34). The ring in my left hand, for instance, has a certain nature—it is a material object, enduring through space and time, made of silver, and so on. But other things could have just the same properties—and thus, in a sense, the same nature or essence—and yet be distinct from the particular ring I'm holding. Because of this, there is no essence that is had, with necessity, by the ring and only by the very individual the ring is. Dasgupta believes that this explains why the ring, ultimately, is (inexpressibly) unknowable. But the lesson Strawson takes from this is both less theoretically demanding—as it doesn't require any commitment to inexpressible ignorance—and more in line with common sense. Strawson's lesson is that the lack of individual essences means that we don't *need* to know an individual's individual essence in order to know which thing it is. And this is why knowing the ring's *sharable* essence in tandem with a unique but *contingent* feature it possesses can be sufficient to know *which* thing the ring is, in the strictest sense of knowing "which" we can conceive. If I know that it is a silver ring, I can identify it by appealing to its unique but contingent property of being in my left hand. And that's enough. Absolute velocities, by contrast, *do* have individual essences: it lies in the nature of the velocity of being at rest that it is the velocity of being at rest, and no other velocity can possibly have this property. To identify a velocity, we need to know its individual essence—and that is, as we've seen, what D-undetectability prevents us from doing in the case of absolute velocities.

It is a perennial temptation, for the empirically-minded philosopher, to think that individuals are beyond our epistemic ken if they can't be somehow reduced

to their detectable qualities—think of Locke's (1689/1975: 296) infamous statement that substance is merely an "unknown support of qualities."[10] I venture that one source of this temptation is in an ultimately misleading analogy to objects that have individual essences, that is, to *abstract* objects. If knowledge of individual essences is required to know a thing, no matter its kind, then primitive individuals indeed cannot be known. Dasgupta's Analogical Argument is an impressive exploitation of this enticing analogy. But once we adopt the key Strawsonian insight that individuals are *not* like abstract objects in the core respect, we can dispel the analogy. Then, the Analogical Argument loses its appeal, and individualism emerges unscathed.

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10. I should note that I don't believe that Locke's influential skepticism about the general notion of substance is actually motivated by any claim to the effect that we cannot know individual substances (see Wörner 2020, and forthcoming). Still, Locke's position has been interpreted in this way often enough, and some influential figures did in fact adopt the claim that we cannot know individuals; Russell, for one, surely understood his own rendering of Locke's claim—that substance is "an unknowable something in which predicates inhere" (Russell 1940/1995: 97) in this sense.

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