

For Emergent Individualism

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Persons are knowing subjects who intentionally act. More carefully, persons are those individuals who have or have a natural potential for the capacities of subjective awareness, intrinsic intentionality and cognition, and intentional action. In this chapter, I want to consider persons primarily through their capacity for intentional action, and more specifically still through the freedom of will or choice that we commonly suppose mature, intact human persons to manifest. The philosophical problem of free will is in large measure the problem of understanding how causally conditioned, physically composed agents can be loci of *ultimate* control: how can human agents freely originate, and not merely conduct, causal influence upon the world? That our acts be causally undetermined is necessary for us to exert such ultimate control – or so say I – but it is not nearly enough. Again, truly free agents would be originators, not merely conductors, of probabilistic causal influence. Elementary particles would be instances of such originators, if they turn out to be basic (uncomposed) ingredients of the physical world. If not, then this will be true of whatever supplants them from that status. (For myself, I can scarcely credit the notion entertained by some metaphysicians that *nothing* would have that status: causality and so-called “atomless gunk” cannot coexist if we maintain, as I do, that causation is an ontologically basic relation.)¹

Maybe certain varieties of elementary particle are mereologically basic, but it appears that human persons are not. It appears that we are physically composed – *pace* mind-body dualism on which we are simple, purely mental entities that are causally, but not mereologically, bound up with our bodies. I don't regard this as just *obvious*. The conscious mind is a very striking and puzzling affair, enough so as to make mind-body dualism an option to be seriously explored, even in 2018. However, for what it's worth, my own judgment is that the schematic philosophical “theory” of minded human persons that best accounts for relevant natural-historical, organismic-developmental, neurophysiological, *and* introspective evidence has it that we are wholly physically composed.

Suppose that this thesis of human material composition is correct. Does it *follow* that we are not originators of causal influence upon the world – that our influence at any given moment is instead merely the “sum” of the influences of our basic constituents, themselves exerting nonrational forces? I think the answer to this question is No. There is *conceptual* space for fundamental causal influence exerted by nonbasic entities. What is more, it seems to me to be a wholly open question empirically whether this might *actually* be the case concerning ourselves.

My central purpose here is to show how causally conditioned and physically composed entities (as I take us to be) may nonetheless be fundamental, nonderivative causes. My point of departure will be recent work in metaphysics trying to articulate a notion of metaphysical fundamentality and its associated notion of grounding, whereby non-fundamental entities are grounded in fundamental entities. (An advantage of focusing on the notion of grounding is that it permits one to avoid the matter of “reducibility” that has become quite complicated and vexed in recent discussion. Doubtless the same will be true ten years from now for a proliferated range of notions of grounding.) This will suggest a notion of emergence on which emergent entities are *fundamental* though *nonbasic* – causally sustained by, but not grounded in, entities that are fundamental *and* basic.

A full articulation of emergence in terms of the nonbasic but fundamental requires us to take a stand on the ontological categories of individual (substance) and property. I will state with only minimal defense my favored variety of substratum-attribute theory. I will then apply the theory to the thesis that human persons are composite, emergent individuals.

24.1 “Ontological” Emergence as Fundamental-but-Nonbasicity

I am a full-bore ontological realist. I believe that there is an objective, wholly nonconventional and nonperspectival way the world is. Within this realist perspective, it is natural to interpret the analytic sciences as pointing to a kind of *priority* structure: macroscopic objects typically derive their existence and features from, are grounded in, their proper parts, and ultimately from a privileged set of basic objects that are not so grounded in anything and that belong to kinds that are ubiquitous.

(An aside: suppose that classical theism is true, and the totality of physical reality is purposed and causally sustained at all times by an immaterial Creator. Would this entail that *no* physical reality is ontologically basic? We have to be careful here. Setting aside Berkeleyan idealism, on which physical objects ultimately consist in ideas in the mind of God, classical theism entails that physical reality is, in its being, wholly other than God. God is a sufficient *cause* for the existence of physical entities. What is more, as God is a metaphysically necessary being, it follows that physical entities *supervene* of metaphysical necessity on God’s willing them. They are beings that are *essentially* causally dependent on God. Even so, they are not, in the intended sense, ontologically derivative from or grounded in God, as the dependency is causal, not constitutive. The moral here is that we cannot capture the basic/derivative ontological grounding structure in purely formal terms.)

So we have a schematic picture of physical reality on which there are ontologically basic physical entities that fall into a small set of kinds, at least some of which are instanced wherever any nonbasic physical kinds are instanced. What the defining features of these

kinds are is of course an open question. They may be particle-like, field-like, or of some further kind bandied about within the speculative reaches of current physics. They may be momentary or enduring. And so on. (My adherence to *scientific* realism has its limits, getting most tenuous when contemplating the more *outré* reaches of theoretical physics, but I try to carry it as far as I can.)

I have used the term “basic” to pick out those objects that have no objects as parts. I will also say that the perfectly natural, intrinsic *properties* of such basic objects, and the perfectly natural relations into which they enter, are likewise basic. Basic objects, properties, and relations are not grounded in anything. Are *only* basic entities ungrounded? Let us use the term “fundamental” to characterize that which is ungrounded, that which is ontologically primitive. Our question then is whether there can be nonbasic but fundamental objects, properties, and relations.

Let us start by considering intrinsic natural properties. If such a property were nonbasic but fundamental, it would be (1) had by a nonbasic object, that is, an object that itself has parts and (2) ungrounded, or “ontologically primitive.” How we understand the notion of a *property’s* being ungrounded will depend on how we think of properties generally. Some contend that fundamental natural properties are “*qualities*” or characters that make for objective, intrinsic similarity of objects – and that nonredundantly, that is, in a way that is not “already” fully captured by the objects’ having other properties, or by the objects’ parts having certain properties and standing in certain relations. A second kind of property theorist thinks of natural properties as “*pure powers*.” For her, a fundamental natural property is a nonredundant causal power. A still third kind of theorist in effect brings these two conceptions together, taking properties to be “*powerful qualities*.”² I am myself tempted by this last conception. Insofar as I understand it, such a theorist will say that we can capture the idea of a fundamental natural property in each of the first two ways, and the verdict that they deliver will necessarily coincide.

All of these recently popular ways of trying to get at the notion of property-fundamentality depend on thinking of natural properties as *immanent* to objects. And immanence, in turn, leads to property *constituency*, whether of universals or tropes. But since John Heil (2012) and E. J. Lowe (2012) demur on this last point, let me elaborate. In their terminology, there are “modes” (or “ways” that objects are) that are immanent to but not constituents of objects. They argue that, because these modes are inherently dependent entities, not capable of independent existence, they cannot be constituents. This reason is unconvincing. They allow that modes are “aspects” of objects, particular, perceivable, located where the objects are, and partly responsible for objects having causal powers of various kinds. I do not see how anything could fill these theoretical roles without being (proper) *constituents* of the objects. Granted, if we also contend, plausibly, that these property-like aspects of things are inherently *dependent* entities, not capable of existence apart from the objects they characterize, then the way they enter into the makeup of an object importantly differs from the way basic *objects* enter into the makeup of a composite object, enough so that we should sharply separate property constituency from part-whole mereology. But the notion of constituency is not analytically connected to that of real separability.³

In any case, I myself do think of natural properties as constituents of things. Given this constituent ontology, we have perhaps another, more straightforward way of characterizing fundamental intrinsic properties: they are those properties the having of which does not consist in the having of any other properties, or in the having of other properties by one’s parts and any of the natural relations among them.

Understood in any of these ways, it seems to me perfectly intelligible that some of the properties of composite objects might yet be fundamental. Note that fundamentality is consistent with the having of such a property's being causally dependent in some way on something else, such as the states and arrangements of the object's parts being some more or less particular way. And that is precisely how I want to think of an *emergent property*: a fundamental natural property of a composite object that is causally generated and sustained (at least in part) by the object's basic parts in virtue of their own intrinsic properties and configuration.⁴ Like all fundamental natural properties, it is a powerful quality whose possession enables an object to make a nonredundant causal contribution to its context.

Nonbasic fundamentality for objects, or what you might think of as emergent individuality, is less straightforward because of the contested, obscure issue of whether even basic material objects have ontological structure and its connection to other fraught matters such as the nature of time and persistence. Here I am just going to chart my own way through these thickets, setting off philosophical tempests in different ones of my readers at various points. I already noted that I favor an ontology on which natural properties are constituents of objects. I will write as if such properties are universals, but everything of importance that I will claim in what follows could (I think) be stated, with minimal change in words, in terms of tropes instead.

Consider then basic objects – those objects that have no (object) *parts*. According to the constituent ontologist, they nonetheless have *constituents* that are properties. How should we understand the constituency-structure of these objects? We have two broad options: we may say that they are (mere) bundles of properties, unified by a primitive relation of some kind. But bundles of universals, it seems, do not an individual object make.⁵ We might simply add into the mix primitive thisness, a property – only one that is nonqualitative, noncausal, and nonshareable. I prefer instead to reject bundle theory in favor of a substratum-attribute structure. Individual basic objects consist in there being a substratum (aka bare particular, thin particular) being “tied” in a primitive way to a cluster of natural properties, the object's powerful qualities.

It is often said that the substratum-attribute theory of objects is incoherent. One might object: “The theory says that substrata ‘in themselves’ have no properties, and nothing can be like *that*. (And isn't the very assertion that a substrata lacks properties self-refuting?)” This objection rests upon confusion, though the critics have been abetted in some cases by proponents of the theory, in particular David Armstrong (1997). Yes, we can truly *say* some things about substrata. (If we couldn't, we wouldn't have a theory.) We can say, for example, that substrata are inherently incomplete, particular entities, that they necessarily join in a primitive way with natural properties, and that these natural properties belong to a distinct category from that of substrata. We don't say that these statements are true in virtue of substrata being joined “in themselves” to a special class of universals. Instead, the theory posits them as primitive truths concerning the theory's primitive categories – truths that identify their theoretical role.⁶ (We do not appeal to property-constituents in a misguided attempt to reductively analyze all predication; their theoretical work is elsewhere.)⁷ Indeed, the claim that substrata are “tied to” constituent universals may be taken as such a primitive truth.⁸

Since the objection is persistently raised, let me dwell on it a bit further. Consider an electron that we might call “Eleonore.” Eleonore is negatively charged; equivalently, Eleonore has the property of (unit) negative charge. From the standpoint of metaphysics, if not of physics, that is a pretheoretical truth, a true predication. Furthermore, it is plausible

that the *concepts* of “property” and of “an object’s having of a property” are basic, part of our conceptual toolkit that does not admit further analysis. Nonetheless, according to the substratum theory, not *every* property term picks out a metaphysically basic kind of entity (at least not of an immanent sort) and *having a property* in the pretheoretical sense is not a metaphysically basic relation. That is why, to avoid confusion, it is best to sharply segregate the terms of ordinary discourse and those of the theory when it comes to what grounds the truth of ordinary claims. Lewis’s “natural property,” which I have invoked, is a half-step in this direction. It marks a theoretical role that specific theories such as the substratum-immanent universals theories fill out in particular ways.

Pretheoretic claim: Eleonore the electron has the property of unit negative charge. A theoretical account of what the truth of this claim consists in: Eleonore has a substratum and several immanent universals as interdependent (“tied”) constituents, and among the latter is the immanent universal of negative charge. As to what to say concerning this substratum itself, the theory bids us to apply a few sortal concepts: for example, particular, inherently incomplete, and “taking” immanent universals, thereby constituting an individual substance. And it also maintains that these predicates are true of substrata without being grounded in further immanent universals. (You might worry: but if we accept primitively true predications in some cases, why not go all the way and accept a form of nominalism? Answer: All analysis must end somewhere, but the theory stops in a better place than the nominalist does. Unlike nominalism, the theory can give an informative account of the many varieties of objective qualitative similarity and causal/dispositional similarity among objects, and this advantage is especially telling when we note that such similarity can cut across substance kinds – for example, both electrons and protons have mass. We can thus reduce the number and kind of unexplained similarities we must embrace. The only “similarities” among bare particulars are categorial. Furthermore, the stopping point is not arbitrary: given the theory’s machinery, we cannot go further with ontological analysis, since universals cannot be ingredients of bare particulars.)

We might go on to ask, is Eleonore’s substratum, like Eleonore, negatively charged? Critics (e.g., Bailey 2012) sense a dilemma here, but it is spurious. We could, if we *liked*, say that the substratum, too, is negatively charged. If we do so, we should say that there are two ways to have a property: by having a substratum that is tied to a suitable underlying universal and by being such a substratum. This is not a distinction that marks anything in the theory, as there is just one metaphysical truthmaker here. But partly for this very reason, I see no reason why we should want to say this. *Eleonore is negatively charged* may be a pretheoretical truth, but *Eleonore’s substratum is negatively charged* is not. Eleonore’s substratum is a creature of metaphysical theory, and we should look to the theory alone to tell us what we should say about it. So, I do not say that Eleonore’s substratum is charged, or has mass, or any of the things physical theory leads us to say about Eleonore.

One final point, before I move on to talk about composite objects and emergence. Critics see it as a weakness in the substratum-attribute theory that the sortal concepts we may apply to its posited substrata are so few and so informationally “thin.” But the natural reply is that its simplicity/thinness appropriately matches its job description: mere individuation.⁹

So, a basic object is a structured entity involving a substratum and a small number of immanent universals (perhaps certain quantities of mass, negative charge, spin, and magnetic moment, as the case may be). Given the essential interdependency of the basic object’s constituents, universals, substrata, *and* the basic objects they enter into are *all* fundamental entities.¹⁰ (More precisely, as Stephan Leuenberger has pointed out to me,

here we need to introduce the notion of *partial* grounding: basic objects are partly but not wholly grounded in their constituent universals and substrata.)

A composite object has mereological structure: it has basic objects as its parts. What I'll call a "*garden-variety*" composite object does *not* have universals as constituents; instead, each of *its* intrinsic properties is grounded in the monadic universals had by, and the relations among, its parts. It also lacks a substratum: there is nothing more to the being of such an object, at any given moment, than the mereological sum of its object-parts and their interrelations.

By contrast, a composite object that has fundamental natural properties functions as a true unity, doing fundamental causal work additional to the activity of its parts. What should we conclude from this? Here, I must confess to being uncertain, as I now see a real difficulty that I had not previously appreciated in defending a view somewhat along the lines of the above (O'Connor and Jacobs 2003, 2010).

I am tempted to suppose that such an emergent composite has a proprietary substratum, one that persists just so long as some or other of its nonbasic but fundamental properties do. But this requires supposing a special, fundamental category of substrata, encompassing those that "attach themselves" to objects – those objects that are the composite's parts. That's a significant difference in ontological profile from substrata for *basic* objects, which attach only to universals; but given the framework of the theory, it cannot be explained by the presence of distinctive properties, as other fundamental causal-functional differences are.

Suppose, then, that we reject the notion of a proprietary substratum being tied to a collection of objects constituting the system giving rise to the emergent properties. Now consider the intended application to human persons: knowing subjects and agents that are biological organisms, and thus entities constituted by an ever-changing collection of parts. The problem here is that the (seeming) unity of a *subject* of experience and purposive *originator* of action seems to go ungrounded. There is an emergent experiential state, but only an organized collection of objects that, individually experience-less, are collectively *the* subject of the experience. This is of doubtful coherence.

Insofar as both options seem unsatisfactory, substance dualism beckons: persons not just as fundamental but as basic (albeit causally dependent as emergents).

Surely there is a misstep in one or the other of the horns of this dilemma, but at present I cannot see where.

Notes

1. Well, maybe there is one scenario where this might work: imagine emergent fundamental properties (in the sense discussed below) at every "level" of structure in a bottomless nesting. I take this to be certainly nonactual, but Rob Koons, who suggested it to me, is not so sure!
2. For a defender of the first option, see Armstrong (1978); for the second, see Molnar (2003); and for the third, see Heil and Martin (1999), Jacobs (2011), and Heil (2012).
3. For helpful discussion on this point, I thank Anthony Fisher.
4. Elizabeth Barnes (2012) suggests an alternative notion of emergence as that which is fundamental and dependent. I indicated above that I think there is no one "right" way to think of emergence, since different notions may have applications to different organized phenomena. That said, I think that Barnes's proposal needs some tightening up if it is to be theoretically useful. If there are fundamental entities that are interdependent, they will come out as emergent on her account, and this seems the wrong result for most any theoretical purpose. Emergent properties are quite generally conceived as properties of complex systems. We might also worry that Barnes's account precludes the possibility that, for example, some mental properties are

emergent in us (because we are dependent, nonbasic entities) but not for (possible) other subjects who are fundamental.

5. Laurie Paul (2017) is willing to countenance “primitive individuation” for bundles of universals, such that there might be two or more bundles of the very same universals that are “brutely” different. That there be ungrounded brute individuation of basic entities is unobjectionable, maybe even inevitable. That this be so for *bundles* of such entities, by contrast, is bizarre. Such a position belies Paul’s claim to rely only on a “well understood” notion of the part–whole relation.

If we embrace an account of immanent natural properties as particulars (tropes), then of course there is no problem of *particularity*. However, it remains implausible that *substantiality* can result from bundling of inherently dependent entities, as property-particulars are plausibly taken to be. That is, if there is an immanent instance of unit negative charge belonging to a particular electron, we should not think of it (*pace* Paul, once again) as a kind of thing or individual substance, not even on the way to being a thing (Ayer’s “junior substance”). It is essentially a characteristic of that electron, one way that it is. Supposing that the bundling of several such nonindividuals could result in an individual is to embrace a kind of metaphysical alchemy.

6. For more on this, see Sider (2006).
7. See Lewis (1983).
8. Hence, I reject David Armstrong’s (1997, 2004) “truthmaker” argument for states of affairs. But even if we posited “tie” as a fundamental ontological relation, this would not lead to incoherence, as again, the theory is not seeking to analyze all predication in terms of immanent universals.
9. But the worry may be pressed as follows: lacking thick natures, substrata cannot have essential properties. But then it should be possible that the substratum of an electron has been the substratum of a quark instead. In other words, substrata wouldn’t seem to have anything to do with the essential natures of the things that they particularize. And that just seems bizarre. (Something along these lines is pressed by Loux 1998.) Though I will not develop the response here, I suggest that this sort of problem might naturally be solved by positing that an object’s substratum and essential attributes constitute an indissoluble basic unit, somewhat akin to Peter Simons’s (1994) “nuclear” bundle theory.
10. Since the constituency relation has different formal characteristics than the part–whole relation, we need to maintain their distinctness, and composite objects have both kinds. Laurie Paul (2017 and earlier writings) takes it to be an advantage of her bundle-of-universals view that it makes do with mereology alone. As I see it, the parsimony is achieved by brute force, in her declaration that universals are perfectly “thingy” in their own right.

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