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Idealism Vindicated

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What I want to present in this paper is a case, or rationale, for a sort of idealism. Modern metaphysical idealism enjoyed a distinguished history, and a flourishing and sometimes dominant position, in European philosophy from the early part of the eighteenth century to the early part of the twentieth century. Since then it has fallen on hard times. Not that it has been refuted. Its appeal in modern thought has rested, as I will try to explain, on certain deep problems about supposed soulless substances; and those problems have neither gone away nor been solved in a non-idealist way, so far as I can see. But other intellectual motives have led philosophical interest away in other directions.

I should acknowledge at the outset that *idealism* may not be the happiest name for the position I advocate. It suggests the thesis that bodies or material or physical objects are merely ideas or objects of thought or perception; that their being or *esse*, in Berkeley's famous formulation, is their *percipi*, their being perceived; or that they are merely intentional objects, having, in a more medieval phrase, a merely intentional being. Before finishing I will sketch a view of this sort; but what I am asserting does not go that far. It is that everything that is real in the last analysis is sufficiently spiritual in character to be aptly conceived on the model of our own minds, as experienced from the inside. This thesis, which does not yet tell us anything positive about the metaphysical understanding of physical properties and physical facts, might perhaps more accurately be called *mentalism*, rather than idealism. Some possible developments of it might seem more clearly panpsychist than idealist. It seems to me right, nonetheless, to call my view a form of idealism, in a broad sense, because that is the established name of a historic philosophical tradition in which I certainly stand.

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My thoughts on this subject are heavily indebted to great philosophers of the seventeenth and eighteenth centuries, especially Leibniz and Berkeley, but also Hume and Kant. This will not be a primarily historical paper, however. I will borrow freely from their views and arguments, and as freely adapt them to my own purpose, which is to offer you in my own voice a sort of vindication of idealism. I have chosen to begin it autobiographically, by recounting how I became an idealist as a teenager.

I came to idealism spontaneously when I was about 15, by thinking about ordinary physical objects with which I dealt on a daily basis. I remember sitting outdoors on a nice sunny day, pulling out blades of grass and asking myself, "What is it, in itself, for this blade of grass to exist?" I could see its green color and smell the fresh grass scent; but Miss Quinn, my ninth grade science teacher, had explained to us, in accordance with the preponderance of modern thought, that such qualities are subjective, aspects of the way objects appear to us rather than of their physical nature. The size and shape of the blade of grass, long and pointed, which I could also see and feel, were allowed to belong to the object, but that didn't satisfy me. It seemed there should be something *filling* the size and shape, and there should be something it was "like" in there—something as robustly qualitative as the green color, but really intrinsically characterizing the physical object.

I wondered whether, if I could penetrate the surface of the object and look inside it, I could discover what sort of thing it was in itself. That's hard to do with something as thin as a blade of grass; but I thought about somewhat thicker things that I had broken open, with the destructive curiosity of the young—pencils, for example, made of wood and graphite, more used then than now. But when I broke the pencil, the inside presented the same issues as the outside. The inside and the outside were indeed different. The pencil was yellow on the outside but mostly pink inside, with dark gray or black in the very center. These are still colors, however—subjective as I'd been taught, a matter of how the object looks to me. My finding them in the middle of the object gets me no nearer to knowing what the object is like in itself.

It was at this point that the idealist hypothesis occurred to me. Perhaps there is nothing that the physical object is like in itself. Perhaps it isn't anything in itself. Maybe all there is to it is the way it looks, feels, smells, and tastes to me.

These thoughts open one to a lot of philosophical questions. I'm not sure how many of them occurred to me when I was 15. One I do remember asking myself is, "How come my friend Mike has perceptions so similar to mine if the perceptions aren't caused by physical objects that are independent of them?" The answer I gave was similar to Berkeley's, though I hadn't yet heard of Berkeley. Mike and I had similar perceptions because God caused us to have similar perceptions so that we could communicate with each other. Whether or not I did then, I could obviously have given Berkeley's kindred answer to the question, "How come my perceptions are ordered as if they were produced by interaction with

independently existing physical objects?'' God causes them to be so ordered, so that I can live an organized life. Like Berkeley, I did not think as much as I perhaps should have about the question, ''How do I know that anyone but me really exists?'' Like him I was more puzzled about bodies than about minds. A year or two later, when I first ran across a mention of Berkeley, as a philosopher who held that *esse est percipi*, ''to be is to be perceived'', I thought, ''That's the philosophy for me!''

I have indulged in this bit of intellectual autobiography because I think it encapsulates, in a fairly intuitive form, an approach to these matters that I still find persuasive. In narrating it I have introduced three of the themes that I will now develop in a form that is fuller and (I hope) philosophically more precise. The first is that idealist thoughts about physical objects arise from views characteristically associated with modern science. The second theme is that a central problem about supposed unperceiving objects is what intrinsic qualities they would have. And the third theme is what to make of the causal order that most idealists do indeed suppose produces our perceptions, since they do not suppose that we merely imagine the world.

1. MODERNISM

David Hume declared that

> The fundamental principle of [the modern] philosophy is the opinion concerning colour, sounds, tastes, smells, heat and cold; which it asserts to be nothing but impressions in the mind, deriv'd from the operation of external objects, and without any resemblance to the qualities of the objects.[1]

Hume perhaps exaggerates the importance of this principle, but it is at least very characteristic of early modern philosophy and science in its contrast with the Aristotelian scholasticism that it rejected and largely succeeded in replacing. Aristotelians allowed that the forms of ''colour, sounds, tastes, smells, heat and cold'' present to the mind in sensation do have a ''resemblance to the qualities of the objects'', and this view is deeply connected with the central role of the concept of *form* in the Aristotelian philosophy.

On scholastic Aristotelian views, things are what they are by virtue of forms that are in them. The most fundamental things are called substances and are what they are by virtue of *substantial* forms; in the case of living substances, such as an oak tree, a fish, or a human being, the substantial form is the *soul* of that thing. But there are also *qualitative* forms; things are hot and red, for instance, by virtue of possessing qualitative forms of heat and redness. It is common to interpret these Aristotelian forms as properties, or perhaps particular occurrences

[1] David Hume, *A Treatise of Human Nature*, I. iv. 4: Selby-Bigge edn (Oxford, 1888), 226.

of properties; and that is not wrong. But what is fully as important about them is that they were conceived as *causes*—real, active causes. The substantial form or soul of a plant or animal causes the growth of the organism, for instance, by an inherent teleology. And qualitative forms can cause similar qualitative forms in many instances, as the heat of a hot body propagates heat in bodies that touch it.

This was important for scholastic Aristotelians' theories of sense perception, which they conceived, naturally enough, as a causal interaction. Making a long story very short, we may say that most of them held that, under appropriate conditions, a sense-perceptible qualitative form—say of white color, present on the surface of this paper—propagates a series of forms similar to itself in a medium (illuminated air in this case) and eventually in the eye, with the result that a similar form is ultimately presented to the soul. The important point here for our present purpose is that on prevalent scholastic views the form of color present to the mind in sensation does resemble a form really present in the object perceived.[2]

Aristotelian forms can be seen as linking body and mind. By virtue of the similarity of perceptible forms in the perceiver and the perceived, the mind can see in sense perception something of what bodies are like, qualitatively, in themselves. And by virtue of being, itself, a substantial form, and being conscious of many of its own operations, the mind might have some insight into what it is like for a substantial form to be and act in any substance—though the Aristotelians themselves were less interested in this last point than some early modern philosophers were.

In truth many early modern philosophers, notably including Descartes, thought Aristotelian theories of form projected altogether too much of the mind into the physical world. And the conception of forms as causes in the physical world was precisely the part of Aristotelianism that they wanted most to overthrow, because they believed that better and scientifically more useful explanations could be obtained with a more austere conceptuality. Many of them, notably including Descartes again, adopted a *mechanical* ideal of physical explanation. In the most austere conception of the ideal, all causal interactions in the physical world were to be understood mechanically—that is, in terms of geometrical properties and motions of bodies which interact only by touching and pushing each other. It follows from this conception that in a mechanical interaction only geometrical properties and motions of bodies can be either causes or effects. So if all the properties of bodies are to be explained mechanically, it follows that nothing but geometrical properties and motions can be admitted as a property of bodies.

[2] In this paragraph I am relying heavily on the very helpfully less abbreviated version of the long story in Anneliese Maier, "Das Problem der 'species sensibiles in medio' und die neue Naturphilosophie des 14. Jahrhunderts", in her *Ausgehendes Mittelalter: Gesammelte Aufsätze zur Geistesgeschichte des 14. Jahrhunderts*, ii (Rome: Edizioni di Storia e Letteratura, 1967), 419–51.

That excludes "colour, sounds, tastes, smells, heat and cold", on the plausible assumption that, as perceived by the mind, they are something over and above geometrical properties and motions. These qualities, which came to be called "secondary", were thus confined to the mind. Bodies might of course have mechanical properties by which they act on our sense organs in such a way as to cause sensations of color or taste; and some philosophers would be willing to call configurations of such mechanical properties by the names of colors and tastes, if their connection with the relevant types of sensation is reliable enough. According to the austerely mechanistic theory, however, nothing over and above geometrical properties and motions is thereby ascribed to the bodies; and that turns out to be the key point for my argument.

This mechanistic view receives elegant articulation in Descartes's theory of corporeal substance. He identifies the essence of corporeal substance with extension—that is, with the property of being continuously spread out in three spatial dimensions. All the other properties of bodies—that is, all their mechanical properties, their sizes, shapes, and states of motion and rest—he treats as "modes" of extension—that is, as merely *ways* of being extended, and not "forms" added to extension. The Cartesian can argue that the other, "secondary", sensible qualities, such as odors and flavors, are not similarly ways of being extended, and are therefore not qualities of bodies.

2. QUALITIES

Descartes inferred several interesting consequences from his thesis that extension is the essence of corporeal substance. One of these consequences is particularly likely to seem scandalous to us. Descartes concluded that there is no real difference between body and space, and hence that there cannot be any empty space. For space, empty or full, must be extended in three dimensions, as body is; but then, since extension is the whole essence of body, there is nothing in the idea of body, qualitatively speaking, that is not also contained in the idea of space.[3]

Our first objection to Descartes on this point may be that his conclusion is likely to conflict with physical science, since many physicists have found reason to postulate empty space. But a more metaphysical objection may also occur to us. We probably had thought that the idea of body contains much more, qualitatively speaking, than the idea of space. If that is false on Descartes's view, does that mean that he has enriched, perhaps implausibly, the idea of space? It seems not, for all he is saying about space is that it must extend in three dimensions, and we already knew that. So then has he impoverished, perhaps implausibly, the idea of body, making it as hollow as the idea of space? That seems likelier.

[3] Descartes, *Principles of Philosophy*, II. 11 and 16.

That is indeed the theme of one of the most interesting of Leibniz's many arguments against Descartes's thesis that extension is the essence of corporeal substance.

> For *extension* signifies nothing but a repetition or continuous multiplicity of that which is spread out—*a plurality, continuity, and coexistence of the parts*; and consequently it does not suffice to explain the very nature of the substance that is spread out or repeated, whose notion is prior to that of its repetition. (G iv. 467/W 104)[4]

The basic idea in this argument is that extension is a relation, which cannot constitute a substance without presupposing some positive intrinsic nature of the terms of the relation. The same holds for geometrical properties and motions, the Cartesian modes of extension, which are purely features of spatiotemporal relationship. On a purely mechanistic account, as Kant puts it, "corporeal things are still always only relations, at least of the parts outside one another."[5]

The intuitively compelling point here, I think, is that a system of spatiotemporal relationships constituted by sizes, shapes, positions, and changes thereof is too incomplete, too hollow, as it were, to constitute an ultimately real thing or substance. It is a framework that, by its very nature, needs to be filled in by something less purely formal. It can only be a structure *of* something of some not merely structural sort. Formally rich as such a structure may be, it lacks too much of the reality or material of thinghood. By itself, it participates in the incompleteness of abstractions.[6]

What can fill the otherwise abstract structure of spatiotemporal relations? Think about our visual fields. There shapes, for instance, are shapes of colors—colored lines and areas of color (which may change over time, corresponding to motion). Within the visual field the colors literally fill in the shapes; and it is because shapes need a filling that we can hardly imagine, visually, a shape without some chromatic property. And it is because of the qualitativeness of colors that they bring to the context something that is not merely formal and structural. In a more general way, then, we may conjecture that the reality of a substance must include something intrinsic and *qualitative* over and above any formal or structural features it may possess.

I believe this conjecture is substantially correct. But colors, of course, are "secondary" qualities. On typical modern views those qualities whose peculiar

[4] A similar argument is found in G iv. 364–5/L 390 (1692 or earlier), in G ii. 169–70, 183/L 516, 519 (1699), in G iv. 589 (1702), in G vi. 584, and in several other texts. I refer to texts of Leibniz by the following abbreviations. G = *Die philosophischen Schriften von Gottfried Wilhelm Leibniz*, ed. C. I. Gerhardt (Berlin, 1875–90; repr. Hildesheim: Olms, 1965), cited by volume and page. L = Leibniz, *Philosophical Papers and Letters*, trans. and ed. Leroy E. Loemker, 2nd edn (Dordrecht and Boston: Reidel, 1969). W = *Leibniz Selections*, ed. Philip P. Wiener (New York: Scribners, 1951).

[5] Immanuel Kant, *Critique of Pure Reason*, A 283–B 339.

[6] I have discussed Leibniz's and Kant's views on this subject more historically in R. M. Adams, *Leibniz: Determinist, Theist, Idealist* (New York: Oxford University Press, 1994), 326–33, and "Things in Themselves", *Philosophy and Phenomenological Research*, 57 (1997), 810–11.

character we apprehend only visually, and which fill in the shapes in our visual field, are confined to the mind.[7] If there is anything corresponding to them on the surfaces of bodies outside the mind, it is only a structure of primary qualities, and on the Cartesian view will be only a structure of spatiotemporal relations still waiting to be filled in by something more qualitative. Do we know of any qualities that can do the job and that may exist outside the mind? That is a historically situated version of the problem about bodies that puzzled me as a teenager.

In the respect that now concerns us, our conception of our minds seems richer and fuller than our conception of bodies. Early modern thought, having expelled from bodies such clearly qualitative and non-structural sensed qualities as colors and smells, readily found a home for them in the mind, identifying them as qualities of sensory images or sensory states, or (as I will usually say) qualities of consciousness. They have not generally been regarded as properties of the mind or thinking thing itself; the mind itself is not blue or sweet-flavored. The mind or thinking thing does, however, have such properties as having a blue visual image and experiencing a sweet taste; and these properties derive from that subjective sort of blueness and sweetness an irreducibly qualitative character that is much more than merely formal or structural.

Can we conclude that minds or thinking things derive from such qualities of consciousness (though perhaps not from them alone) the kind of positive, non-formal, qualitative content that they need if they are to be substances or complete things in themselves? I believe so, and I believe this opens a way to the conclusion that there are thinking things that, in possessing qualities of such fundamental reality, are indeed things in themselves. In saying so I leave unanswered, for the time being, many metaphysical questions about the thinking substances: whether they endure longer than an instant, for example, and whether they are immaterial or whether, on the contrary, they have physical as well as psychological properties—and even whether my self is such a substance or whether it is rather a structured complex thing some of whose constituents are such substances. My present point is just that, whatever else may be true of them, things that think have in qualities of consciousness a kind of positive content that substances as such require.

In saying even this much I imply that we do have knowledge of qualities of consciousness, in our own experience, as qualities that can belong to a substance or thing in itself and can constitute, at least in part, the reality of such a thing. This is a controversial assumption—controversial in its reliance on self-consciousness as a source of knowledge about the metaphysically real. Those who would reject it might appeal to Kant, who held that not only bodies, but also our own minds,

[7] I assume here the correctness of the typically modern thesis of the subjectivity of the "secondary" qualities. Some philosophers still dissent from it, and I would argue for it at length in a much fuller development of my defense of idealism.

are known to us in experience only as appearances. Our inner sense, he says, "presents even ourselves to consciousness only as we appear to ourselves, not as we are in ourselves".[8] Not having time to review here the complex reasons for this position in Kant's critical philosophy, I will simply say that despite those reasons, in some of its implications it has always struck me, as it struck some of his first readers, as one of Kant's least plausible doctrines. As regards qualities of consciousness, at any rate, which are our central concern here, though they were not a main concern of Kant's doctrine, such a relegation of the experienced self to the realm of appearance is very hard to accept. When we see colors and taste tastes we surely know, if we know anything at all, that something is going on that involves those qualities, as features of our consciousness, in a metaphysically primal way.

The thesis that qualities of consciousness are known to us only as appearances does have its contemporary defenders.[9] They are typically motivated by an interest in the alleged possibility of a reduction of mental properties to physical properties. Such a reduction seems to me implausible from the outset for the sort of reason I have just suggested. Here we can add another reason. I believe intrinsic, non-formal qualities have an indispensable role to play in the constitution of substances or things in themselves, and I suspect that such qualities are known to us only as qualities of consciousness or by analogy with qualities of consciousness. If those points are correct (as I think the argument of this paper will tend to confirm), is it not perverse to seek to eliminate unreduced instances of such qualities, not only from bodies, but from the universe altogether?

Now if it is indeed right that things in themselves must have intrinsic, non-formal qualities, and that such qualities must be conceived as qualities of consciousness or analogous to qualities of consciousness, it follows that things in themselves must be conceived as all having qualities of consciousness or qualities analogous to qualities of consciousness. And that is at least very close to the conclusion that things in themselves must be conceived as having a spiritual or mental or at least a quasi-mental character. But is it really true that all intrinsic non-formal qualities must be qualities of consciousness or strongly analogous to qualities of consciousness? Have we even canvassed all the known properties of bodies that might be candidates for this role?

3. CAUSALITY AND QUALITIES

In thinking about possible intrinsic properties to be ascribed to bodies, we should not now restrict our consideration to the "primary" and "secondary" qualities

[8] Kant, *Critique of Pure Reason*, B 152–3.

[9] For an elegant example see Derk Pereboom, "Bats, Brain Scientists, and the Limits of Introspection", *Philosophy and Phenomenological Research*, 54 (1994), 315–29.

of early modern mechanistic natural philosophy. Since Newton, no property of matter has been more important for modern thought than *mass*. It is natural to ask whether mass might be the "filling" of positive content that an otherwise empty spatiotemporal structure of geometrical and kinetic properties needs in order to constitute a substance, but such a solution takes us into metaphysical territory of special interest and difficulty. I take it that 'mass' is used in science as an undefined term, but that what physics tells us about mass is its causal role, including its dynamical effects on such factors as inertia and gravitational attraction. For working purposes mass may be treated as a family of causal powers or dispositions known and measured only through the geometrical and kinetic properties of their effects. So perhaps the obvious place to look for qualities of bodies that might solve our problem about them is among their powers and dispositions.

Of course we cannot very well appeal to causal properties to solve our metaphysical problem unless we are metaphysical realists about causality. If there is nothing more to causality than observable regularities of occurrent properties, as many Humeans have held, then we are thrown back again on non-causal properties to find the qualitative content we need. I will not pursue that direction here, however, because I believe that causal properties are so deeply implicated in our ordinary views of things that non-realism about causality undermines any sort of metaphysical realism, and is indeed quite implausible. Certainly I see little point in a metaphysical realism about physical objects that does not include a metaphysical realism about causality.

Powers and dispositions have figured prominently in discussions of the constitution of substances. I don't want to discuss here whether powers and dispositions are *required* for the existence of a substance, as many philosophers have held. What I do want to discuss is whether they *could* assume the role of qualities in constituting a substance. More precisely: could powers and dispositions provide *all* the positive intrinsic content needed for the existence of a substance, without its possessing any *occurrent* or non-dispositional qualities? My answer to this question is negative. From this point on in this paper I shall restrict the signification of 'quality' and 'qualitative' to *occurrent* qualities, qualities that are more than merely dispositional. I believe that without such qualities, powers and dispositions constitute an empty (or metaphysically incomplete) relational structure.

They are constituted by relations between the actual or present state of the substance that has them and other possible states of affairs. Fragility consists in a relation between a present state of something and its possible future breaking. Intelligence, as a power, consists in a relation between a present state or nature of something and its possibly understanding things and acting intelligently. Such causal relations presuppose the terms (in this case states or events) related in them, and are intuitively, I think, an empty framework apart from occurrent qualities of those terms. If we are told that A is a power to cause B, that B is a

power to cause C, and C a power to cause D—and in general if we are given a network of causally related terms and are told *nothing* about them except their actual and possible causal relations—we have not been told what the whole system is about. It is as if we were given "money" but there were nothing non-monetary that could ever be bought with it. I emphasize that my objection here is to the supposition of a causal network that is not anchored to actuality by *any* occurrent qualities at all. The effects in a causal network will commonly be causes or potential causes too, and will involve further powers; and I have no objection to that, so long as there are also enough occurrent qualities in the system.

The potentially *resulting* state of affairs is particularly important to defining a power or disposition, which is normally understood as a power or disposition to produce a certain state of affairs (under certain conditions).[10] Powers and dispositions will be defective in positive content if they do not derive enough qualitative content from the possibly resulting states of affairs.[11] The concept of a capacity to feel pain, for example, has positive content derived from the qualitative content of pain, whereas the power to cause motion has, thus far, no complete reality to add to the formal framework of spatiotemporal relations to which motion belongs.

Intuition will support rather strongly, I believe, a further claim about the dependence of substantial reality on occurrent qualities. It is not enough for such qualities to be *potentially* present in the system, as defining the powers and dispositions; substances must have occurrent qualities actually and at present. Of the two states of affairs related by a power or disposition, it is the present, actual, grounding state of the substance that is more important for our understanding of what the substance is or is like, actually and at present. If present powers and dispositions of a substance borrow qualitative content from the qualitative content of states of affairs they may produce, that may tell us what the substance could have been like or may yet be like, but no amount of such information will provide, intuitively, a metaphysically complete answer to the question what the substance is like actually and at present. For that we need some present, actual occurrent qualities. A thing that has, actually and at present, no occurrent qualities over and above its powers and dispositions (and its spatiotemporal relational features) is still too empty to constitute a substance.

If intrinsic qualitative content must be sought in *occurrent* properties, it is still not obvious that it cannot be sought in causal properties. For there are occurrent as well as dispositional causal properties. Things not only have powers; they are

[10] This point is an old one. See Plato, *Republic* 477C–D.

[11] Michael Ayers goes farther than I do here, saying, "The idea of power . . . has *no* positive content by itself, since its positive content in any particular case is supplied by the observable effect" [Michael Ayers, "The Ideas of Power and Substance in Locke's Philosophy," rev. version, in I. C. Tipton (ed.), *Locke on Human Understanding: Selected Essays* (Oxford: Oxford University Press, 1977), 80; orig. pub. in *Philosophical Quarterly*, 25 (1975), 1–27; emphasis mine].

apt at any time to be actually acting on things and being acted on by things. Occurrent causal properties of things have historically been conceived as actions and passions (where by 'passion' is meant simply a being acted on). Let us focus on actions.

Because actions are occurrent properties, they may have qualitative content in a way that powers and dispositions do not. The mere fact that they are occurrent properties, however, does not assure that their content will be complete enough metaphysically to solve our problem. That's because a causing must be a causing *of something*, and is thus relational, a node in a structure of causal relations. The metaphysical content of the causing can hardly be complete if the content of the something that is caused is metaphysically deficient. Suppose what is caused is a motion; without qualities that we have yet to find, motion is deficient in qualitative content. Adding to it a *causing* of motion adds only something that needs to get from motion a metaphysical completion that it therefore cannot add to motion. This leaves us with a vicious regress, a failure of metaphysical grounding; the whole framework is still intuitively too empty to constitute a substance.

That an action is an occurrent causing is therefore not enough to solve our problem. If we can find complete enough qualitative content in an action, it is likeliest to be in what I will call *activities*.[12] An activity is an action whose present reality does not consist merely in producing, or tending to produce, effects distinct from the action itself. The content of an activity, accordingly, should not need to be completed by the content of an effect distinct from it.

Are there activities, in this sense, that have intrinsic qualitative content? This question is difficult—too difficult to receive an adequate discussion in the space that can be allocated to it in the proportions of this paper; but I believe there are. For example, deciding to do something, and trying to understand something, seem to me to be activities of the relevant sort; and actually understanding anything arguably is too. My learning to recognize these activities in myself was a learning *what they are like*.

These examples belong to the mental realm. They are activities of which I am conscious in myself.[13] That is no accident. If there are activities with a positive intrinsic qualitative character of which one cannot be conscious in oneself, it is hard to see how I would know that. I do not think, therefore, that we can find in activities, or more broadly in causal properties, a clear case of intrinsic qualitative

[12] The choice of this term is obviously inspired by a traditional translation of *energeia* in Aristotle, but I make no claim to be interpreting Aristotle here.

[13] They are also characterized by intentionality. Their intentional objects, on my view, are metaphysically derivative entities, internal features of the activity, and therefore do not compromise the self-containment of its positive content. By the same token, my ascription of self-containment and the relevant metaphysical completeness to the content of activities characterized by intentionality commits me to what is called "narrow content" and to the rejection of the most radical sort of externalism about the mental; on the latter, cf. Tyler Burge, "Individualism and the Mental", *Midwest Studies in Philosophy*, 4 (1979), 73–121, and the extensive literature inspired by it.

character that is not a quality of consciousness. In fact I do not see how to find a clear, known case of the requisite qualitative character that is not a quality of consciousness. So is it true after all that all intrinsic non-formal qualities must be qualities of consciousness or strongly analogous to qualities of consciousness?

I know of no proof that it is true. It does not strictly follow from the claim that the only intrinsic and not purely formal qualities *known to us* are qualities of consciousness. For how could we prove that there are no such intrinsic qualities that are quite unlike any qualities known to us? But why suppose there are such qualities? In order to ascribe them to bodies, is the obvious answer. But why do that? Let me mention four reasons for *not* doing that.

1. The first is that to the extent that we are talking about qualities with which we do not claim to be acquainted, we lack the most obvious reason for being confident that they are not after all of a somewhat psychological character.

2. An equally obvious point is that to the extent that we assign an essential metaphysical role to qualities quite different from any with which we are acquainted, we have a more obscure and less intelligible view of the universe. This is not an argument of peremptory decisiveness; there could after all be qualities that are quite unknown to us. But it seems reasonable to work, so far as we can, in our theorizing, with qualities with which we are acquainted; and it is surely an advantage in a metaphysical theory if the properties that figure most importantly in it are at least akin to properties with which we are acquainted.

3. The view that in addition to intrinsic non-formal qualities of consciousness there is at least one other type of intrinsic non-formal quality radically different from them seems also to be attended with some of the unattractiveness that is widely thought to afflict metaphysical dualisms. Why suppose the types of fundamental qualities in the universe are more alien to each other than we have to suppose them to be? One way of avoiding a dualism of properties, of course, would be to suppose, as some physicalists do, that qualities of consciousness are reducible to properties of an apparently quite different sort; but is it not, as I have argued, bizarre to do that if qualities of consciousness are the only intrinsic non-formal qualities with which we are acquainted? Why not rather decline to postulate intrinsic non-formal qualities radically different from qualities of consciousness? Wouldn't that be a more plausible way of avoiding dualism?

4. There may also be, in the very nature of the concern about qualitative content that grips us here (or that grips me, at any rate), something that pushes us toward qualities of consciousness as a model for what we are after. An essential motivation of this discussion of intrinsic non-formal qualities is the assumption that if there are things in themselves, there must be something that it is like, in itself, for them to exist. We may well suspect that this notion of what it is like, in itself, for something to be the case is borrowed from our knowing by experience what it is like, in itself, to see red, to be in pain, to feel jubilant, and in

general to be in one conscious state or another. Perhaps nothing could have the relevant kind of "inside", or be anything "in itself", without having something like consciousness. To sum up the point in a slogan, perhaps nothing can be anything *in* itself without being something *for* itself.

4. THE CAUSAL ORDER AND THE REALITY OF BODIES

Thus far I have been making a case for the theses, first, that substances must have intrinsic non-formal qualities, and second, that qualities of consciousness, or qualities very like them, are the only intrinsic non-formal qualities of substances. If we accept that pair of theses, what are we to make of the world of bodies studied by physics? That is the question to which the rest of this paper is devoted.

Two main types of answer to it may be distinguished, which for present purposes may be called idealism (in a narrower sense) and panpsychism. The defining difference between them is that according to idealism spatiotemporal relations are reducible to internal features of qualities of consciousness or of quasi-consciousness, while according to panpsychism spatiotemporal relations are not so reducible, but are primitive external, formal properties of substances and their states. Note that I do *not* say that according to idealism *all* external properties and relations are reducible to *internal* mentalistic features. Most serious idealists are not solipsists; and non-solipsistic forms of idealism will generally admit primitive *causal* relations of some sort between substances. It is the reduction specifically of *spatiotemporal* relations that distinguishes idealism from panpsychism. Reasons why disagreements within the broadly mentalist camp might focus on spatiotemporal relations will emerge in the course of discussion.

4.1. Idealism, in a Narrower Sense

I begin with idealism. For reasons that I think are close kin to reasons that I have suggested, Berkeley held that the spatial qualities of bodies cannot be separated from the "secondary" qualities, such as color, and therefore cannot exist except where the latter exist, in the perceptions of perceiving minds. But Berkeley did not conclude that bodies do not really exist. Like most historic forms of metaphysical idealism, his is in large part a theory of what it is for bodies really to exist.

An idealist conception of the reality of bodies can be built up in layers. A first layer can be expressed, to a first approximation, in two theses that draw in diverse ways on suggestions of Leibniz, Berkeley, and Kant.

(I1) A body that appears to us to exist is a *phenomenon*, an internal intentional object of our sense perception and thought, a character, so to speak, in a story told us by those faculties.

(I2) A phenomenon *really exists*, as a body, at a certain place and time, if and only if it exists, with a certain causal role, at that place and time, according to (or "in") the story or stories with which our perceptual experience coheres, and will continue to cohere, the best (that is, in the cognitively and practically most satisfactory way).

Appearances of bodies in our ordinary experience satisfy the criterion of reality enunciated in (I2). Appearances of bodies in dreams, fantasies, and hallucinations do not satisfy it, because they do not participate in a sufficiently comprehensive coherence. All of us, in practice, judge of the reality of bodies in accordance with such a coherence condition. The idealist, as Berkeley shrewdly observed,[14] takes what everyone treats at least as *evidence* of the reality of bodies, and treats it as *constituting* the reality of bodies, as explaining what the reality of bodies consists in.[15]

Does this allow enough reality to bodies? Leibniz said he would call phenomena "real enough" if they just satisfied a criterion of this sort, because then experience would never disappoint the expectations we formed about future experience of bodies "when we used our reason well".[16] But is that enough if we care not only about our own experience, but also about things that we suppose to go on outside our own experience? Most of us care at least about other experiencers whom we take to exist besides ourselves; and we will hardly be satisfied with (I2) if we cannot interpret it as requiring real phenomena to cohere also with the experience of other perceivers (other minds, if you will) that appear as characters in relevant parts of our coherent story and that we think really exist. Let it be so interpreted.

Moreover, most of us will find it hard to believe that a coherent experience occurs to us merely by accident. Surely there must be some real causal order, not just constituted by our experience, that produces the coherence exhibited in our experience. Given our interest in other minds, we will also expect them to have a place in such a causal order. And if an appearance is to constitute a *really real* body, we may think, it should be grounded in such a causal order, in such a way

[14] George Berkeley, *Three Dialogues between Hylas and Philonous*, in *The Works of George Berkeley Bishop of Cloyne*, ed. A. A. Luce and T. E. Jessop, ii (London: Thomas Nelson and Sons, 1949), 235.

[15] John Hawthorne has rightly pointed out to me that that bodies that "really" exist according to (I2) may not be completely determinate. For some bodies *b* that appear to us to exist, and some properties *p*, our perceptual experience may cohere equally well with stories according to which *b* has *p* and with stories according to which *b* lacks *p*, leaving nothing to constitute *b*'s having rather than lacking, or lacking rather than having, *p*. It is not surprising, nor really objectionable, in my opinion, that an account of bodies as merely intentional, rather than metaphysically fundamental, objects should have this feature. For many operators or quasi-operators **O:**, ⌜**O:** (*p* or *q*)⌝ does *not* entail ⌜(**O:** *p*) or (**O:** *q*)⌝, and for such operators ⌜**O:** (*p* or not-*p*)⌝ commonly does not entail ⌜(**O:** *p*) or (**O:**not-*p*)⌝. Among the operators of which the latter (as well as the former, more general claim) is true are: 'It is necessary that'; 'I believe that'; and ⌜In [or according to] *F*⌝ where *F* is a piece or body of fiction. I think anyone who accepts (I2) should admit that 'In the empirically real physical world' may be an operator of this sort, creating an intentional context as ⌜ In the story *F*⌝ does. I take it the Antinomy of the *Critique of Pure Reason* makes it explicit that this is a feature of Kant's "empirical realism".

[16] G vii. 320/L 364.

that the apparent causal order of the corporeal phenomena is derived from the underlying metaphysically real causal order. Borrowing from Leibniz the term, 'well founded phenomenon', we may enrich our idealist account of the reality of bodies with another and more demanding layer, as follows, again to a first approximation:

(I3) A body that really exists, in the sense indicated by (I2), really exists as a *well founded phenomenon* if and only if there is a real causal order (real independently of our experiencing) by virtue of which the body appears to us as it does, and in relation to which the causal properties, relations, and/or laws of the apparent causal order in which the body has its role are genuine, though derivative, causal properties, relations, and/or laws.

With (I3), unlike (I2), we take our experience to be *evidence* of a reality (specifically a causal order) that consists in much more than the coherence of our experience. Like (I2), (I3) applies only to bodies that are *phenomena* in the sense that there is actual experience or empirical evidence of their existence. I leave open for now the question whether we should want to extend (I3) to allow for the real (and well-founded) existence of bodies of which no empirical evidence actually exists, if there *would* be such evidence in certain relevant conditions, according to the independently real causal order.[17]

It should also be noted that (I3) leaves open the question whether in the underlying, independently real causal order there would be entities (perhaps even substances) with which (or with sets of which) the real and well-founded bodies could be identified, as the well-founded corporeal phenomena can be identified with sets of monads in the Leibnizian system. I don't think that idealist hypotheses need to offer the possibility of such an identification in order to be plausible, though they may offer it, and I will focus on one that does. An idealist who is sufficiently confident of having the resources for such an identification may be tempted to abandon (I1) and (I2) and their identification of really existing bodies with a sort of merely intentional object; but having something like (I1) and (I2) to fall back on is an attraction of idealism, as idealists have noted, as it insulates the existence of objects of ordinary experience from the fortunes and misfortunes of metaphysical theories. All the arguments in the remainder of this paper, however, regarding mere panpsychism as well as idealism in the narrower sense, will be focused on issues about a supposed ultimately real causal order, and responsive to the considerations that motivate (I3).

As we are developing a mentalist view according to which there are no unperceiving substances, the ultimately real causal order of which we speak will be understood as having its seat also in perceiving substances. There is no need in the present context to decide among a number of alternative ways in which this

[17] Such an extension might, among other things, provide for complete determinacy of the physical world.

might be conceived, but it will be worth thinking about some of the alternatives and exploring one of them in more detail.

There are alternatives as to the inventory of perceiving beings. Should we with Berkeley limit the inventory to God and more or less familiar subjects of experience—human minds, souls of animals, plus perhaps angels? Or should we with Leibniz add a vast number (an infinity, Leibniz thought) of much less gifted perceiving things, all of whose perceptions would be unconscious? Leibniz's alternative incurs the obvious difficulty of understanding the notion of unconscious perception, but gives him what some may consider the advantage of supposing an ultimately real thing, or more than one, corresponding to every portion of matter in the realm of real, well-founded corporeal phenomena. A third sort of alternative would recognize a multiplicity of perceivers but no God, though this would limit our alternatives in the next round.

For there are also alternatives regarding the structure of causal relationships among the ultimately real perceiving things. Two historically prominent alternatives presuppose that God is included in the inventory. One alternative is a broadly occasionalist structure (such as Berkeley supposed), in which (with the possible exception of a few kinaesthetic sensations caused directly by ourselves) all our perceptions of the world of corporeal phenomena are caused directly by God. The second alternative is Leibniz's famous theory of pre-established harmony, according to which God has pre-programmed all the other substances, deterministically, so that they will always represent to themselves the same world of corporeal phenomena, and will always make choices in accord with that program. A third alternative—perhaps the only one available without God in the inventory, but also available with God in the inventory—is a structure of direct causal interactions among many different perceiving substances.

To some it may seem a glaring objection to all these alternatives that it remains unexplained *how* the causal connections between perceiving substances (including those in which God is the active cause) are supposed to work. A first response to this objection is that at the relevant, deep metaphysical level, causal connections among perceiving substances are no more mysterious than causal connections among material substances would be. What should indeed concern the idealist here, however, is that without solving the deepest metaphysical perplexities about the nature of causality, physical science and common sense have given us much more highly developed and articulated views of the *structure* of causal relationships among bodies than we have for any supposed direct causal relationships among minds. It may be feared, therefore, that the idealist hypothesis will entail an appalling loss of causal understanding unless it can incorporate in its hypothesized real causal order[18] structures of causal relationship sufficiently isomorphic to those explored by physical science.

[18] Not necessarily at the deepest level; cf. John Foster, "The Succinct Case for Idealism", in Howard Robinson (ed.), *Objections to Physicalism* (Oxford: Clarendon Press, 1993), 300–2.

There is reason to believe an idealist hypothesis can satisfy this requirement. Here is one way—an occasionalist way, in which it is supposed that God causes corporeal phenomena to appear to us as they do. The basic idea is that the mathematical structure of the causal order that physics explores has its seat or realization in the mind of God. Suppose God thinks a system of all possible ordered quadruples of real numbers, and assigns to each quadruple a value. In a very simple version the value might be just *occupied* or *unoccupied*. The intended interpretation in this example is that, in accordance with something like Cartesian analytic geometry, the quadruples of real numbers correspond to the points of four-dimensional space–time, and exactly those quadruples are "occupied" that correspond to space–time points at which there is matter. I take it that in some such way a system of quadruples of real numbers in God's mind can provide an interpretation of all the scientifically important spatiotemporal structure of a Euclidean four-dimensional physics.[19]

Suppose further that in assigning the value *occupied* to suitably patterned groups of quadruples of real numbers God causes relevant created perceivers to have experience as of the existence, sizes, shapes, and motions of bodies occupying the corresponding space–time points. Suppose finally that God more or less uniformly follows certain principles in assigning the values *occupied* and *unoccupied* to quadruples of real numbers, and that these principles can be indicated relatively simply by formulating the corresponding principles governing the apparent corporeal correlates. Then we can say that those principles are modeled (more and more accurately, we hope) in the laws of physics formulated by science, which in turn will be in this way derivative but genuine laws. This is a way in which the underlying causal order hypothesized by an idealist theory can have a structure comparable in its articulation to that presented in physical science.

This, of course, is just a sketch of an approach. Perhaps correspondence with our most up-to-date mathematical physics would require that God assign to the quadruples values more complicated than just "occupied" or "unoccupied". Perhaps an ordered plurality of values would be needed for each "point", corresponding to different physical properties, and perhaps some of the values would be probabilities. Maybe a rather different approach would have to be used to model a "curved" Riemannian space–time; but surely that too could be done in an omniscient divine mind.

It is worth noting that that the approach I have sketched is one that does allow the bodies of science and common sense to be identified with entities (though not substances) in the underlying, metaphysically real causal order. We may reach this point by a provocatively indirect route. One currently popular materialist strategy for reducing mental properties to physical properties is what

[19] Cf. Rudolf Carnap, *The Logical Structure of the World* (*Der logische Aufbau der Welt*), trans. Rolf A. George (Berkeley and Los Angeles: University of California Press, 1969), §§ 107, 125.

is called "functionalism". In it mental properties are defined in terms of their causal roles or functions, and it is argued that the properties that in fact fulfill those causal roles are physical properties, with which the mental properties can then be identified. I do not find it plausible to define qualities of consciousness in terms of causal roles, but perhaps it is plausible to define bodies and their physical properties in terms of causal roles. Suppose they are so defined; and suppose further that the speculation I have just offered about causal structures in God's mind is in fact correct (as of course I have certainly not shown that it is). That would be a way in which it could be true that bodies *are* sets of quadruples of real numbers, understood as ideas in God's mind, to which God assigns the value "occupied". That would be an idealist truth of a rather old—indeed a broadly Pythagorean and Platonic—type.[20]

It would be nice to close on that triumphally idealist note, but it will probably be more illuminating to have a merely panpsychist sketch to set beside it. So . . .

4.2. Mere Panpsychism

More important than the particular mathematical scheme I have suggested for the construction of a physical world in God's mind is the general point that the cogitative and productive powers of an omniscient, omnipotent deity are virtually guaranteed to provide sufficient resources for the construction of an underlying, idealist causal order with a structure that would be mirrored by that presented in the best possible physical science. An omniscient mind can certainly provide structures as rich in information, so to speak, as any postulated in human science. Structures that human physicists can think an omniscient deity can think at least as well. Given the wealth of resources of a broadly occasionalist (and hence also theistic) version of idealism, is there any reason to prefer a different version?

The likeliest reason might be that intuitions regarding the reality of physical causation seem better respected in postulating an interactionist causal structure, in which many perceiving substances, corresponding in some way to physical objects, exercise metaphysically real causal influence on each other. If there are enough such substances to correspond with all the objects of physics, most of them are presumably not exactly intelligent substances, but have as their positive internal qualities something like the unconscious perceptions or "little perceptions" of Leibniz's mere monads. And the obvious reason *not* to prefer such an interactionist version of idealism to the occasionalist version is that it seems doubtful that the rudimentary perceptions of those many substances contain enough information for the construction of a causal order as rich and well articulated as that of physics. Specifically we may wonder whether the feelings of substances that do not have fairly advanced geometrical perception can contain

[20] I am indebted to Todd Buras for the observation that this version of idealism can be analogized to materialist functionalism in this way.

enough information for the construction of space and time from intramental resources which is required for an idealist as distinct from a merely panpsychist theory.

Leibniz, though not an interactionist, is one philosopher who holds that the spatiotemporal order of a complete physical universe can be modeled adequately in the subconscious perceptions of a substance so confused as to be totally devoid of consciousness; but he gives us little help in understanding how that could be. Of course, there may be aspects of reality that we don't understand. We don't know what the structures of subconscious perceptions may be, but we have no reason to doubt that anything as real, metaphysically, as a perceptual state (even a subconscious perceptual state) would have some structure. Perhaps we have no clear reason to deny that it could have a rich enough structure to model the spatiotemporal structure of the world of physical phenomena. But the appeal to ignorance may leave us dissatisfied.

If we therefore doubt that the feelings of the interacting substances could contain enough information, and the right sort of information, for the construction of space and time, we may wish to consider a view that renounces the reduction of space and time, supposing there to be physical substances with primitive spatiotemporal relations, while still holding that the positive internal, non-formal qualities of substances are all mental or quasi-mental. In the terminology we are using at this point, we may wish to consider a merely panpsychist view. Is there a worrisome problem about such a view?

Well, philosophers have sometimes supposed that mental qualities have no spatial location, and that might be thought an objection to ascribing spatiotemporal relations to substances whose sole internal, non-relational qualities are mental or quasi-mental. I think this objection should be set aside, however. The shortest way with it is simply to suppose that spatiotemporal relational properties are indirectly tied to qualities of consciousness (or quasi-consciousness) by *belonging to the same substance*; and it's not at all clear to me that that is not an adequate response to the objection. Refusing to treat a substance's or subject's relation to its properties and relations as primitive would very likely be setting foot on a dangerously slippery slope. And the assumption that ascribing spatiotemporal relations to the same subject as mentalistic properties, such as those of subconscious perception, is more problematic, or more in need of explanation or reduction, than ascribing them to the same subject as ostensibly physical but supposedly internal properties, seems to deserve skeptical questioning.

An example of an ostensibly physical but supposedly internal property would be mass, if mass is not identified with its causal role, but is supposed to be something more occurrent, more qualitative, than a family of powers. Perhaps it will be argued that the plausibility of ascribing such qualities to the same subject as spatiotemporal relations is justified by the the rich causal connections between the internal physical properties and changes in spatial relations. But why would

the interactionist panpsychist suppose that feelings (conscious or subconscious) of substances are less richly connected, causally, to changes in spatial relations? Why indeed?—given that the interactionist panpsychist may be expected to hold that the supposed internal physical qualities *are* subconscious feelings, causally related to changes in spatial relations as physics requires the physical qualities to be.

Note that the identification of physical qualities such as mass with feelings, in the position I've just been sketching, requires that some aspect of the feelings have precise *quantity*. How plausible or implausible is that? Kant, I take it, proposed to treat *intensity* of sensation or felt quality as a counterpart of quantity of force; and there is surely some plausibility to the idea that intensity of feeling is quantifiable. If any skepticism arises here, it will probably be about the *precision* with which such intensity can be quantified. Suppose the panpsychist says: we are not able to *know* the quantity of intensity with much precision by feeling it, but it *has*, objectively, a precise quantity, which we are sometimes able to measure quite precisely by its effects, on the assumption that the feeling *is* mass or a physical force. Here we must be careful not to hold against the panpsychist a limitation that may be an inescapable part of our cognitive situation, on *any* interpretation of intrinsic physical qualities. Is the usual sort of physicalist in any better position than the panpsychist to assign precise quantities of mass and physical force? Don't we in fact measure such quantities only by their effects, even if it is supposed that they *have*, objectively, a more intrinsic measure?

To forestall a further possible objection, I should also note that on the panpsychist assumption that, in any intrinsic qualitative aspect they have, physical qualities such as mass and physical forces *are* feelings, the ascription of physical effects to such feelings does not violate the dogma of "the causal closure of the physical"—a dogma I do not mean to endorse, but do not need to criticize in this context.

So far as I can see, therefore, either a broadly occasionalist idealism or an interactionist panpsychism can account for the causal structure of physics as well as a typical physicalist view can.