Philosophy 830 W. Lycan
Spring, 2013

Vs. RUSSELL-EDDINGTON

On p. 295, Foster starts to make his case for "The Inscrutability of Physical Content." He starts by asking what a geometric space is "like in itself," and says we cannot answer that question. Even if we regard 3-space as an abstract system of "ways…, we cannot discover the nature of the distance-relations which form the building-blocks of these arrangements."

So far, it seems to me that that's just the, or a main, issue of applied mathematics, in this case geometry. Philosophers of math have had a lot to say, for good or ill, on this kind of question. E.g., in *Plurality* David Lewis wrestled with the ontology of spacetime points and the relations they bear to physical "occupants of" them. But so far as I can see, this issue contributes little to Foster's assault on physical realism.

Matters become clearer when Foster then turns to "the ultimate nature of…[external objects'] space-filling content. For we can never discover…what the simplest objects (the elementary particles) are like in themselves." Though Foster neglects to mention the fact, this is a reprise of an argument famously given by Russell in *The Analysis of Matter* (1927) and by Sir Arthur Eddington in his masterpiece *The Nature of the Physical World* (1928).[1]

---

[1] The two great brains obviously were acquainted, and we wonder which of them got the argument from the other (it being unlikely that they thought it up independently). I have not yet found any biographical information on this point. Marc Lange opines (p.c.) that Eddington got it from Russell, since it is much more closely associated with Russell than with Eddington. On the other hand, Russell pulled his punch (see below), while Eddington not only carried the argument through but forthrightly championed a thoroughgoing Idealism:

> The mind-stuff of the world is, of course, something more general than our individual conscious minds…. The mind-stuff is not spread in space and time; these are part of the cyclic scheme ultimately derived out of it…. It is necessary to keep reminding ourselves that all knowledge of our environment from which the world of physics is constructed, has entered in the form of messages transmitted along the nerves to the seat of consciousness…. Consciousness is not sharply defined, but fades into subconsciousness; and beyond that we must postulate something indefinite but yet continuous with our mental nature…. It is difficult for the matter-of-fact physicist to accept the view that the substratum of everything is of mental character. But no one can deny that mind is the first and most direct thing in our experience, and all else is remote inference. [Pp. 276-81]

Galen Strawson (2006) has picked up Russell-Eddington and made a very big deal of it on behalf of panpsychism.

Russell pointed out that the unobservable entities studied by physics are known and described in purely relational terms, paradigmatically by their effects. For something to be an electron is just for that thing to do what an electron does. And it seems that scientific method limits us to such relational descriptions; science cannot tell us what an electron is like in itself, its intrinsic nature. Russell further argued that, come to think of it, much the same is true of ordinary observable macroscopic physical objects and their properties: prescientifically, we know and describe them ultimately only in terms of their effects on our sensory experience. Indeed, the only type of intrinsic nature we know is that of our sense experience itself. Therefore, possibly, the intrinsic natures of subatomic particles and the like are experiential properties too, and panpsychism and some version of Idealism would follow. (Russell himself only suggested, and did not insist on, this last step. Eddington firmly insisted on it.)

Three objections can be made against the Russell-Eddington argument.

First, even if subatomic particles do have intrinsic natures and the experiential properties featured in sensation and perception are the only intrinsic properties that we know directly, that gives us little reason to suppose that the particles' natures are experiential properties. Eddington calls it "silly" to resist the latter idea, and adds, "If we must embed our schedule of indicator readings in some kind of background, at least let us accept the only hint we have received as to the significance of the background—namely, that it has a nature capable of manifesting itself as mental activity" (p. 260). Well, the only hint, perhaps, but not a promising one. We do know our experiential states from the inside, but we also know that they are states of macroscopic, yea hulking, very complex beings who get about their complex environments in an amazingly well-adapted and intelligent way by dint of those mental states, and that the mental activity is closely mediated by gazillions-per-second of electrochemical operations throughout the brain. In my view each of the latter features makes them poor candidates for being ascribed to muons or neutrinos.

Foster more than emphatically agrees with Eddington:

> [A]part from the mentalistic hypotheses, we have no way of even forming a conception of what the inscrutable content might be. We cannot form such a conception in *physical* terms; for having evolved to serve the needs of physical theorizing, our system of physical concepts is not equipped to provide a characterization of factors which are not amenable to empirical tests. Nor is there any third source of descriptive concepts—neither psychological nor physical—on which we can draw. However bizarre they may seem, the mentalistic accounts of what the physical world may be like are, within the framework of realism, the only ones available. [Pp. 296-97]

It may be true that we cannot form the relevant conception. But I reject the assumption that we must apply a conception that we now either already have or can form. If elementary particles have an intrinsic nature that cannot be captured in further scientific vocabulary, it is presumably something proprietary to the foundation of the physical universe. I'd be inclined to call it "prime matter," but "matter" already connotes something *made of* elementary particles, and the intrinsic nature of an elementary particle is presumably a kind of property rather than a stuff.

But—second objection and more to the point—what grounds the assumption that the ultimate constituents of the physical world must have intrinsic properties at all? Perhaps the nature of an elementary particle is exhausted by the totality of its relations to other things.

Notice that that suggestion is perfectly consistent with the obvious (indeed tautologous) fact that an instantiated relation must have relata. The latter fact does not entail that the relation must have relata *that themselves have intrinsic properties*.

Finally, third, I do not grant Russell's, Eddington's and Foster's bare assumption that experiential properties are nonrelational in the first place. Elsewhere I have defended the claim that they are all relational.[2] (Needless to say I don't believe in Russellian sense-data.)

As you may be able to tell, I'm unconvinced.

---

[2] *Consciousness and Experience* (1996), Chs. 3, 4 and 6; "The Case for Phenomenal Externalism" (2001).