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Brentano's Latter-day Monism

According to “existence monism”, there is only one concrete particular, the cosmos as a whole (Horgan and Potrč 2000, 2008). According to “priority monism,” there are many concrete particulars, but all are ontologically dependent upon the cosmos as a whole, which accordingly is the only *fundamental* concrete particular (Schaffer 2010a, 2010b). In essence, the difference between them is that existence monism does not recognize any *parts* of the cosmos, whereas priority monism does – it just insists that the parts are ontologically dependent upon the whole in this case.

Brentano never maintained either of these views. But in the last two years of his life, he seems to have held the following approximation: *there is only one physical substance*, namely, the material universe as a whole. This is twice removed from existence or priority monism: first, it allows for a plurality of *mental* substances (souls); secondly, it allows for a plurality of physical *accidents*, which in Brentano's reistic ontology are also concrete particulars (see Kriegel 2015). Still, the view that the only physical substance is the universe as a whole is quite radical and finds little precedent in the history of philosophy.

The view is developed explicitly by Brentano in only one dictation, dated 30 January 1915 (Brentano N7 *infra*, p. 55 ff.). The manuscript is archived at Harvard's Houghton Library under the title “The Lorentz-Einstein Question.” Kastil included a rather heavily edited version of the piece, re-entitled “The Nature of the Physical World in Light of the Theory of Categories,” as an appendix to the *Kategorienlehre* (Brentano 1933: 296–301/1981a: 208–211).¹ Although Brentano does not develop the idea anywhere else, it often seems to constrain, and sometimes to irrigate, his speculations on space and matter in the last two years of his life (see Bren-

tano 1976/1988). Below, I present Brentano's view (§1), then his argument for it (§2), as expounded in the relevant text.

1. The View

Brentano's very first statement of his brand of monism is this:

... one might go as far as to conjecture that the totality of physical matter (*Gesamtheit des Körperlichen*) constitutes a single stationary physical substance (*einzig ruhende Körpersubstanz*), which would be littered (*da und dort behaftet*) with certain particular accidents... [O]ur mechanical laws, as well as everything physics, chemistry, and physiology have established, would pertain to these accidents and their changes and mutual interactions. (Brentano 1933: 298/1981a: 209)

Imagine a big, quivering, translucent ball, under the surface of which appear, disappear, and reappear various vaguely glowing color patches. If the color appearances evolve in sufficiently systematic ways, we might be tempted to posit colorful 'things' or entities that 'travel' just below the ball's surface, 'bump into' each other, change directions, and so on. And we might wish to formulate the natural laws that govern these patches' behavior and interactions. But for all that, there may be no 'things' under there – there may just be undifferentiated *stuff* that exhibits different colors in different places at different times. We could study the laws that govern changes in the colors exhibited, but we should resist the temptation to think of these as laws describing the persistence and interaction of a multitude of independent entities.

Brentano's universe is of course very different from this ball: it does not quiver, but is strictly immobile, and it is probably not spherical, but has some arbitrary, brutally contingent shape (Brentano 1933: 301/1981a: 211). Nonetheless, like this ball it does not host any independent things or objects, but instead seems to be a single unitary 'blobject' that simply exhibits a certain (spatial and temporal) qualitative *structure*.

In some respects, the picture Brentano presents very much reminds of Horgan and Potrč's existence monism (which they also call "blobjectivism"). On the other hand, in accounting for the world's qualitative hetero-

geneity, Brentano avails himself quite insouciantly of locations and indeed parts of the world:

In place of the ether there would be the stationary, unitary substance (*ruhende, einheitliche Substanz*). In place of what had formerly been regarded as the substances of physical matter, there would be accidents inhering in (*haftend an*) the [stationary unitary] substance, which would be transmitted from one part (*Teil*) of it to another. The laws of mechanics would pertain to the interchange and persistence of these accidents. (1933: 298/1981a: 209)

Here Brentano speaks explicitly of the universe's parts. In another passage, he speaks of the universe's portions/parcels (*Parzellen*) (1933: 299–300/1981a: 209–10, quoted more fully in §2). But if the universe has parts, strictly speaking it cannot be the *only* material object, as blobjectivism requires.² Instead, we appear to have on our hands something more like priority monism.

This may well be Brentano's ultimate view. After all, he is a monist only about material *substance*. He is perfectly happy to accept a plurality of material objects, as long as only one of them is a substance. The others are *accidents*. As Brentano writes in the passage just quoted, instead of 'the substances of physical matter, there would be accidents inhering in the [cosmos], which would be transmitted from one part of it to another.' This may sound as though the cosmos has certain *properties*, rather than includes certain *parts*, but this is only because accidents are traditionally taken to be properties. Given that Brentano construes accidents as a special kind of concrete particular, it is clear that in allowing the world to have accidents, Brentano is allowing for a multiplicity of concrete particulars. At the same time, since Brentano's account of substance and accident preserves the traditional notion that accidents ontologically depend (unilaterally) upon substances, his view entails that there is only one ontologically independent concrete particular – the material universe as a whole. Perhaps we could summarize the view by saying that it combines priority monism about (physical) concrete particulars and existence monism about (physical) substance.

There is another question to consider, though, regarding what exactly is "the cosmos," or at least the material cosmos (setting aside such immaterial beings as there might be). Three main approaches present themselves: (i)

the cosmos as spacetime; (ii) the cosmos as the totality of matter *filling up* spacetime; (iii) spacetime *plus* the matter filling it up. Schaffer, for example, seems to support the first option (Schaffer 2009). Brentano, though, would presumably go for the second option, given that he treats “empty space” as a pseudo-referring expression akin to “the hole in the wall” and “the lack of enthusiasm.” In a clear statement of reism from 1904, he asserts that “there is nothing other than things, and ‘empty space’ and ‘object of thought’ do not name things” (Brentano 1930: 79/1966b: 68). In a 1915 dictation, he writes: “An empty space needs to be something positive just as little as does the absence of a sound when a sound is skipped in playing a scale” (Brentano 1976: 178/1988: 150) – a remark he repeats in different variations throughout the piece. If Brentano is unwilling to countenance in his ontology regions of space unfilled by matter, it would seem that for him it is only that “material filling” that is real.

Brentano’s monism about the physical world can thus be characterized through the conjunction of the following three theses: (1) There exists only one material substance, the cosmos as a whole; (2) this substance is just the totality of physical matter (“*Gesamtheit des Körperlichen*”); (3) it has parts, which however (i) are not themselves substances and (ii) depend for their existence on the one material substance.

2. The Argument

Modern monism is sometimes motivated by considerations drawn from physics, in particular the phenomenon of quantum entanglement (Schaffer 2010a: 50–55, Calosi 2014). Interestingly, Brentano similarly motivates monism by appeal to one of the burning questions of the physics of his day, namely, the null result of the Michelson-Morely experiment. Let me explain the result, then Brentano’s argument from it.

Suppose you sit in a small room and watch your friend tap-dancing. If all the air is instantaneously literally “sucked out of the room,” you will no longer be able to hear those taps. The reason is that without the air, the sound waves bringing the sound to your ears will be unable to travel. Sound waves are waves *of or in something* – in this case air (hence ‘airwaves’). Sound does not need air to travel through, it can also travel through water, helium, and

so forth. But it does need *some* kind of medium – some substance must be *undulating* if sound waves are to occur.

This might be thought to raise a question: how can *light* travel from faraway stars and reach our eyes *through empty space*, if there is no similar undulating medium for light waves to travel *through*? Many nineteenth-century physicists were bothered by this question, arguing that the space between us and those faraway stars cannot be real vacuum; instead, it must be filled with some unusually unimposing substance, a kind of pervasive lighter-than-light foam-stuff, through which light waves travel.

On this picture, the earth does not revolve in a void, but rather ‘swims’ through this foam-stuff. Now, just as when you swim in otherwise motionless water, you create a current around you, one would expect the earth to produce its own extraordinarily light ‘current’ as it swims through the foam-stuff. And in the normal go of things, this should mean that light waves would travel faster ‘downstream’ than ‘upstream,’ that is, against the earth’s motion than along it. This speed difference is precisely what the 1887 Michelson-Morely experiment *failed* to find. Try it any way you like, it seems light travels through the foam equally fast in all directions, regardless of what and how bodies are moving in it.

Toward the end of the nineteenth century, physicists were preoccupied with trying to explain this striking null result. Michelson himself thought it showed that the foam – better known as *ether* – was not actually stationary, but was ‘dragged along’ by bodies as they moved about space (a hypothesis aired already in the 1840s by George Stokes). Lorentz insisted that the foam was stationary, conjecturing that as bodies swam through it they contracted in the direction of their movement, thus producing a weaker current behind them than they would otherwise – exactly as much weaker, in fact, as would be needed to cancel out the speeding up of light’s downstream travel! Einstein’s special relativity, however, made room for the simplest explanation of the null result – the explanation that there simply is no ether, so naturally it has no effect on the behavior of light. Einstein reverted to Newton’s old idea that light does not travel in waves at all, and thus does not depend on the existence of an undulating substance or medium. Instead, light is corpuscular – there are tiny particles of light that move through empty space in just the same way, say, the Earth does. These light particles are of course the photons. As is well known, ultimately photons

(and soon thereafter electrons) came to be thought of as something in-between particles and waves, exhibiting properties of both.

It is in this context, of trying to explain the Michelson-Morely null result, that Brentano offers up his monist hypothesis. He writes:

I believe that only through such a [monist] recasting (*Umbildung*) of our conception of the physical world (*Körperwelt*) do certain paradoxes, which face our physicists [Lorentz and Einstein] due to the results of Michelson's and related experiments, resolve themselves easiest. This recasting would pave the way to a somewhat deeper grasp of the physical world; the notion of the unitary substance (*einheitliche Substanz*) taking the ether's place would make much more sense than what we have been taught about the ether's oddities (*Eigenheiten*), especially its impenetrability, and would also cast so-called Matter (*Materie*) in a totally new light. (Brentano 1933: 299–300/1981a: 210)

How does monism help with Michelson-Morely? Brentano is a tad telegraphic on that; the only comment of relevance seems to be this:

As for light and electricity radiation (*Strahlungen*), it is not impossible to conjure up a plausible story (*geeignet Vorstellungen bilden*) that bears some analogy to both the [particle] emission theory and the [wave] undulation theory, which would do justice to the phenomena just as well as them, if not better. It would not be concerned with oscillations or relocations of parts of the substance underlying the rays (*Strahlen*) ... but only with the relocation of qualities, which may be thought of as dividing into very small parcels/ portions (*Parzellen*). In this way everything remains in essence unaltered... (Brentano 1933: 299–300/1981a: 209–10)

The idea seems to be this. Light radiates neither in waves nor in corpuscles. In fact, there *are* neither waves nor corpuscles – there is no undulating medium like Lorentz's ether and there are no light particles like Einstein's photons. Instead, there is a single, immobile substance with undifferentiated, homogeneous constitution that is simply qualitatively different in different places. That is, there is qualitative variation in the world, but no quantitative variety. Accordingly, the transmission of light from A to B involves neither traveling particles nor an undulating medium; it is just a

matter of the universe exhibiting the relevant light qualities in A at one time and in B at a later time. The laws of mechanics describe the regularities governing such changes in qualities across the single substance that is the universe, not any processes that might involve the interaction of separate objects. The Michelson-Morely null result simply tells us something about what these regularity laws are; it raises no deep puzzle once we stop expecting there to be an undulating medium through which light travels.

Conclusion

It is doubtful that Brentano's argument is a cogent reason to go monist. Presumably there are other ways to accommodate the Michelson-Morely result, notably Einstein's special relativity (see Einstein 1920 §16). At the same time, it is striking that Brentano suggested that the underlying physical reality is more fundamental than either particles or waves a decade before de Broglie hypothesized essentially the same (for which he earned the 1929 Nobel prize). Perhaps the deep thrust of Brentano's argument for his brand of monism is this idea: only if the cosmos is forsooth a single unitary substance can we make sense of the idea that matter is neither fully corpuscular nor fully wavy.

In a 1914 dictation, Brentano succinctly states the kinds of item he would countenance in his ultimate ontological inventory:

An existent (*Seiendes*) in the proper sense is not only any substance, any plurality (*Mehrheit*) of substances, and any part of a substance, but also any accident. (Brentano 1933: 11/1981a: 19)

Against the monist background, and on the assumption that souls (i.e., mental substances) have no parts, Brentano's ontology would include five kinds of item: the material universe, certain parts of the material universe (namely, those that have the right qualitative homogeneity), souls, every plurality of souls, and every mereological sum of the material universe and a plurality of souls.³

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Notes

- ¹ As was his want, Kastil took considerable liberties with the original text. Having inspected the original manuscript, however, I do not find that Kastil at any point misinterprets Brentano.
- ² Clearly, Brentano *needs* the world to have parts in order to account for its qualitative structure. Bobjectivism denies that the world has parts, but it can avail itself of *properties* in accounting for the world's structure. These must be special properties, exhibited only by the world – properties of the form being-F-in-L-at-t – but pending special difficulties with such properties, it is legitimate for the bobjectivist to appeal

to them. Brentano, however, rejects properties, so he must account for the world's qualitative structure in terms of concrete particulars, which would presumably be parts of the world.

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