

Priority monism, physical intentionality and the internal relatedness of all things

ABSTRACT

Schaffer (2010) argues that the internal relatedness of all things, no matter how it is conceived, entails priority monism. He claims that a sufficiently pervasive internal relation among objects implies the priority of the whole, understood as a concrete object. This paper shows that at least in the case of an internal relatedness of all things conceived in terms of physical intentionality - one way to understand dispositions - priority monism not only doesn't follow but also is precluded. We conclude that the internal relatedness of all things is compatible with several different ontologies (including varieties of pluralism) but entails nothing concerning dependence between concrete objects.

Metaphysics is often concerned with how things are related to each other. The thesis that all things are internally related, and not merely contingently placed together, has been met with dramatically different attitudes. It is ill-regarded wherever atomistic projects are popular while it tends to be well accepted when philosophers believe that wholes cannot be dispensed with by attending to their parts. Hume can be counted as one of its greatest enemies in modern times while British Hegelians such as Bradley and Joachim are often cited as typical defenders of all pervasive internal relations. In fact, the thrust of their argument is commonly presented as leading from a slice of internal relations to an unpleasant monist pie. Hume, in contrast, persistently argued against all kinds of internal relations between things. By dispensing with internal relations there was less room for a whole with no separable parts.

Humean ontologies are atomistic: each part of the world is discrete, distinct and independent of any other part. Hume's central argument is that "[t]he non-existence of any being, without

exception, is as clear and distinct an idea as its existence” (1748: XII/III, 132). A similarly influential version of this point, made in terms of facts rather than of things, can be found in the *Tractatus*: atomic facts are independent from each other (2.061), i.e., from the existence or non-existence of an atomic fact we cannot infer the existence or non-existence of any other (2.062). The gist of such ontologies could be summarized by David Lewis’ elegant and well-known phrase: “...all there is to the world is a vast mosaic of local matters of particular fact, just one little thing and then another” (Lewis 1987: viii). Properties, as Jacobs (2011) has put it, are no more than the colours of the Humean mosaic; they are purely qualitative and lacking any causal or modal characters. The world is modally inert and all animation comes, so to speak, from outside, typically from the laws of nature.

There has been a recent tendency to depart from such ontologies. In most cases, these departures appeal to powers and dispositions in order to secure non-contingent relations between things (Ellis 2002, Martin 2008, Molnar 2003, Mumford 2004, Bird 2007). They often postulate internal relations between concrete objects. Those are relations that cannot be changed without changing the relata. They are therefore constitutive of the relata and contrast with contingent, external relations. Those ontologies often also postulate the thesis that there is a pervasive internal relatedness between all things. The idea is that there is a constitutive partnership between all things, no thing is disconnected from the chain of internal ties. The thesis can be formulated as follows:

(IR-ness) All (concrete) objects are tied together by internal relations.

Even though this may not be compulsory, we will understand internal relations in modal terms, typically in terms of causal powers, capacities to affect or physical necessity.

Jonathan Schaffer has recently argued that a thorough rejection of Humean ontologies that embraces IR-ness must be committed to priority monism (Schaffer 2010, 2010a), the thesis that there is one concrete object on which everything else **depends** (Schaffer calls it the cosmos). He claims that priority monism is entailed by IR-ness. The main claim of this paper is that, at least on one way of understanding IR-ness, he is wrong. We will show that, for at least one variety of internal relation of the constraining kind - the kind that Schaffer himself favours (2010: 351), we can obtain IR-ness but priority monism doesn't follow. Further, we will argue that a pervasive internal relation of this variety precludes ascription of dependence between things and preclude priority monism. Such incompatibility may be a general feature of every version of IR-ness based on internal relations of the constraining kind, but it is enough to show here that there is a plausible candidate for a pervasive internal relatedness that blocks the way to priority monism.

We will proceed as follows: in section 1 we will outline the idea of physical intentionality and explore some of its consequences. Section 2 will offer a version of IR-ness based on physical intentionality given realism about dispositions. Finally, in section 3 we will show that the proposed variety of internal relatedness of all things precludes the substantial priority of the whole. Contrary to what Schaffer holds, there could be a pervasive internal relation that entails no priority monism. To use a catchy phrase, holism doesn't need to turn into *wholism*.

1. Physical Intentionality

We start assuming what is common to most non-Humean ontologies. Things are modally related to each other. Were a spoonful of sugar thrown in this glass of water it will tend to dissolve. A tick is geared towards mammals' blood. Phosphorus has the capacity to glow when exposed to oxygen. These modal relations provide a glue between things. This modal glue is not an external,

contingent relation that can be removed without changing the relata. It fosters some sort of constitutive partnership between things. If it is pervasive, it points in the direction of an internal relatedness of all things (IR-ness). The thesis that there is such relatedness will be also referred to as World Holism.¹ It holds that there are ties among all things that are part of what each thing is. We take World Holism as a starting point – one that we share with Schaffer.

Schaffer (2010) argues that if one internal relation is all-pervasive, it provides for an internal relatedness of all things. If there is at least one internal relation that holds between any thing and some others, everything is internally connected. There is no need, as Schaffer aptly points out, to prevent other, external relations to take place between things – a sufficiently pervasive internal relation is enough to ground IR-ness.²

Now, there are different ways to understand internal relations. Schaffer (2010) understands them in terms of what he calls constraining relations. They require no more than the relata not to be modally free from each other – they cannot be freely recombined (x and y can freely recombine iff for any way that x can be, and for any way that y can be, there is a metaphysically possible

¹ World Holism is often taken to be the thesis that everything is connected to everything. Notice, however, that this can take place without any internal relation or internal relatedness. Occasionalists can hold that in any (external) relation between sugar and water an indefinite number of mediators are called for. In this case, there is no appeal to anything but external relations as the mediators are themselves related to each other and to water and sugar externally. Yet, this can pave the way for the thesis that everything is connected to everything. Still, for simplicity, we keep the label World Holism (rather than something like Internal World Holism) for the thesis that there is an internal relatedness among everything.

² Interestingly, he believes that the early analytic philosophers misfired against the thesis of the internal relatedness of all things by insisting that there are at least some relations that are external (Schaffer 2010: 361).

world w in which x and y are each these respective ways). Constraining internal relations contrast with stronger internal relations such as essential internal relations (x and y have an internal relation of the essential kind iff there is no possible world w where either x or y exist without having the relation with each other). The latter lead to relations of dependence between two things.

For example, if we take the astronomical structure to have internal relations, the planets in the solar system cannot be changed as pieces in a mosaic. The planets would be internally related to the Sun in the constraining sense if they are constitutively capable of gravitating around a body with a larger mass (hence, they would be also internally related to all bodies with a larger mass around which they could gravitate) - while Jupiter won't gravitate around Mercury in any possible world. In this case, if we remove the planets from the Sun, they will carry on being what they are (having, for instance, their capacities to gravitate). By contrast, if there was an essential internal relation between the Sun and the Earth, the latter could not be removed from the Sun without stopping to be the Earth. In his own example, Schaffer (2010, p. 349) asks us to contrast the case of A who needs to be always in a room with B and the case of C who needs to be always in a room with somebody else. The first is an essential internal relation while the second is a constraining one. In both cases, there is no modal freedom as A cannot be placed in a room in isolation. In the second case, however, there is a dependence connection: A depends on B. Internal relations, whether essential or constraining, are such that the relation cannot change without changing the relata. Essential internal relations are such that no relatum can be changed without changing the other. A and C are both internally related to B, if you change the relation (for instance, you change being room-mates for playing correspondence chess) you change the relata. A has an essential internal relation to B, if you change B you change A.

There are many candidates for such a constraining internal relation that could substantiate the internal relatedness of all things (IR-ness), as Schaffer points out (2010: 362). Indeed, many such candidates are themselves of a modal character and a number of them make direct appeal to powers or dispositions. Schaffer himself presents three candidates and sketches other two. Among those five, two of them make explicit appeal to modality (causal connectedness given causal essentialism and being world mates given counterpart theory). We will present in this section another candidate: physical intentionality given realism about dispositions.

Although the term ‘physical intentionality’ was coined by Molnar (2003), the characterization of dispositions through the features traditionally connected to mental intentionality is already present in the work of C. B. Martin. For Martin, disposition is characterized by its directness towards, and selectiveness of, its reciprocal disposition partners. This is so even if such partners are absent or non-existent. “This ‘what for’ of dispositionality has a parallel directed selectivity to the ‘what *about*’ of the semantic” (Martin 2008: 3-4; see also Martin and Pfeifer 1986). Molnar (2003: 60-66) explicitly characterizes physical intentionality with reference to the four features that Brentano presented in his account of intentionality aiming at mental phenomena. Then, rather than saying that intentionality is a mark of the mental, he takes (physical) intentionality to be the mark of the dispositional. The Brentano-Molnar account of (physical) intentionality has the following four necessary and jointly sufficient features:

- i.* an item with physical intentionality is directed towards something different from itself;

ii. it could be directed towards something that is not available or towards something non-existent;

iii. it is directed towards types³ rather than specific items – it is not geared towards something in particular but to anything that fits a bill;

iv. it is sensitive to the way the intended item is presented – the mode of presentation is relevant.

Physical intentionality would be what connects a disposition to its reciprocal disposition partners. (i) Phosphorus is directed towards oxygen, ignition being their mutual manifestation; a South magnet is directed towards a North one. (ii) A substance can be directed towards a solvent that does not exist in nature and only a shortage of funds blocks its manufacture (Martin's example); an animal would not lose its directness towards its sources of nourishment even in the context of an extreme food shortage. (iii) A tick is not directed towards a particular horse but to any mammal that may come its way; a sample of sugar will caramelize when exposed to any source of heat. (iv) A grain of salt is not directed towards water in any mode of presentation, frozen water will not do; a frog will not eat a pill that contains all the nutrients present in a fly.

The four features of physical intentionality, as it will become clearer later, are central to explain the role of dispositions in tying different parts of the world together. There are important aspects

³ “Molnar's view is that every disposition or power has just one manifestation (that is, just one manifestation-*type*)” (Lowe 2011: 32, n.6). The directness of a disposition is, for Molnar, towards its manifestation-type, while our characterization of physical intentionality will be closer to Martin's: a disposition is directed towards its reciprocal disposition partners rather than towards the manifestation that would result from their interaction. But the directness is towards types in both cases.

of dispositions that are entailed by the above four features. First, dispositions are taken to be highly context-sensitive.⁴ This is clear from feature iv above: only under the appropriate mode of presentation can a disposition partner trigger the manifestation. Second, the manifestation of a disposition can be pre-empted by intervening factors such as the non-availability of a partner (feature ii) or the inappropriate mode of presentation of the partners (feature iv). Third, an amount of fixity is introduced by any disposition as it treats different things similarly if they fit its bill and instantiate a type (feature iii). A disposition is associated to a matrix of differences and indifferences, a disposition partner is picked by the properties that make it fit the directed type. So, a tick differentiates between mammals and, say, plastic balls, but it is indifferent to whether the mammal is a horse or a cow.

The Brentano-Molnar characterization of physical intentionality presented above indicates that intentionality is directed towards types and not particulars. It provides an example of internal relation of the constraining kind. Things are intentionally directed towards types. Two things are reciprocal disposition partners if and only if one of them fits the bill of the type the other is directed towards. A tick is directed towards mammals and picks a particular horse to manifest its disposition - this is an external relation. If there are no mammals around, the tick retains its directedness towards mammals - in this sense, it depends on no particular thing. It depends on

⁴ This context-sensitivity is another important point of connection between dispositions' intentionality and the intentionality of thought and language. A recent discussion of the contextual contribution to the semantic values of dispositional ascriptions and the distinction between environment-dependence and ascriber-dependence can be found in Choi 2011.

the disjunction of things that satisfies the type. The type, of course, could have no tokens and if something is directed to an empty set (as feature ii allows), it depends on a type but has no internal relations (associated to the disposition in question) to anything. Dependence, therefore, has nothing to do with instantiation. Dependence, on our account, is always between things and types and not between internal relations.

In fact, it is plausible to assume that internal relations of the constraining kind would involve mediation by properties or sets, as the examples above suggest (the property of having a larger mass, the set of all potential room-mates). We believe that the best way to understand constraining internal relations is by taking them as relations between a thing and whatever satisfies a cluster of properties or belongs to a set. So, the Sun belongs to the set of bodies with a greater mass and B satisfies the property of being a room-mate. We will understand the relation of dependence as one between a thing and a type (to be understood either as a cluster of properties or as a set of things). The constitutive properties of a thing make it dependent on a type and promote internal relations of the constraining kind to any thing that satisfies the type. There is no dependence other than the one between a thing and a type. And, conversely, if there is a dependence between things, then the internal relations must be of the essential rather than of the constraining kind. If C cannot be alone in a room and there is no one there, C dies but dies being someone who cannot be alone in a room: her relational essence doesn't depend on anything. In contrast, if A cannot be without B, A depends on B, but her internal relation to B is not constraining, but essential.

Physical intentionality makes things depend on types and at the same time makes things internally related to their reciprocal disposition partners. Any thing is internally related to each of the instantiations of the type it is directed towards. The internal relation that physical

intentionality promotes is that of a tendency - a tick tends towards any mammal, a grain of sugar tends towards any sample of water. In this sense, the actual manifestation of the disposition is not fully determined by the dependence on a type or by the internal relations; it is a contingent matter of fact that the tick preys on a given mammal. As we said, there is an external relation between them - apart from the internal relation that the tick has not only with this but also with all other mammals.

2. Internal relatedness of all things through physical intentionality

World Holism makes us postulate physical intentionality as a pervasive feature of things that provides, through directedness, a glue between them. In fact, it provides a way to connect all objects of the world. It can be seen as a candidate for IR-ness that contrasts with the ones Schaffer (2010, p. 362 onwards) considers. According to an intentionality-based IR-ness, the constitutive partnership between things is based on directedness: *a is directed towards type B iff a depends on type B and a is internally related with any x of type B.*

We can formulate the argument for the internal (constraining) relatedness of all things in terms close to Schaffer's (2010). He contrasts a (first) strategy, that postulates that all relations are internal, with a (second) strategy that postulates just one pervasive internal relation. Our strategy would be based on the internal relation, mediated by the intentional directedness between things and types. The second strategy for physical intentionality would then look like this:

(Second strategy, physical intentionality)

(1) All things are related by (physically intentionality mediated) tendencies

(2) Tendency is an internal_{constraining} relation

(3) Thus all things are internally_{constraining} related

Directedness is towards a type and not a particular object and, therefore, it is itself not a relation as there cannot be a relation between objects and types given that types can be non-instantiated.⁵

The connection between objects and types provides a glue that makes each thing affect all the others without linking any two particulars strictly. As a consequence, this interrelatedness of all things implies no image of the world as a big jigsaw. The interrelatedness of all things entails no dependence between any two particulars. Consider the tick that is preying on a particular horse. As the tick is directed towards the type of passing mammals, the horse could have been replaced by a cow without affecting anything in the internal composition of the tick, i.e., its directedness towards passing mammals. The tick is internally related both to the horse on which it is actually preying - with which it also has an external relation - and to the cow on which it could be preying. Preying on the horse seals the fate of the tick, but its fate was not among the things the tick was (constitutively) directed towards. In other words, we are looking at chains like the following: *object a is directed towards type B and internally related to object b that instantiates B, b is directed towards type C and internally related to object c that instantiates C, c is directed towards... A.*

Schaffer (2010, 2010a) argues that World Holism yields priority monism – the thesis that there is a concrete object on which others depend but which doesn't depend on any other. He provides

⁵ One could call intentional directedness an internal relation but this flies in the face of the common (Russellian) assumption that there are no relations involving non-existent relata.

two proofs that internal relatedness of things entails priority monism. Our intentionality-based World Holism, however, is not committed to any kind of monism and, in particular, not to priority monism. To this we move in the next section.

3. Against priority monism

Contemporary monism has it that there is one unique object on which all other objects depend (Schaffer 2010, 2010a, but see also Horgan & Potrč 2007 for the stronger thesis that there is just one object, existence monism). Schaffer claims that what follows from IR-ness (and World Holism) is priority monism: that the whole comes prior to its parts (2010, p. 343). Therefore, there is one whole on which each concrete object depends and which depends on no concrete object. He takes the whole world to be the only basic concrete object, the cosmos. According to intentionality-based IR-ness, things are internally related through the mediation of types, towards which they are directed and on which they depend, but no dependence between things themselves follows.

Schaffer's (2010) two proofs that priority monism is entailed by IR-ness share one assumption (Assumption 1: No two things are modally free) and a commitment to the notion of dependence. This commitment underlies Assumption 2 (There is something basic, i.e., something that does not depend on anything else) and Assumption 4 (Non-overlapping, modally constrained things are interdependent, i.e., each depend on a greater common whole). We share Assumption 1 with Schaffer and have argued for it by means of physical intentionality. Physical intentionality is an internal relation of the constraining kind, one where the internal relation between things is mediated by types. Internal relations are relations of tendency.

While considering his example of constraining internal relation (the one about the need for a room-mate), Schaffer says that even though you do not depend on any particular room-mate, “you cannot be a basic independent unit of being, since you are dependent on the rest of the world to accommodate your needs” (Schaffer 2010: 349-350). He takes the rest of the world to be a concrete object. Even granting such a gerrymandered object as the rest of the world, internal relations of the constraining kind afford no relation of dependence to concrete objects. Once again, the dependence is on types, not on things: there are many worlds (and many rests of the world) that could provide you with a room-mate. There can be a constraining internal relation between the person needing a room-mate and the rest of the world, but this implies no dependence. A grain of sugar is internally related to the rest of the world because it has the capacity to be dissolved but its (constitutive) dispositional property would still be present even if there was no water in the rest of the world. There is no dependence between the grain of sugar and the rest of the world. Does this mean that we are forced to return to a Humean atomistic ontology? Schaffer thinks we are:

If there really were multiple basic independent units of being, they would be (in Hume’s words) ‘entirely loose and separate’ (1748, p. 54), and so should be freely recombinable in any which way. Given that there are no necessary connections between distinct existents, necessary connections show that the existents in question are not distinct. *A disconnected pluralistic heap should be amenable to free recombination; failure of free recombination is thus the modal signature of an interconnected monistic cosmos.* (2010: 350)

We disagree. Independent units of being are still interrelated through physical intentionality, via types. In this sense, they are neither loose nor separate nor freely recombinable. Independence doesn't yield distinctness, *pace* Schaffer.

Schaffer's proofs of priority monism depend on taking the internal relatedness of all things as a ground for dependence considerations. We claim that this cannot be done and therefore IR-ness leads to the denial of priority monism. The steps towards this conclusion can be summarized as follows:

1. There is a constitutive partnership between all things as they are tied together by internal relations [IR-ness]
2. There is a constitutive partnership between all things as they are tied together by internal relations of the constraining kind [1, internal relation_{constraining}]
3. There is a dispositional partnership between all things mediated by intended types [1, Physical intentionality]
4. There is an internal relatedness of the constraining kind between all things mediated by types [from 2, 3]
5. Things depend on their (possibly non-instantiated) types and not on any concrete object [from 4, Physical intentionality, features ii and iii]
6. No object depends on any other [from 5]
7. There is no dependence between a thing and the rest of the world [from 6]
8. There is no dependence between a thing and the cosmos (no priority monism) [from 6]

If our argument against priority monism is sound, Schaffer faces a dilemma. Either he gives up his conception of IR-ness based on internal relations of the constraining kind so to avoid internal relations mediated by types and replace it with a stronger conception of internal relations, or he has to find grounds for priority monism elsewhere, not in the internal relatedness of all things.

Our argument, on the other hand, is compatible with several mereological positions including varieties of mereological nihilism (Schaffer 2007), pluralisms, and *gunk* and *junk* ontologies (Bohn 2010). In fact, the pervasive internal relatedness that physical intentionality affords only clearly precludes an ontology with a basic whole as each object displays no dependence with respect to any other object but only to anything that fits its bill. Dispositional relatedness, in the form of tendency, points at no whole but rather at a constitutive partnership where each object could be (externally) related to several others - or to none at all. There is no dependence to a whole as in a jigsaw with only one solution. Rather, the image is one of a mosaic of magnets where each piece is internally related to many others and the composition can be done in more than one way or in no way at all. Relations of tendencies are relations that constrain objects without making them dependent on any whole. Like magnets, dispositions provide objects with open doors to different objects without assembling them all together in a single concrete object.

Conclusion

The picture that we are offering is one where all things are internally related as a consequence of them being directed towards, and dependent upon, the types of their disposition partners. We have explained such directness and dependence in terms of the notion of physical intentionality, which provides a paradigmatic example of internal relations of the constraining kind. Things are internally related to all instances of the type on which they depend, not specifically to the

instance with which they happen to have an external relation, if any. Conversely, things do not depend on any of such instances, including that with which they have an external relation, if any. The internal relatedness of all things, in this case, precludes priority monism while being compatible with several other ontologies. If we are right, physical intentionality provides a pervasive relatedness where no object depends on any other – and none depends on a cosmos.

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