Schaffer's "Internal Relatedness of All Things"

Preview: Schaffer argues for priority monism (More accurately, he argues that the argument for priority monism from "internal relatedness" is better than people make it out to be). Priority monism is the thesis that the cosmos is the single basic concrete entity. It does not metaphysically depend on any other concrete entities. He argues for this in two steps: 1. He argues that if every object stands in an internal relation to every other object, then priority monism holds, and 2. He argues that it's (at least somewhat) plausible that concrete objects stand in internal relations to one another.

1 Preliminaries

(Basic Concrete Object) Bx =df (i) x is a concrete object, and (ii) there is no y such that (a) y is a concrete object, and (b) x depends on y.

(Priority Monism) $(\exists!x)Bx$ & Bu. (where 'u' picks out the whole cosmos).

With the quantifiers restricted to concrete entities, we now have:

(Basicness) x is basic =df $\neg(\exists y)Dxy$
x does not depend on anything

(Fragmentedness) x is a fragment =df $(\exists\, y)(Dxy \,\&\, x \ll y)$
x depends on one of its proper wholes

(Organic unity) x is an organic unity =df $(\exists y)y \ll x \,\&\, (\forall y)(y \ll x \,\&\, Dyx)$
x has proper parts, and all of its proper parts depend on it

(Mere heap) x is a mere heap =df $(\exists y)y \ll x \,\&\, (\forall y)(y \ll x \rightarrow Dxy)$

x has proper parts, and depends on all of its proper parts

(Interdependence) x and y are interdependent =df $\neg\, x = y \,\&\, (\exists z)(Dxz \,\&\, Dyz \,\&\, x \ll z \,\&\, y \ll z)$
x and y are non-identical and co-dependent on a common whole.

1.1 Internal Relatedness

1.1.1 Ways to define 'internal'

(Internal intrinsic) R is internalintrinsic =df $(\forall x1)$ ... $(\forall xn)$(if Rx1 ... xn then $(\forall y1)$ ... $(\forall yn)$(if y1 is a duplicate of x1 and ... and yn is a duplicate of xn, then Ry1 ... yn)

Problem: it is too easy for everything to be related by Internal Intrinsic.

(Internal essential) R is internal essential =df $(\forall x1)$ ... $(\forall xn)$ if Rx1 ... xn then necessarily ((x1 exists $\equiv$ Rx1 ... xn) &... (xn exists $\equiv$ Rx1 ...xn))

Basic concrete entities cannot be internally related, Schaffer thinks.

Problem: Monism will follow even if there isn't an internal essential relation that everything stands in.

"The key idea emerging is that of standing the Humean principle of free recombination on its head. If there really were multiple basic independent units of being, they would be (in Humes 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 be- tween distinct existents, necessary connections show that the existents in question are not distinct."

(Internal constraining) R is internal constraining =df (∀x1) ... (∀xn) if Rx1 ... xn then ¬Mx1...xn)

Mx1x2 obtains iff any way x1 can be, and any way x2 can be, constitutes a combined way that both x1 and x2 can be.

If Mxy then: for any way that x can be, and for any way that y can be, there is a metaphysically possible world w in which x and y are each these respective ways (barring co-location, and leaving the rest of the world as is).

What is a "way an object can be?" Starting with for any way that x can be and for any way that y can be, consider all of the intrinsic natures that a given actual concrete object can have, together with all of the spatio- temporal locations that it can occupy. These are the ways that this object can be.

Identity and overlap are constraining relations.

Question: how important are relations here?
Question: Could standing in very gerrymandered relations secure this result?

2 Why think that objects stand in internal relations to one another?

Two different argument strategies here:

(First strategy)

(i) All things are related.

(ii) All relations are internalx relations.

(iii) Thus all things are internallyx related.

(Second strategy)

(iv) All things are related by relation R.

(v) R is an internalx relation.

(vi) Thus all things are internallyx related.

Schaffer will focus on the second strategy:

The most that it could show would be that some relations are external and may make no difference to their terms. But to argue from this that all the relations are or even may be external, and that some qualities either do or may exist independently, seems quite illogical. (Bradley 1897, p. 513)

Question: Could there be a third strategy?

2.1 Causal Connectedness

"By causal connectedness, I mean the relation that obtains between any two things when there is a causal path (ignoring the direction of causation, and potentially running through intermediaries) from an event in which the one thing features to an event in which the other thing features."

Given causal essentialism, causal connectedness will impose modal constraints, since causal connectedness will generate necessary connec- tions (on the assumption that some level of determinism holds). Recall that it is a necessary condition on modal freedom, that for any way that the one entity can be, and any way that the other entity can be, there is a world that realizes this combination (barring co-location, and leaving the remainder of the world as is). Now let a and b be two electrons never mind how distant in space-time these might be. Draw up the list of ways that a can be. Perhaps a cannot vary its intrinsic nature, but it should be able to vary its location, and at any rate there will be the one way that a can fail to be. (Electrons are not necessarily existing beings!) Likewise draw up the parallel list of ways that b can be. Now consider combination pairs involving any variation to the location or existence of b, such as ¡a is as it actually is, b is elsewhere¿, or ¡a is as it actually is, b does not exist¿. What results leaving the remainder of the world as it actually is is a causally incoherent scenario. For b is enmeshed in chains of cause and effect. Relocating b leaves a rip in the causal network, and deleting b entirely leaves a hole in the causal network.

(Second strategy, causal connectedness)

(1) All things are related by causal connectedness

(2) Causal connectedness is an internalconstraining relation (given causal essentialism)

(3) Thus all things are internally-constraining related

2.2 Spatiotemporal Relatedness

We must assume structuralist supersubstantivalism: "By structuralist supersubstantivalism I mean the combination of (i) the supersubstantivalist thesis that actual concrete objects are identical to regions of space-time, with (ii) the structuralist thesis that space-time regions possess their distance relations essentially."

(Second strategy, spatiotemporal relatedness)

(1) All things are related by spatiotemporal relatedness

(2) Spatiotemporal relatedness is an internal-constraining relation (given structuralist supersubstantivalism)

(3) Thus all things are internally-constraining related.

2.3 Worldmates

(Second strategy, counterpart theory)

(1) All things are related by being worldmates.

(2) Being worldmates is an internalconstraining relation (given counterpart theory).

(3) Thus all things are internallyconstraining related.

3 From Internal Relatedness to Priority Monism

3.1 Proof 1

- (Concrete universe) u =df (ix)(∀y)y <x
- (Concrete Weak Supplementation:) If x ≪ y then (∃z)(z ≪ y & ¬Ozx)
- (Assumption 1) No two things are modally free: (∀x)(∀y)¬Mxy
- (Assumption 2) There is something basic: (∃x)Bx

- (Assumption 3) Any basic thing will be modally free of anything it does not overlap: $(\forall x)(\forall y)((Bx \ \& \ \neg Oxy) \rightarrow Mxy)$

(1) $(\exists x)(Bx \ \& \ x \ll u)$ Supposition (for reductio)

(2) $Ba \ \& \ a \ll u$ 1, $\exists I$

(3) $(\exists x)\neg Oax$ 2, weak supplementation

(4) $\neg Oab$ 3,$\exists I$

(5) Mab 2, 4, Ass. 3, UI, MP

(6) $\neg$ Mab Ass. 1, UI

(7) $\neg(\exists x)(Bx \ \& \ x \ll u)$ 1 , re6, 5, 6ductio

(8) $(\exists! x)Bx \ \& \ Bu$ Ass. 2, 7, def. u

3.2 Proof 2

- (Concrete universe) $u =df (ix)(\forall y)y < x$
- (Concrete $x' = df (iy)(\forall z)(z < y \equiv \neg Ozx)$ complementation)

  "This tells us that for any individual x we can find another individual x' (the complement of x), where x' is the rest of the cosmos without x.

- (Assumption 1) No two things are modally free: $(\forall x)(\forall y)\neg Mxy$
- (Assumption 4) Non-overlapping, modally constrained things are interdependent: $(\forall x)(\forall y)((\neg Oxy \ \& \ \neg Mxy) \rightarrow Ixy)$

(1) $\neg Bu$ (Supp. for reductio)

(2) $(\exists x)Dux$ 1, def. B

(3) Dua 2 $\exists I$

(4) $\neg Dua$ 3, assym. D

(5) $a \ll u$ 3 irref, def. u

(6) $\neg$ Maa' Ass 1, 5

(7) $\neg$ Oaa' def complement

(8) Iaa' Ass 4, 6, 7 UI, MP

(9) Dau 8, def I, def u

(10) Bu 1-9, 3, 9 reductio

(11) $(\exists x)(Bx \ \& \ x \ll u)$ supp. for reductio

(12) $Bb \ \& \ b \ll u$ 11, $\exists I$

(13) $\neg Mbb'$ (ass 1, def u)

(14) $\neg Obb'$ def. complement

(15) Ibb' 13, 14, ass.4, UI, MP

(16) $(\exists x)Dbx$ 15, def. I

(17) $\neg Bb$ 16, def. B

(18) $\neg(\exists x)(Bx \,\&\, x \ll u)$ 1117, 12, 17, reductio

(19) $(\exists! x)Bx \,\&\, Bu$ 10, 18, def. u