

# Humean supervenience – not quite dead yet

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Humean supervenience is named in honor of the great denier of necessary connections. It is the doctrine that all there is to the world is a vast mosaic of local matters of particular facts, just one little thing and then another... We have geometry: a system of external relations of spatiotemporal distances between points ... And at these points we have local qualities: perfectly natural intrinsic properties which need nothing bigger than a point at which to be instantiated. For short: we have an arrangement of qualities. And that is all. There is no difference without difference in the arrangement of qualities. All else supervenes on that. (Lewis 1986b: ix)

## A thesis worth to be defended

Every philosophical generation, it seems, needs its own parricide, unmasking as essentially a dogma some widely shared view of their philosophical predecessors. After Quine's critique of the logical positivists' verbal necessity, and the metaphysician's revolt against Quinean restrictions of naturalisability, it seems to be now David Lewis' turn. The target of choice is his thesis of Humean supervenience – that the totality of facts supervene on the exemplification of intrinsic properties by point-sized particulars. It has been argued that the thesis of Humean supervenience is (i) an unmotivated metaphysical prejudice, (ii) contradicted by contemporary science and (iii) superseded by recent progress in metaphysical theoretizing. I aim to counter these arguments, indirectly and inconclusively, by showing how the thesis may plausibly be taken to be analytic, in the sense that its truth constrains adequate definitions of the terms it contains.

The strategy is as follows: I will argue against (iii), thereby undermining (i), while leaving (ii) for another day. It may well be, for all I aim to show today, that we ultimately have to give up Humean supervenience, for considerations to do, e.g., with quantum non-locality. In postponing considerations of this issue to another day, I follow David Lewis's lead:

The point of defending Humean Supervenience is not to support reactionary physics, but rather to resist philosophical arguments that there are more things in heaven and earth than physics has dreamt of. Therefore if I defend the *philosophical* tenability of Humean Supervenience, that defence can doubtless be adapted to whatever better supervenience thesis may emerge from better physics. (Lewis 1994: 474)

Neither will I do much to show the philosophical tenability of the thesis: detailed argumentation about natural laws, causation and chance would be necessary to achieve this.

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My interest concerns the *prima facie* plausibility of the thesis:

**(HS)** Everything supervenes on the distribution of intrinsic properties over point-sized particulars.

A subsequent aim is then to show how **(HS)**, as a regulatory ideal, may be preserved throughout various areas of philosophical theory-building. This reconciliatory task is all the more urgent because there are import forces driving us *towards* Humean supervenience. In fact, the thesis may be understood as being analytic in at least three ways:

1. as being analytic in *supervenience*: the central metaphysical relation of explanation and analysis, whatever it is, is *bound to* hold between the (explanatorily) complex and the simple, in this order;
2. as being analytic in *intrinsic*: the characterisation of properties being a matter of how things are by and in themselves, whatever it is, is *bound to* apply to the properties the distribution of which explains how the world is;
3. as being analytic in *point-sized particulars*: no matter what the things are we identify as building-blocks of reality, they are *bound to* be those that have the fundamental properties that are explanatorily basic.

The initial plausibility of **(HS)**, I surmise, stems from the plausibility of the following three theses:

1. Explanation is always, and has to be, bottom-up.
2. Fundamental properties are, and have to be, intrinsic.
3. The fundamental building-blocks of reality are, and have to be, the units of recombination.

I will defend the three theses in turn.

## Metaphysical explanation

What is the connection between the natural fact that an action is a piece of deliberate cruelty [...] and the moral fact that it is wrong? It cannot be an entailment, a logical or semantic necessity. Yet it is not merely that the two features occur together. The wrongness must somehow be “consequential” or “supervenient”: it is wrong because it is a piece of deliberate cruelty. But just what *in the world* is signified by this “because”? (Mackie 1977: 44)

The modal characterisations do not capture the explanatory dimension of determination:

1. Modal covariance is symmetrical: not only do properties of the singleton {Socrates} supervene on those of Socrates, but also do properties of Socrates supervene on those of his singleton. However, determination is (usually, at least) one-way: the way Socrates is determines the way his singleton is, not the other way round.
2. It has proven very difficult to adequately capture the contingency of many determination claims: there are strong reasons to believe that quantifier restriction, which is the only option for those identifying determination with modal covariance, is in principle inadequate for this task.
3. We have cases of determination which cannot be explained as cases of modal covariance: we talk of the supervenience of the modal upon the non-modal, of the dispositional upon the categorical, of wholes upon their parts and of God’s creation upon God; none of these claims can be adequately cast as a claim of modal covariance.

Our conclusion is Kim’s:

All this points to the conclusion that the idea of dependence, whether causal or supervenient, is metaphysically deeper and richer than what can be captured by property covari-

ance, even when the latter is supplemented with the usual modal notions. [...] ...property covariation by itself does not warrant the use of “because”, “in virtue of”, etc., in describing the relationship any more than it warrants the attribution of dependence. (Kim 1990: 147)

## Intrinsicity

**Definition 1.** *A property  $F$  is intrinsic iff for all  $x$  and  $y$ , if  $x$  and  $y$  have the same pure, non-disjunctive and non-co-disjunctive properties independent of loneliness and of accompaniment, then,  $Fx$  iff  $Fy$  (Lewis and Langton 1998).<sup>1</sup>*

An analogous definition of “basic intrinsic relations” gives us a notion of intrinsicness for relations:

**Definition 2.** *A relation is intrinsic iff it supervenes on the basic intrinsic properties of its relata and their basic intrinsic relations.<sup>2</sup>*

Among the intrinsic relations, we may distinguish those that only depend on the properties of their relata from those that also depend on their basic intrinsic relations:

**Definition 3.** *A relation is internal iff it supervenes on the intrinsic (and hence the basic intrinsic) properties of its relata.<sup>3</sup> A relation is external iff it is intrinsic but not internal.<sup>4</sup>*

A shared drawback:

...the idea of an intrinsic property is the idea of a property a thing has in and of itself: but *considering a thing in itself* is not the same as *supposing* the thing to be *by itself*. (Humberstone 1996: 229)

What parts a thing has equally is a matter of how a thing is by itself. And how a thing is by itself will depend on what parts it has. The dependence of intrinsicness and parthood is two-way:  $x$  is part of  $y$  iff there is a region of intrinsic match between  $x$  and  $y$ .

It is useful to distinguish two concepts of loneliness:

**loneliness as independence** :  $x$  is lonely in this sense iff it exists all by itself, i.e. if nothing other exists than its (proper and improper) parts:  $\forall y(y \leq x)$ ;

**loneliness as interiority** :  $x$  is lonely in this sense iff all things outside it are abstracted away and the thing is considered ‘in isolation’.

The notion relevant for intrinsicness does not have to be independence, construed purely modally, but may be interiority.<sup>5</sup>

<sup>1</sup>A property is pure iff its exemplification does not imply the existence of anything else than the thing exemplifying it. Something is accompanied iff it does not coexist with a contingent wholly distinct thing and it is lonely iff it coexists only with its proper parts (if it has any). A property is independent of loneliness (accompaniment) iff it is both possible that it is had and that it is lacked by a lonely (accompanied) thing. A property is *disjunctive* iff it can be expressed by a disjunctive predicate but is not natural and much less natural than either of its disjuncts. The pure, non-disjunctive and non-co-disjunctive properties independent of loneliness and accompaniment are called “basic intrinsic” by Lewis and Langton. Def. 1 says that a property is intrinsic iff it supervenes on basic intrinsic properties, or, equivalently, iff it never differs between duplicates (where two things are duplicates iff they have the same basic intrinsic properties).

<sup>2</sup>If we call two pairs  $\langle x_1, x_2 \rangle$  and  $\langle y_1, y_2 \rangle$  “duplicates” iff  $x_1$  and  $y_1$  are duplicates,  $x_2$  and  $y_2$  are duplicates and  $x_1$  stands in the same basic intrinsic relations to  $x_2$  than  $y_1$  does to  $y_2$ , then a relation is intrinsic iff it does not distinguish duplicate pairs.

<sup>3</sup>Lewis (1986a: 62) calls an internal relation “intrinsic to its relata” (cf. also Lewis 1983: 26, n. 16).

<sup>4</sup>Lewis (1983: 26, n. 16) calls such a relation “intrinsic to its pairs”.

<sup>5</sup>This notion is at work in the ‘solution’ to the spinning disc puzzle Craig Callender advocates: “...if the [spinning disc]

## Substance-hood and recombination

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. (Schaffer 2010: 350)

It is not clear, however, that there may be priority without existence monism.

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argument is not to be a howler, the discs' environments must be effectively the same; but if the environments are effectively the same, the rotation must be outside the world's network of causes and effects." (Callender 2001: 40)