
Restricted Composition

A Hylomorphic Beginning

Humean Honesty I

- ❖ 'But upon a more strict review of the section concerning personal identity, I find myself involved in such a labyrinth that, I must confess, I neither know how to correct my former opinions, nor how to render them consistent' —Appendix, *Treatise on Human Nature* (Oxford University Press: 1975), 633).

One Easy Solution

- ❖ You, Hume, *do* exist:
 - ❖ After all, *every* collection exists. You're a collection—just one collection among many.
 - ❖ You're only troubled because you think you're *special*.
 - ❖ Such troubles are merely the manifestation of a presumed, unarticulated and unacknowledged *privileged ontology*.

Collections and Objects

- ❖ Consider the following objects (from Van Cleve):
 - ❖ my left shoe and the lace threaded through its eyelets
 - ❖ my right shoe and the lace threaded through the eyelets of Prof. Kraus's left shoe
 - ❖ the Eiffel Tower and the tip of Napoleon's nose
 - ❖ the moon and six pennies scattered upon a desk
- ❖ 'Given any collection of objects, no matter how disparate or widely scattered, there is a further object composed of them all' ('The Moon and Sixpence: A Defense of Mereological Universalism,' 321).

Basic Terms of Mereology

- ❖ Let ' $x < y$ ' stand for ' x is a part of y '.
- ❖ Further, let the notion of 'part' be taken as primitive, with no immediate restrictions what may qualify as a part of what
- ❖ Then:
 - ❖ x is a *proper part* of y iff $x < y$ & $x \neq y$
 - ❖ x and y overlap iff there is some object z such that (i) $z < x$, and (ii) $z < y$
 - ❖ x and y are disjoint iff x and y do not overlap
 - ❖ x is a sum of the y s =_{df} the y s are all parts of x and every part of x overlaps at least one of the y s.

Basic Axioms of Mereology

- ❖ If x is a part of y and y is a part of z , then x is a part of z
 - ❖ parthood is transitive
- ❖ $\exists x (x \text{ is a member of } A) \rightarrow \exists x (x \text{ is a sum of } A \ \& \ (\forall y) y \text{ is a sum of } A \rightarrow x = y)$
 - ❖ the existence of sums: every non-empty set has an object which is its sum
 - ❖ the uniqueness of sums: every non-empty set has at most one object which is its sum

The Existence of Sums

- ❖ Consider the Special Composition Question:
 - ❖ What necessary and jointly sufficient conditions must any x s satisfy in order for it to be the case that there is an object o composed of those x s?
- ❖ Van Cleve's View
 - (1) In response to the SCQ, we must be either: (a) universalists; (b) nihilists; or (c) moderates.
 - (2) Nihilism is untenable.
 - (3) Moderation is untenable.
 - (4) Hence, universalism is the only possible response.

A World of Simples?

- ❖ We cannot countenance macroscopic objects. Consider problem of causal overdetermination:
 - (1) For every event e putatively caused by a macroscopic object e^* (e.g. a baseball), e is equally caused by a set of simples arranged objectwise e^{**} (e.g. baseballwise).
 - (2) If e is caused by both e^* and e^{**} , then e is causally overdetermined.
 - (3) It is not the case that (it is not possible that) e is causally overdetermined.
 - (4) So, e is not caused by both e^* and e^{**} .
 - (5) In a causal preemption showdown between e^* and e^{**} , e^{**} wins every time.
 - (6) So, e is caused by e^{**} and not e^* .
 - (7) If so, e^* has no causal profile.
 - (8) For any x , x exists only if x has a causal profile (= the Eleatic Principle).
 - (9) So, e^* does not exist—there are no macroscopic objects (there are no baseballs).
 - (10) If there are no macroscopic objects and only simples, then we live in a world of simples.
 - (11) So, we live in a world of simples.

(2): Against Nihilism: Van Cleve

- (1) According to nihilism, composite entities are mere *façon de parler* (to say that o is a composite object is simply to say that some atoms are arranged o -wise).
- (2) Possibly, there is gunk—that is, atomless, infinitely divisible matter (with the result that there are no simples).
- (3) So, it is possible that *everything* that exists is a mere *façon de parler*.
- (4) It is not possible that *everything* that exists is a mere *façon de parler*.
- (5) So, nihilism is untenable.

(2) Against Nihilism: Sider

- (1) If T, then nihilism is necessarily T; if F, then nihilism is necessarily F.
- (2) Possibly, the world is gunky (gunk is metaphysically possible—possibly, there are no simples; for any whole w and any proper part p of w , p is itself a whole w^* such that w^* has proper parts).
- (3) If gunk is metaphysically possible, then nihilism is not necessarily T.
- (4) Therefore, nihilism is necessarily F.

Perhaps Brutishness?

- ❖ Perhaps we should reject (3) and stop talking.
- ❖ Perhaps, that is, moderation is just a brute fact.
 - ❖ After all, some facts will be brute facts.
 - ❖ Why not these?

On Behalf of Brutes

- ❖ Brutal Composition (BC): There is no true, non-trivial, and finitely long answer to SCQ (Markosian, 2006).
 - ❖ A true, trivial, and (perhaps) finitely long answer would be this: a list of all and only compound beings.
- ❖ Some putative advantages of brutishness:
 - ❖ Consistent with our common-sense conception of things
 - ❖ Consistent with non-vague boundaries between genuine unities and mere aggregates
 - ❖ Offers a ready response to Theseus-ship style cases, because it is consistent with coincidence

Initial Worries about Brutishness

- ❖ It just seems so brutish—and so unprincipled.
- ❖ Compositional facts seem unlikely candidates for being primitive facts.
 - ❖ ‘...if one bunch of physical simples compose a genuine physical object, but another bunch of simples do not compose any genuine object, then there must be some reason *why*; it couldn’t be that these two facts are themselves at the explanatory bedrock of being’ (Horgan, 1993: 695)
- ❖ Perhaps, then, moderation equates to mystery?
- ❖ However that may be, an appeal to brutishness is premature at best, a council of defeat and despair.

(3) Against Moderation

- ❖ If we reject nihilism (of the no objects variety), there are some things, including simples.
 - ❖ Perhaps further, then, some but not all the sums of those simples are objects.
 - ❖ This is moderation.
- ❖ The problem with moderation:
 - ❖ Moderation violates uniqueness.
 - ❖ Uniqueness is required because without it, we suffer from an explosion of reality.

The Uniqueness of Sums

- ❖ Consider as a form of moderation *Aristotelianism*: ordinary objects are compounds of form and matter.
 - ❖ So, e.g., a snowball is simply some snow, the matter, given a spherical shape, the form.
 - ❖ When some snow is spherically shaped, a new entity comes into being, namely the snowball.
 - ❖ Plainly the snowball and the snow which makes it up are not identical: the snow can exist when the snowball does not.
 - ❖ So, Aristotelianism violates uniqueness.

The Explosion

- ❖ According to Aristotelianism, a sufficient condition for the generation of *any* new object is the realization of some form or other by some quantity of matter or other.
- ❖ So, e.g., when the snowball comes into existence, so too does an infinite number of *snowdiscalls* (= a quantity of snow and any shape between being spherical and being disc-shaped).
- ❖ Allegedly violates three principles of note:
 - ❖ It is an affront to common sense to say that so very many items are created each time a snowball comes into existence.
 - ❖ Two or more items cannot be in the same place at the same time.
 - ❖ Difference of entity requires difference of content.

(3) Against Moderation (again)

- (1) If we accept any form of moderation we are saddled with an explosion of reality.
- (2) Any such explosion of reality is unacceptable.
- (3) So, moderation is not to be accepted.

Explosion and Coincidence

- ❖ Explosion is problematic, and if coincidence yields explosion, it too is problematic.
- ❖ One question: is there a *principled* way to permit coincidence without being saddled with explosion?
- ❖ Consider again the first move towards explosion: it is only according to the proponents of explosion that according to Aristotelianism a sufficient condition for the generation of *any* new object is the realization of some form or other by some quantity of matter or other.
- ❖ But why should the Aristotelian accept this sufficiency condition?

Two Telling Remarks

- ❖ 'Mereological sums are composite entities that are not constituted by any essential form—as far as their existence is concerned, nothing matters but their matter' ('The Moon and Sixpence: A Defense of Mereological Universalism,' 326)
- ❖ One word of advice before we begin about what is at issue. If you accept that there is such a parcel or aggregate of matter as that composed of the moon and the pennies, you already agree with me, even if you don't consider the aggregate to be very thing-like. It need not be a *thing*, in any narrow sense of the term; it need only be *there*. ('The Moon and Sixpence: A Defense of Mereological Universalism,' 323).

Humean Honesty II

- ❖ '... I am persuaded, there might be several useful discoveries made from a criticism of the fictions of the ancient philosophy concerning substances, and substantial forms, and accidents, and occult qualities, which, however unreasonable and capricious, have a very intimate connexion with the principles of human nature.' (Hume, *A Treatise on Human Nature* I. 3. 4)

The Obvious Question Here

- ❖ What is a *form*?
 - ❖ Van Cleve proceeds on the understandable but anemic thought that ϕ is a form *iff* ϕ is a shape.
 - ❖ Notice, then, that permitting non-contiguity for shapes, then 'Aristotelianism' yields not just explosion, but *atomic explosion*.
 - ❖ If, e.g., the solar system has a shape, then so too does not only the snowdiscal of every degree, but so too does the object comprising the snowdiscal of degree n + Flaubert's left hand.
 - ❖ And so on.

An Obvious Rejoinder and Question

- ❖ A form is not a shape.
- ❖ An an obvious next question: what, then, is a form?

A Hylomorphic Approach

- ❖ Hylomorphic objects are *unified compounds*:
 - ❖ O is a hylomorphic object *iff* (i) o has two categorially discrete components such that (a) m is unquantized plastic and (b) ϕ delimits m ; and (ii) m qualifies as o in virtue of ϕ (or, if you like: the presence ϕ makes m o)
 - ❖ This is tantamount to saying that ϕ provides a principle of unity in terms of which m constitutes some object o .
- ❖ Our next question, then, is: how is it that form is a principle of the relevant sort?
 - ❖ What in particular is the 'making' relation? And what is this 'in virtue of' talk?