## Philosophy 125 — Day 12: Overview

- Administrative Stuff
  - Philosophy Colloquium today (4pm in Howison Library)
    - "Context" — Jerry Fodor, Rutgers University
  - Clarificatory questions on study questions or papers topics?
- Agenda: Concrete Particulars (Cont'd)
  - The Bundle Theory
    - Motivation
    - Objection #1: Subject-predicate discourse
    - Objection #2: The Identity of Indiscernibles
  - The Substratum Theory
    - Motivation
    - Some problems
  - An Alternative Account: Aristotelian substances





## Concrete Particulars VI: Background on Bundle Theory

- Bundle theorists agree with substratum theorists in denying that the concrete objects of everyday experience are ontologically basic or fundamental.
- According to Bundle Theory, a concrete particular is just a "bundle," a "cluster," a "collection," or a "congeries" of the empirically manifest attributes that common sense associates with it. No mysterious bare substrata.
- The "glue" that binds bundles is a *primitive* relation called "compresence," "collocation," "combination," "consubstantiation," or "coactuality". This primitive relation is explained informally as the relation of occurring together.
- According to bundle theorists, there are really only attributes, properties, or tropes. What we call "particulars" are mere constructions out of these.
- Different attributes entail different bundles, so where we have change we have numerically different bundles and, hence, numerically different objects.
- As Loux points out, this is *also* a problem for substratum theory — *general problem*: changes in constituents lead to changes in wholes. Study Question.





## Concrete Particulars VII: Objection #1 to Bundle Theory

- We make all kinds of nonequivalent claims about concrete particulars. For instance, "Sam is red," "Sam is spherical," "Sam is 2 inches in diameter", *etc*.
- Challenge from substratum theorist: Answer the following 2 questions:
  - What is the thing "Sam" to which an attribute is being said to be related?
    - A1: Just the bundle of attributes that is the thing we've dubbed "Sam".
      - But, then don't these claims come out *tautologous* (true by logic)?
      - However, we can use the name "Sam" to denote a bundle without knowing all of its constituents. So, claims can still be *informative*.
    - A2: The bundle of attributes "Sam" *sans* the attribute in question.
      - Now, *no two nonequivalent statements are about the same thing*.
  - What relationship is being said to obtain between the two?
    - The relation of constituent to whole. This is just like set membership.
- But, like sets, bundles cannot change their membership, so they have their attributes *necessarily*. *Key difference* between substratum & bundle theories.





- Why does Loux (Van Cleve) say that bundle theory implies particulars have their attributes *necessarily*? Parallels the claim that trope theory implies there could not have been more or fewer courageous people than there in fact are.
- This also seems like an undesirable consequence, since it seems that (for instance) I could have been taller than I in fact am. But, on this reading of bundle theory, *no* particular could have had *any* attributes other than those it in fact has. Is there a way for the bundle theorist to avoid this consequence?
- In the case of trope theory, I suggested that the definite description "the set of courage tropes" is like "the number of planets" or "the set of courageous people", which may refer to different sets in different worlds or situations. This seemed plausible for trope theory's account of abstract singular terms.
- Will a parallel move work for bundle theory's account of *proper names*? It's not so clear. Bundle theory says that "Branden" denotes a set of compresent attributes. We could try to Quine/Russellize here: "the set of compresent attributes that is-Branden". Is *this* description like "the number of planets"?
- Maybe. But, this time the question is trickier, owing to thorny questions about personal identity, and identity conditions for particulars, generally. To wit. . .

## Concrete Particulars VIII: Objection #2 to Bundle Theory 1

- The 2nd objection is an argument involving the following three principles:

(II) Necessarily, for any concrete objects, $a$ and $b$, if for any attribute, $\phi$, $\phi$ is an attribute of $a$ iff $\phi$ is an attribute of $b$, then $a$ is numerically identical with $b$.

- (II) says that complete qualitative *indiscernibility* (*agreement with respect to all attributes*) *entails numerical identity.* Its converse seems *trivial*. *Why*?

(PCI) Necessarily, for any complex objects, $a$ and $b$, if for any entity, $c$, $c$ is a constituent of $a$ iff $c$ is a constituent of $b$, then $a$ is numerically identical w/ $b$.

- (PCI) is accepted both by substratum theorists and by bundle theorists. It says that *agreement with respect to all constituents entails identity*. As was the case with (II), the converse of this claim (which is a distinct claim) seems *trivial*.

(BT) Necessarily, for any concrete entity, $a$, if for any entity, $b$, $b$ is a constituent of $a$, then $b$ is an attribute. [this should be an *iff*, I think, see below]

- (BT) is basic for bundle theory: *only attributes are constituents of particulars*.





- The argument of objection #2 (from simplified versions of the 3 principles):

(II) Agreement on all attributes entails identity.

(PCI) Agreement on all constituents entails identity.

(BT) The attributes a thing has are *all and only* (!) the constituents it has.

  - Step 1: (PCI) + (BT) entails (II). [Easy.]
  - Step 2: (II) is false. [Not so easy. This is where the real controversy is.]
  - Step 3: Since (PCI) is uncontroversial, (BT) is false. [Easy.]
  - Step 4: Since bundle theory entails (BT), bundle theory is false. [Easy.]

- NOTE: This argument *only* applies to the realist's (BT). A trope theorist will either accept (PCI) and (II) in *vacuous* forms (with no consequences for their theory), or they will deny them. No two objects can *share any* tropes (*viz.*, constituents). "Agreement" is merely *similarity* between tropes. But that's not "agreement" in a sense strong enough to imply a *non-vacuous* (II). So, (II) *may* follow from (BT) and (PCI), but only *vacuously* for a trope theorist. There are no compelling trope counterexamples to (II)!
- The difficult step here is step 2. What are the *counterexamples* to (II)?





## Concrete Particulars IX: Objection #2 to Bundle Theory 2

- Loux (Black) considers a pair of spheres ($a$ and $b$) with the same shape, color, mass, texture, size, etc. As he puts it "they are so similar that no one can tell the difference between them." Could this be a counterexample to (II)?
- What about the properties $A$ = being identical with $a$, and $B$ = being identical with $b$. Don't $a$ and $b$ *fail* to share *these* properties? ($Aa$, not $Aa$, not $Ba$, $Bb$)
- Loux argues that the bundle theorist is *not allowed* to appeal to such properties, since they are *reductionists* about particulars, and such properties *presuppose* an "irreducible" notion of a particular: one that cannot be be understood as a mere bundle of attributes. Such properties are *impure*.
- This leads Loux to formulate a revised version of (BT).

(BT*) Necessarily, for any concrete entity, $a$, if for any entity, $b$, $b$ is a constituent of $a$, then $b$ is a *pure property/attribute*.

- (BT*) and (PCI) entail something stronger than (II) (w/only pure properties).





(II*) Necessarily, for any concrete objects, $a$ and $b$, if for any *pure* property/attribute, $\phi$, $\phi$ is an attribute of $a$ iff $\phi$ is an attribute of $b$, then $a$ is numerically identical with $b$.

- And, it seems, this provides an argument against bundle theory that cannot be escaped by appealing to properties like $A$ and $B$ which are patently impure.
- But, it is impossible for two different concrete objects to occupy the same region of space at a given time. So, no two concrete objects will agree with respect to *those* properties that specify their spatiotemporal location either.
- In a rebuttal on behalf of the substratum theorist, Loux says:

> ...these properties are one and all impure. [the substratum theorist] will argue that since space and time represent relational structures, the properties that specify the spatiotemporal position of concrete objects are always properties like being 2 miles north of the Eiffel Tower – properties that already presuppose or involve concrete particulars and so cannot number among the items the bundle theorist construes as constituents of concrete objects.

- What do you think about this move? Are such properties *impure*? See Casullo.

## Concrete Particulars X: An Argument for Substratum Theory

- Many people view the above argument [from not (II*) and (PCI) to not (BT*)] as a refutation of the metaphysical realist version of bundle theory [(BT*)].
- Thinking more deeply bout these conditions leads, according to Loux, to a persuasive *positive* argument *in favor of* substratum theory.
- If (II*) is false, then there will be *distinct* particulars which (nonetheless) share all *pure* properties. For instance, think about our spheres $a$ and $b$.
- $a$ and $b$ will share all pure properties. And, their *impure* properties are not useful for determining their *constituents*. As Loux says:

  > ... since our aim is to identify the constituents out of which concrete particulars are composed, the items we appeal to ... cannot already presuppose the complex entities that are concrete particulars, and impure properties all do. No ... impure ... properties can explain the [nonidentity] of [$a$ and $b$].

- But, since (PCI) is true, and $a \neq b$, there must be *some* constituent they do not share, which is not determined by any attributes $a$ or $b$ has — bare substrata!





## Concrete Particulars XI: Problems for Substratum Theory 1

- We already hinted at one objection to substratum theory: the epistemology of bare substrata. How can we be acquainted with or know about bare substrata?
- Interestingly, many bare substratum theorists (*e.g.*, Locke, Bergmann) have been self-identifying empiricists! They have various replies to this worry:
  - To be acquainted with numerically diverse, yet qualitatively indiscernible objects is *eo ipso* to be acquainted with bare substrata.
  - Being confronted with a pair of objects related as Black's two red balls, $a$ and $b$, are, we are in a perceptual context where the principles of numerical diversity in them make themselves apparent to us.
  - Since the attribute and subject are correlative concepts, it is impossible to be acquainted with an attribute without being acquainted with its subject.
  - If attributes can be the objects of empirical awareness, so can the substrata that literally possess them.
- This sounds *question-begging* and *disingenuous*. The bare substratum was not motivated on epistemic, but conceptual grounds. *That* should be their reply.





## Concrete Particulars XII: Problems for Substratum Theory 2

- Is the substratum theory even *coherent*? It *seems* to be saying: things that possess attributes are bare. But to be bare is to possess no attribute. So, are we to infer that things which possess attributes possess no attributes?
- There is an ambiguity in "possess". To be fair, what the substratum theory is saying is that bare substrata (hence, particulars) do not possess any of their attributes *necessarily* — *All* particulars have *all* their attributes *contingently*.
- In other words, the view is that none of the attributes of a substratum are *essential* to the substratum. None are *constitutive* of it (or of its identity).
- Note: This makes it clear that bundle theory (on Loux's reconstruction) and substratum theory are diametrically opposed on the question "Which attributes do particulars have necessarily?" BT: *all*; ST: *none*.
- We have already seen that it's pretty crazy to claim that particulars have *all* their attributes necessarily. It's also pretty weird (naively) to say they have *none* of their attributes necessarily. At this point, Loux rightly speculates:





> We are told, for example, that bare substrata have no attributes essentially; but what of this feature of bare substrata? Is it one that is merely contingently true of bare substrata? Likewise, bare substrata are said to be the literal bearers of attributes. Is this a merely contingent feature of bare substrata? Is it possible that things could be otherwise, so that not they, but some other entities played this role? Again, bare substrata are said to be the principles of numerical diversity. Might they have failed to diversify objects? ...

- There seem to be properties that are essential to *everything*. *E.g.*, the property of being *self-identical*, the property of being red or not red, or colored *if* red.
- There also seem to be properties that are essential to some things but not others. *E.g.*, the property of not being identical to the number 7, the property of being red or non-red, or (perhaps) the property of being a human being.
- So, it seems, if there are substrata, they will have some attributes necessarily. But, if that is so, then we seem to be off on a regress. The substratum theorist now needs a *new* (finer-grained) substratum to serve as the *literal bearer* of *these* (essential) attributes. But, *they* will have some essential features ...

## Concrete Particulars XIII: Aristotelian Substance 1

- It seems we're faced with a choice between extremes. We can choose a theory which says that all attributes of all particulars are *contingent* (substratum), or we can choose a theory which says that all attributes of all particulars are *necessary* (bundle).[a] This seems to leave us with only two options:
  - Go for Austere Nominalism, and deny that particulars are *complexes*.
  - Or, go for a trope-theoretic bundle theory (at least avoids (II)-argument).
- But, of course, this is a false dichotomy, since "All $X$'s are $Y$'s" and "No $X$'s are $Y$'s" do not exhaust the logically possible cases. A common-sensical view might be that some attributes of particulars are necessary and some are not.
- Or, as Loux puts it, one make take "concrete particulars themselves, or at least some among them, to be basic or irreducibly fundamental entities." This is an *Aristotelian* ("mean") view about *substance*, and our last theory of particulars.

[a] Loux's second horn: a theory accepting (II), rather than a theory making all attributes necessary. Puzzle: why doesn't Loux state the dilemma in the obvious way here? Why retreat to (II)? Study Q.