

## Philosophy 125 — Day 13: Overview

- Reminder: Due Date for 1st Papers and SQ's, **October 16** (next Th!)
- Zimmerman & Hacking papers on Identity of Indiscernibles online
- Handouts on “Rigidity, Abstract Reference, and Predication” and “Aristotle’s Division of the World” are also posted online
- Concrete Particulars (Cont’d)
  - The Identity of Indiscernibles (II)
    - \* The (II) Argument Against *Realist* Bundle Theory
    - \* Is (II) false? (Hawthorne/Zimmerman/Hacking)
  - Remarks on *Trope* Versions of Bundle Theory
  - An Argument for Substratum Theory
  - Problems with Substratum Theory
  - Aristotelian Substance: A Happy Medium?



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

- The Identity of Indiscernibles (II) Argument against *Realist* Bundle Theory is as follows. The realist bundle theorist accepts both (PCI) and (BT).
- (PCI) Agreement on all constituents entails identity.
- (BT) The constituents of a particular are (just) its properties.
- But, (PCI) and (BT) jointly imply the Identity of Indiscernibles (II):
- (II) Agreement on all properties entails identity.
- But, or so the argument continues, (II) is *false*. That is, it is possible for *a* and *b* to share all properties *and* for *a* and *b* to be *numerically distinct* (i.e.,  $a \neq b$ ).
  - So, the realist bundle theorist must reject either (PCI) or (BT), or both. But, (PCI) seems clearly true, and it is accepted by all parties. So, it seems that (BT) must be rejected (unless counterexamples to (II) can be blocked).
  - Hence, the debate about realist bundle theory hinges on (II). Is it false?



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

- Loux (Black) considers a universe containing only two spheres (*a* and *b*). The spheres have the same shape, color, mass, texture, size, *etc.* Indeed, they seem to share all properties. As Loux 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? After all, *a* exemplifies property *A*, but *b* does not, and *b* exemplifies property *B*, but *a* does not.
  - Loux argues that the (realist) bundle theorist is *not allowed* to appeal to such properties, since such properties *presuppose* an “irreducible” notion of a particular: one that cannot be understood as a bundle of attributes — without simply *begging the question* at hand. Such properties are *impure*.
  - This leads Loux to formulate a revised version of realist bundle theory (BT).
- (BT\*) The constituents of a particular are (just) its *pure* properties.
- (BT\*) and (PCI) entail something stronger than (II), namely:



(II\*) Agreement on all *pure* properties entails identity.

- This seems to be an argument against (realist) 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.
- This seems to depend on whether space-time *itself* is taken to be a *substance* as opposed to a *bundle of relations*. Newton vs Leibniz! [See Hacking.] Turn the tables: Why does the *substratum theorist* think there are *two* spheres here?



### Concrete Particulars X: Another Way Out? (Zimmerman/Hawthorne)

- Zimmerman (and Hawthorne) formulate another possible response to the (II)-objection on behalf of the realist bundle theorist. They suggest that the realist embrace horn #1 of the age-old *Parmenidean Dilemma* (Lecture 6).
- Recall, this horn assumes that universals are *entirely* located where *each* of their exemplifiers are located. *E.g.*, Redness is *entirely within* each red sphere. On this account, universals are “immanent” and “separate from themselves”.
- NOTE: We are *not* talking about tropes here! We are talking about *single universals* (*e.g.*, Courage) being located *in two different places at one time*.
- Nobody thinks that *particulars* are capable of this, but, as David Lewis says, this intuition was clearly “made for particulars,” and there may be no reason to suppose that this should also apply to universals. How does this help?
- If universals can be (*entirely*) in two places at once, then the fact that the spheres are spatially separated is not decisive in determining whether they are *one and the same* — could be *one bundle of universals, separated from itself*.



### Concrete Particulars XI: 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 about 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*.
- If this is a counterexample, then *a* and *b* will share all pure properties. And, their *impure* properties are not useful for determining their *constituents* ...  
... 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* ≠ *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 XII: 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 (how?).
  - 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 (since they are the true *subjects*).
- This sounds *question-begging* and *disingenuous*. The bare substratum was not motivated on epistemic, but conceptual grounds. *That* should be their reply.



### Concrete Particulars XIII: 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?” Loux's 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 XIV: Remarks on Trope Bundle Theory

- The (II) argument is *irrelevant* to the trope version of bundle theory. No two things can share a trope. And, even if two tropes are similar, they are nonetheless *distinct*. So, there are no *trope* counterexamples to (II)!
- On Loux's reconstruction of trope bundle theory, bundles (which are just *sets*) have their members *necessarily* (sound familiar?). It follows that *all* particulars have *all* their attributes *necessarily*. But, this seems absurd.
- It seems that "Socrates is courageous" is *contingent*, *not necessary*. But, a trope bundle theorist (on Loux's rendition) cannot say (or account for) this.
- Perhaps we can try our "non-rigidity trick" here. What if we say that "Socrates" denotes "the set of compresent attributes that we call 'Socrates'"?
- Surely, this is *not* rigid. So, it does allow Socrates to have (at least) some of his attributes *contingently*. But, does this lead to a satisfying *explanation* of the contingency of his properties? *Why* is *Socrates contingently* courageous?
- Hint: Is this because *we* might have used the name "Socrates" differently?



### Concrete Particulars XV: 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* (standard bundle).<sup>a</sup> This seems to leave us with only two options:
  - Go for Austere Nominalism, and deny that particulars are *complexes*.
  - Or, go for a (non-rigid?) trope bundle theory (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.
- Loux recommends an *Aristotelian* account, which is like Austere nominalism in denying that particulars are complexes, but also employs a *realism* about universals in a way that makes some attributes necessary and some contingent.

<sup>a</sup>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.

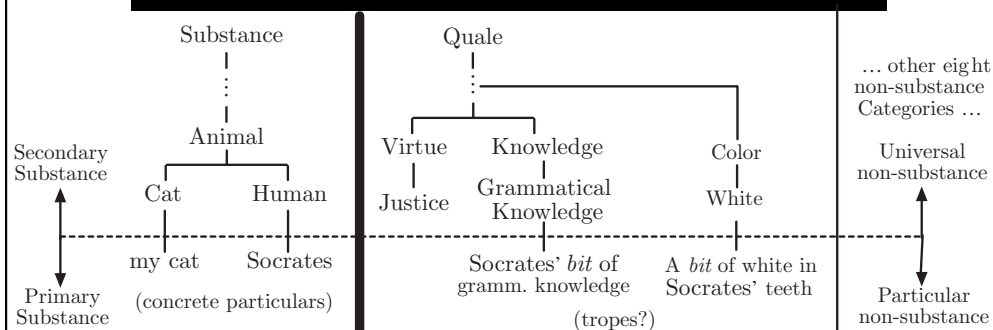


### Concrete Particulars XVI: Aristotelian Substance 2

- Aristotle's theory of matter and substance is subtle (it's also controversial as to what the theory is – this is covered in John MacFarlane's 25A class). We'll try to keep this as simple as possible. See my handout for a more detailed picture.
- First, I'll try to present a picture of Aristotle's conception of substance. Then, I'll mention some problems with this picture (without too much detail).
- Generally, Aristotle held concrete particulars to be *organic wholes*, without metaphysical constituents (this aspect is like Austere Nominalism). These wholes are organized (*teleologically*) into *kinds*, which tell us *what things are*.
- *E.g.*, Socrates is an *animal*. Socrates has some properties essentially (*e.g.*, Humanhood), and others contingently (*e.g.*, Courage). Socrates *essentially* (and proximally) belongs to the kind Human (*infimum*): that's *what he is*.
- There is a hierarchy of kinds, to which things belong *essentially*. Kinds at the bottom (*infima*) of the hierarchy are the *most* determinative of what things are.



## Concrete Particulars XVII: Aristotelian Substance 3



- Aristotle's Division of The World has 10 *Categories*, divided into *Substance* and *Non-Substance*. biological (and perhaps physical) *kinds* are *substantive*, but qualities (e.g., colors), quantities, (e.g., wavelength), and the other 8 are not.
- Particulars (e.g., Socrates) *belong to* kinds in their Category (e.g., Human) *essentially*, and *have* properties in other categories (e.g., Virtue) *contingently*.
- Kinds at bottom of tree are *infima* — they determine what things *under them are*.



## Concrete Particulars XVIII: Aristotelian Substance 4

- Loux's Aristotelian view of substance (concrete particular) *vs* bundle theory.
  - The bundle theorist (on Loux's reconstruction) treats *all* attributes as essential or necessary. This is "*superessentialism*", as Loux calls it.
    - \* Can this be avoided? [Study question at end of my "rigidity" handout.]
  - Aristotle takes some universals (kinds) to be exemplified (belonged to) *necessarily*, and others (qualities, etc.) to be exemplified *accidentally*.
  - Bundle theory restricts the constitutive attributes to *properties* (no kinds).
    - \* Can't the realist bundle theorist include *kinds*? If not, *why not*? S.Q.
  - Aristotle's distinction between *kinds* and *properties* is *crucial* for his view.
    - \* Aristotle's kinds demarcate *what concrete particulars are*. This is why they are essential to particulars, and properties are not. Kinds ≠ sets!
- Point of agreement: the "being" of a particular is grounded in the attributes it has (for Aristotle, the kinds to which it belongs: the answer to "What is it?").



## Concrete Particulars XIX: Aristotelian Substance 5

- Loux's Aristotelian view of substance (concrete particular) *vs* substratum Th.
  - Substratum: the subject of attribution is a *constituent* of the particular.
  - Aristotle: the subject of attribution is just *is* the (organic) particular itself.
  - Substratum: Subject must exist *independently* of *all* attributes it bears.
  - Aristotle: Subject exists independently of its *contingent* attributes *only*.
  - Substratum: Bare substratum *explains how* (II) can be false (*diversifier*).
  - Aristotle: *Multiple exemplification of kinds* explains how (II) can be false.
    - \* *How?* I don't see this. [Study Question.] Loux simply *asserts* that:
 

Aristotelians deny that there is a special problem of explaining how concrete particulars can be numerically different from each other. They insist that the multiple instantiation of a kind is, by itself, sufficient to secure the existence of numerically different particulars. Each of its instantiations is a particular that is numerically different from the others.
- Points of Agreement: the attributes associated with a particular require a subject, and the Identity of Indiscernibles princ. (II) is false (anachronistic?).

