

## Structure, Dependence and Categories

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My central thesis: Ontological structure depends on the ontological categories. There is only one fundamental category, the category of properties (or qualities). There is no structural need for two fundamental categories.

### Assumptions I deny:

Assumption 1: *particularity*. We need to distinguish between objects and properties because objects are particulars while properties are ways particulars can be.

Assumption 2: *concreta*. We need to distinguish between objects and properties because objects are concrete while properties are abstract.

Assumption 3: *independence*. We need to distinguish between objects and properties because objects are independent while properties are dependent.

Assumption 4: *substantivalism*. We need a category of objects (or at least substances) to preserve the empirical possibility of substantivalism.

Assumption 5: *regionalism*. We must build globally qualitatively rich material from locally qualitatively rich material.

### Two-category mistakes:

“What we standardly call ‘parts’ are a special kind, *independent* parts or *pieces*... Parts is one thing, properties another” (Simons 1994, 563).

“To borrow now an old but pretty appropriate term, a gross part, like the stick [of a lollipop], is “concrete,” as the whole lollipop is, while a fine or diffuse part, like the color component or shape component, is “abstract” (Williams 1953, 6).

“[T]he more special sort of incompleteness which pertains to what we have called the ‘thin’ or ‘fine’ or ‘diffuse’ sort of constituent, like the color or shape of our lollipop, [is] in contrast with the ‘thick,’ ‘gross,’ or chunky sort of constituent, like the stick in it” (Williams 1953, 15).

The basic mereology  $\mathcal{M}$  for a one-category ontology:

A<sub>1</sub>. For any  $x$ ,  $x$  is not a proper qualitative part of itself. (Proper qualitative parthood is *irreflexive*.)

A<sub>2</sub>. For all  $x$  and  $y$ , if  $x$  is a proper qualitative part of  $y$ ,  $y$  is not a proper qualitative part of  $x$ . (Proper qualitative parthood is *asymmetric*.)

A<sub>3</sub>. For all  $x$  and  $y$ , and for any  $z$ , if  $x$  is a proper qualitative part of  $y$  and  $y$  is a proper qualitative part of  $z$ ,  $x$  is a proper qualitative part of  $z$ . (Proper qualitative parthood is *transitive*.)

D<sub>1</sub>. For all  $x$  and  $y$ ,  $x$  is a *qualitative part* of  $y$  iff  $x$  is a proper qualitative part of  $y$  or  $x$  is identical to  $y$ . (An object's improper qualitative part is just itself.)

D<sub>2</sub>: For all  $x$  and  $y$ ,  $x$  *qualitatively overlaps*  $y$  iff  $x$  and  $y$  have a qualitative part in common, and  $x$  is *qualitatively disjoint* from  $y$  if they have no qualitative part in common.

D<sub>3</sub>: For all  $x$  and  $y$ ,  $x$  is the *qualitative fusion* of  $y$ s iff  $x$  has all the  $y$ s as qualitative parts and no qualitative parts that are qualitatively disjoint from the  $y$ s.

Not just any predicate defines a property, and there are no negative properties, merely negative predicates (if an object is  $\sim F$  then it does not include  $F$  in its fusion). Qualitative fusion is neither covertly or overtly spatiotemporal, nor is it somehow tied to spatiotemporal location. It is restricted.