Lewis's "New Work" and Sider's *WTBOTW*, Ch 1-2

Handout, Metaphysics Seminar 1/13/15

Preview: Lewis introduces the notion of a "natural" property. He tries to explain (to some degree) what naturalness is and which properties are natural. He also points out the "work" natural properties can do (serve as the backbone for accounts of objective similarity, intrinsicality, laws of nature, supervenience, reference). Sider begins to develop his notion of "structure", relating it back to Lewis's naturalness.

1 New Work for a Theory of Universals

1.1 Natural Properties vs. Universals

Armstrong takes properties to be universals: entities that are "wholly present" in their bearers. Lewis is a nominalist: he denies that properties "inhere" in objects; instead, he just takes properties to be classes of (possible and actual) objects. In "New Work", Lewis picks out an elite squadron of properties, natural properties, that he thinks can perform the same jobs as Armstrong's universals.

1.2 Grasping Naturalness

"Natural properties would be the ones whose sharing makes for resemblance, and the ones relevant to causal powers." (347) Natural properties are those that carve nature at its joints. Our best physical theories aspire to give us at least a partial inventory of the natural properties.

1.3 Applications

1.3.1 Duplication, Intrinsicality, and Supervenience

Duplication: Objects x and y are qualitative duplicates if and only if they share the same perfectly natural properties. (add: and their parts stand in the same natural relations).

Intrinsicality: Property P is intrinsic if and only if all duplicates either share P or all duplicates lack P.

Supervenience: We have this notion of "qualitative duplication" in mind when entertaining certain supervenience theses. Lewis states:

> Interesting supervenience theses usually involve the notion of qualitative duplication that we have just considered. Thus we may ask what does or doesn't supervene on the qualitative character of the entire world, throughout all of history. Suppose that two possible worlds are perfect qualitative duplicates - must they then also have exactly the same distributions of objective probability, the same laws of nature, the same counterfactuals and causal relations? (359)

What do we think about Lewis's aside on duplicate possible worlds and PII (359)?

1.3.2 Laws of Nature

Lewis favors a regularity account of laws where laws are the universal generalizations that are axioms of the best system, where the best system balances "simplicity" and "informativeness".

- The laws feature only natural predicates/properties.

- What about the laws of the special sciences?

- Derivative predicates/properties in fundamental laws? (Hawthorne 2006, Hicks and Schaffer (forthcoming))

2 *WTBOTW* Ch. 1-2

2.1 Structure

According to Sider, some notions "carve nature at its joints." These notions pick out objective "structure".

"The truly central question of metaphysics is that of what is *most* fundamental. So in my terms, we must ask which notions carve *perfectly* at the joints." (5)

Sider never offers a definition of "structure".

Sider thinks that properties/predicates are structural (/natural/fundamental), and that other entities (certain operators and quantifiers, for instance) may count as structural as well. In this way, his view is an extension of Lewis's views of naturalness.

2.2 Ontology vs. Ideology

Ontology: which entities exist.

Ideology: a theory's choice of primitive notions. The "joint carving" ideology is that which is indispensable to our best theories. Ideology is not supposed to be a psychological phenomenon.

Example of an ideology/ideological posit: Minkowski Spacetime, taking "electromagnetism as a single fundamental force rather than regarding electricity and magnetism as separate fundamental forces". (13) Examples of ontological posits: electrons, cows.

Sider thinks there is a tension between wanting to keep our ontological posits minimal and wanting to keep our ideological posits minimal.

2.3 Disjunctive and Conjunctive Properties

How is Sider thinking about $\vee$ and $\wedge$?

"Noticing the presence of disjunction in the definitions of many philosopher's features, an extensionalist might begin an attempt to characterize genuineness by disqualifying features defined in this way. But what language do we use to evaluate whether a feature is "defined using disjunction"? Speakers of English must use 'or' to define the feature: being an electron or cow, but speakers of a language with a primitive predicate for this feature–'blurg', call it–can define the same extension without using 'or'. Indeed, if the language is strange enough, its speakers would need to use or and other logical connectives to say things that in English may be said using simple predicates like 'cow' and 'electron', just as we must use logically complex predicates of English to say what they say using 'blurg'. The extensionalist attempt fails to characterize an appropriately language-independent notion of genuineness." (4)

Discussion of certain conjunctive properties (in relation to Sider's notion of "substantivity" on page 6)

2.4 Possible Reduction of Structure to other Notions?

Can 'X is structural' be reduced to:

- X is featured in the laws of nature?

- X is featured in our fundamental theory of causation?

- X belongs to a set of properties and relations Y, where Y is *minimally complete*? (p. 16-17)