

# Sider's *WTBOTW*, Ch 1-3, 4.1-2, 6.1-3

## Handout, Metaphysics Seminar 1/20/15

**Preview:** Sider begins to develop his notion of *structure*, relating it back to Lewis's *naturalness*. In Chapters 1 and 2, he foreshadows many of the topics and themes that recur throughout the book. The two we'll focus on are 1. His introduction of (Quine's) distinction between the ideology and ontology of a theory, and 2. His discussion of whether structure is reducible to other notions. In Chapters 3 and 4.1-2, Sider delves into greater detail about the applications of his notion of structure. He revisits some of the applications of Lewis's notion of naturalness (to laws of nature, objective resemblance, and reference magnetism, especially), and he also discusses how we can use the notion of "joint-carvingness" to provide an account of the distinction between substantive and non-substantive questions. In chapter 6, Sider discusses how not only predicates should count as structural, but also quantifiers and operators may count as structural as well.

## 1 *WTBOTW* Ch. 1-2

### 1.1 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.

### 1.2 Ontology vs. Ideology

In Chapter 2 (and again in 6.3), Sider distinguishes between ontology and ideology. This first comes up in the context of epistemology. Just as Sider believes it is wise to believe the ontological posits of a good theory, one should also take the ideology of a good theory to carve at the joints.

**Ontology:** which entities exist. Examples of ontological posits: electrons, cows.

**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. Examples ideological posits: Minkowski Spacetime, taking "electromagnetism as a single fundamental force rather than regarding electricity and magnetism as separate fundamental forces". (13)

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

**Question:** Do we really understand this notion of ideology and how it differs from ontology?

### 1.3 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)

## 1.4 Possible Reduction of Structure to other Notions?

Can ‘X is structural’ be reduced to:

- X is featured in the laws of nature? (Sider raises an extensional objection and a systematic objection to this proposal).
- X is featured in our fundamental theory of causation? (Sider raises similar objections to this proposal as he does to the previous proposal)
- X belongs to a set of properties and relations Y, where Y is *minimally complete*, (i.e. Y is the supervenience base)? (p. 16-17) (Extensional Concern: is the set of seemingly-structural properties complete? Even if it is complete, is it minimally complete?)

## 2 Chapters 4.1-4.2, 6.1-6.3

### 2.1 4.1-4.2 Substantivity

**Nonsubstantive Questions (a sampling):** Is Robinson Crusoe a bachelor? Is a water glass a cup? Is a protrusion from the floor of a deep ocean, whose tip is a tiny island, a mountain? Is some nonsense made out of sour green apple liqueur, served in a V-shaped glass, a martini?

**Substantive Questions (a sampling):** Do electrons repel each other? Is there life on Mars? Time may change you, but can you trace time?

Three ways *not* to characterize substantivity: 1. Lack of substantivity does not consist in mind dependence. 2. “Nor is the lack of substantivity due to the questions being about words or concepts” (52). 3. Lack of substantivity not due to there being no fact of the matter which answer is correct.

How does Sider think we should characterize Substantivity/Non-Substantivity?

**Nonsubstantive Question (Unrefined version):** “For one or more expressions E (e.g. ‘bachelor’) in a nonsubstantive question, the semantic candidates for E (unmarried-adult-male, unmarried-adult-male-eligible-for-marriage, etc.) are such that i) each opposing view about the question comes out true on some candidate; and ii) no candidate carves at the joints better than the others.”<sup>1</sup> Substantive questions are those that are not nonsubstantive.

(More Refined Version on page 58. Happy to discuss if there’s time)

**Questions:**

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<sup>1</sup>What counts as a candidate? “A candidate meaning m needn’t perfectly match our usage of E; but the mismatch can’t be too severe. If a linguistic community, roughly in our circumstances, could have used E to mean m without seeming semantically alien, could have used E to reach the same semantic goal as we use E to reach, albeit perhaps by a different route, then m is a candidate for E.” (59)

1. Does he count some intuitively substantive questions as non-substantive or *vice versa*?
2. Sider says that his accounts of substantivity does not constitute a “conceptual analysis of substantivity, thought of as pre-theoretically given. The aim is rather to introduce a concept that sheds light on the phenomena.” What does he mean and do we believe him? (56)

## 2.2 6.1-6.3 Moving Beyond the Predicate

Sider wants to differentiate his approach from those of Lewis and Armstrong in two ways: 1. He thinks Lewis and Armstrong are both committed to abstracta which he doesn't like (Question: what *exactly* does Sider dislike?), and 2. He thinks operators and quantifiers, in addition to predicates, can count as structural.

Also, if we want 2, we'll need to move away from Lewis and Armstrong's accounts, it looks like. To extend their strategy to expressions like quantifiers or sentential operators, we would need to identify corresponding entities. But there seem to be no good candidates for such entities.

(I should be drawing a chart on the board right now)

Instead, Sider thinks that when we speak of quantifiers or operators as carving at the joints, we are not picking out any entities in the world. We are pinpointing some joint-carving ideology. Sider maintains that there is an operator 'S' that he thinks we can use to talk about predicates, quantifiers, etc. being structural. First he takes the operator to be able to attach to entities of any grammatical category (109). Then, he proposes that S is a sentential operator (110).