Schedule of Lectures for “The Structure and Semantics of Scientific Theories”

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Summer, 2015
Tuesdays, 12:00–14:00 C.T.
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6 FINAL PAPER DUE: 18 Sep. 2015

References

N.b.: many of the required and suggested readings are available online at the course’s website, though they may not be listed as such in the bibliography:


1 Weeks 1–2: Introduction and Historical Background (Apr. 14–21)

1.1 Week 1: Introduction (Apr. 14)

Suggested Reading


1.2 Week 2: Russell, Ramsey and the Roots of Structuralism (Apr. 21)

Required Reading


Suggested Reading

3. Fraassen (2008), Scientific Representation: Paradoxes of Perspective: ch. 9

2 Weeks 3–6: The Logical Empiricists, the “Received View”, and Its Discontents (Apr. 28–May 19)

2.1 Week 3: Carnap I (Apr. 28)

Required Reading

Lectures: “Structure and Semantics of Scientific Theories”

2. Carnap (1966), *An Introduction to the Philosophy of Science: Philosophical Foundations of Physics*: part v, chs. 23–26 (pp. 225–256)

Suggested Reading

2. Coffa (2008), *The Semantic Tradition Kant to Carnap: To the Vienna Station*

2.2 Week 4: Carnap II (May 05)

Required Reading


Suggested Reading

8. Ramsey (1931c), “Theories”

2.3 Week 5: Hempel and Modifications to the Received View (May 12)

Required Reading

Suggested Reading

5. Lutz (2014b), “Empirical Adequacy in the Received View”

2.4 Week 6: Discontents (May 19)

Required Reading

2. Stein (1992), “Was Carnap Entirely Wrong, After All?”

Suggested Reading

2. Lutz (2012), “On a Straw Man in the Philosophy of Science: A Defense of the Received View”
4. Putnam (1983e), “‘Two Dogmas’ Revisited”
5. Quine (1980c), “Two Dogmas of Empiricism”

3 Week 7: Der Pfingstdienstag, No Lecture (May 26)

4 Weeks 8–11: The Semantic View (Jun. 02–23)

4.1 Week 8: Tarskian Semantics (Jun. 02)

Required Reading


Suggested Reading

1. Hodges (1997), A Shorter Model Theory
3. Suppes (1957), Introduction to Logic
5. Suppes (1993), Models and Methods in the Philosophy of Science: Selected Essays
4.2 Week 9: Suppes (Jun. 09—My Birthday!)

Required Reading


Suggested Reading

3. Suppes (1993), *Models and Methods in the Philosophy of Science: Selected Essays*

4.3 Week 10: van Fraassen (Jun. 16)

Required Reading


Suggested Reading

1. Churchland and Hooker (1985), *Images of Science: Essays on Realism and Empiricism, with a Reply from Bas C. van Fraassen*
2. Fraassen (2008), *Scientific Representation: Paradoxes of Perspective*

4.4 Week 11: Halvorson’s Critique of the Semantic View (Jun. 23)

Required Reading


Suggested Reading

2. Lutz (2012), “On a Straw Man in the Philosophy of Science: A Defense of the Received View”
5 Weeks 12–16: Contemporary Approaches (Jun. 30–Jul. 28)

5.1 Week 12: Neo-Structuralism (Jun. 30)

Required Reading


Suggested Reading

7. Fraassen (2008), *Scientific Representation: Paradoxes of Perspective*: ch. 11

5.2 Week 13: Neo-Kantianism I (Jul. 07)

Required Reading

1. Friedman (2001), *The Dynamics of Reason*: Part One (pp. 3–70); Part Two, §§1–2 (pp. 71–92)

Suggested Reading

2. Domski and Dickson (2010), *Discourse on a New Method: Reinvigorating the Marriage of History and Philosophy of Science*
3. Fraassen (2008), *Scientific Representation*: ch. 5, pp. 115–140

5.3 Week 14: Neo-Kantianism II (Jul. 14)

Required Reading

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Suggested Reading


5.4 Week 15: Stein’s Neo-Carnapianism (Jul. 21)

Required Reading


Suggested Reading

1. Fraassen (1980), The Scientific Image, chs. 3–4
2. Fraassen (2008), Scientific Representation: chs. 6–7, pp. 141–190

5.5 Week 16: Representational Propriety as a Basis for Semantics (Jul. 28)

Required Reading


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References


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Stein, H. (2004). The enterprise of understanding and the enterprise of knowledge—for Isaac Levi’s seventieth birthday. *Synthese* 140, 135–176. I do not have access to the published version of Stein’s paper, but rather only to a typed manuscript. All references to page numbers, therefore, do not correspond to those of the published version. The typed manuscript I have is 65 pages long, and the published version about 41. Multiplying the page numbers I give by \( \frac{41}{65} \) and adding the result to 135 (the number of the first page in the published version) should give approximately the page number in the published version.


Tarski, A. (1954). Contributions to the theory of models. 1. *Indagationes Mathematicae* 16, 572–581. doi:10.1016/S1385-7258(54)50074-0. N.b.: on the website of Elsevier (the current publisher of the journal), the article is listed as having appeared in volume 57 of the journal *Indagationes Mathematicae (Proceedings)*; in fact, when Elsevier took over publication of the journal *Indagationes Mathematicae* in 1990, they retroactively “renamed” the earlier volumes of the journal *Indagationes Mathematicae (Proceedings)*, and changed their numbering.


