

Seminar on Scientific Explanation

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Professor

[Branden Fitelson](#)
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Office: [Seminary 3](#) – 110
Hours: Tu/Th 1:30–2:30pm

Time & Place

[Seminary 3](#) – Seminar Room
Tuesdays, 9:50am–12:50pm

Readings

There is only one required text for the course: [Jim Woodward](#)'s book *[Making Things Happen](#)*. Note that the entire book is [available online](#) (subscription required) via [Oxford Scholarship Online](#). It should also be available at local bookstores, and (of course) you can always [get a copy online](#). We will probably only get through the first 5 or 6 chapters or so (if even that much). I will also post a variety of secondary and background readings on this page (see below). In fact, the seminar will begin with a bunch of background stuff that will be posted here. After that, we'll be focusing on Woodward (with optional secondary readings).

Requirements

I will expect enrolled students to write one term paper for the seminar. There may also be some student presentations. That will depend on enrollment, motivation, and other scheduling issues.

Website

Current course information can be found on the course web site, at:

<http://fitelson.org/woodward/>

The [home page](#) of our website is reserved mainly for announcements. The purpose of the other pages on our website should be self-explanatory. You should keep an eye on the course website, as it will be updated regularly with various content and announcements pertaining to the course. The only two computer applications you will need to view/print, *etc.* the content on our website are: (i) your favorite [web browser](#), and (ii) [Adobe Reader](#) (version 6 or later, or – if you prefer – [another program](#) that can read [Acrobat PDF version 6](#) files).

Tentative Schedule (subject to change and evolution – so *stay tuned*)

Note: we will have the following guest seminar presenters during the semester. This is one of the reasons we'll probably only get through the first 5 or 6 chapters of the Woodward book.

- [Chris Hitchcock](#) (2/22)
- [Jonathan Schaffer](#) (3/29)

- [David Papineau](#) (4/5)
- [Michael Strevens](#) (4/12)
- [Jim Woodward](#) (4/26)

OK, here are the notes, readings, *etc.*, for the seminar. This list will evolve as the semester unfolds...



- **Day 1 (1/18/11): No readings for this week. I'm just going over the [syllabus](#) (and a few other things), and then assigning background readings for next week.**
 - **Day 2 (1/25/11): Some Background on Scientific Explanation**
 - [My notes](#)
 - **Some Important Background Readings**
 - **General Historical Overview.** [We'll be discussing decades 1–2.5 — pages 11– 83 of Salmon. See my [notes](#) for some issues on which to focus.]
 - *Four Decades of Scientific Explanation* (Salmon)
 - [Decade 1](#)
 - [Decade 2](#)
 - [Decade 3](#)
 - [Decade 4](#)
 - Hempelian (DN, IS, and DNP) Approaches
 - [Studies in the Logic of Explanation](#) (Hempel & Oppenheim)
 - [Inductive-Statistical Explanation](#) (Hempel)
 - [Probability, Explanation, and Information](#) (Railton)
 - Salmon's Statistical Relevance (SR) Approach
 - [Statistical Explanation](#) (Salmon)
 - A more recent paper on probabilistic/statistical explanation by Strevens (who will be our guest on 4/12)
 - [Do Large Probabilities Explain Better?](#) (Strevens)
 - The Lewisian Causal/Counterfactual Approach
 - [Causal Explanation](#) (Lewis)
 - [Causation](#) (Lewis)
 - [Postscripts to "Causation"](#) (Lewis)
 - Salmon's Causal/Mechanical Approach
 - [Causality without Counterfactuals](#) (Salmon)
 - [Causality and Explanation: A Reply to Two Critiques](#) (Salmon)
 - Pragmatic/Contrastivist Approaches
 - [Why Questions](#) (Bromberger)
 - [The Pragmatic Theory of Explanation](#) (van Fraassen)
 - Some Useful Stanford Encyclopedia Entries
 - [SEP entry on Scientific Explanation](#) (Woodward)
 - [SEP entry on Counterfactual Theories of Causation](#) (Menzies)
 - [SEP entry on Probabilistic Causation](#) (Hitchcock)
 - [SEP entry on The Metaphysics of Causation](#) (Schaffer)
 - [SEP entry on Causal Processes](#) (Dowe)
- **Day 3 (2/1/11): TBA** (probably more background discussion before getting into Woodward)