

## Possible Paper Topics for Phil 0990

1. Almost any investigation of issues arising from *Structure* will involve getting at least a little bit clearer about what a paradigm is. So one possible topic is certainly just to investigate what a paradigm is. Reading Margaret Masterman's paper "The Nature of a Paradigm" (posted on the course web page) would be a good start, and then one might read the Postscript to *Structure* but especially Kuhn's later paper, "Second Thoughts About Paradigms", in *The Essential Tension*.
2. On Kuhn's view, a given 'normal' scientific tradition is unified by a paradigm, or set of paradigms, that guide 'normal' scientific research. The more traditional view he means to oppose would see such traditions as unified by the theories to which they are committed. Explore the reasons Kuhn has for abandoning the traditional view. What problems concerning the nature of normal science is his new view meant to solve? What problems does it raise?
3. Kuhn's conception of scientific revolutions has two aspects: First, he insists that revolutions are partially destructive events that involve the discarding of what had previously been taken for knowledge; and Second, he insists that revolutions involve the replacement of one paradigm by another. What is the function of this latter claim? How much of Kuhn's view would survive if one simply supposed that a revolution involved the replacement of one *theory* by an incompatible *theory*? Kuhn's discussion of the discovery of X-rays is revealing in this connection, and his later paper "What Are Scientific Revolutions?", in *The Road Since Structure*, may also be helpful.
4. Kuhn several times refers to the Copernican revolution in developing his views in *Structure*. Trace the history of that revolution in terms of that view: Normal science; anomaly and the prelude to crisis; crisis and the response to it; the resolution of crisis and the emergence of a new scientific tradition. Use this analysis to throw some light upon one or another problematic idea from *Structure*. For example: Why might one find oneself wanting to say, as Kuhn says he wants to say, that scientists 'work in a different world' after such a revolution? his later paper "What Are Scientific Revolutions?", in *The Road Since Structure*, may be helpful here, too.

5. One very radical response to Kuhn takes him to have argued (or even to have shown) that ‘scientific development’ is simply a power struggle between competing groups and that ‘scientific revolutions’ simply represent the triumph of a new such group over the older establishment, a triumph that occurs for reasons that have nothing much to do with the ‘truth’ of the theories the groups support. Explain first why this need not be a willful misinterpretation of *Structure*—that is, explain what claims made in the book might lead to this interpretation. Then go on to explain why it is, nonetheless, a misreading of Kuhn. Here his later paper “The Trouble With the Historical Philosophy of Science”, in *The Road Since Structure*, may be helpful.