

Interactions between Early Modern Science and Philosophy: 1644-1786

Fall, 2003: HPS 2538

Ted McGuire
Email: jemcg@pitt.edu
1017 CL
Office hours by appointment

Assigned Texts:

Rene Descartes, "Discourse on Method and Meditations on First Philosophy," (Hackett, translated by Donald Cress)

"Principles of Philosophy" Parts 1 and 11 (CSM. Vol 1: Photocopy in HPS)

Robert Boyle, "Selected Philosophical Papers of Robert Boyle" (Hackett, edited by M.A. Steward)

John Locke, "An Essay Concerning Human Understanding" (Everyman, abridged and edited by John W. Yolton)

George Berkeley, "A Treatise Concerning the Principles of Human Understanding." (Oxford University Press, edited by Jonathon Dancy)

George Berkeley, "Three Dialogues between Hylas and Philonous." Oxford University Press, edited by Jonathan Dancy)

David Hume, "An Essay Concerning Human Understanding" (Hackett, edited by Eric Steinberg)

David Hume, "A Treatise of Human Nature." (Selections on photocopy in

HPS)

Immanuel Kant, "Prolegomena to any Future Metaphysics." (Hackett, edited by James Ellington)

Immanuel Kant, "Critique of Pure Reason" (Selections on photocopy from first Critique in HPS).

Immanuel Kant, "Metaphysical Foundations of Natural Science." (Ellington: Selections on photocopy in HPS)

Syllabus:

- August 27 Introduction: The cognitive legacy and world view of early modern science. The question of the scope and limits of knowledge
- September 3 Descartes: God, matter, motion and the mechanical world picture.
- September 10 Descartes: Causes, laws, and the exclusion of sensible qualities from 'The Real' The issue of the knower and the known
- September 17 Robert Boyle: mechanical affections vs sensible qualities, motion and laws
- September 24 Newton and Leibniz and the "New Science."
- October 1 Locke: ideas, associationism, qualities, and "nominal" vs 'real' essence
- October 8 Locke: perception, primary qualities, representationalism and Boyle's "corpuscular philosophy."
- October 15 Berkeley: The New Principle, 'esse est percipi,' the phenomenology of sensory content, and the critique of abstract ideas.

- October 22 Berkeley: Common Sense, 'mentalism' and the rejection of matter: the critique of the "New Science
- October 29 Hume: epistemic naturalism: habit, custom, association and belief
- November 5 Hume: The "cement of the universe" and the 'New Science:' "The Secret Connexion" vs the 'constant conjunction.' view of causation
- November 12 Kant: The knower as agent; intuition, the apriori, and the transcendental critique.
- November 19 Kant: the assimilation of Newtonian principles to the transcendental critique
- December 3 Kant: the ontology of active powers and dynamics in the Kantian architectonic

READINGS :Early Modern Philosophy of Science

For those confounded by the terms “mechanism,” “rationalism,” and “empiricism,” have a look at Ayers “Locke Volume 11:Ontology (1991)Part 11, Chapters 11, 12, &13. This is purely optional. The secondary readings for each meeting are photocopied and in a separate folder marked by the subject and date of the session. The primary readings are from the assigned texts.

September 3 Descartes:

Primary:

- (1) Principles of Philosophy: Part 1, Articles 1-71; Part 2, Articles 1-43, 53 and 64

Secondary:

- (1) Daniel Garber. “Descartes’ Metaphysical Physics” (1992) Chapters 6, 7

* For those interested in the Scholastic background in which Descartes worked I recommend Roger Ariew, “Descartes and the Last Scholastics.” (1999)

September 10 Descartes:

Primary:

- (1) Meditations: Meditation Two (margin numbers 30-34): Meditations Three and Six. Cress translation

Secondary:

- (2) Marleen Rozemond, “Descartes’s Dualism” (1998) Chapters 2,3,4

- (3) Garber Chapter 3

(3) Tad Schmaltz, "Descartes on Innate Ideas, Sensation, and Scholasticism: The Response to Regius" In "Studies in Seventeenth-Century European Philosophy." (1997) Edited by M.A.Stewart

September 17 Boyle:

Primary:

(1) "The Origin of the Forms and Qualities..."In Stewart, pp.1-53

Secondary:

(2) Peter R.Anstey, "The Philosophy of Robert Boyle" (2000) Part 1, "The Theory of Qualities," Chapters 1,2,3,4. pp.17-112

September 24 Newton and Leibniz and the "New Science."

For this session I'll provide the class with some (not much) photocopied material from Newton and Leibniz. I assume you are familiar (most of you) with this pair of giants. What I want to get at is the various strands in Newton's writings which helped to craft important later positions on concepts such as law, cause, explanation, qualities and agency. With respect to Leibniz I want to look at his perspective on mechanical explanation and his views on metaphysical intelligibility and ultimate ontology.

October 1 Locke:

Primary:

(1) "An Essay Concerning Human Understanding" Book 11, Chapters 1, 2, 6, 7, 10, 11, 12, 13, 19, 21, 22, 33: Book 111, Chapters 2 & 3 (nominal/real essence distinction)

Secondary:

(1) Michael Ayers, "Locke Volume 1: Epistemology" (1991) Part 1 Ideas

(2) Lisa Downing, "The Status of Mechanism in Locke's Essay" in The Philosophical Review

October 8 Locke:

Primary:

(1) "An Essay Concerning Human Understanding" Book II, Chapters 4, 8, 9, 23, 26, 30, 31, 32; Book III, Chapter 6; Book IV, Chapters 1, 2, 3, 4, 9

Secondary:

(1) Ayers, Part I (you will have read it) and Part III

(2) John W. Yolton, "Locke and the Compass of Human Understanding" (1970) Chapters 1 & 5

(3) For those of you who find Yolton too dry consult E.J. Lowe, "Locke on Human Understanding" (1995) Chapters 2, 3, & 4

October 15 Berkeley

Primary:

(1) "A Treatise Concerning the Principles of Human Understanding" Introduction, Principles Part I, sections 1-34. This is optional (i.e., not required of you), but it would be instructive to read through Dialogues I & II of the "Three Dialogues between Hylas and Philonous." Berkeley argues in fine style that his philosophy does not break with common sense and gives the reader a vivid account of what motivates his 'idealist' position.

Secondary:

(1) A.C. Grayling, "Berkeley: The Central Arguments" (1986) Chapter

Two, sections 1, 2, 4

October 22 Berkeley

Primary

(1) Principles Part 1, Sections 35-116 “De Motu” (On Motion) In “The Works of George Berkeley” Volume Four, edited by Luce & Jessop, pp. 81-72

Secondary:

(1) Buchdahl, “Metaphysics and the Philosophy of Science” (1969) Chapter V “ Berkeley: New Conceptions of Scientific Law and Explanation.” This is a good overview of Berkeley’s critique of the ‘New Science’ and his alternative position on the logic of science.

(1) Grayling, Chapter Two, sections 5,6,7: Chapter Three, sections 1 & 2

October 29 Hume

Primary:

(1) “An Enquiry Concerning Human Understanding” Sections 1-VI: Section XII, Parts 1, 11, 111 (“Of the Academical and Sceptical Philosophy”)

(2) This is optional. “A Treatise of Human Nature.” Book 1, “Of the

Understanding” Part 1. But do read the “An Abstract of a Book lately Published” This book is the “Treatise” abstracted by Hume himself. pp. 126-138 in the Hackett edition

Secondary:

(1) Buchdahl, “Metaphysics and the Philosophy of Science” Chapter VI

November 5 Hume

Primary:

(1) “Enquiry” Section V11 (“Of the Idea of Necessary Connexion”.)
“Treatise” Book 1, Part 4, Sect.1 (“Of scepticism with regard to reason”):
Sect.2 (“Of scepticism with regard to the senses.”), Sect. 4 (“Of the
Modern Philosophy”)

Secondary:

(1) Galen Strawson, “The Secret Connexion” 1 Introduction: then read
Appendix C “A Short-cut” (in which Strawson abridges key Chapters of
his account): Chapters 2, 3, 4, and 5: Part 11 (“Causation in the Treatise”)
and Part 111 (“Causation in the Enquiry”).

: