

Early-Modern Theories of Matter

Fall 2006

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Office Hours: TuTh 1-1:55

Texts:

Descartes, *Philosophical Writings of Descartes*, volume 1, Cambridge Univ. Press.
Newton, *Philosophical Writings*, Cambridge Univ. Press.
Boyle, *Selected Philosophical Writings*, Hackett Publishers

Other works:

Antoine Le Grand, *An Entire Body of Philosophy, according to the Principles of the Famous Renate de Cartes* (1694)
Sir Kenelm Digby, *Two Treatises* (1644) (we'll only be looking at stuff from 'On Body')
Jacques Rohault, *A System of Natural Philosophy* (1723). This is an English translation of his *Traité de physique* (1671)
Walter Charleton, *Physiologia Epicuro-Gassendo-Charltoniana* (1654)
Thomas Hobbes, *Elements of Philosophy, First Section on Body* (1655)
John Locke, *An Essay concerning Human Understanding* (1689/90)
Nicolas Malebranche, *The Search After Truth* (1674-5)
Joseph Glanvill, *The Vanity of Dogmatizing* (1661)
G.W Leibniz, *New Essays on Human Understanding* (first draft May 1704; published 1765)
Galileo, ?

Recommended:

Thomas Holden, *The Architecture of Matter: Galileo to Kant*, Oxford Univ. Press.
Michael Ayers and Daniel Garber (eds.), *Cambridge History of Seventeenth-Century Philosophy*
Dennis Des Chene, *Physiologia*
Andrew Pyle, *Atomism and Its Critics*
Daniel Garber, *Descartes' Metaphysical Physics*
Edward Grant, *Much Ado About Nothing*
Bob Pasnau, "Substance, Form, Mechanism," *Philosophical Review*
Dan Kaufman, "Locks, Schlocks, and Poisoned Peas: Boyle on Actual and Dispositive Qualities." *Oxford Studies in Early Modern Philosophy* 3 (2006)

Requirements

- (1) Attendance and participation in class discussion (20%)
- (2) 2 papers, 10-12 pages each (40% each)

Schedule:

- (1) **Background: Ancient Atomist and Scholastic-Aristotelian View on Matter**

Ariew and Gabbey, "The Scholastic Background" in *Cambridge History of 17th-Century Philosophy*.

(2) ***The Nature of Matter***

Descartes,

Principles of Philosophy part I sections 53-65, and all of part II

Meditations II and VI

19 January 1642 letter to Mersenne

15 April 1649 letter to More

The World ch.6 (CSM I 90-92)

Le Grand,

part 4 chapters 2,3,7,8

Rohault,

System of Natural Philosophy Part 1 chapter 6-7

Kenelm Digby,

Treatise on Body chapter II

Walter Charleton,

Physiologia Epicuro-Gassendo-Charltoniana Book I Chapter 3

Thomas Hobbes,

De Corpore part 2 chapter 8, part 2 chapter 12

Isaac Newton,

De Gravitatione (p. 12-39); *Principia* 87-93

Robert Boyle,

On the Origine of Formes and Qualities (p. 18-20, 50-53)

John Locke,

Essay concerning Human Understanding 2.13.11-26, 2.4, 3.10.15; *Elements of Natural Philosophy*

Charleton III.10

(3) ***Spaces and Places, Vacuums and Voids***

Descartes,

Principles part II

29 July 1648 letter for Arnauld

15 April 1649 letter to More

6 June 1647 letter to Chanut

Rohault,

System part 1 chapter 8

Newton?

Charleton,
Physiologia Book 1 chapter 6

Hobbes,
De Corpore part 2 chapter 7

(4) *The Divisibility of Matter: Atoms or Gunk?*

Descartes,
Principles I.48-64 and all of II
19 January 1642 letter to Gibieuf
15 April 1649 letter to More
30 September 1640 and 28 October 1640 letters to Mersenne
3 October 1637 letter to Plempius for Fromondus

Le Grand,
part 4 chapters 4-5

Rohault,
System part 1 chapter 9

Charleton,
Physiologia Book 2 chapters 1-3
??
Recommended: Holden?

(5) *Actual vs. Potential Parts*

Descartes,
Principles I.53-65 and all of II
19 January 1642 letter to Gibieuf
3 October 1637 letter to Plempius for Fromondus

Digby,
On Body chapter 2 (esp. p. 31-34)

Charleton,
Physiologia Book 2 chapters 3-6

Hobbes,
De corpore part 2 chapter 7

Rohault,
Traite part

Recommended: Holden

(6) *Cohesion: How Do Bodies Stick Together?*

Descartes,

Malebranche,

Search after Truth 6.2.9 (Nadler 128-144)

Newton,

Opticks p. 132-140

Locke,

Essay 2.23.23-27

Leibniz,

New Essays?

Glanvill

Charleton,

Physiologia III.9

(7) Qualities

Descartes,

Galileo

Charleton,

Physiologia 3.1.4

Digby,

On Body (p. 186-198; chapter 29?)

Boyle,

OFQ 21-37; *Intro Particular Qs* 97-118

Recommended: Dan Kaufman, "Locks, Schlocks, and Poisoned Peas: Boyle on Actual and Dispositive Qualities," *Oxford Studies in Early Modern Philosophy* 3 (2006)

Locke,

Essay 2.8

(8) *The Mechanical Philosophy and Its Limits*