

SOCM016

Cultures of the Life Sciences

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1.
Sociology - LibGuides at University of Exeter.
<http://libguides.exeter.ac.uk/SociologyHomePage>.

 2.
Gibbon, S., Prainsack, B., Hilgartner, S. & Lamoreaux, J. Routledge Handbook of Genomics, Health and Society. (Routledge, 2018).

 3.
Atkinson, P., Glasner, P. & Lock, M. Handbook of Genetics and Society: Mapping the New Genomic Era. (Routledge, 2009).

 4.
Barnes, B. & Dupre, J. Genomes and What to Make of Them. (University of Chicago Press, 2008).

 5.
Franklin, S. Dolly Mixtures: The Remaking of Genealogy. (Duke University Press, 2007).

 6.
Haraway, D. Modest_Witness@Second_Millennium.FemaleMan_Meets_OncoMouse: Feminism and Technoscience. (Routledge, 1997).

7.

Hinchliffe, S. & Woodward, K. *The Natural and the Social: Uncertainty, Risk, and Change*. (Routledge, 2015).

8.

Latour, B. *The Pasteurization of France*. (Harvard University Press, 1988).

9.

Meloni, M., Cromby, J., Fitzgerald, D. & Lloyd, S. L. *The Palgrave Handbook of Biology and Society*. (Palgrave Macmillan, 2018).

10.

Nature After the Genome. vol. Sociological review monograph (Wiley-Blackwell/The Sociological Review, 2010).

11.

Rabinow, P. *French DNA: Trouble in Purgatory*. (University of Chicago Press, 2017).

12.

Sunder Rajan, K. *Biocapital: The Constitution of Postgenomic Life*. (Duke University Press, 2006).

13.

Sunder Rajan, K. *Pharmocracy: Value, Politics, and Knowledge in Global Biomedicine*. (Duke University Press, 2017).

14.

Rose, N. *The Politics of Life Itself: Biomedicine, Power, and Subjectivity in the Twenty-First*

Century. (Princeton University Press, 2006).

15.

Richardson, S. S. & Stevens, H. Postgenomics: Perspectives on Biology after the Genome. (Duke University Press, 2015).

16.

Bedau, M. & Cleland, C. E. The Nature of Life: Classical and Contemporary Perspectives from Philosophy and Science. (Cambridge University Press, 2010).

17.

Dupre

, J. Processes of Life: Essays in the Philosophy of Biology. (Oxford University Press, 2012).

18.

Grene, M. & Depew, D. The Philosophy of Biology: An Episodic History. (Cambridge University Press, 2004).

19.

Hull, D. L. Philosophy of Biological Science. vol. Prentice-Hall foundations of philosophy series (Prentice-Hall, 1974).

20.

Hull, D. L. & Ruse, M. The Cambridge Companion to the Philosophy of Biology. vol. Cambridge Companions to Philosophy (Cambridge University Press, 2007).

21.

Matthen, M. & Stephens, C. Philosophy of Biology. vol. Handbooks of the philosophy of science (Elsevier, 2007).

22.

Mayr, E. *Toward a New Philosophy of Biology: Observations of an Evolutionist*. (Belknap Press of Harvard University Press, 1988).

23.

O'Malley, M. *Philosophy of Microbiology*. (Cambridge University Press, 2014).

24.

Ruse, M. *The Oxford Handbook of Philosophy of Biology*. (Oxford University Press, 2008).

25.

Sarkar, S. & Plutynski, A. *A Companion to the Philosophy of Biology*. vol. Blackwell companions to philosophy (Blackwell Pub, 2008).

26.

Sober, E. *Philosophy of Biology*. vol. Dimensions of philosophy series (Westview Press, 2018).

27.

Schaffner, K. F. *Discovery and Explanation in Biology and Medicine*. vol. Science and its conceptual foundations (University of Chicago Press, 1993).

28.

Sterelny, K. & Griffiths, P. E. *Sex and Death: An Introduction to Philosophy of Biology*. vol. Science and its conceptual foundations (University of Chicago Press, 1999).

29.

Wimsatt, W. C. Re-Engineering Philosophy for Limited Beings. (Harvard University Press, 2007).

30.

Allen, G. E. Life Science in the Twentieth Century. vol. Cambridge history of science (Cambridge University Press, 1979).

31.

Bowler, P. J. Evolution: The History of an Idea. (University of California Press, 2003).

32.

Coleman, W. Biology in the Nineteenth Century: Problems of Form, Function and Transformation. vol. History of science (Cambridge University Press, 1977).

33.

Dietrich, M., Borrello, M. & Harman, O. Handbook of the Historiography of Biology. vol. Historiography of Science, Volume 1 (Springer, 2019).

34.

Fleck, L., Trenn, T. J. & Merton, R. K. Genesis and Development of a Scientific Fact. (University of Chicago Press, 1981).

35.

Judson, H. F. The Eighth Day of Creation: Makers of the Revolution in Biology. (CSHL Press, 1996).

36.

Laubichler, M. D. & Maienschein, J. From Embryology to Evo-Devo: A History of Developmental Evolution. (MIT Press, 2007).

37.

Mu

..
Iler-Wille, S. & Rheinberger, H.-J. A Cultural History of Heredity. (University of Chicago Press, 2012).

38.

Morange, M. A History of Molecular Biology. (Harvard University Press, 1998).

39.

Mayr, E. The Growth of Biological Thought: Diversity, Evolution and Inheritance. (Belknap Press of Harvard University Press, 1982).

40.

Rheinberger, H.-J. An Epistemology of the Concrete: Twentieth-Century Histories of Life. vol. Experimental futures : technological lives, scientific arts, anthropological voices (Duke University Press, 2010).

41.

Sapp, J. Genesis: The Evolution of Biology. (Oxford University Press, 2003).

42.

Biological Theory.

43.

Biology and Philosophy.

44.

BioSocieties.

45.

History and Philosophy of the Life Sciences.

46.

New Genetics and Society.

47.

Journal of the History of Biology.

48.

Studies in History and Philosophy of Sciences Part C.

49.

Theoretical Medicine and Bioethics.

50.

Haldane, J. B. S. Daedalus: Or Science and the Future (A paper read to the Heretics, Cambridge, on February 4th, 1923). (Kegan Paul, Trench, Trubner & co, ltd, 1925).

51.

Polanyi, M. 'Life's Irreducible Structure'. Science **160**, 1308-1312 (1968).

52.

Jacob, F. Evolution and tinkering. Science **196**, 1161-1166 (1977).

53.

Beatty, J. Why do Biologists Argue Like They do? *Philosophy of Science* **64**, S432–S443 (1997).

54.

Brandon, R. N. 'Does Biology Have Laws? The Experimental Evidence'. *Philosophy of Science* **64**, S444–S457 (1997).

55.

Sober, E. 'Two Outbreaks of Lawlessness in Recent Philosophy of Biology'. *Philosophy of Science* **64**, S458–S467 (1997).

56.

Mitchell, S. D. 'Pragmatic Laws'. *Philosophy of Science* **64**, S468–S479 (1997).

57.

Garson, J. Chapter 28 - 'Function and Teleology'. in *A Companion to the Philosophy of Biology* vol. Blackwell companions to philosophy 525–549 (Blackwell Pub, 2008).

58.

Rosenberg, A. Chapter 7 - 'Reductionism (and Antireductionism) in Biology'. in *The Cambridge Companion to the Philosophy of Biology* 120–138 (2007).

59.

Beatty, J. 'What's Wrong with the Received View of Evolutionary Theory?' *PSA: Proceedings of the Biennial Meeting of the Philosophy of Science Association* **1980**, 397–426 (1980).

60.

Beatty, J. 'Why do Biologists Argue Like They do?' *Philosophy of Science* **64**, S432–S443 (1997).

61.

Brigandt, I. & Love, A. 'Reductionism in Biology'. The Stanford Encyclopedia of Philosophy (2017).

62.

Cassirer, E. The Problem of Knowledge: Philosophy, Science and History Since Hegel. (Yale University Press, 1950).

63.

Craver, C. F. 'Beyond Reduction: Mechanisms, Multi-Field Integration and the Unity of Neuroscience'. Studies in History and Philosophy of Science Part C **36**, 373–395 (2005).

64.

Ghiselin, M. T. 'Individuality, History and Laws of Nature in Biology'. in What the Philosophy of Biology Is: Essays Dedicated to David Hull 53–66 (Springer Netherlands, 1989).

65.

Gotthelf, A. & Lennox, J. G. Philosophical Issues in Aristotle's Biology. (Cambridge University Press, 1987).

66.

Helmreich, S. 'What was Life? Answers from Three Limit Biologies'. Critical Inquiry **37**, 671–696 (2011).

67.

Kant, I. Part 2 - 'Critique of the Teleological Judgement'. in Critique of Judgement (ed. Bernard, J. H.) (Dover Publications, 2005).

68.

Machamer, P., Darden, L. & Craver, C. F. 'Thinking About Mechanisms'. Philosophy of Science **67**, 1–25 (2000).

69.

Mayr, E. *This is Biology: The Science of the Living World*. (Belknap Press of Harvard University Press, 1997).

70.

McLaughlin, P. *What Functions Explain: Functional Explanation and Self-Reproducing Systems*. (Cambridge University Press, 2001).

71.

Nicholson, D. J. The Concept of Mechanism in Biology. *Studies in History and Philosophy of Biological and Biomedical Sciences* **43**, 152–163 (2012).

72.

Nicholson, D. J. & Gawne, R. 'Rethinking Woodger's Legacy in the Philosophy of Biology'. *Journal of the History of Biology* **47**, 243–292 (2014).

73.

Normandin, S. & Wolfe, C. T. *Vitalism and the Scientific Image in Post-Enlightenment Life Science, 1800-2010*. vol. History, philosophy and theory of the life sciences (Springer, 2013).

74.

Rosenberg, A. *The Structure of Biological Science*. (Cambridge University Press, 1985).

75.

Schaffner, K. F. 'Reduction: The Cheshire Cat Problem and a Return to Roots'. *Synthese* **151**, 377–402 (2006).

76.

Skipper, R. A. & Millstein, R. L. Thinking About Evolutionary Mechanisms: Natural Selection. *Studies in History and Philosophy of Biological and Biomedical Sciences* **36**, 327–347 (2005).

77.

Stotz, K. Biohumanities: Rethinking the Relationship Between Biosciences, Philosophy and History of Science and Society. *The Quarterly Review of Biology* **83**, 37–45 (2008).

78.

Wilson, E. O. *Consilience: The Unity of Knowledge*. (Abacus, 1999).

79.

Woese, C. R. 'A New Biology for a New Century'. *Microbiology and Molecular Biology Reviews* **68**, 173–186 (2004).

80.

Richards, R. A. Chapter 7: Species and taxonomy. in *The Oxford Handbook of Philosophy of Biology* 161–188 (Oxford University Press, 2008).

81.

Mayr, E. 'The Ontological Status of Species: Scientific Progress and Philosophical Terminology'. *Biology and Philosophy* **2**, 145–166 (1987).

82.

Dupré, J. 'In Defence of Classification'. *Studies in History and Philosophy of Biological and Biomedical Sciences* **32**, 203–219 (2001).

83.

Ereshefsky, M. Chapter 6 - 'Systematics and Taxonomy'. in *A Companion to the Philosophy of Biology* vol. Blackwell companions to philosophy 99–118 (Blackwell Pub, 2008).

84.

Sloan, P. R. 'Buffon, German Biology and the Historical Interpretation of Biological Species'. *The British Journal for the History of Science* **12**, 109–153 (1979).

85.

de Queiroz, K. 'Species Concepts and Species Delimitation'. *Systematic Biology* **56**, 879–886 (2007).

86.

Richards, R. A. *The Species Problem: A Philosophical Analysis*. (Cambridge University Press, 2010).

87.

Berlin, B. *Ethnobiological Classification: Principles of Categorization of Plants and Animals in Traditional Societies*. (Princeton University Press, 1992).

88.

Cartwright, N. Introduction. in *The Dappled World: A Study of the Boundaries of Science* 1–20 (Cambridge University Press, 1999).

89.

Cotton, C. M. *Ethnobotany: Principles and Applications*. (Wiley, 1996).

90.

Douglas, M. & Hull, D. L. *How Classification Works: Nelson Goodman Among the Social Sciences*. (Edinburgh U.P., 1992).

91.

Dupre

, J. *The Disorder of Things: Metaphysical Foundations of the Disunity of Science*. (Harvard University Press, 1993).

92.

Dupre

, J. *Humans and Other Animals*. (Clarendon, 2002).

93.

Durkheim, É. & Mauss, M. *Primitive Classification*. (Routledge, 2010).

94.

Ghiselin, M. T. 'Species Concepts, Individuality and Objectivity'. *Biology and Philosophy* **2**, 127-143 (1987).

95.

Hull, D. L. *Science as a Process: An Evolutionary Account of the Social and Conceptual Development of Science*. vol. *Science and its conceptual foundations* (University of Chicago Press, 1988).

96.

Kellert, S. H., Longino, H. E. & Waters, K. C. *Scientific Pluralism*. vol. *Minnesota studies in the philosophy of science* (University of Minnesota Press, 2006).

97.

Leonelli, S. 'Classificatory Theory in Biology'. *Biological Theory* **7**, 338-345 (2013).

98.

Longino, H. E. Chapter 12 - 'Towards an Epistemology for Biological Pluralism'. in *Biology*

and Epistemology vol. Cambridge studies in philosophy and biology 261–286 (Cambridge University Press, 2000).

99.

Mallet, J. 'Mayr's View of Darwin: Was Darwin Wrong About Speciation?' *Biological Journal of the Linnean Society* **95**, 3–16 (2008).

100.

Mayr, E. Chapter 5 - 'The Systematic Categories and the New Species Concept'. in *Systematics and the Origin of Species: From the Viewpoint of a Zoologist* vol. Columbia biological series 102–122 (Columbia University Press, 1942).

101.

Mayr, E. Chapter 33 - 'Species Concepts and Definitions'. in *Evolution and the Diversity of Life: Selected Essays* 493–508 (Belknap Press of Harvard University Press, 1976).

102.

Mcouat, G. 'Cataloguing Power: Delineating "Competent Naturalists" and the Meaning of Species in the British Museum'. *The British Journal for the History of Science* **34**, 1–28 (2001).

103.

O'Malley, M. A., Martin, W. & Dupré, J. 'The Tree of Life: Introduction to an Evolutionary Debate'. *Biology & Philosophy* **25**, 441–453 (2010).

104.

Panchen, A. L. *Classification, Evolution and the Nature of Biology*. (Cambridge University Press, 1992).

105.

Plutynski, A. Chapter 10 - 'Specification and Macroevolution'. in *A Companion to the*

Philosophy of Biology vol. Blackwell companions to philosophy 169–185 (Blackwell Pub, 2008).

106.

Rieppel, O. 'New Essentialism in Biology'. *Philosophy of Science* **77**, 662–673 (2010).

107.

Sloan, P. R. 'John Locke, John Ray and the Problem of the Natural System'. *Journal of the History of Biology* **5**, 1–53 (1972).

108.

Ogilvie, B. W. 'The Many Books of Nature: Renaissance Naturalists and Information Overload'. *Journal of the History of Ideas* **64**, 29–40 (2003).

109.

Müller-Wille, S. & Charmantier, I. 'Natural History and Information Overload: The Case of Linnaeus'. *Studies in History and Philosophy of Biological and Biomedical Sciences* **43**, 4–15 (2012).

110.

McOuat, G. R. Species, rules and meaning: The politics of language and the ends of definitions in 19th century natural history. *Studies in History and Philosophy of Science Part A* **27**, 473–519 (1996).

111.

Farber, P. L. *Finding Order in Nature: The Naturalist Tradition from Linnaeus to E. O. Wilson*. vol. Johns Hopkins introductory studies in the history of science (Johns Hopkins University Press, 2000).

112.

Mayr, E. *The Growth of Biological Thought: Diversity, Evolution and Inheritance*. (Belknap

Press of Harvard University Press, 1982).

113.

Snyder, L. J. William Whewell. The Stanford Encyclopedia of Philosophy (2017).

114.

Bowker, G. C. & Star, S. L. *Sorting Things Out: Classification and Its Consequences*. vol. Inside technology (MIT Press, 2000).

115.

Atran, S. *Cognitive Foundations of Natural History: Towards an Anthropology of Science*. (Cambridge University Press, 1999).

116.

Bacon, F., Urbach, P. & Gibson, J. *Novum Organum: With Other Parts of the Great Instauration*. vol. Paul Carus student editions (Open Court, 1994).

117.

Barrera-Osorio, A. *Experiencing Nature: The Spanish American Empire and the Early Scientific Revolution*. (2006).

118.

Cook, H. J. *Matters of Exchange: Commerce, Medicine, and Science in the Dutch Golden Age*. (Yale University Press, 2007).

119.

Daston, L. 'Type Specimens and Scientific Memory'. *Critical Inquiry* **31**, 153–182 (2004).

120.

te Heesen, A. 'Boxes in Nature'. *Studies in History and Philosophy of Science Part A* **31**, 381–403 (2000).

121.

Endersby, J. *Imperial Nature: Joseph Hooker and the Practices of Victorian Science*. (University of Chicago Press, 2008).

122.

Jardine, N. *Cultures of Natural History*. (Cambridge University Press, 1996).

123.

Law, J. & Lynch, M. 'Lists, Field Guides and the Descriptive Organization of Seeing: Birdwatching as an Exemplary Observational Activity'. *Human Studies* **11**, 271–303 (1988).

124.

Müller-Wille, S. 'Collection and Collation: Theory and Practice of Linnaean Botany'. *Studies in History and Philosophy of Biological and Biomedical Sciences* **38**, 541–562 (2007).

125.

Ogilvie, B. W. *The Science of Describing: Natural History in Renaissance Europe*. (University of Chicago Press, 2006).

126.

Pickstone, J. V. *Ways of Knowing: A New History of Science, Technology and Medicine*. (Manchester University Press, 2000).

127.

Rieppel, O. 'The Series, the Network and the Tree: Changing Metaphors of Order in

Nature'. *Biology & Philosophy* **25**, 475–496 (2010).

128.

Scharf, S. T. 'Identification Keys, the "Natural Method" and the Development of Plant Identification Manuals'. *Journal of the History of Biology* **42**, 73–117 (2009).

129.

Strasser, B. J. Collecting and Experimenting: The Moral Economies of Biological Research, 1960s-1980s. *History and Epistemology of Molecular Biology and Beyond: Problems and Perspectives: Workshop* vol. 310 105–123 (2006).

130.

Whewell, W. *The Philosophy of the Inductive Sciences*. (Parker, 1840).

131.

Leonelli, S. Introduction. in *Data-Centric Biology: A Philosophical Study* 1–9 (The University of Chicago Press, 2016).

132.

Leonelli, S. Chapter 3: What Counts as Data? in *Data-Centric Biology: A Philosophical Study* 69–92 (The University of Chicago Press, 2016).

133.

Kell, D. B. & Oliver, S. G. Here is the Evidence, Now What is the Hypothesis? The Complementary Roles of Inductive and Hypothesis-Driven Science in the Post-Genomic Era. *BioEssays* **26**, 99–105 (2004).

134.

Waters, C. K. The Nature and Context of Exploratory Experimentation: An Introduction to Three Case Studies of Exploratory Research. *History and Philosophy of the Life Sciences* **29**, 275–284 (2007).

135.

Hey, A. J. G., Tansley, S. & Tolle, K. *The Fourth Paradigm: Data-Intensive Scientific Discovery*. (Microsoft Research, 2009).

136.

Leonelli, S. What Difference Does Quantity Make? On the Epistemology of Big Data in Biology. *Big Data & Society* **1**, 1–11 (2014).

137.

Strasser, B. J. Collecting Nature: Practices, Styles and Narratives. *Osiris* **27**, 303–340 (2012).

138.

Allen, J. F. Bioinformatics and Discovery: Induction Beckons Again. *BioEssays* **23**, 104–107 (2000).

139.

Botstein, D. et al. Gene Ontology: Tool for the Unification of Biology. *Nature Genetics* **25**, 25–29 (2000).

140.

Bell, G., Hey, T. & Szalay, A. Beyond the Data Deluge. *Science* **323**, 1297–1298 (2009).

141.

Blake, J. A. & Bult, C. J. Beyond the Data Deluge: Data Integration and Bio-Ontologies. *Journal of Biomedical Informatics* **39**, 314–320 (2006).

142.

Boyd, D. & Crawford, K. Critical Questions for Big Data: Provocations for a Cultural, Technological and Scholarly Phenomenon. *Information, Communication & Society* **15**, 662–679 (2012).

143.

Burian, R. M. Exploratory Experimentation and the Role of Histochemical Techniques in the Work of Jean Brachet, 1938-1952. *History and Philosophy of the Life Sciences* **19**, 27–45 (1997).

144.

Benson, E. One Infrastructure, Many Global Visions: The Commercialization and Diversification of Argos, a Satellite-Based Environmental Surveillance System. *Social Studies of Science* **42**, 843–868 (2012).

145.

Canali, S. Big Data, Epistemology and Causality: Knowledge In and Knowledge Out in EXPOsOMICS. *Big Data & Society* **3**, (2016).

146.

Chicurel, M. Bioinformatics: Bringing it All Together Technology Feature. *Nature* **419**, 751–757 (2002).

147.

Delbourgo, J. & Müller-Wille, S. Focus: Listmania, Introduction. *Isis* **103**, 710–715 (2012).

148.

Davies, G. Arguably Big Biology: Sociology, Spatiality and the Knockout Mouse Project. *BioSocieties* **8**, 417–431 (2013).

149.

Elliott, K. C., Cheruvelil, K. S., Montgomery, G. M. & Soranno, P. A. Conceptions of Good Science in Our Data-Rich World. *BioScience* **66**, 880–889 (2016).

150.

Floridi, L. *The Philosophy of Information*. (Oxford University Press, 2011).

151.

Floridi, L. & Illari, P. *The Philosophy of Information Quality*. (Springer, 2014).

152.

Fox Keller, E. Towards a Science of Informed Matter. *Studies in History and Philosophy of Biological and Biomedical Sciences* **42**, 174–179 (2011).

153.

Fujimura, J. H. The Practices of Producing Meaning in Bioinformatics. in *The Practices of Human Genetics* vol. *Sociology of the sciences* 49–87 (Kluwer Academic, 1999).

154.

Fry, B. *Visualizing Data: Exploring and Explaining Data with the Processing Environment*. (O'Reilly Media, 2007).

155.

Garcia-Sancho, M. *Biology, Computing, and the History of Molecular Sequencing*. vol. *Science, technology and medicine in modern history* (Palgrave Macmillan, 2012).

156.

Gilbert, W. Towards a Paradigm Shift in Biology. *Nature* **349**, 99–99 (1991).

157.

Kitchin, R. *The Data Revolution: Big Data, Open Data, Data Infrastructures & Their Consequences*. (SAGE Publications Ltd, 2014).

158.

Leonelli, S. Introduction: Making Sense of Data-Driven Research in the Biological and Biomedical Sciences. *Studies in History and Philosophy of Biological and Biomedical Sciences* **43**, 1–3 (2012).

159.

Mittelstadt, B. D. & Floridi, L. *The Ethics of Biomedical Big Data*. (Springer, 2016).

160.

O'Malley, M. A., Elliott, K. C., Haufe, C. & Burian, R. M. Philosophies of Funding. *Cell* **138**, 611–615 (2009).

161.

O'Malley, M. A. & Soyer, O. S. The Roles of Integration in Molecular Systems Biology. *Studies in History and Philosophy of Biological and Biomedical Sciences* **43**, 58–68 (2012).

162.

Rhee, S. Y. Carpe Diem. Retooling the 'Publish or Perish' Model into the 'Share and Survive' Model. *Plant Physiology* **134**, 543–547 (2004).

163.

The Royal Society. *Science as an Open Enterprise: Final Report*. (2012).

164.

Rubin, D. L. et al. The National Center for Biomedical Ontology: Advancing Biomedicine Through Structured Organization of Scientific Knowledge. *OMICS: A Journal of Integrative Biology* **10**, 185–198 (2006).

165.

Stevens, H. *Life Out of Sequence: A Data-Driven History of Bioinformatics*. (The University of Chicago Press, 2013).

166.

Vickers, J. *The Problem of Induction*. *The Stanford Encyclopedia of Philosophy* (2009).

167.

Dupré, J. Chapter 5: *Human Nature: A Process Perspective*. in *Why We Disagree About Human Nature* 92–107 (Oxford University Press, 2018).

168.

Allen, G. E. *The social and economic origins of genetic determinism: A case history of the American Eugenics Movement, 1900–1940 and its lessons for today*. *Genetica* **99**, 77–88 (1997).

169.

Griffiths, P. *'The Distinction Between Innate and Acquired Characteristics'*. *The Stanford Encyclopedia of Philosophy* (2009).

170.

Keller, E. F. *The Mirage of a Space Between Nature and Nurture*. (Duke University Press, 2010).

171.

Griffiths, P. E. & Stotz, K. Chapter 5 - *'Gene'*. in *The Cambridge Companion to the Philosophy of Biology* vol. *Cambridge Companions to Philosophy* 85–102 (Cambridge University Press, 2007).

172.

Rheinberger, H.-J. &
Mu

ller-Wille, S. *The Gene: From Genetics to Postgenomics*. (The University of Chicago Press, 2017).

173.

Johannsen, W. 'The Genotype Conception of Heredity'. *The American Naturalist* **45**, 129-159 (1911).

174.

Amundson, R. *The Changing Role of the Embryo in Evolutionary Thought*. (Cambridge University Press, 2005).

175.

Bechtel, W. *Discovering Cell Mechanisms: The Creation of Modern Cell Biology*. (Cambridge University Press, 2006).

176.

Beurton, P. J., Falk, R. & Rheinberger, H.-J. *The Concept of the Gene in Development and Evolution*. (Cambridge University Press, 2000).

177.

Burian, R. M. 'Unification and Coherence as Methodological Objectives in the Biological Sciences'. *Biology & Philosophy* **8**, 301-318 (1993).

178.

Dawkins, R. *The Selfish Gene*. (Oxford University Press, 2006).

179.

Fagan, M. B. *Philosophy of Stem Cell Biology: Knowledge in Flesh and Blood*. vol. *New directions in the philosophy of science* (Palgrave Macmillan, 2013).

180.

Falk, R. *Genetic Analysis: A History of Genetic Thinking*. (Cambridge University Press, 2009).

181.

Gayon, J. *Darwinism's Struggle for Survival: Heredity and the Hypothesis of Natural Selection*. vol. *Cambridge studies in philosophy and biology* (Cambridge University Press, 1998).

182.

Griffiths, P. E. *Genetic Information: A Metaphor in Search of a Theory*. *Philosophy of Science* **68**, 394–412 (2001).

183.

Griffiths, P. E. & Gray, R. D. Chapter 19: The Developmental Systems Perspective: Organism-Environment Systems as Units of Evolution. in *Phenotypic Integration: Studying the Ecology and Evolution of Complex Phenotypes* 409–431 (Oxford University Press, 2004).

184.

Griffiths, P., Machery, E. & Linquist, S. The Vernacular Concept of Innateness. *Mind & Language* **24**, 605–630 (2009).

185.

Griffiths, P. & Stotz, K. *Genetics and Philosophy: An Introduction*. (Cambridge University Press, 2013).

186.

Griffiths, P. E. & Tabery, J. Chapter 3: Developmental Systems Theory: What Does it Explain and How Does it Explain it? in *Embodiment and Epigenesis: Theoretical and Methodological Issues in Understanding the Role of Biology within the Relational Developmental System, Part A: Philosophical, Theoretical, and Biological Dimensions* (eds. Lerner, R. M. & Benson, J. B.) vol. *Advances in child development and behavior* 65–94 (Academic Press, 2013).

187.

Jacob, F. *The Logic of Life: A History of Heredity*. (Princeton University Press, 1973).

188.

Jablonka, E. & Lamb, M. J. *Epigenetic Inheritance and Evolution: The Lamarckian Dimension*. (Oxford University Press, 1995).

189.

Kay, L. E. *Who Wrote the Book of Life?: A History of the Genetic Code*. vol. *Writing science* (Stanford University Press, 2000).

190.

Leonelli, S. Chapter 10: Understanding in Biology: The Impure Nature of Biological Knowledge. in *Scientific Understanding: Philosophical Perspectives* 189–209 (University of Pittsburgh Press, 2009).

191.

Rose, S., Kamin, L. J. & Lewontin, R. C. *Not in Our Genes: Biology, Ideology and Human Nature*. vol. *Pelican books* (Penguin, 1984).

192.

Mameli, M. & Bateson, P. Innateness and the Sciences. *Biology & Philosophy* **21**, 155–188 (2006).

193.

Mendelsohn, J. A. Lives of the Cell. *Journal of the History of Biology* **36**, 1–37 (2003).

194.

Moss, L. *What Genes Can't Do*. vol. *Basic bioethics* (MIT Press, 2003).

195.

Olby, R. C. *Origins of Mendelism*. (Constable, 1966).

196.

O'Malley, M. A. & Müller-Wille, S. The Cell as Nexus: Connections Between the History, Philosophy and Science of Cell Biology. *Studies in History and Philosophy of Biological and Biomedical Sciences* **41**, 169–171 (2010).

197.

Reynolds, A. The Theory of the Cell State and the Question of Cell Autonomy in Nineteenth and Early Twentieth-Century Biology. *Science in Context* **20**, 71–95 (2007).

198.

Richardson, S. S. *Sex Itself: The Search for Male and Female in the Human Genome*. (University of Chicago Press, 2013).

199.

Johns Schloegel, J. & Schmidgen, H. General Physiology, Experimental Psychology and Evolutionism. *Isis* **93**, 614–645 (2002).

200.

Stotz, K., Griffiths, P. E. & Knight, R. How Biologists Conceptualize Genes: An Empirical Study. *Studies in History and Philosophy of Biological and Biomedical Sciences* **35**, 647–673 (2004).

201.

Stotz, K. & Griffiths, P. Genes: Philosophical Analyses Put to the Test. *History and Philosophy of the Life Sciences* **26**, 5–28 (2004).

202.

Waters, C. K. What Was Classical Genetics? *Studies in History and Philosophy of Science* **35**, 783–809 (2004).

203.

Frigg, R. & Hartmann, S. Models in science. *The Stanford Encyclopedia of Philosophy* (2012).

204.

Levins, R. The Strategy of Model Building in Population Biology. *American Scientist* **54**, 421–431 (1966).

205.

Ankeny, R. A. & Leonelli, S. What's So Special About Model Organisms? *Studies in History and Philosophy of Science Part A* **42**, 313–323 (2011).

206.

Morrison, M. & Morgan, M. S. Chapter 2: Models as Mediating Instruments. in *Models as Mediators: Perspectives on Natural and Social Sciences* (eds. Morgan, M. S. & Morrison, M.) vol. 52 10–37 (Cambridge University Press, 1999).

207.

Weber, M. Chapter 3: Walking on the Chromosome: *Drosophila* and the Molecularization of Development. in *From Molecular Genetics to Genomics: The Mapping Cultures of Twentieth-Century Genetics* vol. *Routledge studies in the history of science, technology and medicine* 63–78 (Routledge, 2004).

208.

Ankeny, R. A. & Leonelli, S. Organisms in Experimental Research. in Handbook of the Historiography of Biology vol. Historiography of Science, Volume 1 1–25 (Springer, 2019).

209.

Bailer-Jones, D. M. Scientific Models in Philosophy of Science. (University of Pittsburgh Press, 2009).

210.

de Chadarevian, S. Of Worms and Programmes: *Caenorhabditis Elegans* and the Study of Development. *Studies in History and Philosophy of Biological and Biomedical Sciences* **29**, 81–105 (1998).

211.

de Chadarevian, S. Chapter 12: Models and the Making of Molecular Biology. in *Models: The Third Dimension of Science* vol. *Writing science* 339–368 (Stanford University Press, 2004).

212.

Craver, C. F. & Darden, L. *In Search of Mechanisms: Discoveries Across the Life Sciences*. (University of Chicago Press, 2013).

213.

Creager, A. N. H. *The Life of a Virus: Tobacco Mosaic Virus as an Experimental Model, 1930-1965*. (University of Chicago Press, 2002).

214.

Davies, G. Captivating Behaviour: Mouse Models, Experimental Genetics and Reductionist Returns in the Neurosciences. *The Sociological Review* **58**, 53–72 (2010).

215.

Davies, G. What is a Humanized Mouse? Remaking the Species and Spaces of Translational Medicine. *Body & Society* **18**, 126–155 (2012).

216.

French, S. & Ladyman, J. Reinflating the Semantic Approach. *International Studies in the Philosophy of Science* **13**, 103–121 (1999).

217.

Godfrey-Smith, P. The Strategy of Model-Based Science. *Biology & Philosophy* **21**, 725–740 (2010).

218.

Griesemer, J. R. Material Models in Biology. *PSA: Proceedings of the Biennial Meeting of the Philosophy of Science Association* **1990**, 79–93 (1990).

219.

Knuuttila, T. Models, Representation and Mediation. *Philosophy of Science* **72**, 1260–1271 (2005).

220.

Meunier, R. Stages in the Development of a Model Organism as a Platform for Mechanistic Models in Developmental Biology: Zebrafish, 1970–2000. *Studies in History and Philosophy of Biological and Biomedical Sciences* **43**, 522–531 (2012).

221.

Morgan, M. S. Chapter 1: Modelling as a Method of Enquiry. in *The World in the Model: How Economists Work and Think* 1–43 (Cambridge University Press, 2012).

222.

Morgan, M. S. & Morrison, M. Models as Mediators: Perspectives on Natural and Social Sciences. (Cambridge University Press, 1999).

223.

Nelson, N. C. Model Behavior: Animal Experiments, Complexity and the Genetics of Psychiatric Disorders. (University of Chicago Press, 2018).

224.

Suárez, M. Theories, Models and Representations. in Model-Based Reasoning in Scientific Discovery 75–83 (Kluwer Academic/Plenum Publ, 1999).

225.

Suárez, M. An Inferential Conception of Scientific Representation. Philosophy of Science **71**, 767–779 (2004).

226.

Weisberg, M. Who is a Modeler? The British Journal for the Philosophy of Science **58**, 207–233 (2007).

227.

Weisberg, M. Forty Years of 'The Strategy': Levins on Model Building and Idealization. Biology & Philosophy **21**, 623–645 (2006).

228.

Weisberg, M. Simulation and Similarity: Using Models to Understand the World. (Oxford University Press, 2013).

229.

Kohler, R. E. Systems of production: Drosophila, neurospora, and biochemical genetics. Historical Studies in the Physical and Biological Sciences **22**, 87–130 (1991).

230.

Rheinberger, H.-J. From microsomes to ribosomes: 'Strategies' of 'representation'. *Journal of the History of Biology* **28**, 49–89 (1995).

231.

Weber, M. Chapter 25: Experimentation. in *A Companion to the Philosophy of Biology* vol. Blackwell companions to philosophy 472–488 (Blackwell Pub, 2008).

232.

Bernard, C. *Introduction to the Study of Experimental Medicine*. (Dover, 1985).

233.

Burian, R. M. Technique, Task Definition and the Transition From Genetics to Molecular Genetics: Aspects of the Work on Protein Synthesis in the Laboratories of J. Monod and P. Zamecnik. *Journal of the History of Biology* **26**, 387–407 (1993).

234.

Radder, H. *The Philosophy of Scientific Experimentation*. (University of Pittsburgh Press, 2003).

235.

Burian, R. *The Epistemology of Development, Evolution, and Genetics*. (Cambridge University Press, 2004).

236.

De Chadarevian, S. Laboratory Science Versus Country-House Experiments. The Controversy Between Julius Sachs and Charles Darwin. *The British Journal for the History of Science* **29**, 17–41 (1996).

237.

Chadarevian, S. de. *Designs For Life: Molecular Biology After World War II*. (Cambridge University Press, 2002).

238.

Coleman, W. & Holmes, F. L. *The Investigative Enterprise: Experimental Physiology in Nineteenth-Century Medicine*. (University of California Press, 1988).

239.

Endy, D. Foundations for Engineering Biology. *Nature* **438**, 449–453 (2005).

240.

Holmes, F. L. *Investigative Pathways: Patterns and Stages in the Careers of Experimental Scientists*. (Yale University Press, 2004).

241.

Keller, E. F. *Making Sense of Life: Explaining Biological Development with Models, Metaphors and Machines*. (Harvard University Press, 2002).

242.

Kohler, R. E. *Lords of the Fly: Drosophila Genetics and the Experimental Life*. (University of Chicago Press, 1994).

243.

Kroes, P. Technology and Science-Based Heuristics. in *New Directions in the Philosophy of Technology* vol. *Philosophy and Technology* / Official Publication of the Society for Philosophy and Technology 17–39 (Kluwer, 1995).

244.

Landecker, H. *Culturing life: How Cells Became Technologies*. (Harvard University Press,

2007).

245.

Lenoir, T. *The Strategy of Life: Teleology and Mechanics in Nineteenth-Century German Biology*. (University of Chicago Press, 1989).

246.

Olby, R. C. *The Path to the Double Helix: The Discovery of DNA*. (Dover Publications, 1994).

247.

O'Malley, M. A., Powell, A., Davies, J. F. & Calvert, J. Knowledge-Making Distinctions in Synthetic Biology. *BioEssays* **30**, 57–65 (2008).

248.

Pauly, P. J. *Controlling Life: Jacques Loeb and the Engineering Ideal in Biology*. vol. *Monographs on the history and philosophy of biology* (Oxford University Press, 1987).

249.

Rheinberger, H.-J. *Toward a History of Epistemic Things: Synthesizing Proteins in the Test Tube*. vol. *Writing science* (Stanford University Press, 1997).

250.

Schmidgen, H. Pictures, Preparations, and Living Processes: The Production of Immediate Visual Perception (*Anschauung*) in Late-19th-Century Physiology. *Journal of the History of Biology* **37**, 477–513 (2004).

251.

Weber, M. *Philosophy of Experimental Biology*. (Cambridge University Press, 2004).

252.

Müller-Wille, S. The Dark Side of Evolution: Caprice, Deceit, Redundancy. *History and Philosophy of the Life Sciences* **31**, 183–199 (2009).

253.

Day, R. L., Laland, K. N. & Odling-Smee, F. J. Rethinking Adaptation: The Niche-Construction Perspective. *Perspectives in Biology and Medicine* **46**, 80–95 (2003).

254.

O'Malley, M. A. & Dupré, J. Size doesn't matter: Towards a more inclusive philosophy of biology. *Biology & Philosophy* **22**, 155–191 (2007).

255.

Egerton, F. N. Changing Concepts of the Balance of Nature. *The Quarterly Review of Biology* **48**, 322–350 (1973).

256.

Plutynski, A. Chapter 21: Ecology and the Environment. in *The Oxford Handbook of Philosophy of Biology* 505–524 (Oxford University Press, 2008).

257.

Wilson, D. S. & Sober, E. Reviving the Superorganism. *Journal of Theoretical Biology* **136**, 337–356 (1989).

258.

Canguilhem, G. The Development of the Concept of Biological Regulation in the Eighteenth and Nineteenth Centuries. in *Ideology and Rationality in the History of the Life Sciences* 81–102 (1988).

259.

Daston, L. & Vidal, F. *The Moral Authority of Nature*. (University of Chicago Press, 2004).

260.

Dennett, D. C. *Darwin's Dangerous Idea: Evolution and the Meanings of Life*. vol. Penguin science (Penguin, 1996).

261.

Gilbert, S. F. & Epel, D. *Ecological Developmental Biology: Integrating Epigenetics, Medicine, and Evolution - An Integrated Approach to Embryology, Evolution, and Medicine*. (Sinauer Associates, 2009).

262.

Haraway, D. *When Species Meet*. vol. Posthumanities (University of Minnesota Press, 2008).

263.

Hinchliffe, S. *Geographies of Nature: Societies, Environments, Ecologies*. (SAGE, 2007).

264.

Jablonka, E., Lamb, M. J. & Zeligowski, A. *Evolution in Four Dimensions: Genetic, Epigenetic, Behavioral, and Symbolic Variation in the History of Life*. vol. Life and Mind: Philosophical Issues in Biology and Psychology (A Bradford Book, 2014).

265.

Keller, E. F. *Refiguring Life: Metaphors of Twentieth-Century Biology*. vol. The Wellek library lectures at the University of California, Irvine (Columbia University Press, 1995).

266.

Margulis, L. *Symbiotic Planet: A New Look at Evolution*. vol. Science masters (Basic Books, 1998).

267.

Mu

Iller-Wille, S. & Rheinberger, H.-J. Chapter 1: Heredity - The Formation of an Epistemic Space. in *Heredity Produced: At the Crossroads of Biology, Politics and Culture, 1500-1870* vol. Transformations 3–34 (MIT Press, 2007).

268.

Odenbaugh, J. Struggling with the Science of Ecology. *Biology & Philosophy* **21**, 395–409 (2006).

269.

Odling-Smee, F. J., Laland, K. N. & Feldman, M. W. *Niche Construction: The Neglected Process in Evolution*. (Princeton University Press, 2003).

270.

Okasha, S. *Evolution and the Levels of Selection*. (Oxford University Press, 2006).

271.

Oyama, S., Griffiths, P. E. & Gray, R. D. *Cycles of Contingency: Developmental Systems and Evolution*. vol. A Bradford book (MIT Press, 2001).

272.

Roughgarden, J. *Evolution's Rainbow: Diversity, Gender, and Sexuality in Nature and People*. (University of California Press, 2013).

273.

Odenbaugh, J. Conservation Biology. *The Stanford Encyclopedia of Philosophy* (2016).

274.

Sarkar, S. Ecology. The Stanford Encyclopedia of Philosophy (2005).

275.

Schiebinger, L. Nature's Body: Gender in the Making of Modern Science. (Rutgers University Press, 2004).

276.

Schweber, S. S. Darwin and the Political Economists: Divergence of Character. Journal of the History of Biology **13**, 195–289 (1980).

277.

Young, R. M. Darwin's Metaphor: Nature's Place in Victorian Culture. (Cambridge University Press, 1985).

278.

Reiss, J. & Ankeny, R. A. Philosophy of Medicine. The Stanford Encyclopedia of Philosophy (2016).

279.

Foucault, M. Right of death and power over life. in The Foucault Reader vol. Peregrine books 258–272 (Penguin, 1986).

280.

Boniolo, G. Chapter 1: Molecular Medicine: The Clinical Method Enters the Lab. in Philosophy of Molecular Medicine: Foundational Issues in Research and Practice 15–34 (Routledge, Taylor & Francis Group, 2017).

281.

Boniolo, G. & Nathan, M. J. Philosophy of Molecular Medicine: Foundational Issues in

Research and Practice. (Routledge, Taylor & Francis Group, 2017).

282.

Boorse, C. Health as a Theoretical Concept. *Philosophy of Science* **44**, 542–573 (1977).

283.

Kingma, E. Paracetamol, Poison, and Polio: Why Boorse's Account of Function Fails to Distinguish Health and Disease. *The British Journal for the Philosophy of Science* **61**, 241–264 (2010).

284.

Lennox, J. G. Health as an Objective Value. *Journal of Medicine and Philosophy* **20**, 499–511 (1995).

285.

Grene, M. Philosophy of Medicine: Prolegomena to a Philosophy of Science. *PSA: Proceedings of the Biennial Meeting of the Philosophy of Science Association* **1976**, 77–93 (1976).

286.

Amundson, R. Against Normal Function. *Studies in History and Philosophy of Biological and Biomedical Sciences* **31**, 33–53 (2000).

287.

Canguilhem, G. *The Normal and the Pathological*. (Zone Books, 1989).

288.

Canguilhem, G., Geroulanos, S. & Meyers, T. *Writings on Medicine*. (Fordham University Press, 2012).

289.

Carel, H. *Illness: The Cry of the Flesh*. (Routledge, 2013).

290.

Cunningham, A. & Williams, P. *The Laboratory Revolution in Medicine*. (Cambridge University Press, 1992).

291.

Engelhardt, H. T. *The Philosophy of Medicine: Framing the Field*. vol. *Philosophy and medicine* (Kluwer Acad. Publ, 2000).

292.

Fortun, M. & Mendelsohn, E. *The Practices of Human Genetics*. vol. *Sociology of the sciences* (Kluwer Academic, 1999).

293.

Foucault, M. *The Birth of the Clinic: An Archaeology of Medical Perception*. vol. *Routledge classics* (Routledge, 2003).

294.

Foucault, M. & Bertani, M. *Society Must be Defended: Lectures at the Collège de France, 1975-76: Lectures at the College De France, 1975 76*. (Penguin, 2004).

295.

Gannett, L. Chapter 19: Genes and Society. in *The Oxford Handbook of Philosophy of Biology* 451–477 (Oxford University Press, 2008).

296.

Gannett, L. The Biological Reification of Race. *The British Journal for the Philosophy of Science* **55**, 323–345 (2004).

297.

Hacking, I. Genetics, Biosocial Groups and the Future of Identity. *Daedalus* **135**, 81–95 (2006).

298.

Longino, H. E. & Keller, E. F. *Feminism and Science*. vol. Oxford readings in feminism (Oxford University Press, 1996).

299.

Kevles, D. J. *In the Name of Eugenics: Genetics and the Uses of Human Heredity*. (Harvard University Press, 1995).

300.

Koenig, B. A., Lee, S. S.-J. & Richardson, S. S. *Revisiting Race in a Genomic Age*. vol. Rutgers series in medical anthropology (Rutgers University Press, 2008).

301.

Magnus, D. Chapter 23: The Concept of Genetic Disease. in *Health, Disease and Illness: Concepts in Medicine* 233–242 (Georgetown University Press, 2004).

302.

Grmek, M. D. *Pathological Realities: Essays on Disease, Experiments, and History*. (Fordham University Press, 2018).

303.

Paul, D. B. *Controlling Human Heredity: 1865 to the Present*. vol. *The control of nature* (Humanities Press, 1995).

304.

Sunder Rajan, K. *Pharmocracy: Value, Politics, and Knowledge in Global Biomedicine*. (Duke University Press, 2017).

305.

Reardon, J. *Race to the Finish: Identity and Governance in an Age of Genomics*. vol. Information series (Princeton University Press, 2005).

306.

Root, M. The use of race in medicine as a proxy for genetic differences. *Philosophy of Science* **70**, 1173–1183 (2003).

307.

Schaffner, K. F. Philosophy of medicine. in *Introduction to the Philosophy of Science: A Text* 310–345 (Prentice Hall, 1992).

308.

Temkin, O. Chapter 29: Health and disease. in *The Double Face of Janus and Other Essays in the History of Medicine* 419–440 (Johns Hopkins University Press, 2006).

309.

UNESCO. *The Race Question in Modern Science: Results of an Inquiry*. (1952).