

HISTORIA DE LA CIENCIA I
Historiografías e Historias de las Ciencias en el Mundo Contemporáneo

Dra. Luz Fernanda Azuela
M. en C. Graciela Zamudio Varela

OBJETIVOS GENERALES:

1. El alumno identificará las principales posiciones historiográficas en la historia de la ciencia.
2. El alumno reconocerá los argumentos que se han suscitado alrededor de cada una de las concepciones historiográficas analizadas.
3. El alumno examinará algunos episodios paradigmáticos en la historia de la ciencia, a la luz de diversas perspectivas historiográficas.

TEMARIO:

1. Historiografías de la Ciencia en el mundo occidental

Christie, J. R. R., 1990. "The development of the historiography of science," in R. C. Olby, G. N. Cantor, J. R. R. Christie, and M. S. Hodge, eds., *Companion to the history of modern science*, Routledge Companion Encyclopedias, London, p. 4-22.

Shapin, Steven, 1992. "Discipline and bounding: The History and Sociology of Science as seen through the externalism-internalism debate", *History of Science*, XXX:333-369.

John G. McEvoy, 2007. "Modernism, Postmodernism and the Historiography of Science", *Historical Studies in the Physical and Biological Sciences*, 37/2: 385-410.

Kaiser, David, 2005. "Training and the Generalist Vision in the History of Science", *Isis*, 96:244-251.

2. Polémicas en la Historia de la Ciencia

Hessen, Boris, (1931) 1989. "Las raíces socioeconómicas de la mecánica de Newton", en Juan José Saldaña (editor), *Introducción a la teoría de la historia de las ciencias*, SUAFyL-UNAM, México, pp. 79-145.

Koyré, Alexandre, (1961), 1978. "Perspectivas de la historia de las ciencias", *Estudios de historia del pensamiento científico*, Siglo XXI Editores, pp. 147-157.

Lindberg, David C., "Conceptions of Scientific Revolution from Bacon to Butterfield. A preliminary Sketch", en David C. Lindberg y Robert S. Westman (eds.), *Reappraisals of the Scientific Revolution*, Cambridge University Press, pp. 1-55.

Cunningham, Andrew and Perry Williams, 1993. "De-centring the 'big picture': *The Origins of Modern Science* and the modern origins of Science", *The British Journal for the History of Science*, 26:407-432.

3. Historiografías de la Ciencia en América Latina

Gorbach, Frida y Carlos López Beltrán, 2008. "Apuntes para ubicar nuestras historias de las ciencias", en Frida Gorbach y Carlos López Beltrán (editores), *Saberes locales. Ensayos sobre historia de la ciencia en América Latina*, El Colegio de Michoacán, México, pp.11-38.

Saldaña, Juan José, 1992. "Acerca de la historia de la ciencia nacional", en J. J. Saldaña, *Los orígenes de la ciencia nacional*, Cuadernos de Quipu 4, Sociedad Latinoamericana de Historia de las Ciencias y la Tecnología-Facultad de Filosofía y Letras, UNAM, pp. 9-54.

Vessuri, Hebe, 1991. "Universalismo y nacionalismo en la ciencia moderna. Una aproximación desde el caso venezolano", *Quipu*, vol. 8, num. 2, mayo-agosto, pp. 255-271.

Azuela, y Rafael Guevara Fefer, 1998. "La ciencia en México en el siglo XIX. Una aproximación historiográfica", *Asclepio*, Vol. L-2, pp. 5-33.

4. La ciencia como práctica social y cultural

Fleck, Ludwik, 1986. *La génesis y desarrollo de un hecho científico*, Alianza Editorial, Capítulos 1, 2 y 4.

Kuhn, Thomas S., (1962) 1971. *La estructura de las revoluciones científicas*, Fondo de Cultura Económica, México, Capítulos 1, 2 y 7.

Latour, Bruno, 1983. "Give a Laboratory and I Will Raise the World", in Knorr-Cetina, K. D. And Mulkay, M. J. (eds.), *Science observed: Perspectives on the Social Studies of Science*, Sage, London, pp. 141-169.

Lafuente, Antonio, 1999. "El sensire aude de Buffon. Escritura y público de la ciencia popular de la Ilustración", en Antonio Lafuente y Javier Moscoso, *Georges-Louis Leclerc Conde de Buffon (1707-1788)*, Consejo Superior de Investigaciones Científicas, Madrid, pp. IX-LXIII.

Schaffer, Simon, 2011. "Los Laboratorios de Física y la Casa de Campo Victoriana", en *Trabajos de Cristal. Ensayos de Historia de la Ciencia, 1650-1900*, Marcial Pons, Madrid, pp. 345-396.

Williams Elizabeth A., 2000. "Physicians, Vitalism, and Gender in the Salon Studies in Eighteenth Century Culture", *Studies in Eighteenth Century Culture*, 29:1-21.

5. El giro espacial en la Historia de la Ciencia

Livingstone, David N., 2000. "Making Space for Science", Erdkunde, Boss-Verlag, Kleve, Band 54, Heft 4, p. 285-296.

Ophir, Adi and Steven Shapin, "The Place of Knowledge. A Methodological Survey", *Science in Context*, 4, 1(1991, p. 3-21.

Harris, Steven J., 1998. "Long-Distance Corporations, Big Science, and the Geography of Knowledge", *Configurations* 6.2(269-304).

Chambers & Gillespie, 2000. "Locality in the History of Science. Colonial Science, Technoscience and Indigenous Knowledge", *Osiris*, 2nd Series, Vol. 15, Nature and Empire: Science and the Colonial Enterprise, pp. 221-240.

7. Otras historias de la ciencia

Sabra A. I., 1996. "Situating Arabic Science: Locality vs. Essence". *Isis* 87(4), December.

Elman, Benjamin, 2006. *A cultural History of Modern Science in China*, Harvard University Press, Introducción y capítulos 1 y 2.

Raina, Dhruv, 2000. "Jean Baptiste Biot on the History of Indian Astronomy (1830-1860): The Nation in the Post-Enlightenment Historiography of Science", *Indian Journal of History of Science*, 35.4: 319-346.

Haraway, Donna, 1988. "Situated Knowledge: The Science Question in Feminism as a Site of Discourse or the Privilege of Partial Perspective", *Feminist Studies*, 14:575-599.

8. Nuestras historias de la ciencia

Barrera, Antonio, 2006. *Experiencing Nature. The Spanish American Empire and the Scientific Revolution*, Introducción y capítulos 2 y 3.

Pimentel, Juan, 2008 "The Iberian Vision: Science and Empire in the Framework of a Universal Monarchy, 1500-1800", *Osiris*, 2nd Series, Vol. 15, Nature and Empire: Science and the Colonial Enterprise, pp. 17-30.

Podgorny, Irina, 2008. "La prueba asesinada. El trabajo de campo y los métodos de registro en la arqueología de los inicios del siglo XX" en Frida Gorbach y Carlos López Beltrán (editores), *Saberes locales. Ensayos sobre historia de la ciencia en América Latina*, El Colegio de Michoacán, México, pp.169-205.

Zamudio, Graciela, 2012. "Practicantes de la historia natural novohispana: circulación de saberes y objetos en el Nuevo y Viejo Mundos, en Luz Fernanda Azuela y Rodrigo Vega y Ortega (coordinadores), *Naturaleza y territorio en la ciencia mexicana del siglo XIX*, pp. 17-31.

Cañizares-Esguerra, Jorge, 2005. "Iberian Colonial Science ", *Isis*, 96:64-70.

BIBLIOGRAFÍA GENERAL

Agassi, Joseph, "Towards an Historiography of Science" *Cuadernos de History and Theory*, 2, 1957.

Barnes, Barry, "Sociological Theories of Scientific Knowledge", en *Olby et al.*, 1990.

Brush Stephen, "Should the History of Science be X rated?" en *Science*, 183, pp.1167-72, 1974.

Burian R., "More than a marriage of convenience" en *Philosophy of Science*, 44, pp. 1-42, 1977.

- Butterfield Herbert. *The Origins of Modern Science*, 1950. p. 1300-1800. (versión en español en Taurus y Conacyt).
- Christie J. R. R., "The development of the Historiography of Science", en Olby et al., *Companion to the History of Modern Science*. 1990.
- Clark, J. T., "The Philosophy of Science and the History of Science" en Clagett M., *Critical Problems in the History of Science*, 1959.
- Cohen I. B., "History and the Philosopher of Science" en Suppe F. *The Structure of Scientific Theories*, 1974 (versión española de 1979 en Editora Nacional).
- Darnton, Robert, "La gran matanza de gatos y otros episodios en la historia de la cultura francesa", FCE, México, pp. 109-147, 2006.
- Daston, Lorraine ed., "Biographies of Scientific Objects", University of Chicago Press, 2000.
- Floris Cohen, "The Scientific Revolution. A Historiographical Inquiry", 1994. Capítulos 2, 7 y 8.
- Gabbey Alan, "Newton and Natural Philosophy" en Olby et al. 1999.
- Golinsky, Jan, "Making Natural Knowledge: Constructivism and the History of Science", New York, Cambridge Univ. Press, 1988.
- Golinski, "Tall Tales and Short Stories: Narrating the History of Science", <http://www.unh.edu/history/golinski/paper6.htm>
- Hacking, Ian, "Styles of Scientific Thinking and Reasoning: A new analytical tool for historians and philosophers of science" en K. Gavroglu et. al. (eds), *Trends in the Historiography of Science*, Kluwer, 1994, pp.31-48.
- Hacking, Ian, "'Style' for Historians and Philosophers" en *Studies in History and Philosophy of Science*, Marzo, 1992, pp. 1-20.
- Hackman W. D. "Scientific Instruments: models of brass and aids to discovery" en Schaffer, Gooding y Pinch (eds), *The Uses of Experiment*.
- Haraway, Donna, "Situated Knowledge: The Science Question in Feminism as a Site of Discourse o the Privilege of Partial Perspective", *Feminist Studies*, 1988, 14:575-599.
- Heilbron J. L., "Experimental Natural Philosophy" in Rousseau y Porter, *The Ferment of Knowledge*, 1980.
- Hesse, Mary. "Reasons and Evaluation in the History of Science" en Teich M. y Young R., *Changing Perspectives in the History of Science*, 1973.
- Holmes F. L. "Do we understand historically How Experimental Knowledge is acquired?" en *History of Science*, 30, 88, 1992.

- Home R. W., "The notion of experimental physics in early 18th century France" en Pitt J.C. ed, *Change and Progress in Modern Science*, 1985. pp 107-32.
- Hodge M. J. S. y Kohn D. "The Immediate Origins of Natural Selection" en D. Kohn (ed.) *The Darwinian Heritage*, Princeton University Press, 1985. pp.185-206.
- Hull, David, "In defense of presentism" (1979) en *The Metaphysics of Evolution*, 1989.
- Jardine, Nicholas. *The Scenes of Inquiry*. Oxford UP, 1991, capítulos 4 y 5.
- Jardine, Nicholas, E. C. Spary and James A. Secord, "Cultures of Natural History", Cambridge Univ. Press, 1996.
- Kragh H., "An Introduction to the Historiography of Science", 1987, capítulos 1, 2, 9 y 10.
- Kuhn, Thomas S. "The History of Science" y "The relations between History and the History of Science", ambos en su (1977), *The Essential Tension*. Versión en español en Fondo de Cultura Económica, 1982.
- Kuhn T.S. "The Relations between the History and the Philosophy of Science" en *The Essential Tension*, 1977.
- Kuhn, T.S. "Mathematical vs. Experimental Traditions in the Development of Physical Science" en *The Essential Tension*, 1977.
- Kuhn T.S. "The Function of Measurement in Modern Physical Science" en *The Essential Tension*, 1977.
- Latour, Bruno. "Pasteur y Pouchet: heterogénesis de la historia de las ciencias" en M. Serres (ed.), *Historia de la Ciencias*, Cátedra, 1989.
- Latour, Bruno, "Ciencia en acción. Cómo seguir a los científicos e ingenieros a través de la sociedad", Editorial Labor, Madrid, 1993.
- Laudan, Rachel, "Histories of Sciences and their uses", en *History of Science*, vol. 31, part1, n 91.
- Lindberg, D. "Conceptions of the Scientific Revolution from Bacon to Butterfield" en Lindberg D y Westman R., *Reappraisals of the Scientific Revolution*, 1990.
- Livingstone, David N., *Putting Science in Its Place: Geographies of Scientific Knowledge*, Chicago Univ. Press, Chicago, 2004.
- Mayr, Ernst, "When is Historiography Whiggish?" en *Journal of The History of Ideas*, 51, 1990, pp. 301-9.
- McMullin, Ernan, "Conception of Science in the Scientific Revolution" en Lindberg y Westman, 1990.

Ophir, Adi and Steven Shapin, "The Place of Knowledge: A Methodological Survey", *Science in Context*, 1991, 4, (1):3-21.

Ospovat, D., "Perfect Adaptation and Teleological Explanation: Approaches to the Problem of the History of Life in Mid-nineteenth century" en *Studies in the History of Biology*, n.2, J. Hopkins UP, 1978.

Porter, R., Shapin S., Schaffer S., Young R., Cooter R. Crossland M. "What is History of Science?" en J. Gardiner, *What is History today?*, 1988.

Schaffer, Simon, "Glass works: Newton's Prisms and the Uses of Experiment", en Schaffer, Gooding y Pinch (eds), *The Uses of Experiment*, 1989.

Shapin, Steven, "Social uses of science" en Rousseau G.S. y Porter R., *The Ferment of Knowledge: Studies in the Historiography of 18th century science*, 1980, pp. 93-139.

Shapin, Steven, "History of Science and its Sociological Reconstructions", en *History of Science*, 1982, 20:157-211.

Shapin, Steven, "Discipline and Bounding: The History and Sociology of Science as seen through the Externalism-Internalism debate, en *History of Science*, 1992, 30:333-369.

Shapin Steven, *The Scientific Revolution*, The University of Chicago Press, Chicago and London, 1996.

Shapin, Steven & Simon Schaffer, *Leviathan and the Air-Pump: Hobbes, Boyle, and the Experimental Life*, Princeton Univ. Press, 1989.

Schweber S., "The Wider British Context in Darwin's Theorizing" en D. Kohn (ed.), *The Darwinian Heritage*, Princeton University Press, 1985. pp 35-69.

Secord, Ann, "Science in the Pub: Artisan Botanists in Early Nineteenth-Century Lancashire", *History of Science*, 1994, 32:269-315.

Secord, James A., "Knowledge in Transit", *Isis*, 2004, 95:654-672.

Topham, Jonathan R., 2007. "Publishing 'Popular Science' in Early Nineteenth-Century Britain", in Aileen Fyfe and Bernard Lightman (eds.), *Science in the Marketplace. Nineteenth-Century Sites and Experiences*, The University of Chicago Press, Chicago & London, pp. 135-168. Turner J.R.G., "The History of Science and the Working Scientist", en *Olby et al.*, 1990.

Toulmin J. *El Nacimiento de la Fisiología Científica*. I. I. Filosóficas. 1982.

Young, R. "Natural Theology, Victorian Periodicals, and the fragmentation of a Common Context" en *Darwin's Metaphor*, Cambridge UP, 1987.