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INTERPRETING KUHN

Interpreting Kuhn provides a comprehensive, up-to-date study of Thomas Kuhn's philosophy and legacy. With twelve essays newly written by an international group of scholars, it covers a wide range of topics where Kuhn had an influence. Part I deals with foundational issues such as Kuhn's metaphysical assumptions, his relationship to Kant and Kantian philosophy, as well as contextual influences on his writing, including Cold War psychology and art. Part II tackles three Kuhnian concepts: normal science, incommensurability, and scientific revolutions. Part III deals with the Copernican Revolution in astronomy, the theory-ladenness of observation, scientific discovery, Kuhn's evolutionary analogies, and his theoretical monism. The volume is an ideal resource for advanced students seeking an overview of Kuhn's philosophy, and for specialists following the development of Kuhn scholarship.

K. BRAD WRAY is the author of *Kuhn's Evolutionary Social Epistemology* (Cambridge University Press, 2011) and *Resisting Scientific Realism* (Cambridge University Press, 2018). He has worked extensively in the Thomas Kuhn Archives at MIT. He teaches at the Center for Science Studies at Aarhus University.

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Critical Essays

EDITED BY

K. BRAD WRAY

Aarhus University



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Abbreviations

- BBT** (1978). *Black-Body Theory and the Quantum Discontinuity, 1894–1912*. Oxford: Oxford University Press.
- CR** (1957/2003). *The Copernican Revolution: Planetary Astronomy in the Development of Western Thought*. Cambridge, MA: Harvard University Press.
- ET** (1977a). *The Essential Tension: Selected Studies in Scientific Tradition and Change*. Chicago: University of Chicago Press.
- “Preface,” pp. ix–xxiii, (1977b).
- “The Relation between the History and the Philosophy of Science,” pp. 3–20, (1976/1977).
- “Concepts of Cause in the Development of Physics,” pp. 21–30, (1971/1977).
- “The Historical Structure of Scientific Discovery,” pp. 165–177, (1962/1977).
- “The Essential Tension: Tradition and Innovation in Scientific Research,” pp. 225–239, (1959/1977).
- “A Function for Thought Experiments,” pp. 240–265, (1964/1977).
- “Logic of Discovery or Psychology of Research?” pp. 266–292, (1970/1977).
- “Second Thoughts on Paradigms,” pp. 293–319, (1974/1977).
- “Objectivity, Value Judgment, and Theory Choice,” pp. 320–339, (1973/1977).
- “Comment on the Relations of Science and Art,” pp. 340–351, (1969/1977).

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- PW** (n.d.) *The Plurality of Worlds: An Evolutionary Theory of Scientific Development*. Unpublished manuscript.
- RSS** (2000a). *The Road since Structure: Philosophical Essays, 1970–1993, with an Autobiographical Interview*, eds. J. Conant and J. Haugeland. Chicago: Chicago University Press.
- “What Are Scientific Revolutions?” pp. 13–32, (1987/2000).
 “Commensurability, Comparability, Communicability,” pp. 33–57, (1983/2000).
 “Possible Worlds in History of Science,” pp. 58–89, (1989/2000).
 “The Road since *Structure*,” pp. 90–104, (1991/2000).
 “The Trouble with the Historical Philosophy of Science,” pp. 105–120, (1992/2000).
 “Reflections on My Critics,” pp. 123–175, (1970/2000).
 “Theory-Change as Structure-Change: Comments on the Sneed Formalism,” pp. 176–195, (1976/2000).
 “Metaphor in Science,” 196–207, (1979/2000).
 “Afterwords,” pp. 224–252, (1993/2000).
 “A Discussion with Thomas S. Kuhn” (with Aristides Baltas, Kostas Gavroglu, Vasso Kindi), pp. 253–323, (2000b).
- SSR** *The Structure of Scientific Revolutions*, Chicago: University of Chicago Press.
 First edition (1962a). **SSR-1**
 Second edition, includes “Postscript-1969,” (1962/1970). **SSR-2**
 Third edition, includes “Postscript-1969,” (1962/1996). **SSR-3**
 Fourth edition, 50th anniversary edition. With an Introductory Essay by Ian Hacking (1962/2012), “Postscript-1969,” pp. 173–208. **SSR-4**
- TSK Archives – MC240** The following are documents from the Thomas Kuhn Archives at the Institute Archives and Special Collections, MIT Libraries, Cambridge, MA. They are cited according to date, box, and folder:
- (1941). “The War and My Crisis,” box 1, folder 3.
 (1943). “Phi Beta Kappa Address,” box 1, folder 3.

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- (1951a). Letter to Ralph Lowell, February 20, box 3, folder 10.
 (1951b). Letter to Dean Owen, January 6, box 3, folder 10.
 (1953). Letter to Charles Morris, July 3, box 25, folder 53.
 (1955). “Can the Layman Know Science? State Teachers College – Bridgewater, Massachusetts 12/13/55,” box 3, folder 33.
 (1962b). Letter from Thomas S. Kuhn to Edwin B. Boring, November 29, box 4, folder 7.
 (1967). “Paradigms and Theories in Scientific Research.” box 3, folder 14. Cited from Marcum 2012a.
 (1973). Letter to Kenneth Pietrzak, April 17, box 10.
 (1984). “Lecture IV – Conveying the Past to the Present.” Lectures/Meetings: Thalheimer Lectures, “Scientific Development and Lexical Change,” box 23.
 (n.d.) Untitled document (“Dear Professor Frank”), box 25, folder 53.
 (n.d.) Kuhn M1: SSR – Chapter 1 – “What Are Scientific Revolutions?” box 4, folder 3.
 (n.d.) Kuhn M2: SSR – Chapter 1 – “Discoveries as Revolutionary.” box 4, folder 3.

No Abbreviations Used

The following are Kuhn’s papers that do not appear in any of the above books. They are cited according to date.

- (1945). “Subjective View. Thomas S. Kuhn, on Behalf of the Recent Students, Reflects Undergraduate Attitude.” *Harvard Alumni Bulletin*, September 22, 29–30.
 (1963). “The Function of Dogma in Scientific Research.” In A. C. Crombie (ed.), *Scientific Change: Historical Studies in the Intellectual, Social and Technical Conditions for Scientific Discovery and Technical Innovation, from Antiquity to the Present*, pp. 347–369. London: Heinemann Educational Books.

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- (1969/1974). “Second Thoughts on Paradigms -1969 Lecture.” In F. Suppe (ed.), *The Structure of Scientific Theories*, pp. 459–482. Urbana, IL: University of Illinois Press.
- (1979). “Metaphor in Science”. In A. Ortony (ed.), *Metaphor and Thought*, pp. 409–419. Cambridge: Cambridge University Press.
- (1984/2017). *Desarrollo científico y cambio de léxico. Conferencias Thalheimer*, ed. P. Melogno. Montevideo: ANII/UdelaR/SADAF.
- (1990). “The Road since Structure.” In *PSA: Proceedings of the Biennial Meeting of the Philosophy of Science Association*, Vol. 1990, Volume Two: Symposia and Invited Papers, pp. 3–13.

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