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A Repository for More than Anecdote: Fifty Years of *The Structure of Scientific Revolutions*

To commemorate the golden anniversary of the publication of *The Structure of Scientific Revolutions* by Thomas Samuel Kuhn (1922–1996), we approached the editorial board of *Historical Studies in the Natural Sciences* with an idea: to invite authors to produce a variety of essays about it —including personal recollections of reading the text for the first time, war stories of teaching it in the classroom, scholarly rebuttals or engagements with parts of the text, and manifestos on why they absolutely loathed (or loved) the book.[1] The responses are in turn reflective, personal, and quirky. Because they are about Kuhn, because they are short, and because we had to call them something when assembling them into this collection, we dubbed them "Kuhnlets." What follows are, in the best sense of the word, *essays*. They are attempts at capturing some of the heterogeneous facets of the rarest of books: one that everyone in our field has read.

In itself, that is an astonishing fact and calls for a little reflection. There were quite a few very good books of the late 1950s and early 1960s concerning the history and philosophy of science (even if we restrict ourselves to those available in English): Michael Polanyi's *Personal Knowledge* (1958), John C. Greene's *The Death of Adam* (1959), and Mary Hesse's *Forces and Fields* (1961), to name three almost at random.[2] And yet one cannot assume, when meeting a colleague from

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1. Page references throughout these essays have been standardized to the most recent fourth edition: Thomas S. Kuhn, *The Structure of Scientific Revolutions, 50th Anniversary Ed.* (Chicago: University of Chicago Press, 2012 [1962]).

2. Michael Polanyi, *Personal Knowledge: Towards a Post-Critical Philosophy* (Chicago: University of Chicago Press, 1958); John C. Greene, *The Death of Adam: Evolution and Its Impact on Western Thought* (Ames: Iowa State University Press, 1959); Mary Hesse, *Forces and Fields: The Concept of Action at a Distance in the History of Physics* (New York: T. Nelson, 1961).

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one's own discipline, or perhaps a closely neighboring one, that he or she has read all (or any) of them. *Structure* is different. The Kuhnlets offer us a slice through a selection of scholars' thoughts, both senior and junior, and across a panoply of fields. We hope it is a fitting token for a golden anniversary.

As we revisited Kuhn's classic work and read these delightful essays, one point became abundantly clear. Due to the fifty years that have passed since *Structure*'s publication, the scholarly and personal narratives in this collection are impossible to array according to easily parsed party lines either "for" or "against" Kuhn's constructions of shifting paradigms, incommensurable worlds, or generational influences on the acceptance of new scientific theories. Although it is almost impossible to locate a dyed-in-the-wool "Kuhnian" these days (and none of the Kuhnlets adhere strictly to the position mapped out half a century ago), it is equally unlikely that one runs into a self-identified "anti-Kuhnian." Perhaps because of the many well-taken criticisms and emendations to Kuhn's framework, friendships do not end because of disagreements over Kuhn. Instead, something rather striking has happened: *Structure* constitutes a shared foundation for many scholars of the humanities of science—even scientists themselves.[3] And as people have continued to read it, Kuhn's theories no longer draw blood, professors no longer fulminate, students no longer quake.

The essays in this issue are arranged alphabetically, but it is also possible to divide them into broad categories. Bruce V. Lewenstein, Margaret W. Rossiter, Vassiliki Betty Smocovitis, and M. Norton Wise share their personal experiences of reading Kuhn for the first time. Their stories not only provide us with a multifaceted view of undergraduate and graduate student life, they collectively build the reading of Kuhn's *Structure* into a rite of passage, combining aspects of both inspiration and hazing. Other authors chose a wider lens, firmly locating *Structure* in the academic, Cold-War context of the 1960s. Harold J. Cook, Benjamin A. Elman, Stefan Helmreich, and Mary Jo Nye explore the environment in which Kuhn lived—intellectual and political, metaphorical and metonymic. Essays by Jed Z. Buchwald, Marta Hanson, Evelyn Fox Keller, and Seymour H. Mauskopf seek instead to evaluate the durability of Kuhn's concepts—originally formulated within the rubric of early modern European history of the physical sciences—for understanding the histories of nineteenth-century physics, East Asian science, biology, and chemistry. By rereading

3. Gregory Radick, "The Exemplary Kuhnian: Gould's *Structure* Revisited," *HSNS* 42, no. 2 (2012): 143–57.

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Structure, Lorraine Daston, Daniel Garber, Philip Kitcher, and Michael Lynch draw contemporary lessons from its pages. These authors use the volume as a tool to explore the current disciplinary landscape of science studies for historians, philosophers, and sociologists. Finally, no such collection would be complete without returning to where so many of us first encountered Kuhn: the classroom. Mario Biagioli, Frederick W. Gibbs, Helen E. Longino, and Laura Stark each supply us with glimpses of their students' (past and present) interactions with the text, and reflect on the continuing pedagogical utility of Kuhn's *Structure*.

So, what is one supposed to make of this array of reflections on a central text of the philosophy, history, and sociology of science? At the very least, that each reader encounters this text differently—which is true, indeed, of all texts—but also that Kuhn's *Structure* has stuck with us. There are few books that one can continue to chew over decades after first reading, and even fewer that could generate such a colorful array of responses. But there is more than this to be drawn from the essays presented here. Personal or analytic, anchored in footnotes or suspended among memories, these essays show us a *Structure* that extends beyond normal science, incommensurability, and paradigm shifts. Fifty years on, it remains a book to conjure with, and it is in that spirit that we invite you to read among the Kuhnlets, and perhaps even to return to *Structure* itself.

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