CAMBRIDGE

Cambridge University Press
0521837979 - How the Cold War Transformed Philosophy of Science: To the Icy Slopes of Logic
George A. Reisch
Frontmatter
More information

How the Cold War Transformed Philosophy of Science

To the Icy Slopes of Logic

This intriguing and ground-breaking book is the first in-depth study of the development of philosophy of science in the United States during the Cold War. It documents the political vitality of logical empiricism and Otto Neurath's Unity of Science movement when these projects emigrated to the United States in the 1930s and follows their depoliticization by a convergence of intellectual, cultural, and political forces in the 1950s. Students of logical empiricism and the Vienna Circle often treat these as strictly intellectual nonpolitical projects. In fact, the refugee philosophers of science were highly active politically and debated questions about values inside and outside science, as a result of which their philosophy of science was scrutinized politically from both within and without the profession, by such institutions as J. Edgar Hoover's FBI.

Based on extensive archival research, this book constitutes a major chapter in American intellectual history during the Cold War. It reveals how an unlikely combination of intellectual and political forces taking root in Cold War anticommunism shaped both the curricula of colleges and even the research undertaken by leading philosophers.

It will prove absorbing reading to philosophers and historians of science, intellectual historians, and scholars of Cold War studies.

George A. Reisch is an independent scholar.

© Cambridge University Press www.cambridge.org

CAMBRIDGE

Cambridge University Press
0521837979 - How the Cold War Transformed Philosophy of Science: To the Icy Slopes of Logic
George A. Reisch
Frontmatter
More information

How the Cold War Transformed Philosophy of Science

To the Icy Slopes of Logic

GEORGE A. REISCH

CAMBRIDGE UNIVERSITY PRESS

© Cambridge University Press www.cambridge.org

CAMBRIDGE

Cambridge University Press
0521837979 - How the Cold War Transformed Philosophy of Science: To the Icy Slopes of Logic
George A. Reisch
Frontmatter
More information

PUBLISHED BY THE PRESS SYNDICATE OF THE UNIVERSITY OF CAMBRIDGE
The Pitt Building, Trumpington Street, Cambridge, United Kingdom

CAMBRIDGE UNIVERSITY PRESS
The Edinburgh Building, Cambridge CB2 2RU, UK
40 West 20th Street, New York, NY 10011-4211, USA
477 Williamstown Road, Port Melbourne, VIC 3207, Australia
Ruiz de Alarcón 13, 28014 Madrid, Spain
Dock House, The Waterfront, Cape Town 8001, South Africa

http://www.cambridge.org

© George A. Reisch 2005

This book is in copyright. Subject to statutory exception
and to the provisions of relevant collective licensing agreements,
no reproduction of any part may take place without
the written permission of Cambridge University Press.

First published 2005

Printed in the United States of America

Typeface ITC New Baskerville 10/13 pt. *System* LaTeX 2ε [TB]

A catalog record for this book is available from the British Library.

Library of Congress Cataloging in Publication Data

Reisch, George A., 1962–
How the Cold War transformed philosophy of science : to the icy slopes of logic /
George A. Reisch.
p. cm.
Includes bibliographical references and index.
ISBN 0-521-83797-9 (hardback : alk. paper) – ISBN 0-521-54689-3 (pbk. : alk. paper)
1. Science – Philosophy – History – 20th century. 2. Cold War – Influence.
3. United States – Intellectual life – 20th century. 4. Logical positivism. I. Title.

Q174.8.R45 2005
501 – dc22 2004052545

ISBN 0 521 83797 9 hardback
ISBN 0 521 54689 3 paperback

© Cambridge University Press www.cambridge.org

CAMBRIDGE

Cambridge University Press
0521837979 - How the Cold War Transformed Philosophy of Science: To the Icy Slopes of Logic
George A. Reisch
Frontmatter
More information

Every action, in the middle of the twentieth century, presupposes and involves the adoption of an attitude with regard to the Soviet enterprise.

Raymond Aron, *The Opium of the Intellectuals*, 55

© Cambridge University Press www.cambridge.org

CAMBRIDGE

Cambridge University Press
0521837979 - How the Cold War Transformed Philosophy of Science: To the Icy Slopes of Logic
George A. Reisch
Frontmatter
More information

Contents

Preface and Acknowledgments *page* ix

1 An Introduction to Logical Empiricism and the Unity of Science Movement in the Cold War 1

2 Otto Neurath, Charles Morris, Rudolf Carnap, and Philipp Frank: Political Philosophers of Science 27

3 Leftist Philosophy of Science in America and the Reception of Logical Empiricism in New York City 57

4 "Doomed in Advance to Defeat"? John Dewey on Reductionism, Values, and the *International Encyclopedia of Unified Science* 83

5 Red Philosophy of Science: Blumberg, Malisoff, Somerville, and Early *Philosophy of Science* 96

6 The View from the Left: Logical Empiricism and Radical Philosophers 118

7 The View from the Far Left: Logical Empiricism and Communist Philosophers 136

8 Postwar Disillusionment, Anti-Intellectualism, and the Values Debate 149

9 Horace Kallen's Attack on the Unity of Science 167

10 Creeping Totalitarianism, Creeping Scholasticism: Neurath, Frank, and the Trouble with Semantics 191

11 Frank's Neurathian Crusade: Science, Enlightenment, and Values 208

© Cambridge University Press www.cambridge.org

CAMBRIDGE

Cambridge University Press
0521837979 - How the Cold War Transformed Philosophy of Science: To the Icy Slopes of Logic
George A. Reisch
Frontmatter
More information

12 "A Very Fertile Field for Investigation": Anticollectivism and Anticommunism in Popular and Academic Culture 234
13 Anticommunist Investigations, Loyalty Oaths, and the Wrath of Sidney Hook 259
14 Competing Programs for Postwar Philosophy of Science 283
15 Freedom Celebrated: The Professional Decline of Philipp Frank and the Unity of Science Movement 307
16 The Marginalization of Charles Morris 331
17 Values, Axioms, and the Icy Slopes of Logic 344
18 Professionalism, Power, and What Might Have Been 369

References 389
Index 407

© Cambridge University Press www.cambridge.org

CAMBRIDGE

Cambridge University Press
0521837979 - How the Cold War Transformed Philosophy of Science: To the Icy Slopes of Logic
George A. Reisch
Frontmatter
More information

Preface and Acknowledgments

A few days after finalizing the chapters of this book, I happened to watch a television documentary about string theory, one of the latest approaches by which physicists are pursuing a unified theory of nature. By conceiving subatomic particles as loops or pieces of string, instead of dimensionless points or spherically symmetric fields of force, the program explained, physicists have found new possibilities for mathematically connecting nature's forces. Some think the long sought-for unification of general relativity and quantum mechanics may soon come into view.

For one who had just written a book about the Unity of Science movement of the 1930s and '40s, this documentary brimmed with significance. Were they alive today and sitting in front of my television with me, I realized, the philosophers who led this movement – Otto Neurath, Rudolf Carnap, Philipp Frank, and Charles Morris – would have been fascinated. The science would have impressed them, but so would the efforts of public television to popularize contemporary physics and its unificationist impulse. Their Unity of Science movement was, in part, an effort to do just that.

On the other hand, these philosophers might well be disappointed were they to come back to life. For unlike public television, the discipline of philosophy of science they helped to cultivate in North America no longer holds the unity of science among its core issues and concerns. Especially during the postmodern 1980s and '90s, after all, one of the more celebrated concepts in the humanities was *disunity*. Unity came to mean, among other things, exclusion of subaltern cultures and ideas, and conservative, elitist disdain for the particularities and vitalities of different cultures. In tune with the times, some philosophers of science marshaled

© Cambridge University Press www.cambridge.org

CAMBRIDGE

Cambridge University Press
0521837979 - How the Cold War Transformed Philosophy of Science: To the Icy Slopes of Logic
George A. Reisch
Frontmatter
More information

observations from ecology, biology, and even high-energy physics to depict scientific communities as something like a patchwork of urban ethnic neighborhoods with different languages, practices, and goals – contiguous but not continuous, and hardly a collective quest for a general, unified understanding of nature.

For the resurrected logical empiricists sitting in my living room, the point is not simply that this disunified picture rejects their ideal of unity. In their day, like ours, the sciences were not well unified and they did not claim that some complete, unified theory of everything lay just around the corner. Instead, they would be more disappointed by the contemporary disunity between *science* and *philosophy* suggested by this interest in particularism and disconnection. As this documentary about string theory reminded, the impulse to create simple, unified understandings of nature is as much a mainspring of science today as it was for Copernicus, Newton, Darwin, and other heroes of science's history. But many in contemporary science studies believe otherwise, their dissent enabled by an insular, specialized academic culture. To understand science, many scholars in the humanities believe, one needs only the right metatheory of knowledge (of usually French, German, or Italian provenance). One does not need, in particular, to cross boundaries and the quadrangle to learn how science's practitioners understand what they do, unmediated by metatheoretical reinterpretations.

One logical empiricist featured in this book tried to address these several disconnections in the late 1940s. Then teaching both physics and philosophy at Harvard, Philipp Frank observed that science professors and, in turn, their students were beginning to perceive philosophers as impractical and uninformed about science. Philosophers fed this perception, Frank suggested, as they carved out special problem areas of their own concerning language and formal logic. They felt little need to keep abreast of science, Frank reported, especially because its pace seemed always to accelerate and its discoveries revealed strikingly counterintuitive puzzles. Even worse, neither party seemed willing to join forces and educate the public about the complexities of scientific methods, theories, and their interpretations. Believing that historic opportunities were being missed, Frank spent the last two decades of his life promoting logical empiricism as a tool to help to unify the "two cultures" of scientists and humanists and to equip students with a critical understanding of science. In an age of atomic weapons and Cold War ideology, Frank believed, such an understanding was necessary for a healthy, productive democracy.

© Cambridge University Press www.cambridge.org

CAMBRIDGE

Cambridge University Press
0521837979 - How the Cold War Transformed Philosophy of Science: To the Icy Slopes of Logic
George A. Reisch
Frontmatter
More information

Besides these cultural considerations, Frank and his fellow logical empiricists – even their philosophical rival Karl Popper – would have been impressed by some technical considerations raised in this presentation of string theory. When the program came to ongoing debate over whether string theory (or parts of it) can be empirically tested, they would have felt at home. One physicist took this debate quite seriously as he told the camera, "If you can't test your theory, it's not science." Popper would have emphatically agreed, while Carnap, knowing that things were never quite so simple, would have objected, perhaps, that we must distinguish testability from confirmability. The large, loud, and famously combative Neurath would have been so startled to find himself agreeing with Popper in this instance that he might have spilled coffee on his sweater even without barking his usual objections – "Metaphysics!" or "Absolutism!" – at his colleagues. Indeed, these philosophers argued often with each other, sometimes with great emotion and hurt feelings. But this is because they shared the conviction that philosophy of science mattered beyond the confines of the academy. In a world given to superstition, wars, social reaction, and persecution, they wished to introduce a new kind of philosophy with cultural as well as practical, scientific strengths – one of which was the power to help to clarify issues in scientific practice. They would have been gratified, therefore, to see that twenty-first-century scientists still need the philosophical tools they designed (such as criteria of meaning, testability, or confirmability) to help to evaluate knowledge claims and to avoid the often deceptive traps of metaphysics and pseudoscience.

Yet this sense of familiarity also would have contained a surprise, if not a disappointment. "If you can't test your theory," this physicist actually said, "it's not science. It's *philosophy*." Philosophy *itself* in his outlook represented a backwater of untestable, irrelevant claims of the sort that logical empiricists spent much of their careers urging scientists and philosophers to avoid. Finding themselves variously forgotten, unheard, or ignored in both science and philosophy of science, these philosophers could only conclude that, for all their cultural and scientific ambitions, something had gone wrong.

Politics, in part, is what went wrong. This book does not pretend to offer a complete account of all the events and circumstances of intellectual, social, economic, and other kinds of history that bear on postwar trends in philosophy of science. But it does propose that any convincing account must include the politics of anticommunism that, as the following chapters show, wind through and, in a sense, unify some of the experiences

© Cambridge University Press www.cambridge.org

CAMBRIDGE

Cambridge University Press
0521837979 - How the Cold War Transformed Philosophy of Science: To the Icy Slopes of Logic
George A. Reisch
Frontmatter
More information

and circumstances marking the rise and fall of the Unity of Science movement during the Cold War. To those who suppose that philosophy evolves according to its own intellectual rules, untouched by the irrationalities of politics, commerce, and fashion outside the ivory tower, this claim may seem dubious at the outset. Philosophers of science, and especially those who appreciate the historical contributions of logical empiricism, tend to be intellectually precise and conceptually scrupulous. Were political goals and values to infect their profession, they would be identified and discarded faster than one can say "*das Nichts selbst nichtet.*"

The claim, however, is not that logical empiricists failed to uphold their well-known strictures separating philosophy from politics and thus became susceptible to political influence. Rather, the claim is that the profession's adoption of those strictures was, in one sense, a response to anticommunist forces that were extremely powerful and are now largely forgotten. One aim of this book, therefore, is to survey the pathways by which Cold War anticommunism and its instantiation known as McCarthyism worked their way through intellectual and academic life in the decades immediately following World War II.

As historian Ellen Schrecker has documented, administrators and academics across the disciplines participated in the Cold War "hysteria" over the "red menace." What sociologist C. Wright Mills perhaps more aptly called the "new American celebration" was fueled by patriotism, fear of nuclear warfare, and confident declarations from Washington and the conservative press that the United States was indeed at war with a powerful communist nation actively seeking world domination. The weapons being used were not guns and bombs but rather strategies for geopolitical control, technological competition, and propaganda. Since both Moscow and Washington were adept at propaganda and covert operations, fears that communist operatives could infiltrate American institutions (such as higher education) and bring down Western capitalism without firing a shot did not necessarily seem exaggerated. During these same years, CIA operatives, sometimes without military assistance, orchestrated coups and installed governments in nations such as Iran and Guatemala.

These fears thrived in popular culture surrounding academia. It was nearly universally believed that Moscow sponsored spies, financed (and thus controlled) many American civic and cultural organizations, and deployed its advanced scientific technologies in a quest for global and – with the satellite *Sputnik* in 1957 – extraterrestrial domination. The Soviets were also believed to be experts in techniques of psychological manipulation, more popularly known as "brainwashing" and "mind control."

© Cambridge University Press www.cambridge.org

CAMBRIDGE

Cambridge University Press
0521837979 - How the Cold War Transformed Philosophy of Science: To the Icy Slopes of Logic
George A. Reisch
Frontmatter
More information

Thus anyone – friends, neighbors, university professors – could succumb to this secret conspiracy to topple American democracy from within. Even those who strived to be "neutral" about the Cold War's epic ideological confrontations – between open and closed societies, between democracy and totalitarianism, between free markets and economic planning – chose a risky path. For by failing to condemn communism and failing to help steel one's compatriots against its pernicious influence, neutralists often seemed to be on the side of the conspirators. In general, only public and professional affirmations of anticommunism could protect one from being suspect as "pink" or "red."

For those who are more familiar with the Vietnam War or the destruction of the World Trade Center than with Sputnik and the Cuban missile crisis, the remarkable power of anticommunism to minimize dissent and cultivate anti-intellectualism and political conformity in 1950s America may nonetheless seem somewhat familiar. In the public eye, the social and political risks of appearing "soft on communism" during the Cold War were not unlike contemporary risks of appearing sympathetic to terrorism. In the wake of World War II, as in the wake of September 11, 2001, national leaders defined events in stark, moral terms: Invaders who lacked the freedom and social and religious values embodied by the United States actively sought to destroy it. Those who objected that geopolitical tensions and causes of terrorism were more complicated and that understanding and managing them required historical, sociological, and economic knowledge of nations and peoples were often viewed with suspicion.

In the eyes of some, logical empiricism and its Unity of Science movement seemed suspicious, too. Logical empiricism was originally a project that self-consciously sought engagement not only with science but with progressive social and cultural developments (both in Europe of the 1920s and in North America of the 1930s and '40s). In the space of about ten years, however, from roughly 1949 to 1959, it became the scrupulously nonpolitical project in applied logic and semantics that most philosophers today associate with the name "logical empiricism" or "logical positivism." Since several logical empiricists' careers crossed paths with anticommunist politics on campus, in major philanthropic organizations, and in J. Edgar Hoover's FBI, there is evidence that anticommunism was a force behind this transformation. It affected the kind and range of problems that philosophers of science pursued, the methods and tools employed, and the relations between philosophy of science and science itself.

© Cambridge University Press www.cambridge.org

CAMBRIDGE

Cambridge University Press
0521837979 - How the Cold War Transformed Philosophy of Science: To the Icy Slopes of Logic
George A. Reisch
Frontmatter
More information

A word about this "transformation" will help to introduce further the claims being made. Philosophers of biology distinguish between evolutionary change underpinned by *transformation* and *selection* within a population. Here, "transformation" is used nontechnically to refer to a process of professional and disciplinary change that was, for the most part, selectionist. The population in question contained the American and European philosophers of science who together cultivated logical empiricism as it thrived in late 1930s North America. Some, such as Otto Neurath, Philipp Frank, and Charles Morris, shared the belief that logical empiricism, or philosophy of science more broadly, should embrace not only formal, abstract studies of scientific theory and scientific language, but also socially and politically relevant topics (such as the study of values in science, the sociology of science, and the logical structure and evidentiary content of ideologies and ideological claims). These and other topics, and the task of popularizing them within other disciplines and the general public, belonged to the Unity of Science movement that they promoted beginning in the mid-1930s. While nearly all logical empiricists were happy to be involved one way or another in this movement, one subpopulation (including, in different ways, Carnap, Reichenbach, Feigl, and Richard Rudner) favored a narrower discipline, confined to topics such as induction, explanation, and technical semantics, which they took to be ill-suited, if not categorically inappropriate, for treating matters of ideology and social life. The transformation in question largely consists in a loss of influence and leadership of the first group and the rise and success of the latter. Thus, these leaders of the profession did not, to use the popular expression, simply "cave in" to political pressure and transform their beliefs and research in that sense.

This study is based on historical sources, usually archival and unpublished. As professional intellectuals in all fields know, there is often a difference in tone as well as in content between what scholars tell each other in formal lectures and publications and what they say in private conversation or correspondence. Under cover of the noble practice of historiography, this book is largely a protocol of reading philosophers' mail. This invasion of privacy brings us objectively closer than the published record to the history of logical empiricism in North America. But it also comes with subjective liabilities. This book is selective. Some figures in the history of American philosophy of science, such as Edgar Zilsel, Victor Kraft, Egon Brunswik, and Carl Hempel are barely (or only just now) mentioned. Nor is close attention paid to Hans Reichenbach's counterpart to the Vienna Circle, the Berlin Society for Empirical Philosophy.

© Cambridge University Press www.cambridge.org

CAMBRIDGE

Cambridge University Press
0521837979 - How the Cold War Transformed Philosophy of Science: To the Icy Slopes of Logic
George A. Reisch
Frontmatter
More information

British philosophical leftism is also only sampled as it intersects with the Unity of Science movement in North America.

This book is also somewhat sympathetic, perhaps inevitably, to those who struggled to sustain their projects in politically and intellectually hostile climates. One reader found it excessively sympathetic to Otto Neurath and the antiformalistic harangues he sometimes sent to his more talented and articulate colleagues, especially Carnap. In formal logic and semantics, it is true, Neurath was not as talented as many of his colleagues. Similar cases could be made for Frank and Morris. What these chapters show, however, is that Cold War intellectual life was no meritocracy guaranteed to promote the best over the also-rans. With major campuses conducting formal hearings and FBI agents interviewing faculty and department secretaries about suspicious professors, intellectual life in the 1950s mixed scholarship, fear, peer pressure, ostracism, and, sometimes, overt bullying by colleagues. Winners and losers over the long term were not always determined according to intellectual talent.

What sympathy there is for Neurath, Frank, and Morris in these chapters is only partly sentimental. Their interests in the historical and sociological aspects of scientific (and philosophical) thought are enormously suggestive and worthy of contemporary study. Especially when compared with the "received view" of logical empiricism that fully abstracted knowledge from its social and historical contexts, something about Neurath's and Frank's historicism and contextualism seems almost certainly correct if only because contextual understanding is required to make sense of how and why their insights and projects were eclipsed in the first place. For philosophers of science who wish their discipline enjoyed more public authority and credibility, and more productive and understanding engagement with practicing scientists, some such contextualism would seem to be invaluable. For once the profession's contemporary boundaries and values are historicized and contexualized, they can hardly be seen as necessary and immobile. They can be contested and adjusted as surely as they were once transformed in different social and cultural circumstances, in another time.

For support, conversations, and criticisms of the research that led eventually to this book, I would like to thank many persons. Robert Richards, Howard Stein, and Dan Garber advised the doctoral dissertation written at the University of Chicago out of which it grew. Most of the research that led to this book was supported by the National Science Foundation, grant number SES0000222. Many others encouraged, and

© Cambridge University Press www.cambridge.org

CAMBRIDGE

Cambridge University Press
0521837979 - How the Cold War Transformed Philosophy of Science: To the Icy Slopes of Logic
George A. Reisch
Frontmatter
More information

sometimes corrected, my evolving views about the history of logical empiricism and the Unity of Science movement. These include Don Howard, Thomas Uebel, Michael Friedman, Alan Richardson, Gary Hardcastle, Richard Creath, André Carus, Nathan Hauser, David Stump, Seth Sharpless, Michael Stöltzner, Hans-Joachim Dahms, Veronika Hofer, Elliott Sober, Steve Fuller, Abraham Edel, Tom Ryckman, Ralph Gregory, John McCumber, George Mallen, Robert Cohen, Fred Beuttler, and David Hollinger. I additionally thank Friedrich Stadler and Elisabeth Nemeth at the Institut Wiener Kreis; Michael Davis, Warren Schmaus, Bob Ladenson, John Ongley, and Jack Snapper at the Illinois Institute of Technology; and two anonymous referees who proposed and encouraged worthwhile revisions. I also thank the staffs at the following archival facilities for permission to quote from documents in their collections. When not stated explicitly in the text, the collections involved are referenced according to the following abbreviations:

ASP RC: Rudolf Carnap Collection, Archive of Scientific Philosophy, Hillman Library, University of Pittsburgh, Pittsburgh, Pennsylvania.

CMP: Charles Morris Papers, owned by the Peirce Edition Project, Indiana University Purdue University Indianapolis, Indianapolis. (The Charles Morris Papers are presently unprocessed.)

HFP: Herbert Feigl Papers, University Archives, University of Minnesota, Twin Cities Campus, Minneapolis.

JRMC: Jacob Rader Marcus Center of the American Jewish Archives, Cincinnati Campus, Hebrew Union College, Jewish Institute of Religion, Cincinnati, Ohio.

ONN: Otto Neurath Nachlass (Wiener Kreis Archiv), Rijksarchief in Noord-Holland, Haarlem, The Netherlands.

RAC: Rockefeller Archive Center, Sleepy Hollow, New York.

USMP, UCPP, PP: Unity of Science movement papers, University of Chicago Press Papers, University of Chicago Presidents' Papers, 1925–45, Department of Special Collections, Regenstein Library, University of Chicago, Chicago, Illinois.

© Cambridge University Press www.cambridge.org