

Studies in History and Philosophy of Science 61

Matteo Vagelli

Reconsidering Historical Epistemology

French and Anglophone Styles in
History and Philosophy of Science

 Springer

Studies in History and Philosophy of Science

Volume 61

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Matteo Vagelli

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and Philosophy of Science

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ISSN 1871-7381 ISSN 2215-1958 (electronic)
Studies in History and Philosophy of Science
ISBN 978-3-031-61554-2 ISBN 978-3-031-61555-9 (eBook)
<https://doi.org/10.1007/978-3-031-61555-9>

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To Ada

Acknowledgments

This book owes its existence to a multiplicity of factors. First of all, to the teachings and encouragement I received from my former advisors, Arnold I. Davidson and Jean-François Braunstein. The research for this volume was conducted at a series of institutions: the Scuola Alti Studi Fondazione San Carlo (Modena, Italy), the Université Paris 1 Panthéon-Sorbonne, the University of Chicago, the Goethe Universität Frankfurt Am Main, the Europa Universität Viadrina in Frankfurt an der Oder, and the Centre Marc Bloch in Berlin. I wish to thank these institutions for providing me with both the material and intellectual resources necessary to work on this project.

The final steps of my research were made possible thanks to a Marie Curie Skłodowska Global Fellowship, which enabled research stays at Department of Philosophy and Cultural Heritage at Ca' Foscari University of Venice, at the Department of the History of Science at Harvard University, and at the Department of History and Philosophy of Science at Cambridge University. I am very grateful to my three project supervisors—Marco Sgarbi, Peter Galison, and Hasok Chang—for their active support as well as for the many stimulating conversations they had with me about my work. Preliminary versions of the main ideas contained in this book were presented in several seminars, workshops, and conferences. They include the Contemporary Philosophy Workshop at the University of Chicago, the Modern Sciences Working Group at Harvard, and the Colloquium of the Final Theory Research Group at the Max Planck Institute for the History of Science in Berlin. I thank the organizers of these workshops and seminars for their kind invitations to discuss my work and the participants for their precious feedback and comments.

I am indebted to Ian Hacking for the series of conversations that we had starting in 2012. Ian sadly passed away while the preparation of this book was in its final stages. His death is a great loss for the philosophical community. Cheryl Misak's initiative was decisive in the establishment of Hacking's archives at the University of Toronto. I am thankful to her, as well as to Denis Walsh, who made my stays in Toronto possible, and to the archivists Daniela Ansovini and Emily Sommers, who assisted me during my work in the archives.

I also wish to thank Giuseppe Bianco, Daniele Lorenzini, Daniel Rodriguez Navas, Paolo Savoia, Jutta Schickore, Massimiliano Simons, Samuel Talcott, and Tuomo Tiisala, for their comments and suggestions on earlier drafts of some of the chapters of the present book. At various stages, discussions with scholars from many different institutions helped correct and shape my views on historical epistemology. They include Caroline Angleraux, Alexander Blum, Cristina Chimento, Luca Corti, Lucie Fabry, Frédéric Fruteau de Laclos, Stefano Furlan, Roberto Gronda, Luca Guzzardi, Gerardo Ienna, Nick Jardine, Laurent Loison, Pierre-Olivier Méthot, Eleonora Montuschi, Ivan Moya-Diez, Luca Paltrinieri, Eugenio Petrovich, Paul Roth, Sophie Roux, Florian Schmaltz, Henning Schmidgen, Helene Scott-Fordsmand, Skúli Sigurdsson, Alexander I. Stingl, Thomas Sturm, Gabriele Vissio, Denis Walsh, Oscar Westblad, and Charles T. Wolfe. I am very grateful to Ivan Moya-Diez for having accepted, in 2015, to work alongside me in founding the research network on historical epistemology and its annual workshops (episthist.hypotheses.org). These gatherings have been an incredible source of inspiration.

My gratitude goes to Jean-François Braunstein, Peter Galison, and Marco Sgarbi for having encouraged me to publish this work and to Amanda Swain for having proofread my English. I wish to thank two anonymous reviewers for their comments and suggestions on the manuscript of the book. Despite my indebtedness to all of these scholars and institutions, I alone remain solely responsible for the views expressed in this work and for any errors that it may still contain. The unwavering support of my entire family and especially of Alessia, my wife, and of Ada, my daughter, is the foundation and fuel without which my work would be impossible.

This project has received funding from the European Union's Horizon 2020 research and innovation program under the Marie Skłodowska-Curie grant agreement No. 101030646.

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Chapter 1

Introduction



Abstract This opening chapter presents the main thrust of the book, which delves into the intricate relationship between history and philosophy of science by focusing on the evolution of historical epistemology as a methodological approach to understanding scientific knowledge. It traces the trajectory of historical epistemology from its roots in a French philosophical context to its contemporary manifestations within Anglophone debates. By examining key figures such as Bachelard, Canguilhem, Foucault, and Hacking, the book elucidates the diverse methodologies and conceptual frameworks employed in historical epistemology. This chapter highlights tensions and contradictions within the field, particularly in reconciling historical contextualization with philosophical analysis. Through a comparative analysis of French and Anglophone approaches, the author explores the implications of presentism, anti-empiricism, and the notion of scientific styles in shaping our understanding of scientific knowledge. Ultimately, this introduction offers insights into the ongoing dialogue between history and philosophy of science, shedding light on the challenges and possibilities of integrating these disciplines.

Keywords Post-positivism · Historical philosophy of science · Historical epistemology · French epistemology

This book is an inquiry into the historical nature of science and scientific knowledge and into how philosophy can best account for that nature. Anglophone “historical philosophy of science” (Kuhn 1992; Marcum 2005) of the second half of the twentieth century is commonly believed to have jettisoned the so-called divide between the “context of discovery” and the “context of justification” which had previously kept philosophers of science from taking a closer look at how science occurs historically. Post-positivist philosophy of science is thus thought to have delivered a “new image” of science thanks to the insights offered by three interrelated “turns”: a historical turn, a practical turn, and, most recently, a pluralist turn emphasizing the historicity, materiality, and diversity of scientific knowledge and practices. The first of these conceptual shifts is tied to the question of the relationship between history and philosophy of science and is usually associated with the publication of Thomas

Kuhn's *The Structure of Scientific Revolutions* (Kuhn 1962; see also Bird 2008 and Reck 2013). The second addresses the relationships among theory, observation, and experimentation and is usually underpinned by two main claims: one concerning the "theory-ladenness" of observation and another regarding the relative autonomy of experimental (with respect to theoretical) work (Soler et al. 2014). The third, pluralist turn stresses the disunity of the sciences, in terms of both methods and results (Suppes 1978; Kellert et al. 2006). However, the resulting "post-positivist" image of science that these turns have allegedly produced entails a variety of sometimes conflicting, if not outright contradictory, views of science. The two latter "turns", in particular, seem to be plagued by dualisms, such as the dichotomies between realism and constructivism or between modest and radical approaches to pluralism. On the one hand, we might wonder about the compatibility of upholding a historical view of science while being a scientific realist (Arabatzis 2001) or whether the materiality and facticity of experimental entities is necessarily conducive to irrealism (Hacking 1988). On the other hand, modest forms of pluralism that limit themselves to acknowledging the plurality of science can still accommodate some degrees of monism and are therefore hard to reconcile with more radical pluralist views which foster the diversity of science as an "ideology" and "active commitment" (Chang 2012). The fragility undermining the practical and pluralist turns can be traced back to unresolved tensions implied by the historical turn, which to some extent can be understood to have brought about and to underpin the other two.¹

These tensions relate to the modalities and implications of a historical account of science and scientific knowledge. The main problem is how to conceive the exact terms of the relation between history and philosophy of science: what should the format of this historical *cum* philosophical enterprise be? Should history and philosophy of science be integrated into a new synthetic approach, or should they continue as separate but combined disciplines interacting with one another on specific problems? If the former option prevails, should it be an equal collaboration, or should one of the two disciplines have prominence over the other? Should philosophy "guide" historical reconstructions, select and explain historical case studies, and draw general conclusions upon the basis of historical empirical evidence? The instability of the field of H&PS is the result of its foundations in a "confrontation model" first produced during the historical turn, according to which history and philosophy of science can only be assembled "externally" as pre-given building blocks (Schickore 2012). Following this model allows at best for a combination of and dialogue between the disciplines, not a hybridization of historical and philosophical perspectives. For this reason, some have considered the whole H&PS enterprise a "marriage of convenience" rather than an intimate relation (Giere 1973). Historically, this enterprise emerged toward the end of the 1950s, though it did not pick up momentum until the 1960s with the founding, especially in the US, of new

¹The specification of both the materiality (practical turn) and the diversity (pluralist turn) of science can be considered in line with the overarching aim of the historical turn, which is to overcome the divide between the "context of discovery" and the "context of justification" by bringing relevant elements of the former to bear on specific aspects of the latter.

H&PS departments, programs, and centers. In the following decades, it seemed to have lost at least part of its initial traction, perhaps partially due to the rise of more sociological approaches to science and technology—but experienced a second youth between the 1990s and early 2000s. The community of historians of science and that of philosophers of science have never meshed, however, and while philosophers have often tried to historicize their views, historians have largely grown less and less attracted by H&PS as a collaborative endeavor (Weingart 2015).² Yet since the early 2000s, H&PS has been attracting increased attention, thanks to new initiatives such as Integrated History and Philosophy of Science (&HPS), the continued activities of the International Union for the History and Philosophy of Science and Technology (IUHPST, founded in the 1950s and still active today), as well as by new allies like the Society for Philosophy of Science in Practice (SPSP) and the International Society for the History of Philosophy of Science (HOPOS). This renewed interest in H&PS is also reflected by publications which continue to investigate the conceptual stakes of the project of conjoining historical and philosophical understandings of science (e.g. Domski and Dickinson 2010; Mauskopf and Schmaltz 2012; Stadler 2017; Herring et al. 2019). This ongoing discussion suggests that, rather than considering the historical turn a phenomenon limited to the 1960s and epitomized by Kuhn's *Structure*, the question of the most legitimate and fruitful way to combine history and philosophy of science remains open. Addressing the issues mentioned so far and clarifying the implications of the different ways of historicizing philosophy of science requires us to situate the so-called “historical turn” in a larger context. Operating with this hypothesis, this book attempts to portray the coming together of history and philosophy of science not as a sudden and homogeneous change but a complex, multifaceted, and still unfolding process.

Symptomatic of this historical trajectory is the treatment in H&PS of the concept of “historical epistemology”. At different times and places during the twentieth and early twenty-first century, the notion has been taken to signify instances of an integrated philosophical and historical approach to the study of science.³ The foundation, in 1994, of the Max Planck Institute for the History of Science (MPIWG) under the flag of historical epistemology has catalyzed interest in the term and the form of inquiry it indexes. However, the subsequent proliferation of “historical epistemologies” has given rise to a complex and fragmented panorama sometimes characterized by incoherence or even contradiction. The fragmentation of historical epistemology since 1990 into a variety of distant topics and approaches has

²H&PS has not changed the entire outlook of philosophy of science, where ahistorical and formal approaches continue to hold center stage. Rather, it should be understood as a sub-community within the larger field of philosophy of science, with a permanent presence in sessions of the biennial meetings of the Philosophy of Science Association (PSA). On historians reverting to their home departments, see Gillispie (1999).

³Sometimes the term is mistaken for study of past epistemologies or understood as developing a history of epistemological views (e.g. Goldman 1986; Tiles and Tiles 1993). While the history of philosophy of science can play an important role with respect to historical epistemology, the primary signification of the latter is a combined or integrated historical and philosophical approach to the study of science.

generated some skepticism about the legitimacy of its method and has moreover led some to label it a transitory “brand in the market of ideas” (Gingras 2010: 441).⁴ Critics have highlighted that the increasing appeals to “historical epistemology” by philosophers and historians with different backgrounds and interests has not always been accompanied by critical reflection on the nature, objects, and methods implied by historical epistemology. The need for a reflexive look at historical epistemology itself became evident later, at the turn of the 2010s, when a spate of events and publications problematized the meaning of the term. Rather than questioning its status as a “transitory brand”, this heated discussion about the meaning and use of the expression “historical epistemology” points to enduring difficulties in conceptualizing the most fruitful interaction between history and philosophy of science. The conception of historical epistemology as a synthetic approach to the study of science that is simultaneously philosophical and historical has been considered by critics to be an unreflective assumption preventing historical epistemology from developing a clear understanding and definition, especially regarding how precisely historical and philosophical reflections on the sciences should be combined.

Though there are still research networks, research projects, and university courses dedicated to the study and continuation of historical epistemology, this relatively permanent interest and public has not yet found any correspondence in encyclopedias or dictionaries, where one finds hardly any specific mention of “historical epistemology” or “epistemological history”, even as sub-entries for “epistemology” or “history of science”. Unlike its methodological competitors—such as social or naturalized epistemology, which are commonly included in dictionary entries—historical epistemology remains a somewhat difficult field to delimit. This is partially because the institutionalization of historical epistemology has remained limited to the MPIWG. However, the retirement of two of the institute’s founding directors is prompting questions about the directions that the institute itself will take moving forward.

As a field of inquiry, historical epistemology needs contextualization—which might hopefully lead to better assessment of the kind of historicizing it wants to apply to epistemology. Such an evaluation is best performed by taking a broader look at the history of philosophy of science in the twentieth century and by examining traditions other than Anglophone “historical philosophy of science”. Indeed, in addition to the lack of a clear and univocal definition, what many critics object to contemporary forms of historical epistemology is their relative neglect of previous traditions with the very same name. While “historical philosophy of science”, “history and philosophy of science,” and “integrated history and philosophy of science” are all almost exclusively Anglophone terms, “historical epistemology” (and its equivalent in other languages) has existed at different historical moments and in several different academic milieus. This latter term and how it has been conceived

⁴Historical epistemology and European philosophy of science (Minazzi 2022), Chinese medicine (Chiang 2015) and ecological economics (Fragio 2022) are three recent discussions of historical epistemology. They share very little—not only at the level of subject matters, but also at the level of methods and references.

in different times and places can thus help us widen our scope of analysis. The aim of this book is therefore to investigate the conceptual shifts between contemporary historical epistemology, as it is practiced by a number of English-speaking historians and philosophers of science, and what is perhaps its most significant antecedent: French *épistémologie historique*, an intrinsically historical and critical reflection on the sciences which mobilizes the concepts of reason and rationality. French *épistémologie historique* is constituted by a complex and multifarious methodology premised in the archaeological approach of Michel Foucault, which draws on and transforms the insights of Gaston Bachelard and Georges Canguilhem. Knowledge and detailed discussion of it are still surprisingly rare in contemporary debates surrounding historical epistemology.⁵ Yet French *épistémologie historique* is not the only preceding iteration of the project of “historicizing epistemology” which, as scholars have shown, appeared in many forms from the end of the nineteenth through the twentieth centuries. Rheinberger’s *Historicizing Epistemology* (Rheinberger 2010), originally published in German in 2007, is perhaps the most paradigmatic example of attempts to come to terms with the history of historical epistemology. His reconstruction of this history reflects these varied origins, with a first chapter dedicated to the work of figures as diverse as physiologist Emile du Bois-Reymond, physician and philosopher Ernst Mach, mathematician, physicist and philosopher Henri Poincaré, philosopher and psychologist William Dilthey, and sociologist and philosopher Otto Neurath. French *épistémologie historique* is well represented in Rheinberger’s book but appears alongside other theoretical currents, such as those advanced by biologist and epistemologist Ludwik Fleck, Karl Popper, Edmund Husserl, Martin Heidegger, and Ernst Cassirer, on the one hand, and those promoted by Thomas Kuhn, Stephen Toulmin and Paul Feyerabend on the other. Rheinberger’s final chapter on recent developments in historical epistemology revolves mainly around the work of Ian Hacking and Bruno Latour. Rheinberger’s account of the history of historical epistemology is thus a prevalently French-German affair, with a few later Anglophone incursions.⁶ In addition to the relevance of Kantian and neo-Kantians themes and authors to historical epistemology, an

⁵This neglect is perhaps a result of a larger “cultural barrier” between (especially French) historical epistemology and analytic philosophy of science (Brenner 2015). According to Brenner, this barrier, which solidified in the Cold War period, is constituted by institutional, political and social elements. These elements are related, for instance, to the way in which philosophy appears in different education systems, and it runs along several divides, such as continental European/Anglo-American, southern/northern, Catholic/Protestant, and rationalism/empiricism.

⁶A similarly sweeping survey of currents, themes, and problems in historical epistemology has been recently published by Badino et al. (2022), which opens with a chapter on the critical-historical method by Mach and Cassirer. Beside French epistemology (§7–8), it also includes chapters on materialist (§3) and “Gramscian” epistemologies (§4), on externalist history and the sociology of science by Hessen, Grossman, Zilsel and Bernal (§5), as well as on Fleck and Kuhn (§6) and on Italian historical epistemology (§9). The final chapters are dedicated to more contemporary developments, spanning from Anglophone H&PS (§11) to 1960s–1970s Marxist debates in Italy (§12) and the work done at the MPIWG (§13, 15). The main thrust of the book is the conceptual design of a “political epistemology” meant to emphasize the social and practical underpinnings and implications of science (§16). On “political epistemology” see also Omodeo (2019).

Italian strand—starting with mathematician Federigo Enriques and continuing with philosophers Giulio Preti, Ludovico Geymonat, Aldo Giorgio Gargani, and Paolo Rossi—has also been highlighted by scholars.⁷ It is thus clear that, if considered as an impulse rather than a specific tradition, “historical epistemology” involved several Continental projects during the late nineteenth and twentieth centuries before it became a prevalently Anglophone phenomenon between the 1990s and 2010s. In this book, I focus on French *épistémologie historique*, because it is the tradition (or, better, “style” of epistemology) with which the term historical epistemology has most consistently been associated. I grant particular attention to the approaches of Bachelard, Canguilhem, and Foucault—not only because they developed the most influential historiographic views in twentieth century France but also because many of their claims and arguments resonate fruitfully with Anglo-American debates in ways that have not yet been sufficiently explored by scholars. A close study of French *épistémologie historique* can help illuminate deep differences with the field of contemporary historical epistemology, but also unexpected forms of consonances, as in the case of the work of Ian Hacking and his philosophical cum historical analyses of “styles of scientific reasoning”. Better recognizing both the distances and the convergences between the epistemological reflections of Bachelard, Canguilhem, and Foucault, among others, and a substantial portion of contemporary Anglophone H&PS debates, will, I hope, encourage philosophers and historians of science to engage in more sustained reading of the work of these French authors.

The aim of this book is therefore to extend our understanding of the history of philosophy of science by making conceptual resources coming from French historical epistemology available to Anglo-American debates in the field of history and philosophy of science. With this objective in view, Chaps. 2 and 3 aim to complicate the narrative of a “historical turn” within Anglo-American philosophy of science and to provide a comparative overview of different projects aimed at making philosophy of science historical (Sect. 3.1). Chapter 2 addresses questions such as: why have philosophers of science tried to historicize their discipline? What are the underpinnings and implications of the different ways of historicizing philosophy of science? In this chapter, I first sketch out the institutional setting in which H&PS initially emerged and thrived (Sect. 2.1.1), then offer an overview of the longstanding debate over the “marriage” of history and philosophy of science that involved Norwood R. Hanson, Thomas Kuhn, Ronald Giere, Ernan McMullin, Larry Laudan, and Lorenz Krüger, among others (Sect. 2.2). I foreground the empirical-naturalized approach detectable within this debate and elaborate its key metaphor of the laboratory, which frames history as a source of empirical data for philosophical generalizations (Sect. 2.2.1). I also discuss some recent instances of presentist historiography, a subset within such empirical-naturalized approaches, focusing especially on the work of Hasok Chang; this current is useful to put in conversation with the French debates addressed in subsequent chapters (Sect. 2.2.1.1). I then contrast this

⁷On Italian historical epistemology, also see the special issue of *Revue de synthèse* (Cavazzini 2011).

empirical-naturalized stance with rival historicist-hermeneutic approaches, which instead understand past scientific theories by re-situating them *vis-à-vis* their historical and cultural contexts and identifying the conceptual meanings originally intended by their given authors (Sect. 2.2.2). Features of historical presentism, as I underscore, also appear in some versions of this historicist-hermeneutic approach. Ultimately, I argue, both the empirical-naturalized and historicist-hermeneutic approaches display shortcomings which, rather than leading toward an ultimate synthesis of history and philosophy of science, ultimately present them as mismatched. In Chap. 3, I account for the emergence of the notion of “historical epistemology” in the work of a growing number of prevalently Anglophone historians and philosophers of science—especially since the 1990s and the foundation of the MPWIG (Sects. 3.1 and 3.2). I highlight the diversity of projects often referred to by this umbrella term and retrace some of their tensions and inconsistencies, which can be attributed to enduring challenges in conceptualizing the relationship between history and philosophy of science (Sect. 3.3).

In Chaps 4, 5, 6, and 7, the focus shifts to a French philosophical context. In Chap. 4, I discuss how French historical epistemology, though neither a philosophical tradition nor a proper philosophical school, constitutes a distinct methodology or “style” in epistemology which emerged from philosophical and historiographic debates prevalent in France from the early twentieth century through at least the late 1960s. To distinguish the development of this methodology, I contrast it with a parallel empirical trend irrigating French discussions of the relationship between philosophy and history in the first decades of the twentieth century which, like the empirical-naturalized approach mentioned above, also mobilized the laboratory metaphor to give expression to the way philosophers take up the history of science as a “mental microscope” for philosophical generalizations (Sect. 4.2). The “normative turn” instantiated by French historical epistemology, on the other hand, and by Bachelard and Canguilhem in particular, instead employed the metaphor of the tribunal—presenting history of science as a courtroom where the epistemologist, inhabiting the role of judge, rules on past science on the basis of current scientific developments. In Chap. 5, I highlight Bachelard’s epistemology, focusing chiefly on his account of mathematical physics as characterized by a twofold discontinuity emphasizing epistemological ruptures between scientific knowledge and common experience, on one hand, and between new theories and those they supersede on the other. The normative history of science Bachelard presents is also necessarily recurrent, since it considers contemporary science a norm allowing historians to read backwards into the past of a given discipline from the point of view of more recent developments (Sects. 5.1, 5.2, 5.3, and 5.4). In Chap. 6, I reconstruct Canguilhem’s adaptation of Bachelard’s historiography to the life sciences (Sects. 6.1, 6.2, 6.3, and 6.4). Though Bachelard and Canguilhem diverge on important points—in part because of the different sciences to which they apply their methodologies—both conceive the epistemologist as a judge and consider the historiography of science a normative enterprise. My analysis in this chapter is framed by Anglophone debates about Whig history and presentism discussed in Chap. 1, which allow me to foreground Canguilhem’s approach, in particular, as a form of “critical presentism”. In

Chap. 7, I elaborate Foucault's archaeological methodology and examine his notions of statement, archive, discursive practice, and episteme. In particular, I emphasize how Foucault's historiography aims to account both for epistemological ruptures, or moments of discontinuity, and for continuity. I outline why Foucault's archaeology of knowledge is often misunderstood as a purely descriptive approach indifferent to scientific norms and to the degree of truth or falsity of statements. Contrary to this reading, I argue that Foucault's archaeology centrally addresses and appeals to scientific norms and that it both widens and specifies the scope of Bachelard's and Canguilhem's historical epistemology by studying how true and false statements are possible against the background of what Foucault calls a positivity, i.e., a set of statements that become capable of bearing a truth-value at a certain historical moment (Sects. 7.1, 7.2, and 7.3). The apparent conflict between Bachelard's and Canguilhem's normative historical epistemologies, on the one hand, and Foucault's archaeological analysis of discursive formations, on the other, is resolved, however, if we retrace their shared concern with the present (Sect. 7.4). Indeed, as I highlight, Foucault's idea of writing as a "history of the present" effectively recaptures fundamental aspects of Bachelard's and Canguilhem's conception of recurrent history (Sect. 7.4.1).

This part of the book sheds new light on works by Bachelard, Canguilhem, and Foucault by reading them through a more contemporary and Anglophone lens. I do this partly by analysing resources still unavailable to English readers, such as untranslated works. The outlook on historical epistemology that emerges from my discussion of French sources conceives historical epistemology as an anti-empirical and presentist approach to integrating history and philosophy of science: anti-empirical, because it refuses to consider epistemology a "science of science", instead insisting on the philosophical nature of its endeavour; presentist, because it constitutes a particular form of Whig history that can be clearly distinguished from triumphalism, or rather, from a form of history of science which celebrates traditional scientific "winners" or "heroes". Thus defined, historical epistemology departs from most available Anglophone approaches to the combination of history and philosophy of science, which instead endorse anti-presentism. Anti-presentist methodologies aim to produce accounts of events that are held as true to the extent that they are deemed objective and non-perspectival (i.e., non-presentist). These methodologies, which, as I argue in Chap. 1, prevail among Anglophone attempts to historicize the philosophy of science, also tend to treat history and philosophy of science as two separate disciplines or building blocks. French *épistémologie historique*, on the contrary, asks the historian of science to acknowledge his or her positioning vis-à-vis the norms underlying the current organization of a given science. In this way, both the contingency and the progressiveness of that science's past are foregrounded. This particular form of presentism, which makes regulated use of anachronisms, is what allows historical epistemology to function as an intrinsically, fully-fledged hybridization of history and philosophy of science—and thus to overcome the limitations of H&PS.

In Chap. 8, I return to a more recent Anglophone context to show how this "French" view was partially operationalized in the work of Ian Hacking. I examine

Hacking's theory of styles of scientific reasoning and its implications for the merging of philosophical and historical perspectives in the study of science. Hacking's style project, which started in 1982 and spanned over 30 years, advanced a notion of scientific styles aimed at accounting for both the historical, situated nature of scientific knowledge and scientific practice as well as their objective and progressive features (Sect. 8.1). This special focus on Hacking's conception of epistemological styles is warranted by both the influence of his theory on contemporary historical epistemologists and the ways it draws from both the Analytical and Continental conceptual frameworks analysed in the previous sections of the book. In particular, this chapter foregrounds the Foucauldian underpinnings of Hacking's notion of styles of reasoning and demonstrates how Hacking also mobilized Foucault to develop his views on probability and language (Sect. 8.2). Clarifying the concept of styles of scientific reasoning helps elucidate some of the features of the conceptual shifts that occurred in the move from the French phase of historical epistemology to the "contemporary" Anglophone one (Sect. 8.3). My analysis of Hacking's philosophy draws not only from major, well-known texts but also from unpublished work consultable at Hacking's recently established archives at the University of Toronto.

In the conclusion, I argue that French and contemporary Anglophone iterations of historical epistemology are best understood as two distinct "styles" in philosophy of science. These styles are identifiable and characterized by the *field of questions* they help to formulate. In this sense, historical epistemology is best understood as a dynamic, ongoing discussion of how we might effectively integrate history and philosophy of science. I emphasize that historical epistemology is a fundamentally philosophical endeavor, since it is essentially interested in the sciences as normative systems and in reason and rationality as activities instituting norms that govern human experience. Yet, historical epistemology considers the historical emergence and unfolding of these norms as having a direct bearing on their validity. The philosophical project thus has an inherent historical configuration that is impossible to strip away or to conceive of via a division of labor. The historical dimension is in fact so ingrained in historical epistemology as a form of philosophical analysis that such work would be impossible without it. Historical epistemology is thus philosophical not in the sense that its accounts of the past are "biased" by philosophical considerations—since its considerations are drawn from the sciences themselves—but rather in the sense that it addresses philosophical issues through history.⁸ Attempts at historicizing epistemology carried out in this vein should enable us to show that the historical nature and dynamism of scientific reason does not ipso facto

⁸Arabatzis describes the difference as between a "philosophical *history* of science" (which "aims at telling stories about the scientific past that are informed by conceptual and philosophical considerations") and an "historical *philosophy* of science". While I agree with his characterization of Hacking ("he articulates a philosophical stance in response to philosophical issues and he argues for it historically") as an instance of the latter approach, I contend that this is also the same line of inquiry that Kuhn fundamentally opened (Arabatzis and Simos 2021: 147–148). For my different take on Kuhn, see Sect. 2.2 below.

undermine or debunk its claims. On the contrary, historicizing scientific knowledge is one of the best means of accounting for science's objectivity and, in some cases, its progressiveness or stability. As Chap. 8 shows, the concept of style is key to this discussion. The historicity and plurality of scientific styles do not imply epistemic relativism and—contrary to associations of style with epistemic anarchism and constructivism—study of “scientific styles” can in fact underscore science's objectivity, realism, and progressiveness. By remarking upon the recursive applicability of the category of style to the history of philosophy and elaborating on the idea of historical epistemology as a distinctive epistemological style of reasoning, the analyses in the book bring into better view the analytical potential of the notion of style both for H&PS and for HOPOS.

The aim of this book is not to establish an ultimate defining criterion for what historical epistemology is or should be or to give patents of authenticity to one or another form of inquiry. The book instead attempts to identify some of the conceptual, thematic, and institutional challenges characterizing some of the uses of the term in order to offer a tentative map of this dispersed field.⁹ It would be not negligible if it also pointed readers toward what historical epistemology might become in the future, based on survey and discussion of what it has been in the past.

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⁹In this sense, I try to attend the suggestion by Braunstein, who wrote that we should be “interested in the long-term history of the concept of historical epistemology. It indeed seems to me that the least that an epistemology which boasts to be historical can do is to look into the historical conditions of its own production. We will not content ourselves with asking what historical epistemology is or what it is worth; we will also wonder what its history has been”. (Braunstein 2022: 2)

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Chapter 2

Reassessing the “Historical Turn” in Philosophy of Science



Abstract In this chapter I argue that philosophy of science did not become suddenly historicized at the turn of the 1960s: rather, the “historical turn” involved a longer process which expanded in the following decades and, thanks to renewed interest at the beginning of the 1990s, gained further momentum in the early 2000s. This history testifies to the fact that philosophy still struggles to find a conceptual rationale for addressing the history of science. As Schickore has argued, the error condemning philosophy and history to perpetual incongruity is the “confrontation model”, which conceives the two disciplines as separate, pre-given building blocks. The resulting imbalance—caused by an oscillation between a priori and a posteriori approaches, with the latter in turn divided among empirical-naturalized and hermeneuticist-historicist conceptions of the relation between history and philosophy of science—has impeded the emergence of a new, synthetic approach that fully integrates philosophical and historical perspectives. History and philosophy have never merged into a single discipline, like a chemical compound, but rather have remained separate operators united by a new, hyphenated umbrella (history-and-philosophy of science) term, like a chemical mixture.

Keywords Historical turn · “Marriage” debate · Thomas Kuhn · Laboratory Metaphor · Whig-history

2.1 The Mismatch Between History and Philosophy of Science

In the Anglophone world, the 1960s conventionally mark the beginning of a backlash against the ahistorical philosophy of science which characterized the logical positivism disseminated by the Vienna Circle that dominated much of the Anglophone philosophical scene from at least the 1930s onward. While it would be misleading to refer to logical positivism as a unitary movement, it is nonetheless generally accepted that one of the main outcomes of logical positivism was the