

HISTORICAL PRAGMATICS

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HISTORICAL PRAGMATICS

Philosophical Essays



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PREFACE

For 35 years, the critical and creative writings of Robert E. Butts have been a notable and welcome part of European and North American philosophy. A few years ago, James Robert Brown and Jürgen Mittelstrass fêted Professor Butts with a volume entitled *An Intimate Relation* (*Boston Studies* vol. 116, 1989), essays by twenty-six philosophers and historians of the sciences. And that joining of philosophers and historians was impressive evidence of the 'intimate relation' between historical illumination and philosophical understanding which is characteristic of Butts throughout his work. Not alone, Butts has been, and is, one of this generation's most incisive thinkers, devoted to responsible textual scholarship and equally responsible imaginative interpretation. Brown and Mittelstrass said that "throughout his writings, science, its philosophy, and its history have been treated as a seamless web", and I would add only that philosophy *per se* is a part of the web too. Here in this book before us are the results, a lovely collection from the work of Robert Butts, who is for so many of his colleagues, students and readers, Mr. HPS, the model philosophical historian and historical philosopher of the sciences.

July 1993

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BIBLIOGRAPHICAL NOTE

The following abbreviations are used in references to standard works. Volume numbers are indicated by Roman, page numbers by Arabic numerals. Translations from Kant's German were made by R.E. Butts, except where English language translations are cited below. In these cases, the translations are drawn from the works cited, though occasionally with modifications.

- A** — Kant, Immanuel. (1781) *Kritik der reinen Vernunft*, Leipzig: Johann Friedrich Hartknoch. Translated by Norman Kemp Smith (1929) as *Critique of pure reason*, New York: Macmillan.
- Ak** — Kant, Immanuel. (1900-) *Gesammelte Schriften*, 27+ vols., Berlin: de Gruyter and predecessors.
- B** — Kant, Immanuel. (1787) *Kritik der reinen Vernunft*, 2nd ed., Leipzig: Johann Friedrich Hartknoch. Translated by Norman Kemp Smith (1929) as *Critique of pure reason*, New York: Macmillan.
- KRV** — Used for reference to A and B indifferently.
- KU** — Kant, Immanuel. (1790) *Kritik der Urteilskraft*, reprinted in Ak V as edited by Wilhelm Windelband. Translated by James Creed Meredith (1952) as *Critique of judgment*, Oxford: Clarendon Press.
- MAN** — Kant, Immanuel. (1786) *Metaphysische Anfangsgründe der Naturwissenschaft*, reprinted in Ak IV as edited by Alois Höfler. Translated by James Ellington (1970) as *Metaphysical foundations of natural science*, Indianapolis: Bobbs-Merrill.
- First Intro** — Kant, Immanuel. (1942) "Erste Einleitung in die Kritik der Urteilskraft," in Ak XX, Gerhard Lehmann, ed. Translated by James Haden (1965) as *First introduction to the critique of judgment*, Indianapolis: Bobbs-Merrill.

PRO — Kant, Immanuel. (1783) *Prolegomena zu einer jeden künftigen Metaphysik, die als Wissenschaft wird auftreten können*, reprinted in Ak IV as edited by Benno Erdmann.
Translated by Lewis White Beck (1950) as *Prolegomena to any future metaphysics*. Indianapolis: Bobbs-Merrill.

Other works will be cited by the last name of the author and date of publication. Full bibliographic data for other works may be found in the bibliography at the back of this book.

INTRODUCTION

The present volume of my selected works has involved a painstaking reediting of the essays, a toil shared by some of my closest departmental colleagues. Their devotion to this task at a very busy time in the academic year convinced me that maybe at least some of my work done over many years can be thought of as worth preserving in a more orderly form. It is good to know that the trees felled by my written words did not die in vain.

In selecting the essays, I have attempted to highlight related interests. What I have mainly looked for in my reading of major figures in the history of philosophy and of science are clues indicating how they understood methodology, how they thought reliable knowledge can be obtained. What I have discovered is that even the best scientific minds, when pressed to try to solve problems not easily managed within the limits of their favored epistemology, often replace method by metaphor, metaphysics by pragmatic enticements. The first shift is obvious in Galileo (essay 1), the second, in Leibniz (essay 2).

Kant a pragmatist? Consider just one line of thought. In the *Critique of pure reason*, the ideas of reason, as rules governing logically coherent thought, are operative in one chamber of a tripartite mind (sensation, understanding, reason). There is something immutable about rational necessities of methodical and logical inquiry of the kind Kant introduces on the basis of his faculty psychology. Look what happens to all of this in the *Critique of judgment*. The tripartite mind is pushed into the background, and even the understanding, as the guarantor of laws of nature, requires a principle of system, of unity, whose acceptance is largely based on an analogy between successfully unified laws and successfully realized human purposive ends. At which point the question of which specific methods of inquiry to adopt cannot receive an answer based on immutable necessities of logical thought. So long as the assumption of a unified nature (as a system of laws) is maintained, methods become a matter of choice. The essays in Part II are meant to provide a partial account of how this shift in Kant's thought takes shape.

Whewell remains a partial enigma for me. His Kantianism, supplemented by his study of the history of successful

sciences, yields a powerful methodology based upon confidence in the fact that we have now discovered a logic of induction. It is this theory he uses to provide backing for his argument that science yields necessary truths. At the same time, his acceptance of a fixed Christian metaphysics makes him appear to be a throwback to earlier, now discarded or forgotten, ways of thought. For him, the Kantian assumption of a unified nature is a divinely revealed truth about God and the world. The essays in Part III investigate these Whewellian ambiguities. Although essays 9-12 originally appeared some time ago, I continue to believe they tell us something worth pondering when we approach a study of Whewell's philosophy.

The two episodes: here my own debt to pragmatic ways of philosophizing receives illustration in two different contexts. Some will object that I do not provide arguments for my kind of pragmatism. I still love to read and write about the committed metaphysicians—it's something like playing a philosophical video game: Butts against Descartes. It's important to know that the metaphysical patterns of light finally do not illuminate the darkness, however brilliant they may seem. They just go away when the switch is turned off. This does not mean that philosophy degenerates into polite intellectual conversation. Problems remain that require the best thought we can give to them. The episodes are meant to reveal something of this continuing human requirement, with applications to two quite different kinds of problems.

My academic career has spanned 40 years and I have acquired innumerable debts. This meager book cannot repay them. I can however, name some names and indicate some contexts. My teachers at University of Pennsylvania: Professors Schrecker, Goodman, Hiz, Martin, Morrow. My students, especially my graduate students at Western. My departmental colleagues, a remarkable group. Over the years they have made our department one of the best in the world, one in which one's work is encouraged by sensible talk and rational compromise, and where high standards of professionalism determine the conduct of affairs. Colleagues in my second academic home, Universität Konstanz: Jürgen Mittelstrass, Gereon Wolters, Hubert Schleichert, Martin Carrier. Mentors in the Mecca of philosophy, University of Pittsburgh: Adolf Grünbaum, Nicholas Rescher, the late Alan Anderson, Larry Laudan, who of course is no longer at Pitt, but who has made a lasting

contribution to the program in history and philosophy of science there. The Kant scholars: Lewis White Beck, Gerd Buchdahl, Ralf Meerbote, Michael Friedman, Gordon Brittan, Pat and Philip Kitcher. Canadian colleagues: William Shea, François Duchesneau, Andrew Lugg.

This book was set in camera-ready copy under the expert supervision of Rick Harley, Chief Consultant, Arts Research Services, The University of Western Ontario. Members of the Department of Philosophy who served as co-editors of the volume are: Irving Block, William Demopoulos, Robert DiSalle, Lorne Falkenstein, William Harper, Thomas Lennon, Ausonio Marras, Robert Muehlmann, John Nicholas, Kathleen Okruhlik, Howard Plotkin and Alison Wylie.

The essay on Leibniz (number 2) has not appeared in print before. The original publication of the remaining essays, reprinted by permission, is as follows: essay 1: in R. E. Butts & J. Pitt, eds., *New perspectives on Galileo* (1978). Dordrecht: D. Reidel. 3: *Canadian journal of philosophy*, 20, 4 (1990). 4: in L. W. Beck, ed., *Kant studies today* (1969). LaSalle, Ill.: Open Court. 5: in R. E. Butts, ed., *Kant's philosophy of physical science: Metaphysische Anfangsgründe der Naturwissenschaft 1786-1986* (1986). Dordrecht: D. Reidel. 6: *Noûs*, XXIV, 1 (1990). 7: *Synthese*, 75, 2 (1988). 8: in Jürgen Mittelstrass, ed., *Einheit der Wissenschaften: internationales Kolloquium der Akademie Wissenschaften zu Berlin, Bonn. 25-27 Juni 1990* (1991). Berlin & New York: de Gruyter. 9: *American philosophical quarterly*, 2, 3 (1965). 10: in R. Giere & R. Westfall, eds., *Foundations of scientific method: the nineteenth century* (1973). Bloomington: Indiana University Press. 11: in R. Colodny, ed., *Logic, laws and life* (Vol. 6, University of Pittsburgh Series in the Philosophy of Science) (1977). Pittsburgh: University of Pittsburgh Press. 12: in R. E. Butts & J. W. Davis, eds., *The methodological heritage of Newton* (1970). Toronto: University of Toronto Press. 13: in N. Rescher, ed., *Reason and rationality in natural science* (University of Pittsburgh Series in the Philosophy of Science) (1985). Lanham: University press of America.

Et in Arcadia ego.

Robert E. Butts
Groundhog Day, 1993