ESSAYS *on*
A PRIORI KNOWLEDGE
and JUSTIFICATION

ALBERT CASULLO

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For Anna and Lisa

Figlia! A tal nome palpito
Qual se m'aprisse i cieli.
Un mondo d'ineffabili
Letizie a me riveli;

Giuseppe Verdi
Simon Boccanegra, Act 1, Scene 1

PREFACE

These essays have benefitted from the responses and criticisms of many friends, colleagues, and students. I thank them for the time and effort that they expended on my behalf. More specific acknowledgments are to be found at the end of each essay. I would also like to thank the University of Nebraska-Lincoln, the College of Arts and Sciences, and, in particular, the Philosophy Department, its office staff, and its longtime Chair, Joe Mendola, for their generous support of my work. A Faculty Development Leave in Fall 2010 allowed me to complete this project in a timely fashion. Adam Thompson proofed the entire manuscript and helped to construct the index. I am grateful for his generosity and good humor. Finally, Oxford University Press was instrumental in bringing this project to fruition in numerous ways. Peter Ohlin encouraged me to pursue the project and provided sound advice along the way. Two anonymous referees offered valuable suggestions for improving the project. Lucy Randall assisted in the preparation of the manuscript. I thank them all warmly.

An expression of gratitude of a different order is due to my daughters, Anna and Lisa, who have enhanced and enriched my life in countless ways. This book is dedicated to them with love and appreciation for all that they have provided, and continue to provide, for me.

ACKNOWLEDGMENTS

INTRODUCTION

There has been a remarkable resurgence of interest in the topic of a priori knowledge over the past twenty-five years. Discussion of the topic in the 1960s and 1970s was minimal due to the influence of W. V. Quine. Quine's (1963) rejection of the cogency of the analytic–synthetic distinction was widely viewed as a rejection of a priori knowledge. As a consequence, discussions of the a priori were largely limited to discussions of the analytic–synthetic distinction and related semantic issues. Quine's (1969) program of naturalized epistemology raised a second barrier to the a priori, since many of its proponents viewed it as incompatible with the a priori.

Two developments in the 1970s laid the groundwork for renewed interest in the a priori. First, Saul Kripke's (1971, 1980) landmark investigations challenged the prevailing tendency to consider the concepts of a priori knowledge, necessary truth, and analytic truth to be the same or, more minimally, coextensive, which opened the space to reexamine the relationship between the a priori and the analytic. Moreover, it redirected attention to the more traditional Kantian question of the relationship between a priori knowledge and necessary truth. Second, Paul Benacerraf's (1973) seminal essay "Mathematical Truth," which was widely viewed as raising the question whether knowledge of mathematical truths, platonistically construed, could be accommodated within a naturalistic framework, inspired books on mathematical knowledge by Mark Steiner (1975), Philip Kitcher (1983), and Penelope Maddy (1990). The latter two books tied the issue to some broader themes in the theory of knowledge, including some discussion of a priori knowledge. These developments led to more general investigations of the a priori that were not specifically tied to the relationship between the a priori and the necessary or the analytic, or to mathematical knowledge in

particular. A literature began to emerge in the late 1980s and early 1990s devoted to more general questions regarding a priori knowledge. The topics of investigation included the evidential status of intuitions, the nature of logical knowledge, the role of experience in testimonial knowledge, and the epistemological implications of Kripke's metaphysical and semantic views.[1] This new wave of work culminated with the publication of three book-length treatments of the epistemological issues associated with the a priori: Laurence BonJour's *In Defense of Pure Reason* (1998), my *A Priori Justification* (2003), and Christopher Peacocke's *The Realm of Reason* (2004). Work on the a priori continues to flourish and diversify, and now addresses a wide range of new issues such as whether intuitions constitute a priori evidence, the source of modal knowledge, the coherence and significance of the a priori–a posteriori distinction, the methodology of philosophy, and the epistemological significance of the results of experimental philosophy.

The essays in this collection span the entire period of this resurgence of interest in the a priori, document the array of complex issues that bear on the a priori, identify the central epistemological questions, and provide the leading ideas of a unified response to those questions. In order to have a coherent framework for locating the various topics and issues under discussion in these essays, I will first present the framework developed in *A Priori Justification* and then locate each of the essays within that framework.

1

In *A Priori Justification*, I maintain that the contemporary discussion of a priori knowledge revolves around four questions originally posed by Kant in his introduction to the *Critique of Pure Reason*:

1. What is a priori knowledge?
2. Is there a priori knowledge?
3. What is the relationship between a priori knowledge and necessary truth?
4. What is the relationship between a priori knowledge and analytic truth?

I go on to offer a systematic treatment of each of these questions, although my primary focus is on the first two.

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1. See Casullo (1999) for a sample of this literature and a bibliography.

With respect to the concept of a priori knowledge, I favor a reductive analysis, which maintains that S knows a priori that p if and only if S's belief that p is justified a priori and the other conditions on knowledge are satisfied. The focus of my investigation is the concept of a priori justification. I argue that one must distinguish the requirements of the a priori from traditional Cartesian assumptions about the nature of knowledge and justification. Doing so allows us to see that a priori justification does not entail conditions such as certainty, a guarantee of truth, rational unrevisability, or indefeasibility. Moreover, it also allows us to see that there are no interesting conceptual connections between the concept of a priori knowledge and either the concept of analytic truth or the concept of necessary truth. The major issue to be resolved is whether the traditional requirement that a priori justification be independent of experience entails that such justification is indefeasible by experiential evidence. I argue that the answer is negative and conclude that the concept of a priori justification is minimal: it is the concept of non-experiential justification.

With respect to the second question, I canvass the standard arguments both for and against the existence of a priori knowledge. The supporting arguments fall into three broad classes. Those in the first begin with an analysis of the concept of a priori knowledge and maintain that some knowledge satisfies the conditions in the analysis. Those in the second offer criteria, or sufficient conditions, for a priori knowledge and maintain that some knowledge satisfies the conditions. Finally, those in the third maintain that epistemological theories that deny the existence of a priori knowledge are deficient in some respect. I contend that none of the arguments succeeds. The arguments in the first class fail because they employ incorrect analyses of the concept of a priori knowledge. Those in the second fail because either the proposed criterion is not sufficient for a priori knowledge or the knowledge that is alleged to satisfy the criterion does not. Those in the third provide no basis for rejecting theories that deny the existence of a priori knowledge since theories that endorse such knowledge suffer from the same deficiencies.

The opposing arguments fall into three broad classes. Those in the first offer an analysis of the concept of a priori knowledge and maintain that no knowledge satisfies the conditions in the analysis. Those in the second offer empiricist accounts of knowledge of the propositions alleged to be knowable only a priori. Those in the third maintain that a priori knowledge is incompatible with epistemic naturalism. I contend that the arguments fail. The arguments in the first class fail because they are based on incorrect analyses of the concept of a priori knowledge. Those in the second fail to show that the propositions in question are not knowable a priori as well as empirically. With

respect to the arguments in the third class, I distinguish between philosophical and scientific naturalism and argue that neither provides a basis for rejecting a priori knowledge.

Both proponents and opponents of a priori knowledge rely on a priori arguments to advance their respective positions. Since the arguments fail, the result is an impasse. I go on to contend that the most promising strategy for moving beyond the impasse is for proponents of the a priori to offer empirical support for the claim that there are nonexperiential sources of justification. The strategy consists of two related projects. The first, the Articulation Project, is philosophical in character and involves providing a more precise characterization of alleged nonexperiential sources of knowledge and the range of beliefs they justify. The second, the Empirical Project, provides empirical evidence that underwrites the claim that the nonexperiential sources generate knowledge of the propositions in question and explains how they do so. Two general considerations support the dual strategy. The first is dialectical. A case for the a priori that is based on evidence and methodological principles endorsed by empiricists is one that they must acknowledge by their own lights. The second is strategic. By relying solely on a priori considerations, apriorists place themselves in a needlessly handicapped position when defending their primary contention. In the absence of some principled objection to employing empirical evidence, it is simply a mistake to overlook it.

My treatment of the final two questions is more cursory. The importance that the tradition places on these questions lies in the assumption that answering them is necessary in order to answer the first two questions. My goal is to reject that assumption. I maintain that the question of the relationship between a priori knowledge and necessary truth takes on particular importance against the background of two views: Kant's claim that necessity is a criterion of the a priori and the rationalist conception of a priori knowledge. Since I offer independent arguments against both views, resolving disputes about the relationship between a priori knowledge and necessary truth is not necessary to answer the first two questions. I also maintain that the question of the relationship between a priori knowledge and analytic truth and the related question of the cogency of the analytic–synthetic distinction take on particular importance against the background of two assumptions: synthetic a priori knowledge poses explanatory problems circumvented by analytic a priori knowledge; and if the analytic–synthetic distinction is not cogent, then the a priori–a posteriori distinction is not cogent. But, once again, I argue that those assumptions are false and that, as a consequence, resolving the issues surrounding the analytic–synthetic distinction and the existence of synthetic a priori knowledge is not necessary in order to answer the first two questions.

2

The first five essays provide the background to a number of the major themes articulated in *A Priori Justification*. Kripke's (1971, 1980) investigations impacted work on a priori knowledge in two divergent ways. By insisting that the concepts of a priori knowledge, necessary truth and analytic truth were not the same and that, as a consequence, the claim that they were coextensive would need to be supported by independent argument, he freed the a priori from its close association with the concept of analytic truth and opened up the conceptual space for examining that concept in its own right. On the other hand, his claim that there is necessary a posteriori knowledge appeared to challenge Kant's contention that necessity is a criterion of a priori knowledge and to undermine a leading argument in support of a priori knowledge. In "Kripke on the A Priori and the Necessary," I argue that Kant's criterion is ambiguous; it fails to distinguish between

(K1)   If p is necessarily true and S knows that p then S knows a priori that p;

and

(K2)   If p is necessarily true and S knows that p is a necessary proposition then S knows a priori that p is a necessary proposition.

Moreover, although Kripke's account of our knowledge of necessary a posteriori propositions challenges (K1), it supports (K2). This result laid the groundwork for rejecting Kant's criterial argument for a priori knowledge in "Necessity, Certainty, and the A Priori." It also indicated the need for a more nuanced investigation of the relationship between a priori knowledge and necessary truth, which I offer in "Knowledge and Modality," and further discussion of knowledge of modality, which I offer in "Counterfactuals and Modal Knowledge" and "Conceivability and Modal Knowledge."

"Necessity, Certainty, and the A Priori" provides the first installment of one of the leading ideas in *A Priori Justification*: the failure of a priori arguments to either prove or disprove the existence of a priori knowledge. This essay examines three criterial arguments for the existence of a priori knowledge. Criterial arguments identify a feature of propositions that we purportedly know and maintain that we cannot know a posteriori propositions having that feature. The three arguments under investigation appeal to necessity, certainty, and irrefutability by experiential evidence. In response, I contend either that one can have a posteriori knowledge of propositions having the feature or that the propositions alleged to have the feature do not have it.

"Causality, Reliabilism, and Mathematical Knowledge" extends the idea that a priori arguments are of limited import in arguing for or against the existence of

a priori knowledge by considering Paul Benacerraf's (1973) question whether knowledge of abstract entities can be accommodated within a naturalistic theory of knowledge. Benacerraf's original argument is framed in terms of the causal theory of knowledge, which has been widely rejected in favor of reliabilism. This essay considers the two leading versions of reliabilism, the reliable indicator theory and process reliabilism, and their implications for knowledge of abstract entities. I argue that reliable indicator theories are incompatible with knowledge of abstract entities but that the issue is more complicated with respect to process reliabilism. Although process reliabilism is not incompatible with knowledge of abstract entities, empirical evidence in support of the claim that there cannot be basic psychological processes that generate beliefs about objects that are causally inert would provide defeating evidence for the justification conferred on beliefs by a reliable belief forming process, such as intuition, that produced beliefs about abstract entities.

"Revisability, Reliabilism, and Mathematical Knowledge" addresses the analysis of the concept of a priori knowledge. The target of the essay is the claim of Hilary Putnam (1983) and Philip Kitcher (1983) that the concept of a priori knowledge entails a rational unrevisability condition. Here I distinguish between a strong unrevisability condition, which requires rational unrevisability in light of any evidence, and a weak unrevisability condition, which requires unrevisability in light of experiential evidence. Against the former, I argue that it is implausible to maintain that S's belief that p is justified a posteriori merely in virtue of the fact that it is rationally revisable in light of nonexperiential evidence. Against the latter, I argue that it is motivated by a mistaken view about the relationship between confirming and disconfirming evidence. Since Kitcher's analysis of the concept of a priori knowledge is developed within the framework of reliabilism, I go on to address whether that framework offers any support for his analysis. I maintain that the framework provides reason to reject the analysis since the analysis imposes higher standards on a priori justification than reliabilism requires, but Kitcher does not offer any compelling rationale for the higher standards. The rejection of an unrevisability condition on a priori knowledge plays a central role in both defending the minimalist conception of a priori justification and rejecting what Putnam and Kitcher regard to be the leading argument in Quine's "Two Dogmas" against the existence of a priori knowledge.

"The Coherence of Empiricism" returns to the theme of the failure of a priori arguments to either prove or disprove the existence of a priori knowledge. This essay investigates the charge that empiricist theories of knowledge face serious deficiencies: they lead to skepticism about the external world, they cannot provide a noncircular justification of their basic epistemic principles, and they impose no constraints on epistemic justification. I maintain that the a priori arguments purporting to reveal deficiencies in empiricist epistemological theories fail

to provide support for apriorist epistemological theories because the latter theories are subject to the same deficiencies.

"A Priori Knowledge," which was the final essay to appear prior to *A Priori Justification*, provides an introduction to a number of its main themes: the articulation and defense of the minimal conception of a priori justification, an exposition of the limitations of the traditional arguments both for and against a priori knowledge, and the relevance of empirical investigation to providing supporting evidence for the claim that there are nonexperiential sources of justification.

The four essays published subsequent to *A Priori Justification* explore diverse themes that were introduced in the book but not developed in detail. "Epistemic Overdetermination and A Priori Justification" examines the arguments of J. S. Mill and W. V. Quine against the existence of a priori knowledge and contends that both arguments fall short of their goal because they fail to appreciate the phenomenon of epistemic overdetermination. The central premise in Mill's argument is the Explanatory Simplicity Principle, which I argue should be rejected because it is incompatible with a familiar and uncontroversial form of epistemic overdetermination: epistemic overdetermination by different sources. The case of Quine is more complicated since there is still controversy over the central argument of "Two Dogmas" and how it bears on the existence of the a priori. My focus is on the Putnam-Kitcher reconstruction of the argument, whose central premise is the claim that the concept of a priori knowledge entails that if S knows a priori that p then S's justification for the belief that p is not revisable in light of experiential evidence. Here I argue that this conception of a priori knowledge rules out the possibility of a particular form of epistemic overdetermination: S's belief that p is justified both a priori and by experience. I contend that whether there are beliefs that are justified both a priori and by experience is a substantive epistemological question that should not be settled by an analysis of the concept of a priori knowledge.

"Knowledge and Modality" explores in greater detail the relationship between a priori knowledge and necessary truth. Kripke's contention that there are necessary a posteriori truths and contingent a priori truths challenges the traditional Kantian view:

(K)   All knowledge of necessary truths is a priori and all a priori knowledge is of necessary truths.

I argue that (K) provides a very crude account of the relationship between the a priori and the necessary because it masks two crucial distinctions. I go on to utilize these distinctions to introduce and critically evaluate a number of more nuanced principles articulating that relationship. In conclusion, I identify two

principles that are intuitively plausible, widely accepted, and not open to decisive counterexamples, but maintain that they lack any independent support.

"Analyzing A Priori Knowledge" returns to the topic of the analysis of the concept of a priori knowledge. Here I address Philip Kitcher's (2000) contentions that the minimal conception of a priori knowledge that I favor does not provide a coherent explication of the traditional concept of the a priori and that the important question about mathematical knowledge is not whether it is a priori but whether it is tradition-independent. Kitcher's strategy for showing that the minimal conception of the a priori fails to coherently explicate the traditional conception is to show that the minimal conception, when conjoined with a reliabilist theory of knowledge, has consequences that are at odds with traditional views about the a priori. I maintain that the argument strategy fails because traditional views about the a priori were developed within a Cartesian theory of knowledge, and if the minimal conception is conjoined with a Cartesian theory of knowledge, it does not yield results that are at odds with traditional views about the a priori. Moreover, I maintain that Kitcher's claim that the important question about mathematical knowledge is not whether it is a priori but whether it is tradition-independent conflates two distinct questions. Whether mathematical knowledge is tradition-independent is a question about the general conditions on knowledge, that is, the conditions common to both a priori and a posteriori knowledge. Whether mathematical knowledge is a priori is a question about the role of experience in satisfying those general conditions.

The topic of testimonial knowledge raises two issues with respect to the a priori. The first is whether such knowledge is a priori or a posteriori. The answer to this question bears on a second issue. Proponents of the view that a priori justification entails indefeasibility by experience typically maintain that no beliefs are justified a priori because all justification is defeasible by experience. Testimony is frequently cited as a leading source of such defeaters. But if testimonial justification is a priori, then this argument is blocked. "Testimony and A Priori Knowledge" addresses Tyler Burge's (1993) account of testimony, which allows for the possibility of both testimonial a priori warrant and knowledge. I reject one of Burge's supporting arguments for the claim that perception does not play a warranting role in testimony, but also argue that even if his contentions about the a priori status of testimonial warrants and knowledge are correct, they are too limited to block the arguments of proponents of the indefeasibility condition against the existence of a priori knowledge.

The four previously unpublished essays address issues that have either emerged or taken on more prominence in the literature on the a priori since the publication of *A Priori Justification*. Arguments in support of the existence of a priori knowledge have shifted from the earlier focus on mathematical knowledge to the evidential status of intuitions. "Intuition, Thought Experiments, and the A Priori"

distinguishes two different accounts of the role of intuition in acquiring a priori knowledge: the traditional rationalist account, which involves a direct grasp of the truth (or necessary truth) of general principles, and a more moderate account that emphasizes particular concrete case intuitions and their role in conceptual analysis. My goal is to determine whether the role of intuition in conceptual analysis can be parlayed into a plausible defense of a priori knowledge. The focus of my investigation is George Bealer's attempt to provide such a defense. I argue that his two leading arguments against empiricism fail, and offer an alternative approach to defending the a priori status of intuitions that highlights the role of empirical investigation.

Kripke's examples of necessary a posteriori propositions drew attention to the question of modal knowledge. According to Kripke, if P is the statement that the lectern is not made of ice, a posteriori knowledge that P is necessarily true is based on a priori modal knowledge that if P then P is necessarily true. He does not, however, provide an account of modal knowledge. Christopher Hill and Timothy Williamson attempt to fill this gap. Both maintain that the metaphysical modalities are reducible to the counterfactual conditional and that the reduction provides the key to an account of the epistemology of the metaphysical modalities. Williamson maintains that knowledge of the metaphysical modalities is reducible to knowledge of counterfactuals and offers an account of the latter in terms of the exercise of the imagination. Hill maintains that the reduction of the metaphysical modalities to the counterfactual conditional offers two tests for determining whether a proposition is metaphysically necessary and two tests for determining whether a proposition is metaphysically possible.

"Counterfactuals and Modal Knowledge" addresses Williamson's account of knowledge of counterfactuals and his account of modal knowledge. With respect to the former, I maintain that it is rooted in two unsubstantiated empirical assumptions. With respect to the latter, I maintain that it rests on three errors: conflating logical reduction and epistemological reduction, a misguided appeal to cognitive economy, and incorrectly locating what needs to be explained by an account of modal knowledge. "Conceivability and Modal Knowledge" addresses Hill's account of modal knowledge. Here I argue that neither of Hill's two tests provides an account of modal knowledge that requires the employment of our cognitive mechanisms or procedures for evaluating subjunctive conditionals. Moreover, I maintain that his account of modal knowledge is at odds with his contention that conceivability does not provide epistemic access to metaphysical possibility.

An emerging theme in the literature on the a priori is to challenge the cogency or the significance of the a priori–a posteriori distinction. John Hawthorne, C. S. Jenkins, and Timothy Williamson provide recent examples. My goal in "Articulating the A Priori–A Posteriori Distinction" is to argue, utilizing the framework developed in "Analyzing A Priori Knowledge," that the problems

posed by these authors are a consequence of either the more general epistemological framework in which the distinction is embedded or to a formulation of the distinction that does not cohere well with the general epistemological framework in which it is embedded. I go on to articulate an alternative challenge to the a priori–a posteriori distinction.

The appendix offers a highly selective guide for those seeking an introduction and orientation to the burgeoning research in the area. It is not comprehensive, and there is much excellent work that is not included.

REFERENCES

Benacerraf, Paul. 1973. "Mathematical Truth." *Journal of Philosophy* 70: 661–679.

BonJour, Laurence. 1998. *In Defense of Pure Reason.* Cambridge: Cambridge University Press.

Burge, Tyler. 1993. "Content Preservation." *Philosophical Review* 102: 457–488.

Casullo, Albert. 1999. *A Priori Knowledge.* Aldershot, England: Dartmouth.

———. 2003. *A Priori Justification.* New York: Oxford University Press.

Kitcher, Philip. 1983. *The Nature of Mathematical Knowledge.* New York: Oxford University Press.

———. 2000. "A Priori Knowledge Revisited." In *New Essays on the A Priori,* ed. P. Boghossian and C. Peacocke. Oxford: Oxford University Press.

Kripke, Saul. 1971. "Identity and Necessity." In *Identity and Individuation,* ed. M. K. Munitz. New York: New York University Press.

———. 1980. *Naming and Necessity.* Cambridge, Mass.: Harvard University Press.

Maddy, Penelope. 1990. *Realism in Mathematics.* Oxford: Oxford University Press.

Peacocke, Christopher. 2004. *The Realm of Reason.* Oxford: Oxford University Press.

Putnam, Hilary. 1983. "'Two Dogmas' Revisited." In *Realism and Reason: Philosophical Papers,* vol. 3. Cambridge: Cambridge University Press.

Quine, W. V. 1963. "Two Dogmas of Empiricism." In *From a Logical Point of View,* 2d ed. rev. New York: Harper and Row.

———. 1969. "Epistemology Naturalized." In *Ontological Relativity and Other Essays.* New York: Columbia University Press.

Steiner, Mark. 1975. *Mathematical Knowledge.* Ithaca: Cornell University Press.