

# Against Post-Truth: The Logical Experience of Knowledge, the Circularity of Truth etc

 [3ammagazine.com/3am/post-truth-logical-experience-knowledge-circularity-truth-etc/](http://3ammagazine.com/3am/post-truth-logical-experience-knowledge-circularity-truth-etc/)

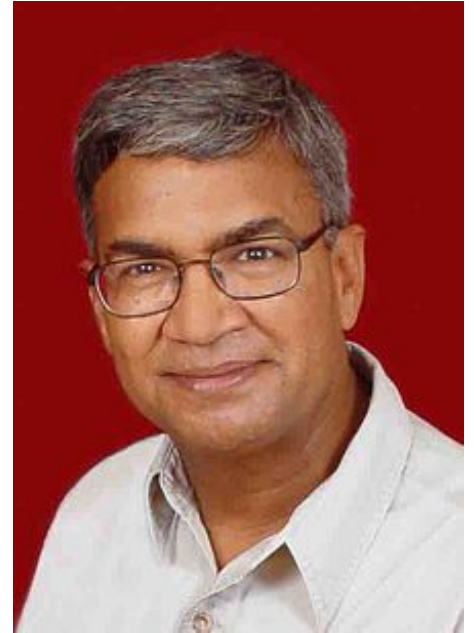
1/28/2017

Interview by Richard Marshall.

*'To understand empirical knowledge we must understand empirical reasoning. And to understand empirical reasoning we must understand the role of experience in it. Logicians have, over the past 150 years or so, made tremendous progress in understanding reasoning that is independent of experience. They have not made much progress in understanding empirical reasoning, however.'*

*'Suppose we agree with Quine, as I think we should, that there is no sub-basement in the edifice of empirical knowledge. The impact of experience on our view occurs at the level of ordinary perceptual judgment, not at any level below that. Suppose we agree also with Sellars, as I think we should, that experience does not render these judgments knowledgeable or even rational. The rationality of these judgments depends on the rationality of our antecedent beliefs. Even granting all this, we can see experience as playing a crucial role in cognition.'*

*'Truth is definitely a circular concept. And it is essentially circular; there is no non-circular way of giving an extensionally adequate definition of truth. The circularity is not vicious, however, in any sense that implies incoherence or defect in the concept of truth. On the contrary, some of the functions truth serves require that the concept be essentially circular.'*



**Anil Gupta** is living in the days of what has been dubbed 'post-truth'. So his philosophical work into knowledge and truth are suddenly peculiarly important. His main research interests lie in logic, philosophy of language, metaphysics, and epistemology. Topics that are of special interest to him include definitions, truth, meaning, and perception and he discusses them all here. The picture on the front page is of the crew's camp of S. A. Andrée's balloon expedition discovered over 30 years after they disappeared. Truth may be lost for the times, but lost things can be found ... Read on.

**3:AM:** What made you become a philosopher?

**Anil Gupta:** My movement toward philosophy began when I was quite young, though I did not then realize it. My mother belonged to the Jain religion, and from an early age I participated in Jain rituals. At around the age of twelve, I began having discussions about Jainism with a friend of our family, Shri Surajmal Jain. Surajmalji had not only a great knowledge of the Jain religion, he was and remains one of the finest men I have ever known. Surajmalji explained to me the Jain metaphysics, ethics, and personal philosophy. I remember asking him many questions, some quite skeptical. Surajmalji's responses were often modest and invariably gentle. He would say such things as that he had not read such-and-such texts and that he himself did not understand things well enough to give good answers. Surajmalji did not quell all my doubts. Still the attractiveness of the worldview he put before me—including the Jain principle of non-violence—and the beauty of his personality had a profound effect on me. I went from a mere participant in Jain rituals to an active believer.

At the age of sixteen I traveled from India to England to study Mechanical Engineering and to receive training in the aero-engine division of Rolls Royce. My stay in England was transformative. My religious beliefs came under pressure not only from the unbelievers among whom I lived but also from my growing understanding of mathematics and science. On the other hand, I did not find the alternative religious conceptions I encountered attractive, and the mathematics and the sciences I was taught raised for me all sorts of perplexing questions. Complex analysis, as it was presented to me, seemed nothing more than a collection of arbitrary recipes. And the physics I learned, at least some of it, seemed to bear as thin a relation to experience as the grossest of religious superstitions. I knew that these subjects made good sense, and I tried to figure them out for myself but with little success. The questions that bothered me fell under two heads: (i) Freedom in mathematics: How much freedom do we possess in mathematics (e.g., in the construction of number systems)? What renders a mathematical construction legitimate? (ii) Empirical rational constraint: How is physics founded on experience? I remember picking up one of Russell's works from the library. I remember liking it, though I did not find answers that were satisfying. I also remember dipping into Wittgenstein's Blue Book and finding it thoroughly opaque. (My view about this book changed later; I began to like it a lot.) After completing my engineering studies, I decided to study philosophy for a little while. I did not come to philosophy thinking I'd spend a lifetime on it. I was under the illusion that philosophy would soon enough clear up the things that were bothering me. I thought that after a few years in philosophy I'd go back to engineering or do something altogether different. I did not know that philosophy would only deepen my puzzlement and would render me incapable of doing anything else.

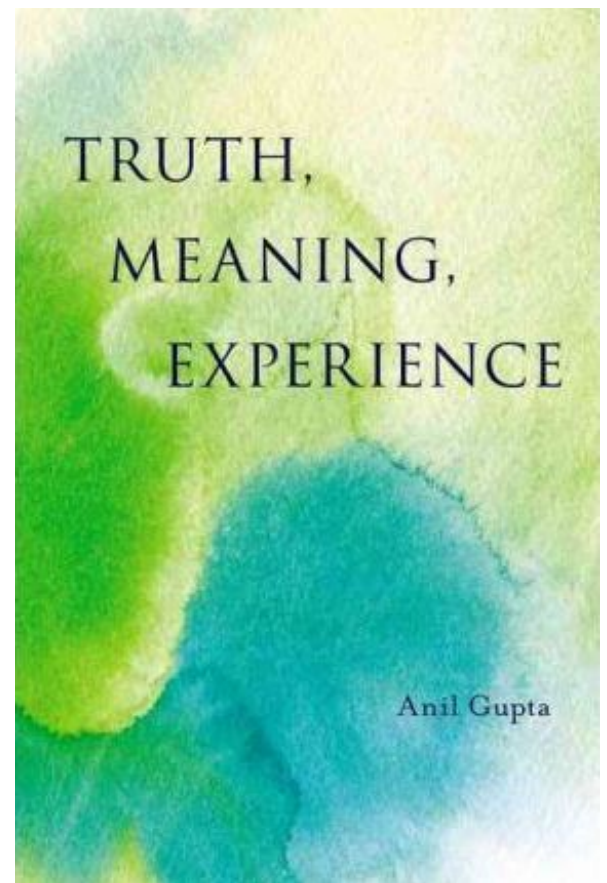
For a few months, I studied philosophy at Bedford College, London, and then I moved to the University of Pittsburgh. Here I had excellent teachers, including Nuel Belnap, Joe Camp, Wilfrid Sellars, and Richmond Thomason. Their influence on my thinking persists to this day.

**3:AM:** You're a leading expert in the field of philosophical logic. One of your interests is the logical relationship of experience to knowledge. Could you begin by sketching for us what you think is at stake in this area?

**AG:** Logic is concerned to understand reasoning: what makes a bit of reasoning valid and, more generally, legitimate. Now, some of our reasonings are independent of experience. When we reason to an arithmetical theorem, for example, the contents of the claims we make and the legitimacy of our inferential moves and our definitions do not depend on our concurrent experiences. They do not depend on things we happen to be seeing or hearing or touching or tasting as we reason. Sometimes, though, our reasonings do depend on our concurrent experiences. The content and legitimacy of a claim we make during a stretch of reasoning, for example, can depend on our tactile experiences as we make that claim (e.g., the claim "this ball is hot" made of a ball one is holding). For another example, the content and legitimacy of a term we introduce through an ostensive definition (e.g., "call that color 'yellow'") can depend on our visual experience when we issue the definition.

My interest in the [relationship of experience to knowledge](#) is, at bottom, an interest in understanding the role of experience in empirical reasoning, reasoning that depends on experience.

Empirical knowledge, at least the interesting parts of it, is knowledge we have gained, or could have gained, through legitimate empirical reasonings. To understand empirical knowledge we must understand empirical reasoning. And to understand empirical reasoning we must understand the role of experience in it. Logicians have made, over the



past 150 years or so, tremendous progress in understanding reasoning that is independent of experience. They have not made much progress in understanding empirical reasoning, however. Russell, one of the great logicians of the 20th century, made important contributions to our understanding of reasoning that is independent of experience. Russell actually devoted more of his life to understanding empirical knowledge. His work here, far from illuminating empirical reasoning, renders it more perplexing. Russell reaches conclusions that are manifestly absurd—for example, that we can know only structural features of the external world, not any of its qualitative features. He was led to these conclusions because of an erroneous conception of the relationship of experience to thought. This is the crucial relationship for understanding empirical reasoning, and it is this that we need to understand better. On it turns the question whether empirical reasoning can overturn our commonsense conception of things: whether, for example, empirical reasoning can lead to the conclusion that colors are not genuine qualities of external bodies. On it turns, therefore, our attitude toward science: whether we take science to be merely of instrumental value or to reveal to us the nature of reality and our own selves.

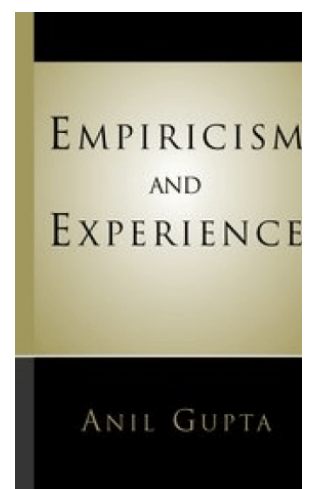
**3:AM:** Why can't classical empiricism work even though it deserves respect? Are you influenced by Quine and Sellars in your approach to this?

**AG:** The role of experience in cognition, according to classical empiricism, is that experience provides the subject with some knowledge. This broad thesis when conjoined with highly plausible ideas—ideas in which I can find no fault—leads to the conclusion that the knowledge provided by experience is confined to a special subject-dependent realm. Some versions of classical empiricism see this realm as populated by ideas and impressions; others, by sense-data; yet others, by mental states. On all versions, our ordinary knowledge of the external world becomes highly problematic. Some subtle inference is needed that would take us from the knowledge of the special realm to the knowledge of the external world. No one has been able to tell a convincing story about how such an inference might go.

About Quine and Sellars: yes, I have been greatly influenced by them—more by the latter than by the former. Both these thinkers rejected the classical picture of empirical cognition. Quine rejected the idea that there is any “sub-basement,” as he called it, to the edifice of knowledge. Sellars is famous for declaring “the given” mythical. A part of what Sellars meant by this declaration is that experience provides the subject with no knowledge whatsoever of any items. I have benefitted from Quine's and Sellars's critiques of classical empiricism. I have benefitted from them in another way. Quine and Sellars explored important alternatives to [classical empiricism](#): Quine tried to develop a naturalized epistemology that is eliminativist about the mental; Sellars, a coherence theory that is accommodating of the mental. A study of Quine and Sellars convinced me that both approaches face severe difficulties. This prompted me to explore alternatives farther off the beaten track.

**3:AM:** What do you mean by the term ‘the multiple-factorizability of experience’?

**AG:** Experience has a subjective dimension: how things appear to the subject in an experience. Two things may be qualitatively different—they may differ in color, for example—yet they may manifest exactly the same appearance to a subject. Call the subjective dimension of an experience, the phenomenology of the experience. The multiple-factorizability of experience is really the multiple-factorizability of phenomenology. It says that phenomenology can be factored into many radically different self-world combinations. Consider the phenomenology of your perception of, say, a yellow ball. This phenomenology is a product of an actual yellow ball acting on you as you are in fact constituted. This same phenomenology could also be a product of a white ball in yellow light, or of a white ball in normal light and a diseased eyed, or of a hot ball and a certain sort of heat-sensing organ. Subjects with radically different constitutions situated in worlds with radically different layouts can undergo experiences with the same phenomenology. Phenomenology does not factor into a unique self-world combination. You cannot read off the layout of the external world from the phenomenology of an experience. It is in part because of this multiple-



factorizability of experience that classical empiricists posited a special realm, distinct from the external world, that is made known in experience. The character of this realm does not vary with phenomenology; it constitutes phenomenology.

**3:AM:** What are what you call interdependencies and why are they crucially important here when discussing the failure of classical empiricism?

**AG:** The most natural position on the question how experience bears on our view of the world is that it does so through ordinary perceptual judgments: experience dictates which of these judgments are rational and thereby influences our view, even in its most esoteric reaches (e.g., the structure of spacetime). The difficulty with this natural position is that the rationality of an ordinary perceptual judgment (e.g., “this ball is yellow”) depends not only on experience but also on the rationality of various antecedent beliefs (e.g., “the lighting conditions are normal”). An ordinary perceptual judgment, as Sellars remarked, does not stand “on its own feet”; it depends on the antecedent view. More specifically, the rationality of ordinary perceptual judgments depends on the rationality of the subject’s antecedent view. Equally, the rationality of a view depends on the rationality of perceptual judgments. There is a troubling interdependence here. It is to overcome this interdependence that classical empiricists posited a “sub-basement” of empirical knowledge. The judgments in this sub-basement are not view-dependent. They do not shift as our view of the world shifts. These judgments are the pure datum supplied by experience, the fixed points and the foundations of empirical knowledge. The lesson I draw from the failure of classical empiricism is that the interdependencies should not be evaded but embraced. Only then can we obtain a viable alternative to the classical picture.

**3:AM:** Why doesn’t your approach to empiricism need idealism or antirealism of any sort, and is it important that it doesn’t if it is to remain potent enough to seize ‘... epistemic authority from self-styled sages and cults of pundits’ as you put it?

**AG:** One of the ingenious moves that classical empiricists made to bridge the gulf between knowledge of the special realm they posited and knowledge of the external world was to reinterpret the knowledge of the external world. This knowledge, they suggested, was not really a knowledge of something beyond the special realm. What seems like a claim about the external world, they suggested, is really a claim about the special realm, or it is not really a claim at all. So, many classical empiricists were led to espouse one form or other of idealism (e.g., “ordinary things are logical constructions out of sense-data”) or of antirealism (e.g., “terms for ordinary things can be ramsified away”). Such moves are really a symptom of the failure of classical empiricism to make sense of the authority of experience. It opens the door to the idea that a different, higher authority regulates our belief: reason or tradition or faith. Pierre-Daniel Huet, a seventeenth century thinker, argued for an extreme fideism in this way. If the proposal I have put forward succeeds, then no reinterpretation is forced on our claims about the external world and, furthermore, experience qualifies as the supreme authority regulating belief. Sages and pundits may have useful things to tell us, but they are subject to a higher authority: experience.

**3:AM:** Why do you argue that theories of meaning need to be loosened up to make sense of these crucial logical interdependencies? Your move is to substitute meaning as ‘a rule of application’ to ‘a rule of revision’ isn’t it? Can you sketch your arguments here?

**AG:** There are different kinds of logical interdependencies, some legitimate and some illegitimate; and within the legitimate ones, there is also a variety. One kind of interdependence that Nuel Belnap and I argued is legitimate is the interdependence of concepts on one another. You can have systems of interdependent definitions. You can define a term G using some terms, say, H and I; you can go on to define H using a yet further term J; and you can circle back and define J using G. Traditional logical theory says that such systems of definitions are logically illegitimate unless the interdependence in them is eliminable. Belnap and I showed that we can make sense of such systems even when the interdependence is not eliminable. Indeed, we can make sense of definitions that are ineliminably circular, definitions in which a term G is defined using G itself.

Now, we cannot think of concepts defined by interdependent and circular definitions in the traditional way. We can think of an ordinary concept such as “fish” as providing a rule of application: a rule that separates things that fall under the concept from those that do not. We cannot think of circular and interdependent concepts in this way. Circular definitions, for example, provide no rule of application. Suppose you define  $Gx$  using the definiens  $A(x, G)$ . The definiens is not providing you with a rule of application, a principle for separating  $G$ s from non- $G$ s. To use the definiens  $A(x, G)$  to figure out which things are  $G$ s you already need to know which things are  $G$ s; you cannot recover a rule of application from  $A(x, G)$ . Still, something very useful can be recovered from it: a rule that revises hypotheses about which things are  $G$ . You can begin with an arbitrary hypothesis about which things are  $G$ s, and you can assess which things satisfy the definiens  $A(x, G)$  under this hypothesis, thus obtaining a revised hypothesis about which things are  $G$ . Belnap and I proposed that this rule for revising hypotheses be viewed as a rule that improves hypotheses: the revised hypothesis is better than, or equally good as, the original hypothesis. We showed that this idea leads to an attractive logic for definitions. With certain circular and interdependent definitions (the so-called finite ones) the resulting logic is quite simple.

**3:AM:** Why aren't you a fan of deflationary theories of truth?

**AG:** Deflationists draw large philosophical conclusions from conceptual analyses of the notion of truth. They rule out, for example, truth-conditional accounts of meaning on the basis of such analyses. For another example, they argue for disassociating the realism/ anti-realism debate from theories of truth, again, on the same basis. (Paul Horwich declares in his book *Truth* that the realism/ antirealism issue has “nothing at all to do with truth.”) I want to resist deflationary theories because, first, I do not think a conceptual analysis of truth delivers such hefty philosophical conclusions. (I myself think that purely conceptual analyses rarely, if ever, deliver hefty philosophical conclusions.) Second, I find philosophical ideas that deflationists rule out to be sometimes useful in the positive positions to which I am led. So, I do find it useful, in some contexts, for some bits of language, to bring in truth-conditions when thinking about meaning. I do not accept the general identification of truth-conditions with meaning. Nonetheless, the idea of truth-conditions is a useful one for understanding some of the workings of some bits of our language. Similarly, I do find it useful to conceive of the realism/ antirealism debate over some domains as turning on the conception of truth suitable for that domain. I do not accept a general identification of truth with correspondence with reality. Nonetheless, this is consistent with the idea—indeed, it is a prerequisite for the idea—that one good thing to mean by ‘realism’ with respect to a domain is that truth over that domain consists in correspondence with reality. In short, I am not a fan of deflationary theories because they seek to deprive us of useful philosophical tools.

**3:AM:** So what is your preferred way of understanding [what truth is](#) and why is this superior to deflationism?

**AG:** Deflationists claim that the T-biconditionals (i.e., sentences of the form “ ‘p’ is true if, and only if, p”) explain the meaning of ‘true’ and that the T-biconditionals capture what our understanding of this word consists in. I have argued that this claim is false. I have argued also that there are some weaker claims in the vicinity that are true. So, for instance, it is true that the T-biconditionals, interpreted in a particular way, constitute an extensionally adequate definition of truth. (The required interpretation of the T-biconditionals turns on a particular reading of ‘if and only if’. Shawn Standefer and I have spelled out this reading in a recent paper.) The weaker claims have no deflationary consequences, however. The deflationists need the original, strong claim to sustain their position. So, as I see things, the T-biconditionals are vital for the logic of truth, but they do not explain the meaning of ‘true’. Consequently, there is no conceptual bar to assigning truth a substantive role in, for example, metaphysics and the theory of meaning.

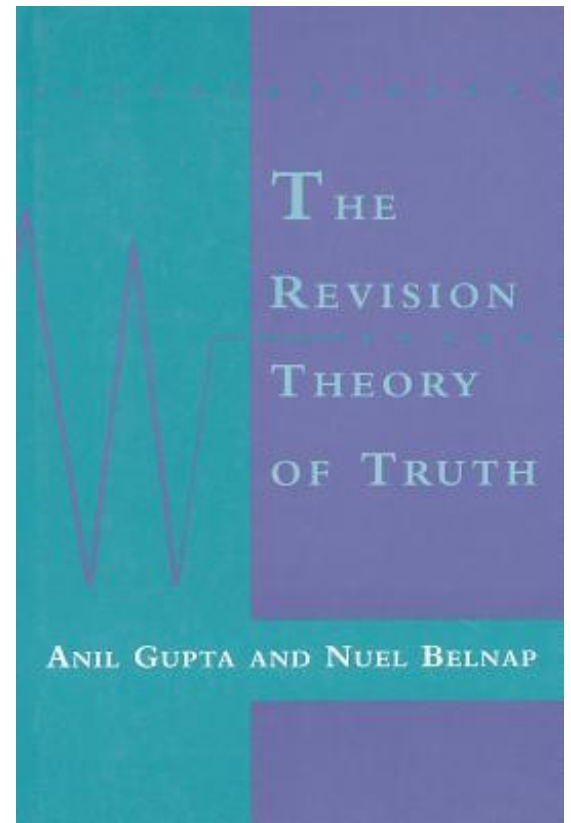
**3:AM:** Doesn't your definition of truth end up being circular? Why isn't this vicious?

**AG:** Yes, if the T-biconditionals constitute an extensionally adequate definition of truth, as I think they do, then truth is definitely a circular concept. And it is essentially circular; there is no non-circular way of giving an extensionally adequate definition of truth. The circularity is not vicious, however, in any sense that implies incoherence or defect in the concept of truth. On the contrary, some of the functions truth serves require that the concept be essentially circular. For instance, Quine pointed out that truth serves a generalization function: it enables us to generalize on the sentence positions while using only nominal variables. This function requires that the T-biconditionals constitute an extensionally adequate definition of truth, which entails that truth is an essentially circular concept.

**3:AM:** How does your approach apply to rational choice theories? Is rational choice another circular but benignly circular concept?

**AG:** Rational choice in certain situations brings logical interdependence, and even circularity, into play. Suppose two rational agents, A and B, are put in a situation in which each can choose to act in one of several ways. Suppose also that each agent receives some reward based on choices made by both agents. Suppose, finally, that the agents must make their choices independently of one another; they cannot communicate with one another and work out a joint course of action. In such situations, an agent must figure out which choice is rational for the other agent if he is to figure out which choice is rational for himself. What is rational for one depends on what is rational for the other. Such situations are investigated in game theory, but surprisingly there is no satisfactory general theory that works even in simple situations. I took my cue from the interdependence and experimented with a very simple circular definition of rational choice. This gave some surprisingly nice results in a range of simple games. The definition is not a general solution, but it shows that the logical theory of circular definitions can be fruitful in this area. The subject was further investigated by André Chapuis. Recently, Riccardo Bruni and Giacomo Sillari have shown that the approach can be extended to a wider class of games. So, yes, rational choice is another concept that is fruitfully viewed as circular. The concept exhibits all the distinctive marks of a circular concept.

**3:AM:** How does all this feed into your ideas about the role of experience in judgement? Does it resolve the problems faced by the common-sense realist on the one hand and the philosophical Cartesian one on the other? Are you saying that its all a matter of logic?



**AG:** I wouldn't say that it's *all* a matter of logic, but I do think logic—in particular, the logic of interdependence—plays a vital role here. Suppose we agree with Quine, as I think we should, that there is no sub-basement in the edifice of empirical knowledge. The impact of experience on our view occurs at the level of ordinary perceptual judgment, not at any level below that. Suppose we agree also with Sellars, as I think we should, that experience does not render these judgments knowledgeable or even rational. The rationality of these judgments depends on the rationality of our antecedent beliefs. Even granting all this, we can see experience as playing a crucial role in cognition.

Consider an ordinary perceptual situation. Say you walk into a room and see a ball before you and you issue the judgment “this ball is yellow.” Your judgment may well not be rational, for some of your relevant antecedent beliefs (e.g., about the lighting conditions) may not be rational. Still, the transition from your antecedent view to your judgment is perfectly rational and, furthermore, it is rational because of your experience. Without the experience, you would not be in a position to issue the judgment at all. The rational role of experience in cognition, I want to say, is not to render judgments rational, but to render transitions rational. (Analogy: the rational role of modus ponens is not to render the acceptance of the premisses or the acceptance of the conclusion rational, but to render rational the transition from the one to the other.) Notice that had you begun with a crazy view such as a sense-datum view, your experience of the yellow ball would still have rendered a transition rational, but now to a sense-datum judgment such as “there is a yellowish roundish sense-datum before me.”

We can recognize the interdependence of views and judgments and still see experience as playing a vital rational role. The role of experience is to provide something like a rule of revision. Given an arbitrary antecedent view, experience provides a way of enriching it, of improving it. In *Empiricism and Experience*, I called this conception of the role of experience *the hypothetical given*, for on it the rationality imparted by experience to a perceptual judgment is merely hypothetical. I argued that the hypothetical given is strong enough to support an attractive empiricism.

**3:AM:** So if experience isn't about getting truth about the world what is it for? How should we understand discourses about the world that embody fundamental misconceptions?

**AG:** Experience, as I conceive of it, presents a portion of the world to us and can, thereby, endow our terms with content. The presentation of the world in experience is not, however, transparent. Experience does not make the world it presents known to us; it does not inform us of the nature and character of the presented world. The presentation of the world in experience is conditioned by our own constitution and situation in the world. Experience provides essential cognitive guidance, but this guidance does not consist of provision of little truths that we can work up, by some logical magic, into bigger truths. Instead, as I just suggested, experience helps us get at the truth by enriching and improving a view of the world. We can begin with an erroneous view (say, a flat-earth view) and we can enrich it with the aid of experience and reason our way to a better view (say, a spherical-earth view). Experience grounds knowledge and meaning, but this grounding is not mediated by special propositions whose truth is revealed by experience, nor by special concepts whose legitimacy is guaranteed by experience.

The question you ask about discourses that embody fundamental conceptions is hard, and I do not have a fully worked out theory about them. Standard ways of thinking about meaning plainly break down with these discourses. Neither a truth-conditional account of meaning nor a conceptual-role account works here. It seems to me that we need to better understand the relationship of language to phenomenology if we are to make progress in this difficult domain.

**3:AM:** What do you say to those who think that by the time you've finished your theory isn't empiricist?

**AG:** They are right if 'empiricist' is understood in certain ways. In his entry on empiricism in Paul Edwards's *Encyclopedia of Philosophy*, D. W. Hamlyn characterizes what he calls the “weakest” form of empiricism as holding that “the senses . . . provide us with ‘knowledge’ in some sense of the word.” If this is right, then my theory isn't

even weakly empiricist, for I do not think the senses provide us with any knowledge in any sense of the word. Or take the Locke-Hume thesis that all materials of thinking (i.e., all concepts) are derived from experience. If this thesis is taken as a defining mark of empiricism, then again my theory is not empiricist, for I do not think experience is the kind of thing from which one can derive materials of thinking. Theories that are empiricist in either of these two senses have failed to explain how our ordinary view of the world is based on experience. (I have argued that this failure is not accidental.) These theories fail to sustain a more basic idea underlying empiricism, which I have called “the Insight of Empiricism”: experience is the supreme epistemic authority. In the resolution of factual disagreements, experience trumps all other authorities. It trumps the so-called deliverances of reason, and it trumps the dictates of self-styled sages and cults of pundits. It is this more basic idea, the Insight of Empiricism, that I aim to sustain. And for its sake I am prepared to abandon all the other theses that empiricists have favored.

**3:AM:** And for the readers here at 3:AM, are there five books other than yours that you can recommend to take us further into your philosophical world?

**AG:** The philosophy books I have loved the most are the those that bring out philosophical problems clearly or reveal hidden aspects of the problems. The following books stand out for me; they are all classics or classics-in-the-making.

Plato, *Theaetetus*,

George Berkeley, *Three Dialogues Between Hylas and Philonous*,

Bertrand Russell, *Logic and Knowledge*, especially the third and sixth essays,

Saul Kripke, *Philosophical Troubles*, especially the first and fourth essays.

Let me mention one non-philosophy book that has influenced my thinking:

T. L. Heath, *Greek Astronomy*.

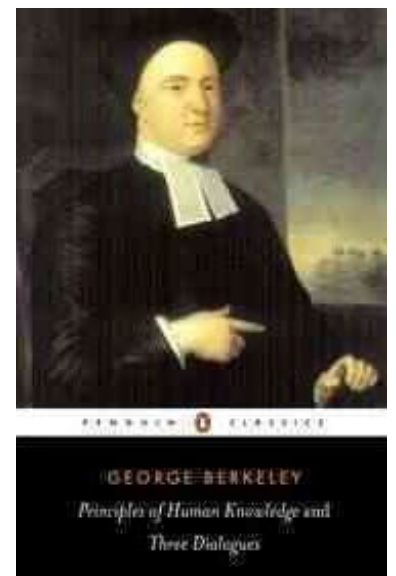
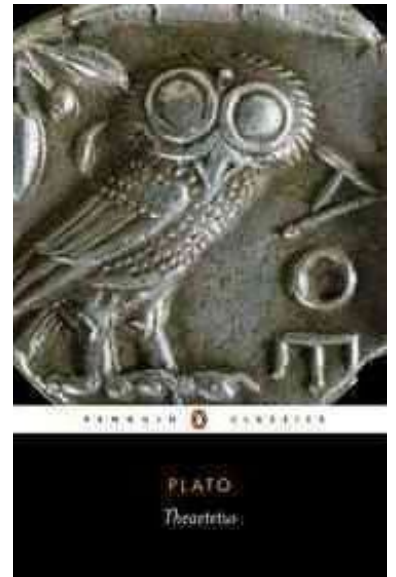
This book is a collection of original texts that trace the development of ancient Greek astronomy. Several of the texts in the book provide relatively simple but remarkable examples of empirical reasoning. One of my favorites: the argument by which Eratosthenes arrived at the circumference of the earth.

## ABOUT THE INTERVIEWER

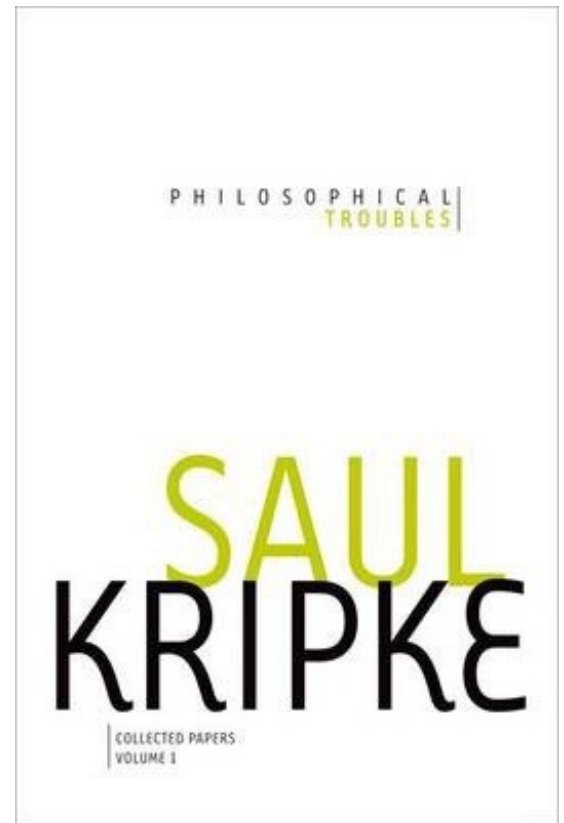
**Richard Marshall** is still biding his time.

Buy [his book here](#) to keep him biding!

First published in 3:AM Magazine: Saturday, January 28th, 2017.







# GREEK ASTRONOMY



SIR THOMAS L. HEATH

