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Editor's Note

The anglophone editors of **Canadian Philosophical Reviews / Revue Canadienne de Comptes rendus en Philosophie** are pleased to announce the acquisition of an address for electronic mail on the University of Alberta's mainframe computer. Correspondents and contributors are encouraged to use the address for replying to invitations, submission of reviews and any other messages. The E-mail address of **C.P.R/R.C.C.P.** is

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R.B. / R.A.S.

ANTHONY APPIAH. *Assertion and Conditionals*. New York: Cambridge University Press 1985. Pp. xiii + 265. $32.50. ISBN 0-521-30411-3.

This rather tiresome book has a dual nature. On the one hand, it is a presentation of a theory of the indicative conditional. The book builds to that presentation in the third (final) part. On the other hand, it presents a theory of belief based on decision theory. The development of this theory comprises the first half of the book. From this perspective, the discussion of the indicative conditional serves as an application of the theory of belief. These two aspects of the book are tied together by a theory of meaning. Appiah seeks an alternative to Dummett's semantic realism. That is, where semantic realism is the thesis that the meaning of a declarative sentence is provided by its truth conditions, Appiah seeks a semantics developed in terms of assertibility conditions.

Looking first at Appiah's treatment of the conditional, he focuses on a defense of what he calls Adam's Hypothesis. This is the claim that the indicative conditional is assertible when the conditional probability of the consequent, given the antecedent, is high (174). In opposition to semantic realism, Appiah argues that the indicative conditional does not have truth conditions. Indeed, he goes so far as to claim that for such conditionals 'there is nothing in the world, no fact, corresponding to them' (211). In this regard, the indicative conditional is contrasted with the subjunctive conditional and the material conditional, which do have truth values. Appiah devotes a lot of space to arguing that the indicative conditional cannot be identified with the material conditional, presenting criticisms of both David Lewis' and Frank Jackson's defense of that thesis.

This focus on the indicative conditional reflects Appiah's broader embrace of an a priori approach to the philosophy of language. I would argue that the indicative conditional, when contrasted with the subjunctive conditional, is no more than a surface feature of the English language that has little to do with the realities of conditional relationships in the world. Thus in focusing on it for analysis, Appiah ends up exploring a no-man's land between the truth-functional material conditional and the content-specific subjunctive conditional

with its ontological force. However, those who are convinced that the indicative conditional deserves logical analysis may find this material interesting.

The bridge between Appiah's treatment of conditionals and his theory of belief is a theory of meaning, viz. that assertion expresses belief. On his view, sentences express beliefs, and if they have truth-conditions, it is just to the extent that the beliefs which they express do as well. This middle part of the book includes a critical analysis of Donald Davidson's attempts to apply Tarski's theory of truth to a theory of meaning. Appiah concludes from this discussion that 'truth conditions are not enough' to fix the meanings of sentences (140). Instead, truth conditions, along with computational structure, must be assigned to beliefs rather than sentences.

This brings us to Appiah's theory of belief. It serves as the foundation for his claims regarding meaning and conditionals. It amounts to an attempt to utilize decision theory as the core of a computational theory of cognition. Decision theory is here understood as the claim 'that degrees of belief obey the laws of probability and degrees of desire have the measure of a utility function; and that action consists of trying to maximise expected utility' (39-40).

If one is enamoured with decision theory as a description of how people think, this might be an exciting book. But from the perspective of cognitive science, it should evoke little interest. I suggest, moreover, that the latter perspective is more appropriate. Appiah's approach is 'unabashadly psychologistic' (7). He is quite explicit that he means to move decision theory from the realm of the normative to the realm of the descriptive (40). But decision theory has had to rely on its normative status to avoid refutation. Appiah abandons such a defense against refutation. Instead, he uses an appeal to 'computational structure' as a buffer between his decision theory and observed human behavior. How computation enters the picture is discussed in Chapter 4:

> The process of working out the logical consequences of someone's beliefs is a *computational* process ... decision theory characterizes the behaviour of computationally perfect agents. (76)

Appiah appeals to this 'working out of logical consequences' as a basis for a distinction between actual and potential representations. Actual representations play a part in the causal determination of behavior, and potential states are those which could be produced by computations feasible for an agent, taking his actual states as input (78).

It is clear from this discussion, and the examples he provides for computational structure, that Appiah conceives computation as a process of logical deduction. But there is no recognition that purely deductive techniques have had only limited success in artificial intelligence research. For example, he does not even acknowledge a well-known problem faced by logic-based representations: the frame problem. (Briefly, deductive logic is monotonic — previously proved theorems are never removed — raising the tough problem of which theorems to carry forward into new situations.)

Throughout the book Appiah makes bold statements that he then retracts, with 'computation' used as a crutch. The bold statements generally arise from

his a priori approach. When they do not fit psychological data, 'computation' is inserted to save the a priori theory. For example, he states that 'where agents realise that their degrees of belief do not conform to the probability axioms, and their desirabilities fail to conform to the desirability logic, they must in fact so adjust them as to remove the defect' (79). But two pages later, this claim is abandoned and Appiah allows that agents can be inconsistent. Here occurs his only reference to recent work in artificial intelligence. He refers to Schank's scripts (which Appiah gratuitously renames 'families') to patch his own theory: 'agents can fail to rectify inconsistencies in their beliefs ... by keeping their inconsistent beliefs in different families' (81).

Although generally well-written, this book serves as a demonstration of the limited value of a priori functionalism. It is a travesty of computational theory. It thus contrasts sharply with work that is sensitive to issues in artificial intelligence and cognitive psychology as well as philosophy.

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MICHAEL A. ARBIB and MARY B. HESSE. *The Construction of Reality*. New York: Cambridge University Press 1986. Pp. xii + 286. US$29.50. ISBN 0-521-32689-3.

Cognitive Science is an interdisciplinary field in a world of specialization. The differing vocabularies and varying approaches embraced by investigators in the fields that constitute cognitive science often prove to be obstacles to cooperative work. The appearance of a book such as *The Construction of Reality* should be applauded by those of us who believe that the most significant advances in understanding the human mind will be made through interdisciplinary effort. In their preface, Michael Arbib and Mary Hesse describe how their joint investigation emerged from the invited Gifford Lectures in Natural Theology at the University of Edinburgh. The book presents a challenge to its readership to find (or maintain) a slot for the style of work necessitated by broad reaching investigations.

Interdisciplinary work is often avoided because of the difficulties in setting the goals and limits of the project, and then presenting the work to an audience of varied backgrounds. Arbib and Hesse have combined their efforts to show that schema theory is a basic theory of human consciousness that can

tie together apparently unrelated facts about human thought. Although the authors' goals are to be admired, they are clearly struggling with the challenge to present a balance between the oversimplified and the overly technical, in a work whose limits are unclear.

For Arbib and Hesse, cognitive science is the potential basis for a new epistemology. Schema theory (which is not at present a unified theory) should be seen as being at the heart of cognitive science. A schema is a '"unit of representation" of a person's world' (13), and is part of an information processing view of the mind. The synchronic aspect of schema theory involves the events of a particular time, as the mind's schemas are updated and changed in a continuing action/perception cycle. The diachronic aspect involves the individual's changing of his available selection of schemas over time. Arbib and Hesse challenge the positivist view of a reality that can be exhausted by what is available in space-time. In their theory, each of us renders reality through his or her own construction of a series of schemas. Spatio-temporal reality is not impressed on our minds, but rather is sought out, tested and re-tested in a network of confirmations of schemas that include social as well as physical constraints. As a result, each person's schemas very by dint of individual experience and perspective. Individual schemas cannot develop isolated from social schemas. Issues of reductionism can be avoided by viewing schema theory as a different level of analysis than that given by neural models.

Applying schema theory to the individual's view of God is a central theme of the book, and involves us in asking whether theological questions can provide us with feedback. 'Is God more like gravitation or like embarrassment?' (5) Gravitation is a relatively fixed constraint, while embarrassment is a result of social conventions that can be changed. For the religious believer, the analogy to gravity is more appropriate, since God is an ever present reality and not just a social construct. In sum, schemas can be used to explain how we view our world, from the objects of the physical moment to the nature of God.

Up to this point, the book provides an exposition of a complex proposal that is reasonably well described. Problems arise as the book moves toward a *tour de force* in which Arbib and Hesse attempt to demonstrate applications of schema theory over a very wide range of areas. These topics include neurology, epistemology, theology, consciousness, dualism, freedom of the will, Freud, language as metaphor, social schemas, and the Bible as symbol system. In fairness to Arbib and Hesse, I could not summarize all of these chapters here. Each chapter would warrant a review, much as would be appropriate for a series of individual papers in an anthology on a given topic.

Since the book is not an anthology, it should not have the problems of one. The type of looseness in terminology that might exist across a collection of papers should not exist here, but it does. The key term 'schema,' which is defined abstractly at the beginning of the work, becomes looser as its range of applications is expanded. Moreover, the reader, who is already asked to understand schema theory from the viewpoint of varied disciplines, is also required to follow as the areas of application change radically from chapter to chapter. Although it is part of the book's basis in the Gifford lectures to

encompass theology, it is difficult for the reader to fully comprehend the role of schemas in theology while also attempting to cope with its role in so many other capacities. The authors do recapitulate the binding ties between chapters, and it is helpful that the ends of many chapters contain a summary of the points made, but the difficulty in transitions remains.

Much of this feeling of being overwhelmed arises from the wealth of detail contained in each chapter. For example, the chapter on Freud, though fascinating, provides so much information that it wanders from the immediate issues of schema theory. Similarly, the detail on Kohlberg and Habermas could be edited selectively. If the intent is to have each chapter function as a self-contained, philosophically complete argument, many of the chapters do not succeed despite the detail provided. Any reviewer would be able to find bases for critical comment, small and large, in each chapter. To do this, however, would be to miss the point. Arbib and Hesse deserve a better chance than to have experts in each area shoot at straw men.

The goal of this type of work cannot be a detailed defense for the positions offered. It is sufficiently significant that Arbib and Hesse have explored a concept such as schema theory to see what it can do. Researchers interested in the interdisciplinary goals of cognitive science should take note of *The Construction of Reality*, not to pick out its weaknesses but to follow the example of its strengths.

MAXINE MORPHIS
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RADU J. BOGDAN, ed. *Profiles: Roderick M. Chisholm*. Dordrecht: D. Reidel 1986. Pp. ix + 237. US$59.50. ISBN 90-277-2170-X.

This book contains three parts. Part One, entitled 'Self Profile' and written by Chisholm himself, is a systematic account of Chisholm's contributions to metaphysics, epistemology, and the theory of value. In Part Two, Steven S. Boër, Panayot Butchvarov, Radu Bogdan, Keith Lehrer and Keith Quillen, and Douglas Walton provide essays critically discussing various themes of Chisholm's philosophy. Part Two also contains replies by Chisholm to each of the essays. Part Three is a detailed bibliography of Chisholm's philosophical publications.

Chisholm's 'Self-Profile' will not be easy reading for someone who is not already familiar with Chisholm's philosophical works. It is a challenge even

for those who are, as it is a very condensed account, loaded with long and complicated definitions. However, the philosophical depth and sophistication of Chisholm's work make a careful study of the 'Self-Profile' rewarding. The critical essays are generally quite interesting and helpful for understanding Chisholm's theories, especially if they are read along with his replies.

After a brief autobiography, the 'Self-Profile' starts out with an account of Chisholm's theory of thought and reference. In *Person and Object* (La Salle, IL: Open Court 1976), Chisholm offered an account of de re belief in terms of abstract propositions. A person *S* has a de re belief about an object *a* just in case *S* accepts a proposition *p* such that *a* is uniquely described, or singled out, by *p*. In *The First Person* (Minneapolis: University of Minnesota Press 1981), Chisholm abandoned this theory because it cannot adequately account for belief de se. On the 'abstract proposition' theory of belief, a belief about oneself would involve the acceptance of a first person proposition. However, Chisholm now believes that such propositions do not exist. According to his new 'direct attribution' theory, both belief de dicto and belief de re must be analyzed in terms of belief de se. Roughly, *S* has the de re belief of *a* that *a* is *F* just in case *S* directly attributes to himself a property which is necessarily such that (i) *a* is singled out by it, and, (ii) whatever is thus singled out is *F*. In the 'Self-Profile,' Chisholm presents an account of the 'direct attribution' theory that differs slightly from the one given in *The First Person*.

In his illuminating essay, 'Chisholm on Intentionality, Thought, and Reference,' Boër argues that Chisholm's 'direct attribution' theory fails to account for the intuitive data. According to Boër, Chisholm is committed to saying that John's belief

(1) I own a hinny

necessarily coincides with his belief

(2) I own the offspring of a male horse and a female donkey.

For the two properties (A) [being a hinny] and (B) [being the offspring of a male horse and a female donkey] are identical. Hence, if belief (1) consists in John's self-ascription of the property [being the owner of a hinny], then John cannot believe (1) without also believing (2). However, it is intuitively clear that John might very well believe (1) without believing (2), or vice versa. Chisholm rejects Boër's assumption that properties (A) and (B) are identical. He appeals to an *intentional* criterion for property identity. Though (A) and (B) are logically equivalent, it is possible to conceive of one without conceiving of the other.

In his essay 'States of Affairs,' Butchvarov argues that there are reasons to be suspicious about the ontological category of states of affairs, or propositions. Consequently, as the 'direct attribution' theory dismisses propositions from the list of indispensable ontological categories, Butchvarov would prefer Chisholm's 'direct attribution' theory to its predecessor, the 'abstract propo-

sition' theory — were it not for what he considers a serious flaw of Chisholm's new theory. The 'direct attribution' theory, Butchvarov argues, creates an unacceptable abyss between individual things and their properties, for Chisholm's conception of properties as abstract objects turns individual things into bare particulars. Chisholm replies that, even though on his theory properties are abstract objects which are not *in* individual things, he is not thereby committed to the view that there are individual things which do not *have* properties.

Bogdan, in his essay 'The Objects of Perception,' critically discusses the theory Chisholm has set forth in his early book *Perception* (Ithaca, NY: Cornell University Press 1957). Being a proponent of naturalistic epistemology, Bogdan welcomes the causal elements that can be found in Chisholm's analysis. But he is critical of Chisholm's claim that each perception necessarily involves an intentional 'taking' ('perceiving that *a* is red' involves 'taking *a* to be red'). According to Chisholm, a perception is a perception *of* something, or a mental state *about* something, in virtue of its intentional character. Bogdan, by contrast, advocates a theory according to which the 'aboutness,' or intentionality, of perception is explained in terms of the causal connections between perceptual states and their objects. Chisholm replies that 'there is no point in trying to argue *a priori* which [of these theories] is the more reasonable. We can only compare the details, once the final theories have been worked out.'

Unfortunately, the book doesn't contain a critical essay on Chisholm's analysis of knowledge. The only essay whose topic is an epistemological one, Lehrer and Quillen's 'Chisholm on Certainty,' is very interesting indeed, but, as its title indicates, restricted in scope to the concept of certainty. According to Chisholm, certainty is to be understood as maximal reasonableness. If a proposition p is certain for a person S, then there is no other proposition q such that accepting q would be more reasonable for S. Lehrer and Quillen propose a skeptic might accept that p is maximally reasonable for him but deny that p is certain for him. They suggest that the possibility of such a skeptic can be ruled out by adding a modal element to Chisholm's definition of certainty. Chisholm acknowledges that Lehrer and Quillen's essay has led him to see that there is a distinction between property attributions that are certain and epistemically necessary and those that are certain but not epistemically necessary. Appealing to the concept of epistemically necessary properties, he proposes a new definition of the concept of certainty.

In the fifth essay, 'Theory of Action,' Walton suggests that Chisholm's theory is 'potentially much more powerful and deeper than its main contender — Davidson's theory of actions as event.' In order to buttress his claim, Walton examines a number of action theoretical problems as well as some formalized theories that reflect Chisholm's basic ideas. Chisholm replies by offering further elaborations on the central concepts of his theory of action.

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BERNARD CARNOIS. *The Coherence of Kant's Doctrine of Freedom*. Chicago: University of Chicago Press 1987. Pp. xv + 174. US$20.00. ISBN 0-226-09394-8.

The concept of freedom is a source of some of Kant's most difficult and challenging philosophical claims. They include: that freedom and natural necessity are co-possible (first *Critique*); that the Moral Law is grounded in the freedom of rational agency (*Groundwork*); that our freedom is revealed to us in and through the fact of (pure) practical reason (second *Critique*); that a knowledge of that freedom can serve as a practical ground for some of the concepts of traditional metaphysics, namely, God and immortality (second *Critique*).

But is there a single concept of freedom contained in these several claims? Or should we speak of concepts of freedom, albeit ones that stand in important philosophical relations to one another? Carnois answers, 'Yes,' to the second of these two questions, and that answer allows him to define the complex task of his work: to identify 'the different concepts of freedom, illuminating the natural articulation of each one, and determining the relations among them, so that we can grasp their entirety in a synoptic vision' (xiv). Carnois does an impressive job of accomplishing this task; his brief but elegant book will assist both writers on Kant and those who only have a general knowledge of Kant's Critical Philosophy.

Chapters 1 and 2 focus on two of the concepts of freedom that Kant discusses in the first *Critique*: those of practical and transcendental freedom. That discussion, as Carnois explains, strongly suggests that the two concepts are incompatible with one another. For Kant holds that the concept of practical freedom is grounded in a kind of psychological experience: i.e., in the awareness of the will's capacity to impose its veto on the inclinations of sensibility (24-5). Kant denies, however, that the concept of transcendental freedom can admit of any similar psychological origin. Yet, in the Transcendental Dialectic of the first *Critique*, Kant boldly asserts that the second of these two concepts is a component of the first. Why, if at all, is he entitled to say this?

Chapter 3 of Carnois' work tries to answer this question by introducing a third concept in order to mediate this problematic connection between the other two — Kant's concept of an intelligible character. According to Carnois, this concept designates a law of causality and not a thing; thus a character is empirical or intelligible depending on whether it embodies one or the other kind of causality (33). Carnois then applies this concept in the following way: A human is the only natural being that is aware of itself as having an intelligible as well as empirical character. But an intelligible character is rooted in a non-empirical causality of freedom. So the awareness of the will's capacity to override the inclinations of sensibility is an awareness that has a transcendental as well as a psychological component (33-4).

This response may offer sound exegesis. We should feel somewhat uneasy, however, about its philosophical value. For Carnois' explanation of the concept of an intelligible character is obscure at a key point: it fails to hint at why

an intelligent causality must also be an intelligible one — i.e., a causality that must be conceived in terms of non-empirical causal laws. Without such a hint, however, no one will feel that the concept of practical freedom can begin to lead to the concept of an intelligible character.

In Chapter 4, Carnois analyzes the most important of Kant's concepts of freedom: that of the autonomy of the will. Carnois begins this analysis with a reminder: according to Kant, we both are and ought to be autonomous. He then tries to illuminate these two features by turning to the law with which autonomy is associated, namely, the Moral Law (73). Now, for some writers on Kant, that law is a given; for others, it is a construct. But Carnois holds — rightly, I think — that the Moral Law necessarily incorporates both of these aspects. On the one hand, because it decrees what we ought to do (regardless of what we desire to do), the Law presents itself to us as an ineluctable fact. On the other, that fact is not external to us but a fact of our own practical reason.

Chapter 4 does offer genuine insight into Kant's concept of autonomy. I only regret that it does not say more about how that concept relates to the problem of the justification of the Moral Law. What it does say shows that Carnois favors the solution to that problem that Kant defends in the second *Critique*: that the Law requires no deep-level philosophical justification (i.e., there cannot be a deduction of the Law). But Carnois neither elaborates this solution nor (in my judgment) fully appreciates how it is different from the solution that Kant defends in the *Groundwork* (52).

Chapter 5 examines the dual nature of autonomy from the perspective of Kant's well-known distinction between *Wille* and *Willkür*. In the remainder of that chapter and in Chapter 6, Carnois employs that distinction in order to throw light on Kant's account of the moral corruption and conversion of the will.

I have hinted at what seems to me to be the only weakness in Carnois' approach to Kant: that he occasionally neglects the critical aspect of philosophical interpretation. But, in a work that deftly displays the complexity and interconnectedness of Kant's concepts of freedom, the presence of this weakness is of minor significance.

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VINCENT DESCOMBES. *Objects of All Sorts: A Philosophical Grammar*. Baltimore: Johns Hopkins University Press 1986. Pp. viii + 231. US$27.50. ISBN 0-8018-2551-2.

Descombes' aim in this book is to use analytic philosophy as a means of critiquing contemporary French philosophy, of which he has provided a sympathetic synopsis in *Modern French Philosophy* (Cambridge University Press 1980). Descombes begins with some useful remarks on the method of academic French philosophical analysis, *immanent critique*, which attempts to make progress by resolving tensions that arise from a text's inability to abide by its own principles. In recent times, the dogged application of immanent critique to seminal texts in the philosophy of mind, metaphysics, and epistemology has pushed these domains to their conceptual limits, leaving French philosophy with three seemingly ultimate propositions: 'all consciousness is consciousness of something'; 'all understanding is an interpretation'; and 'there is only language — or text — nothing else.' These propositions are, respectively, the guiding principles of phenomenology, hermeneutics, and semiology — post-philosophical disciplines which are held together by little more than a celebration of semantic indeterminacy. Descombes generally regards this state-of-affairs as the necessary result of French philosophy having failed to take the Frege-Russell turn in the logical analysis of language, remaining instead in the grip of the idealist logical doctrines that dominated nineteenth-century thought.

Descombes observes that the three 'ultimate' propositions mentioned above are rife with ambiguity, largely because French philosophers have not provided a semantic analysis of the 'is' that anchors each of them. Not surprisingly, Descombes' complaint here parallels the one that analytic philosophers have repeatedly made against various metaphysical doctrines. For example, in the hermeneutic principle, 'all understanding is an interpretation,' it is not clear whether understanding is supposed to be identical with interpretation, a species of interpretation, or merely like interpretation with respect to some common property. In any case, no effort is made to determine either the cases in which understanding is *different* from interpretation or the circumstances which would cause a speaker to give up the entire proposition. As a result, the principle is unanswerable, and hence *looks* ultimate — but only because French philosophers have not mastered the analytic tools that would allow them to challenge it. Ever since Russell introduced the theory of types to solve Frege's Paradox, these tools have, to a large extent, permitted the philosopher to stave off paradoxes that arise from the reflexive application of some general principle. They are therefore the perfect antidote to the ravages of immanent critique.

The title of Descombes' book comes from the general function that the tools of the analytic philosopher perform, which is to define a discourse by the domain of objects to which it refers. A key tactic here is to distinguish several 'levels' of discourse, each by its distinctive objects. The paradoxes of reflexivity arise, in large measure, because French philosophers tend to treat

discourse as occurring on, so to speak, a uniform plane, which leads them to conflate talk about the objects themselves with talk about such talk. Descombes' best illustration of this point occurs in chapter six, when considering the levels of fictional discourse present in Balzac's *Human Comedy*. Here Descombes nicely shows how the analytic philosopher's tools can increase the sophistication of the reader's understanding of narrative, a field that has traditionally been the exclusive purview of French philosophy. Interestingly, Descombes does this without betraying any knowledge of the recent analytic literature on fictional entities — much of it associated with possible worlds semantics. And this, in turn, raises a curious feature about the book, namely, that it does not use analytic philosophy as the early Carnap or Wisdom might — as a sort of therapy for 'language going on holiday.' Rather, it syncretically juxtaposes analytic approaches to language with the French ones more familiar to Descombes' readers. The effect is not so much to raise explicit objections to the French approaches as to show that the inevitability often claimed for the conclusions reached by these approaches has been greatly overstated. Not surprisingly, then, Descombes does not see the need to cite precedents in analytic philosophy for the resolution of a paradox that continues to baffle French minds; he merely sees the need to show that ways to resolution are opened by the general analytic framework.

The analytic philosopher trained in the Anglo-American tradition is bound to find Descombes' treatment rather idiosyncratic and self-serving. For example, transcendental arguments — most closely associated in the Anglo-American mind with Strawson's conservative project of 'descriptive metaphysics' — are presented as providing the logical basis for a radical critique of the given, since they typically make the well-groundedness of a phenomenon conditional on some assumption about the sorts of objects there are. Once this assumption has been specified, it can be criticized, and subsequently be replaced by another ontological specification. Clearly, in relation to the French context, Descombes is trying to demonstrate the possibility of a systematic critique that is not at the same time plagued by infinite regresses or self-contradictions. Since Anglo-American analysts have shown little interest in systematic or 'total' critique, this use of transcendental arguments will seem peculiar.

Still, the overall effect of Descombes' appropriation is salutary — even for Anglo-Americans who follow Quine and Dummett in believing that Frege had both the first and the last word on the nature of meaning. Descombes reminds us that Frege himself grounded his thoughts on meaning in a critique of John Stuart Mill, who baptized the field 'philosophy of language.' Mill's nominalist semantics resembles — more than is generally acknowledged — the Saussurean conception of meaning as differences in a system of signifiers. With Husserl's critique of Mill, however, the meaning of 'meaning' expanded beyond this initial sense of grammatical space to something that always lies behind the 'sign' (it too having been expanded beyond words and other explicit tokens of communication), which motivates the sign's usage: Kant's transcendental subject in miniature. This, in turn, was the basis of the dual notion, so popular in current French philosophy, that anything can have a meaning (the univer-

sality of semiosis) and that the meaning of anything is never entirely comprehended (the infinitude of depth hermeneutics). Descombes observes that despite his even greater disagreements with Mill, Frege wisely kept to Mill's more limited sense of meaning, which allowed analytic semantics to be conducted as a sane and systematic project — albeit without a clear sense of its own psychological or sociological import. Yet, having said all that, it would be interesting to hear what Descombes has to say about Donald Davidson's recent questioning of the intelligibility of analytic semantics, in 'A Nice Derangement of Epitaphs.'

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GERALD F. ELSE. *Plato and Aristotle on Poetry*. Edited with an Introduction by Peter Burian. Chapel Hill: University of North Carolina Press 1986. Pp. xxi + 221. US$27.00. ISBN 0-8078-1708-2.

In the preface to *Aristotle's Poetics: The Argument* (1957), Else wrote, 'No one is more conscious than I how desirable it would have been to draw all these threads together and expound Aristotle's doctrine, as enucliated here, in a systematic order, by topics' (xi). *Plato and Aristotle on Poetry* provides this exposition; it is not so much a new work as a reorganization and reformulation of the views expressed by Else in that commentary and other of his earlier works. Published posthumously, it is edited by Peter Burian, who also supplies an introduction, notes, and, in one instance, part of the text. Burian compiled the book, he tells us, from three sources: an untitled manuscript by Else on Plato and the poets, a manuscript that Else called *Aristotle's Doctrine of Literature* (which he had submitted before his death to the University of North Carolina Press), and a summary of the work on Aristotle found in draft. The resulting book has two parts, on Plato and Aristotle, and two appendices, a list of passages which Else considered interpolations in the text of the *Poetics*, and a discussion of those interpolations which Else thought to be the work of Aristotle.

Part I, 'Plato on Poetry,' is little more than a survey and exegesis of passages concerned in some way with poetry from Plato's works. It is intended to set up Plato's views on poetry as a context for Aristotle's theory, but Else's discussion in this part, while painstaking, is often tedious. For example, he remarks that the language early in the *Cratylus* in the description of the work

of the craftsman is similar to that in Book Ten of the *Republic* (13), a point worth noting in a footnote, but not worth the page which Else devotes to it. No doubt this is a criticism of the editor, rather than the author, since it was Burian who appended the unfinished manuscript on Plato to the manuscript on Aristotle, when the latter might well have stood on its own.

Part II, 'Aristotle's Theory of Literature,' includes eleven chapters, covering such topics as the date of the *Poetics, mimēsis*, the historical development of poetry (based on Else's monograph *The Origin and Early Form of Greek Tragedy* [1965]), plot and action, character and thought, and Homer. This part of *Plato and Aristotle on Poetry* reads like a commentary, focused on the text, but discursive. The most interesting theme to emerge from Else's discussion of the different topics is the similarity between Aristotle's understanding of narrative structure, on the one hand, and his theories of rhetoric and the syllogism, on the other.

Else proceeds often by an analysis of important terms in the *Poetics*. Thus in his examination of Aristotle's discussion of *mimēsis* Else argues that Aristotle rejects without argument Plato's conception of *mimēsis* as a kind of impersonation (which Else deems 'personal, subjectivist'), and substitutes for it the conception of *mimēsis* as an act of construction, the building of structure (an 'impersonal, objectivist' view of the poet, according to Else [75, 83]). Else is not of course alone in this understanding of Aristotelian *mimēsis*; Butcher, in his commentary *Aristotle's Theory of Poetry and Fine Art* (1951) also speaks of *mimēsis* as creative (153).

More controversial is Else's claim that *katharsis* is not something that occurs in the audience to a tragic performance, in the purgation of their feelings of pity and fear (the widely accepted interpretation since Bernays), but is rather part of the play itself, the proof offered by the tragic figure of his purity in the revulsion he feels at his own actions when he comes to understand what he has done. Else attempts only briefly to respond to some of the criticisms lodged against his interpretation of *katharsis* in the thirty years since he first undertook to defend it.

Seeing in their very different estimations of Homer's poetry the key to the views of Plato and Aristotle on poetry, Else suggests that Aristotle wrote his *Poetics* as an attack on Plato and a defense of Homer and other poets (73); and seeing in their very different notions of *mimēsis* the key to their understanding of the act of poetry-making, Else suggests that, 'Plato all his life ... felt poetry was a supremely personal communication from one soul to another ... ' (25). Aristotle, on the other hand, ' ... approaches the problem from the other end, the poem. Poems are structures made by the poet; indeed his leading task is that of construction. Conveying ideas or intuitions is no part of his job. Poets, in Aristotle's view, do not think; they build. Presumably they need to think about what they are building, but general thought about life or fate or the human condition is not a part of they duty or their art' (197).

The opposition Else suggests here, between communication and construction, is too emphatic. It is a mistake to suppose that because poetry is a process of construction Aristotle understood it to require no 'general thought'

on the part of the poet. On the contrary, since poems are structures built out of 'universals,' their construction will require of the poet certain kinds of general thought, perhaps even thought about life or fate or the human condition.

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ROGER J. FABER. *Clockwork Garden: On the Mechanistic Reduction of Living Things*. Amherst: University of Massachusetts Press 1986. Pp. xii + 268. US$25.00. ISBN 0-87023-521-4.

This is a stimulating, honest and ambitious book. There are three unequal parts. First, Faber shores up the claims of atomistic reductionism by providing improved accounts of feedback and teleology. Second, he claims that the reduction programme of atomistic materialism entails a mind-brain identity thesis that 'runs afoul of what everyone knows to be true of his or her own subjective mental episodes' (184) and thus dualism is required. The key thesis here is a version of the 'grain' argument, according to which the identity thesis is undermined by the formal, numerical differences between physical and mental accounts of sentient episodes. Third, Faber arrives at the same conclusion by a very different route: the big claim is that 'only a nonmaterial mind could trigger the collapse of the quantum-mechanical wave function' (184). This contention may bring to mind a category of books with titles like *Quantum Theory and the Dancing Zen of Bicycle Repair*. These volumes juxtapose — often with considerable insight, but merely juxtapose nonetheless — some of the puzzling aspects of quantum mechanics with no less puzzling aspects of mystical thought. This category does *not* include Faber's work. Here I focus on parts one and three, the strongest and most challenging portions of the book.

The central argument concerning atomistic reductionism (also referred to as 'eliminative atomism' and 'mechanistic reductionism') is this:

> ... any attempt to produce a complete description of the world at a higher level than the most basic one will display mysterious causal gaps that can be filled only by conscripting entities proper to a lower level, thereby illicitly relating "things of different natures." (17)

After briefly presenting and dismissing Rylean objections to the atomistic programme, Faber turns to what he considers the more serious, though ulti-

mately unsuccessful, challenge based on analysis of goal-directed, teleological systems (where mental and quantal features of such systems are ignored).

Faber distinguishes two approaches to characterizing such putative teleological systems as functioning parts of organisms: the *cyberneticists* focus on the relations of wholes and parts; the *selectionists* focus primarily but not exclusively on the processes by which the system came to be what it is. Faber argues that 'cybernetics, and not selection, can help us to clarify and justify the only scientifically important sense in which biologists employ teleological terms' (61), but first he explicates and improves cybernetic analyses of 'feedback,' the central notion in that approach. The key to Faber's contribution is the requirement that a feedback system must be controlled by an independently disconnectable subsystem. Satisfying this requirement ensures that the system has a kind of complexity, but does *not* entail that teleological systems are more sensitive or more efficient than others. According to Faber this improved account of feedback is grist for the atomistic reductionists' mill, albeit the reduction is not nearly so strict as what he believes to be the deductive derivation of thermodynamics from statistical mechanics.

Even if the amended cybernetic account of feedback is an improvement, there are residual questions about the relationships among feedback, goal-directedness, representation and teleology. For example, Faber argues that a necessary condition for a system to be goal-seeking is that it have a representation of its goal, but a system can have such a representation as long as 'we [are] ... able to infer its goal state from our examination of the system's anatomy and inner workings' (83). For many this is not a robust enough sense of having a representation to support claims of full-blooded goal-directedness. Even more importantly, some systems that have representations and are goal-directed in Faber's sense also seem to employ a kind of feedback that does not qualify according to his criteria. In particular there are complex networks — in ecology, immunology, computers, etc. — that have stable goal states and involve autostimulation but have no identifiable controlling subsystem; in effect the control is distributed throughout the system. It may be more difficult to reduce these cases.

With respect to quantum theory, Faber's clear, non-mathematical explication makes the issues accessible. He insightfully argues that 'the startling feature of [quantum theory] is neither its indeterminism nor its use of conditional probabilities ... Rather, the radical break ... occurs over the issue of multiplicity versus definiteness' (201). Crudely, the issue is that at some times atomic entities appear to be in a multiplicity of states and at other times in single, definite states. The transition between the two, called the 'collapse of the wave packet,' is usually said to be effected in the measurement process. But how? If we focus on either an instrument or an observer 'as an ordinary collection of particles to which the laws of quantum mechanics apply ... we fail to get the definiteness we seek' (205). Atomistic reductionists may attempt to achieve definiteness by exempting some entities from the laws but their grounds must be principled; they cannot for example simply grant special status to some collectives without undermining their programme. Faber hypothesizes that

the transition is effected by a non-material mind and he supports this by presenting arguments against seven of the most prominent alternative proposals. Obviously such a radical proposal as Faber's will not be adopted on the basis of his brief treatment. Nevertheless his discussion is challenging and stimulating and is enhanced by his concluding Notes for a Quantal World Picture.

This book would be great fun to use in a course on philosophy of science: the detailed discussions never lose sight of the very big issues with which they connect; there is relatively little jargon; and the treatment is a wonderful example for students new to philosophy since the author takes great care to give strong arguments to his opponents. There are some difficulties including these: the discussion of feedback is carried on as though the reader well knew Faber's often cited earlier papers; the 'grain' argument is defended against objections for 10 pages before the argument itself is stated; the treatment of the alleged primacy of ontology over epistemology is weak; the claim that quantum entities really occupy many possible states makes the contrast between actual and possible confusing; and it is not clear just how the thesis from quantum theory about *minds* bears on the question, announced in the subtitle, of the mechanistic reduction of *living* things. Still I look forward to discussing this volume with students.

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DONALD W. FISKE and RICHARD A. SHWEDER, eds. *Metatheory in Social Science: Pluralisms and Subjectivities*. Chicago: University of Chicago Press 1986. Pp. x + 390. US$35.00 (cloth: ISBN 0-226-25191-8); US$16.95 (paper: ISBN 0-226-25192-6).

This book represents the proceedings of a conference entitled 'Potentialities for Knowledge in Social Science' held at the University of Chicago in September, 1983. The contributors include six psychologists (Donald Campbell, Lee Cronbach, Donald Fiske, Kenneth Gergen, Paul Meehl, and Paul Secord), three sociologists (Aaron Cicourel, Philip Converse, and Donald Levine), three anthropologists (Roy D'Andrade, Barbara Frankel, and Richard Shweder), two psychiatrists (Philip Holzman and Arthur Kleinman), two philosophers (Alexander Rosenberg and William Wimsatt), and a geophysicist (Frank Richter). Of the seventeen contributions, the first eleven are modified conference presentations, while the remaining six (by Frankel, Meehl, Richter, Rosenberg, and

Wimsatt) are invited 'commentaries' written at a later date. According to the *Preface*, the two philosophers and geophysicist were added to 'ensure breadth of perspective,' but a decision to limit the size of the conference 'forced omission of representatives from ... political science, economics, history, and biopsychology.' Moreover, this volume is intended for 'conceptualizers in social science and for ... [those] ... working on basic or applied problems who are not completely satisfied with the state of social science.' The volume is bounded by introductory and concluding chapters (by the editors), an author and subject index, and a bibliography of 'iconoclastic' (crisis) literature. The contributors are senior scholars who have published together and regularly cite each other's work. For those familiar with their writings, the present contributions are pure vintage or, more of the same!

The anthroplogists D'Andrade, Frankel, and Shweder are in agreement that the 'crisis' in social science is primarily a reflection of the adherence to a physical science 'world view' and the covering law model of explanation. D'Andrade acknowledges that social scientists are divided in their commitment to natural and semiotic science world views, but maintains that social science inquiry must recognize the role of human subjectivity and meaning. However, Shweder is critical of both the positivist and hermeneuticist perspectives insofar as they ignore human subjectivity and, hence, preclude the possibility of social science. In defending his concept of 'divergent rationality,' he writes, objectivity is always subject dependent, and subjectivity is always object-like, thereby eroding the *universality* of both rationality and meaning. Frankel criticizes Fiske's adherence to a 'methodological unitarianism' and, instead, proposes a pluralism of scientific inquiries ('methodological polytheism').

The three sociologists offer 'internalist critiques' from within the post-positivist tradition. While attributing the crisis in social science to a misconceived adherence to, and respect for, the ongoings in the natural sciences, Converse notes that generalizations in the natural sciences also encounter 'other world' problems. Moreover, against the background of the complexity of social science's distinctive subject matter and the short history of social science inquiry, he expresses confidence that if only social scientists would more adequately consider the rich 'texture' of human *situations*, thereby recognizing the boundaries on their generalizations, they can expect the 'levels of generalization to inch upward.' Cicourel focuses on the design of social science 'instruments' used to 'gain access to the mental' and notes that their designers have tacitly relied on their own and their subjects' unexplained language use, reasoning, and comprehension in the construction of these instruments. With reference to the distinction between declarative and procedural knowledge in cognitive science, he recommends that our 'expert systems,' in order to meet the requirements of 'ecological validity,' must incorporate cognitive, linguistic, and social interaction ('procedural') resources, which are constitutive of the socio-cultural environment. Levine's short and programmatic paper formulates a systematic paradigm, based on Talcott Parsons' theory of action, for methodological pluralism in the social sciences.

The six psychologists present a rather diverse treatment of the soft areas of the discipline. On the one hand, Fiske and Meehl, from within post-positivist science, advocate greater rigor in social-psychological inquiry; on the other hand, Campbell, Cronbach, Gergen, and Secord promote either alternative forms of social inquiry or, by assuming a more pragmatic stance, seek rapproachement between soft and hard-headed methodologies. Fiske attributes the theoretical diversity in social science to 'method specificity' and his solution to this diversity and his prescription for progress is to suggest ways of overcoming method specificity primarily by remaining at a low level of abstraction and by reducing the length of protocols. Meehl's commentary on the conference is largely a reiteration of some well-known, if unheeded, polemics on quantification, concept formation, and explanation characteristic of the best which post-positivistic philosophy of science has to offer. He claims that the crucial question in the social sciences is how best to test 'weak theory' and, with customary erudition, destroys the continuing but abusive reliance upon significance testing. Moreover, he is characteristically critical of all those at the conference engaged in methodological and epistemological debates without competence in what he takes to be the 'philosophy of science.'

Gergen's thesis is that social science theories are closed off from empirical evaluation, and he uses arguments from contextual dependence of meaning, social construction of reality, deconstructionism of figural understanding, and intentional language of conduct to challenge the 'post-empirical' accounts in behavioral science. He proposes a hermeneutic program for the social sciences viewed as symbolic sources and vehicles for the conceptual reconstruction of society. Secord, too, argues that the current crisis in social science is due to a misplaced idolization of the covering law model of explanation. In proposing his structuralist-realist view of science (following Roy Bhaskar), Secord suggests that the search for nomic regularities and their imputation as causal powers, lead to a formulation of generative mechanisms whose efficacy depend upon the prudent discovery of 'enabling' conditions. Presumably, on this account, the problem of generalizability is more accessible as it includes within its purview all those individual and social structures and processes which may be said to be meaningful.

From within the context of his evolutionary epistemology, Campbell expounds the virtues of all sides. Thus, while all forms of inquiry are products of the 'empirical winnowing' of evolution, he adheres to the superiority of the social process of science even if the epistemological aspects of scientific inquiry have yet to be adequately described or formulated! However, Campbell's sociology of science solution and his faith in the hermeneuticist 'principle of charity' is countered by his natural epistemology, the agenda of the older philosophy of science, and his espousal of the epistemologically relevant 'internalist theory of science.' In view of his claim that the ideology and norms of science are not clearly distinguished from the methods of science, he seeks to reconcile the soft (humanist) and hard (post-positivist) views within 'disputatious communities of truth seekers.' Cronbach, who also attributes the crisis to our positivistic heritage and enchantment with formal theory, advo-

cates a multidisciplinary approach to social inquiry which blurs the distinctions between facts and values, quantitative and qualitative, humanities and sciences, and applied and basic research. In agreement with Gergen, he writes that even if we try our damnedest, progress will be like that of music, philosophy, and architecture! We harvest not laws or truth, but concepts and skills, and records of past events.

The psychiatrist-anthropologist Kleinman evaluates the obstacles faced by both medicine and social science in their mutual attempts to understand illness and the provision of health care. He suggests that social science as a peculiar kind of human science must be concerned, on the one hand, with meanings, norms, and power concepts, and on the other, with concepts of health, illness, and care, so that it may contribute to biomedicine a more rigorous and discriminating understanding not only of illness and care, but of biomedical categories and practice. Holzman's short contribution is a commentary on Cicourel's proposal to include procedural knowledge in the design of our expert systems. Holzman takes this proposal to represent support for assimilating reasons to causes, and social science to natural science.

The geophysicist Richter warns about comparing disciplines as to their relative scientific success. Moreover, social science is at a disadvantage for its success is judged by everyone. He points out that the complexity and richness of behavior which is governed by 'non-linear dynamics,' demands that we renegotiate the standards of success: for apparently simple questions, do not permit of simple solutions. Richter rejects Fiske's suggestions for reducing method specificity and applauds Campbell's suggestion that we renegotiate our standards of success.

The philosopher Wimsatt reviews the biases inherent in a reductionist explanatory model, which oversimplifies or ignores context, and proposes the deployment of heuristics, which are about real reasoning processes, in our understanding social phenomena, including social inquiry. In agreement with Campbell, he prefers an 'internalist' elaboration of such heuristics rather than to adopt an agnostic stance towards past scientific achievements. Rosenberg cautions the social scientist of turning to philosophy of science for guidance in assessing the potential for knowledge. Given the various alternative accounts of knowledge acquisition, the only way to decide which will actually be useful for social science is to employ them. Philosophy is on cognitive par with theory in the rest of science and there is no demarcation between philosophy and science proper. While social scientists should take sides on philosophical questions, they should not expect to settle them. Rather, they should be 'piling up' findings that will in the long run settle theoretical and philosophical disputes. Unlike Meehl, Rosenberg considers epistemological concerns to be too abstract to deserve much attention: to estimate our potential for knowledge in social science we should examine actual successes and failures. On that there is far more consensus than the philosophical differences would lead us to believe!

While the words 'social science' are used throughout, this is really a book about metatheory in psychology. It is a book about how to encompass subjec-

tivity in the explanations of human conduct. Moreover, it is about those expressions of human conduct which may be collectively subsumed under the labels 'scientific' or 'humanistic.' For the 'conceptualizer' of *social* science, there is little here that is new or that is not readily available elsewhere (even by the same authors). The value of this volume is primarily as a succinct statement of contemporary social (psychological) science inquiry. As such it more than exemplifies that *der Methodenstreit* at the turn of the last century is one that will be fought again at the turn of the present century.

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ERIC A. HAVELOCK. *The Muse Learns to Write*. New Haven, CT: Yale University Press 1986. Pp. 144. US$16.00. ISBN 0-300-03741-1.

The stated aim of this text is to analyse the transition from orality to literacy in Ancient Greece. In addition, Havelock attempts, he says, to explain the rise of Greek philosophy and Greek literature as 'twin enterprises of the written word, the first of their kind in the history of our species' (1).

The approach taken en route to this end is, however, anything but direct. The opening chapters serve as summaries of Havelock's own works, related to the topic at hand, as well as brief quips concerning the privileging of either orality or literacy in the works of Rousseau and Derrida, and most pertinently, several synopses of recent cross-cultural studies focusing on linguistics and psychology. Havelock's approach to this point is anything but exhaustive or systematic, albeit suggestive and eclectic in his areas of analysis. Ranging from linguistics, philology, psychology and anthroplogy to philosophy, the claims made to establish a context for his proposed theory are at times not consistent with each other. For instance, a summary is given of Plato's attack on the poets as evidence of his rejection of orality in favor of literate modes of thinking and analysis. In another chapter, Plato is again invoked as the defender of orality, 'albeit in writing,' and the one attacking the new encroachment by the scribes (himself one of them). While memory and the oralism of remembrance, repetition, and the conservation of tradition are dominant themes of Havelock's text, the connection to Plato in this regard is strangely omitted. In precisely the dialogue that Havelock cites, the *Phaedrus*, Plato states his reasons for objecting to this new technology of writing by claiming

that it will destroy memory — grist for Havelock's theory, but he fails to mention it.

Concerning the invocation of Derrida and his reading of Rousseau, Havelock seems either to be far afield or else, to mix metaphors, in very deep water. His rendition of Derrida's deconstruction as revealing 'Rousseau's attitude to writing as confused, ambiguous, even contradictory' (36) is at best, not helpful, and at worst, simply not the case. Derrida's analysis of Rousseau is concerned with Rousseau's writing, his texts, as exhibiting something quite other than what Rousseau's explicit thematized intention states. The issue here is not Rousseau's confusion, but rather a logic that inhabits texts and organizes the discrepancies traceable in writing via the work of deconstruction. Rousseau is for Derrida not more than an example of this and a particularly good one insofar as Rousseau's obsession is presence and the loss of it.

That Havelock is on solid ground concerning his focus on 'orality' as a way of using language cannot be doubted. As his argument states it, 'primary orality' (understood as pre-literate and not illiterate, Havelock insists) is characterized as 'functional content ... cast in verbal forms designed to assist the memory by conferring pleasure: social and aesthetic purposes form a partnership' (45). What actually assists the memory are two aspects of 'oral syntax' — one is rhythm, and the other is narrative. What makes poetic rather than prosaic rhythm memorable, says Havelock, has to do with our natural biological attunement capacities. What gives narrative a special place for him, is that stories are not only concrete and contain imagery, but they organize events into memorable sequences. That narrative would characterize prose and indeed most historiography can be accounted for within Havelock's position by the notion that 'orality and literacy are not mutually exclusive.' Hence, orality can be a style of literacy, in a sense. The reverse, however, is not discussed by Havelock.

Finally, in his concluding chapters, Havelock stresses the particularity of the Greek situation — for both orality and literacy — and hence the need for what he calls 'special theories.' The need is justified, by Havelock, with a bold assumption which is, philosophically speaking, circular. His claim is that only Greek orality and its corollary, the transition to literacy, meet the following 'criteria of authenticity': 1) the society was free from all literate contact; 2) the society was socially and politically autonomous and thus has its own identity; 3) consciousness of this identity was exclusively preserved in oral speech; 4) when the language was transcribed (from oral to written) this new form was invented by the native speakers; 5) Greek speakers controlled the use and application of the written form of their language.

Questions must be asked here which Havelock unfortunately does not address, and those are: why these criteria? what makes *these* authentic? and authenticity in terms of what? None of this is self-evident, except that since these traits, according to Havelock, uniquely characterize the Greek transition, and since these are the 'criteria of authenticity,' then the Greek case is 'special' and indeed privileged. No cross-cultural historical studies are offered concerning the transition in China, for instance, or in Japan, where the Chi-

nese kanji were the first writing. Granted that the Japanese situation, for example, is *not* parallel to the Greek, and hence does not meet the 'criteria of authenticity,' Havelock does not seem concerned to analyse further whether or not such differences make any difference to his theory; namely, concerning the transformation of consciousness, thinking and conceptuality that occur with the transition from oral culture to written. However, Havelock does leave us with a defense, prepared in advance, against his potential critics as his last words. He does not raise the above objections there despite his apparent thoroughness.

In summary, Havelock's text ranges widely over many fields and in many directions concerning his focus on the differences between orality and literacy and finally isolates the Greek transition as a special and privileged, indeed 'authentic' case. One might well wonder precisely what is at stake in this privileging and what agenda is left unthematized by this text although not unwritten.

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STEVEN LUPER-FOY, ed. *The Possibility of Knowledge: Nozick and His Critics*. Totowa, NJ: Rowman & Littlefield 1987. Pp. viii + 335. US$35.95 (cloth: ISBN 0-8476-7446-0); US$14.95 (paper: ISBN 0-8476-7447-9).

This volume consists of an introduction by the editor, the portions of Nozick's *Philosophical Explanations* devoted to knowledge, skepticism and evidence, and responses to Nozick by twelve philosophers, six addressing the topics of knowledge, justification and evidence, and six the topic of scepticism. Naturally enough, there is a great deal of overlap, and the twoway division of responsibility is blurred.

Let me get the irritants out of the way first. Although, as noted, much of Nozick is reproduced here, all page references in the twelve essays and the editor's introduction are to the original Harvard edition! Any philosopher interested enough in Nozick to read these essays will have the original; hence, the only possible point in reproducing the text, namely, to facilitate reference, is completely defeated. Beyond that, the editing of the text is simply shoddy. There are two references to pages 000, and errors range from embarrassing ('it's' for 'its') to careless ('of what of what' for 'of what,' 'subjective' for 'subjunctive') to humorous ('asymptomatic' for 'asymptotic') to appalling ('Dr. Jon-

son' for 'Dr. Johnson,' apparently deliberately changed from Nozick's correct version) to more or less serious ('might' for 'might not' on page 132).

The publisher's blurb to the effect that this collection of essays 'will certainly advance the discussion of knowledge and skepticism' may be correct, but if so, it will be because some of the papers point beyond the specifics of Nozick's work to a consideration of more fundamental issues which are raised by that work, but are by no means unique to it; not surprisingly, perhaps, much of the detailed criticism of Nozick in these pages covers already familiar territory. (In fairness, the authors often point this out.) I shall devote the remaining space to suggesting what some of the deeper issues are, with appropriate references to papers in this volume in which they are at least touched upon.

Nozick holds that for S's true belief in *p* to constitute knowledge, it must 'track' the truth: it must be the case that in the nearest possible worlds in which p is true, S believes *p*, and that in those in which it is false, S does not believe *p*. This has the consequence that S might know that *p* while being thoroughly unjustified in so much as believing *p*, a prospect which horrifies Bonjour, and leads Fumerton to accuse Nozick (and other externalists) of changing the meaning of the central questions of epistemology. But Nozick and other externalists are motivated at least in part by an almost universally shared view: for me to know *p*, it cannot be at all accidental, or lucky, that my belief in *p* is correct. If one combines this view with the fact that however good my evidence for *p*, it would be possible for someone to have that evidence in a situation in which *p* was false, one can quickly be led to consider various external conditions as at least necessary, and perhaps sufficient, for knowledge. It would be hard, perhaps, to swallow the idea that the existence of knowledge is beyond our ability to determine; but haven't others had comparable difficulties in swallowing the heliocentric hypothesis and the inseparability of space and time?

It has been recognized by several authors that Nozick's attempt to defend our claims to ordinary empirical knowledge, while conceding the sceptic's claim that we do not know whether we are the victims of an Evil Demon, begs the question; specifically, Nozick assumes that Demon-governed worlds are remote from this one. What he *can* show, if his general four-part analysis of knowledge is viable, is that the existence of empirical knowledge is *consistent* with our not knowing we are not Demon-victims. What few seem to have realized clearly is that the skeptic takes (should take) two radically different positions relative to internalist and externalist accounts of knowledge. Relative to internalist accounts (in terms of justification, for example), he argues that *we can be seen* not to have knowledge; relative to externalist accounts, he argues that *we can have no reason whatever to believe* that we have knowledge, i.e., that the conditions for knowledge are met. (Alan Goldman recognizes, for example, that even if his account of knowledge in terms of explanatory connections between facts and beliefs were demonstrably adequate to the range of post-Gettier cases, he would still face the task of showing that there is some reason to think that 'best explanations' are more likely

than competing hypotheses to be true, i.e., that skepticism on this score is mistaken.)

Several authors (e.g., Shatz) come close to seeing that a related distinction needs to be made clearly — a distinction between *methods* and *processes* of belief-formation. Internalist views fit naturally with concerns about methods, i.e., more or less conscious policies about what to believe on the basis of what kind of evidence. Externalist views, on the other hand (and this is especially clear in the case of reliability theories), naturally incorporate a concern with processes, conscious or not. Nozick's own concern with methods sits uneasily with his externalism, and the possibility of purifying his or some related view is one line of investigation that should be pursued.

Further reflection on robust externalist possibilities leads one to consider that what we have here may be a realization of a Quine-like project: a kind of naturalizing of epistemology. If we see things in this light, then we will focus on the account's ability to handle situations that could occur in a world more or less like the one science portrays, and will not be concerned about its ability to handle outre possibilities involving Evil Demons and the like. Vogel in this volume and Shope elsewhere have raised difficulties about the possibility of inductive knowledge on Nozick's view. (If determinism is true, those difficulties apply generally to empirical knowledge, and not just to knowledge of instances of basic natural laws, as they seem to suggest.) A promising line to follow in light of these problems, and given a generally 'scientific' cast to the theory, would be to begin with an account of observational knowledge of 'positive facts,' and build the rest of the theory around this core. For one thing, this would comport well with Nozick's hunch that evolutionary theory lends some support to his general approach.

I close with a few points which may prompt clarification or further development. Luper-Foy advances (again) an argument which shows, he thinks, how 'facts of [linguistic] usage can be used directly against the skeptic.' It appears to be a modern version of the paradigm-case argument, and to beg the question against the skeptic. Shatz misreads relevant alternativists. On their view, justification *e* for *p need* not serve to rule out irrelevant alternatives, but there is nothing in that view to rule out the possibility that *e does* often suffice to do so. Foley's proposal to reverse Nozick's order of the tracking relation in his account of evidence seems to have the consequence that *e* can be evidence for *h* only if *h* is true. Pappas criticizes Nozick's view for being unable to account for 'flashbulb memory' as a source of knowledge, on the grounds that one can't identify an appropriate reliable process to generate the memory in question. Taking the 'scientific theory' line seriously suggests that we may not yet know even *on what level to look* for an appropriate process, and that this criticism is therefore premature. Sosa correctly points out that there is real tension in the overall belief system of someone who holds Nozick's view of knowledge. I would put his point by saying that on Nozick's view, I can never have any reason for believing any contingent proposition,

which is to say that any such belief is irrational. It is therefore not surprising that should I choose to believe, I will put myself in an incoherent position (though I may also thereby acquire knowledge!).

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GERRY MAHER, ed. *Freedom of Speech: Basis and Limits*. Stuttgart: Franz Steiner Verlag Wiesbaden GMBH 1986 Pp. 88. DM28.00. ISBN 3-515-04592-9.

This is a collection of essays which were first presented to the U.K. Association of Legal and Social Philosophy Conference in Glasgow in 1985. The conference was clearly inspired by Frederick Schauer's important book, *Free Speech: A Philosophical Enquiry* (Cambridge U.P. 1982); all the essays attempt to carry forward Schauer's aim of developing a better philosophical foundation for, and understanding of, freedom of speech. The volume covers four topics — pornography, free speech and democracy, official secrets, and access to the media — and presents two essays on each topic. The first essay of each pair is the main essay and the second is a commentary.

Roger Shiner attempts to show that any defence of pornography on the ground that it is an exercise of free speech fails because pornography is not speech in any significant sense. His 'non-speech' analysis of pornography rests upon an analogy between pornography and sex aids. He argues that the essence of pornography is 'the initiation of certain causal processes' (22), in which women 'by design function as working parts, as *objects* with a certain causal role' (23). Occupying this role is harmful to women, and this fact allows Shiner to argue that there is a prima facie case for restricting pornography on the basis of the harm principle. He concedes, however, that his conclusion may be inconsistent with the principles of liberal political morality, but holds that it should not automatically be assumed that these principles should override the case for restricting pornography. This last point is criticized by Richard Bellamy in his commentary. He challenges Shiner's assumption that liberalism requires it to be neutral between conflicting conceptions of what is desirable or worthwhile. He argues that a liberal theory of autonomy ('the ability to form rational plans of life to pursue one's ideal of the good' [34]) rules out certain conceptions of what is desirable, including those which accept pornography. Pornography is unacceptable on liberal grounds because it denies the autonomy of others. Bellamy argues that autonomy provides a more se-

cure ground for restricting pornography than Shiner's non-speech/harm principle approach because it avoids the suggestion that there is a tension between the restriction of pornography and the principles of liberal political morality.

The second topic — free speech in a democracy — is presented by Stanley Kleinberg. He challenges the commonly held view that free speech is one of the necessary conditions of a democratic society and that it is therefore a 'sacred' democratic value. He argues that there are some opinions which may properly be suppressed on grounds of their content. He develops a two-fold defence of his view. First, he challenges Mill's argument that since humans are fallible they will be unable to attain truth if their beliefs are protected from the criticisms of opponents. It assumes that open-mindedness is always a virtue, an assumption which, Kleinberg holds, must be qualified when applied to the political domain. No political community, he argues, can function if its citizens fail to respect one another. 'They must therefore be unwilling to countenance proposals to execute or expel or disenfranchise a group of fellow-citizens, unless of course on grounds of individual fault or incapacity' (39). 'Just as we can reasonably ask our friends not to engage in open-minded contemplation of ... scurrilous allegation[s] ... about our character, so the minority may reasonably demand of their liberal fellow-citizens that no argument will persuade them to support expulsion' (39). Kleinberg's second defence rests upon the distinction between democracy and majoritarianism; he argues that the former, unlike the latter, entails 'that there can be no such thing as a democratic mandate for an undemocratic decision' (41) and that as a result democracy does not entail the right to advocate such a decision. A.J.M. Milne, in his commentary, accepts Kleinberg's conclusion, but is unhappy with its defence. He raises several objections, the most important of which is that political limitations on freedom of speech require a more robust theory of community (and of democratic community) than Kleinberg provides. We need a theory which can deal with hard cases (e.g., Northern Ireland) in which there is no consensus as to who is and who is not a fellow-citizen.

David Galbraith's essay considers the relation of free speech to official secrets. He holds that governments should be divested of their general authority to keep secrets, and that citizens should have the power 'to obtain all information which does not merit being kept secret for some legitimate purpose — the interests of the state, rather than of the government' (59). His appeal for 'open government' rests upon what he calls the right to curiosity, i.e., 'our right to learn what is going on around us' (61). This is not a derivative political right but a basic moral right, one which is already an accepted principle in our culture when applied to education, architecture, painting, music, travel, the countryside, and similar phenomena. There is no reason, Galbraith argues, why we should not extend the right to curiosity to information about the doings of the government. The conclusion is a plausible one, but, as Susan Wolfson points out in her commentary, Galbraith's case suffers from a number of weaknesses. The notion of a right to curiosity is itself a curious notion, and it is not at all clear that it can bear the weight Galbraith places upon it.

Thomas Gibbons raises the question of how scarce media resources should be allocated in order to enhance the value of free speech. He argues that access to the media should be based upon its contribution to achieving knowledge, and that 'regulation of the content of speech distributed by the media may be justified, therefore, on the ground that the audience's interest in obtaining knowledge must be protected' (73). He rejects the currently accepted view that the media should be impartial in presenting views on the ground that such a criterion, in practice at least, inevitably reflects the dominant ideology of the community. He argues for a fair access criterion: 'fairness directed towards enhancing the worth of individual's liberty to speak through the media' (78). Such a criterion, he holds, will ensure 'the equal worth of speech promulgated by [the media]' (79). David Goldberg, in his commentary, objects that Gibbons relies upon a simplistic conception of communication which may vitiate the fair access criterion, and notes some of the difficulties which would stand in the way of implementing Gibbons' criterion.

The collection is a good one, for two reasons. First, it provides an instructive introduction to the kind of work currently being done on the freedom-of-speech issue. Second, the first two discussions in particular make a significant contribution to the on-going debates regarding pornography and the theory of democracy.

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FREDERICK OLAFSON. *Heidegger and the Philosophy of Mind*. New Haven, CT: Yale University Press 1987. Pp. xxi + 294. US$23.50. ISBN 0-300-03727-9.

Heidegger is not usually — perhaps with good reason — regarded as a 'philosopher of mind.' Nevertheless his views have something to say *to* the philosophy of mind. It is therefore high time that a study such as Olafson's *Heidegger and the Philosophy of Mind* should appear. The two aims of the study are: (1) to provide a clear, original interpretation of some central themes in Heidegger's ontology (as found primarily in *Being and Time*, the Marburg lecture-courses, and the later writings) by relating them to traditional problems of mind; and (2) to contribute something of substance to current debates in the philosophy of mind by means of the critical deployment of Heideggerian doctrines. The joint satisfaction of these ambitious aims would constitute something of a philosophical breakthrough.

Issues in the philosophy of mind are of course largely a series of footnotes to Descartes. At the core of this legacy is what might be called the Cartesian Trinity: mind-body dualism, the representational model of knowledge, and the epistemic primacy of the *ego cogitans*. It seems fair to say that as a modern philosopher one can take only one of two attitudes towards Cartesianism — work within it; or attempt to dismantle it. Heidegger (along with Bergson, Dewey, Ryle, Wittgenstein, and Merleau-Ponty, to name only a few) chooses the latter option. Thus his work can be plausibly regarded as carrying out an extended anti-Cartesian meditation.

Olafson sets out Heidegger's version of anti-Cartesianism in two parts, which correspond to what are usually called Early Heidegger and Later Heidegger. The first part goes under the rubric of 'Existence as the Ground of Presence.' Here Olafson wants to show that Heidegger's early work is animated by a definite ontological slant on, or against, traditional problems of mind, and not by the usual epistemic motivations.

The establishment of this ontological slant amounts to an attack on the Cartesian Trinity itself (chapter 1). Descartes' (and Husserl's, insofar as he is a Cartesian meditato) ontological presuppositions are isolated and dismissed. In this way, as opposed to most recent critiques of Descartes, Cartesianism is exposed root and branch: Rylean scorn and Wittgensteinian puzzlement simply do not cut *deeply* enough.

Having exposed the basic assumptions of Cartesianism, Heidegger goes beyond them by proposing an ontology meant to answer directly to our ordinary or pretheoretical experience of ourselves and the world. Olafson develops in some detail the well-known doctrines of 'world' and 'presence' (chapter 2); of 'existence' (*Existenz*) and *Dasein* (chapter 3); of 'temporality' (chapter 4); and of 'feeling' (*Befindlichkeit*), 'understanding,' and 'discourse' (chapter 5). What is particularly original and helpful in this covering of well-trodden ground is Olafson's appeal to the concept of human action as a way of unifying and explicating the various existential-ontological structures.

As befits a post-Cartesian ontology, Heidegger's doctrines have their own peculiarly post-Cartesian problems. Olafson's critical remarks on the early Heidegger focus on his concept of being (chapter 6). On Olafson's reading, being is equivalent with 'presence' (*Anwesenheit*): the direct showing or manifesting of entities. Now, being or presence is in some crucial way dependent on *Dasein*, since *Dasein* is the presenter or manifester *for whom* entities are made present or manifest. This means that 'existence,' as the essence of *Dasein*, is the 'ground' of being or presence. So far, so good. But then Heidegger says that entities transcend *Dasein* in the sense that they can exist independently of any *Dasein* (*Sein und Zeit*, 183). Yet if being is yoked to *Dasein*, it follows that entities will transcend being itself — and this would seem to be an ontological absurdity. Still worse, *Dasein* is itself an entity. Thus the dependence of being on *Dasein* seems to entail the reduction of being to entities, which is precisely to contradict the basic principle of 'ontological difference.'

As a way of attempting to untie Heidegger's conceptual knots, Olafson makes a very important distinction between *Dasein* as a generic essence or ontological structure of the human being, and *Dasein* as a plurality of individual human beings (145). This appears to alleviate the difficulties somewhat, since it is plausible that while entities transcend the plurality of individual human beings, they do not transcend the generic essence of the human being. Generic *Dasein* is the measure of all things; but being and entities are not essentially dependent on *particular* human beings. Correlatively, if *Dasein* is construed as a generic essence, then the dependence of being on *Dasein* is not the reduction to an entity, or group of entities, but only the restriction to a structural feature of a class of entities.

Because Heidegger never actually makes (or, at least, never explicitly makes) the crucial distinction between generic and individuated *Dasein*, his early ontology remains troublesome. This is especially true in light of what Heidegger himself calls the 'existential "solipsism" ' (*Sein und Zeit*, 188) of *Dasein*, that is, the essentially egological nature of *Dasein*'s authenticity. The second part of Olafson's interpretation, 'Presence as the Ground of Existence,' explores Heidegger's response to this anti-Cartesian (but perhaps Kantian) subjectivism of the existential ontology.

The eventual recognition of a certain subjectivism implicit in his own ontology, taken together with a brief but disastrous political career, seem to have motivated the famous 'turning' (*Kehre*) in Heidegger's philosophical views (chapter 7). In this second epoch, little or nothing remains of even the basic *issues* of traditional philosophy of mind. This is not only because of Heidegger's original repudiation of Cartesianism, but because of his rejection (announced in the 'Letter on Humanism') of his earlier 'strong' interpretation of *Dasein*. What disappears in the later thought is above all the construal of *Dasein* in terms of its agency. *Dasein* is now 'weakly' interpreted as an essentially passive respondent to the manifestation of entities: an 'openness' to entities, not a pragmatic manipulator of entities.

As regards the ontological apparatus, this means that we are now compelled to understand *Dasein* as dependent on being, rather than the converse (chapter 8). Being in the later Heidegger is an a priori openness, or self-clearing 'clearing' which grounds the human or a posteriori presentation of entities; it is even frequently said to be a kind of quasi-agent or 'event' (*Ereignis*) which 'gives' or 'sends' the capacity of presentation to *Dasein*.

By and large, according to Heidegger, human beings fail to fulfil their proper function by failing to respond appropriately to the transcendental clearing of being. The 'history of being' is the ontological narrative of how Western humanity has 'forgotten' or fallen away from an original grasp of being vouchsafed to a few presocratic philosophers (chapter 9). This absolute-idealism-in-reverse is combined with a biting attack on modern culture, which is portrayed as subjectivistic in the extreme and as obsessed with the objectification and technological mastery of nature. Here, as Olafson is able to bring out well, we can see that the early ontological criticism of Cartesian epistemolo-

gy has passed over into a sort of ontological culture-criticism: modernity is hopelessly, tragically, Cartesian.

Olafson tries valiantly to mediate between the early ontology (in which being is dependent on *Dasein*) and the later ontology (in which *Dasein* is dependent on being) by proposing a somewhat dialectical solution: an 'interdependence' of *Dasein* and being (chapter 10). This proposal turns on something Heidegger has largely ignored, or at least depreciated, namely the genuine ontological role of the human community. The nub of this suggestion is to take the doctrine of *Mitsein* ('being-with') very seriously, and to situate the locus of being or presence at the level of the 'we,' not the 'I.' (This bears some resemblance to the turn towards a transcendental community that one finds in the later Wittgenstein or Habermas.)

Given its aims, *Heidegger and the Philosophy of Mind* has one significant flaw. Although its title announces the relationship between Heidegger's thought and an area of extremely active contemporary philosophical concern, there is relatively little said which is of direct relevance to the philosophy of mind as it is currently practised in Anglo-American circles. Those discussions which *do* point in that direction (for example, the Conclusion) tend to be too brief, allusive, and general to be incisive. Perhaps the truth of the matter is that it would simply take a much longer book — or perhaps an altogether different book — to make Heidegger's best weapons effective against such complex and well-fortified doctrines as physicalism, behaviorism, interactionism, functionalism, and the various available versions of intentionality.

Despite this one reservation, it must be said that *Heidegger and the Philosophy of Mind* is well able to stand on its own merits, considered purely as a piece of Heideggerian exegesis. Many puzzling doctrines are given clear and plausible interpretations; and where Heidegger is simply confused, Olafson is able to make *that* apparent. Moreover, the attempt to reconcile the opposition between the early and later ontology seems to be on the right track, pointing significantly beyond Heidegger. So even if *Heidegger and the Philosophy of Mind* does not carry out its project of a serious contribution to contemporary philosophy of mind, it is still well worth reading for anyone interested in an important alternative to the still-dominant Cartesianism, and in making sense of Heidegger's deep doctrines.

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NICHOLAS RESCHER, ed. *Scientific Inquiry in Philosophical Perspective*. Lanham, MD: University Press of America 1987. Pp. vii + 300. US$26.50 (cloth: ISBN 0-8191-5798-8); US$14.75 (paper: ISBN 0-8191-5799-6).

This book consists of a collection of essays, written by a broad spectrum of theorists with an interest in philosophy of science, originally delivered during events celebrating the 25th anniversary of the founding of the Center for Philosophy of Science at the University of Pittsburgh.

It is always a pleasure to read philosophy of science done well, and the reader of this volume can look forward to thirteen treats. These will be discussed below in order of appearance. The volume opens with with Herbert Simon discussing whether scientific discovery is a topic in the domain of philosophy of science. Are there philosophical issues here which go beyond the psychological issues? Simon discusses issues pertaining to the logic of scientific discovery, with an eye to examining the source of good or fruitful hypotheses. The paper contains an interesting discussion of issues in data-driven discovery, and tries to treat scientific behaviour as a form of problem-solving behaviour. Simon's discussion of the heuristic principles underlying scientific discovery is illuminated by reference to the scientific discovery computer programme BACON. Given data about planetary motion, BACON soon arrives at Kepler's third law. Simon draws lessons from the way in which BACON operates.

Ronald Giere's paper discusses scientific behaviour from within the framework of the cognitive sciences. The basic idea is that neither the analytic tradition in philosophy of science, nor the Kuhnian historicist tradition can offer an adequate account of scientific activity. Giere's alternative is to treat science itself as a cognitive activity in the domain of the cognitive sciences. The paper contains a good discussion of an example of scientific behaviour in nuclear physics, and it emphasizes the importance of decision theory in the process of scientific discovery.

Ernan McMullin discusses some issues relating to explanatory success on one hand and the truth of a scientific theory on the other. His key thesis is that it is only through an analysis of explanatory success that we can come to judge the truth of a theory. McMullin's argument, illustrated and aided by his discussion of the views of van Fraassen, Hacking, Cartwright and Sellars, is aimed at establishing that the values which scientists hold most dear when discussing what constitutes a good explanation are very similar to criteria traditionally thought of as criteria for truth. Such criteria include coherence, internal consistency, lack of ad hocery, and predictive accuracy, etc. As McMullin puts it, 'the coherence criteria, in particular, are realist in their implications' (67).

Sylvain Bromberger, in discussing 'What we don't know when we don't know why,' provides an interesting analysis of why-questions and their relations to other kinds of question. In particular, the logical analysis of the structure of why-questions is well worth serious study. J.A. Fodor's paper consists

of a very readable introduction to cognitive science and its relation to the other sciences. Cognitive science is treated as the theory of intentional mental states. Fodor's paper should be read in conjunction with Simon's paper and Giere's paper. Mario Bunge discusses some controversies and issues in the field of evolutionary biology. Bunge emphasizes that the settling of debates in evolutionary biology requires, in addition to other matters, a proper treatment of a number of philosophical and methodological problems. Bunge is surely right to place emphasis on the importance of philosophy in treating interpretative issues in the sciences.

Alvin Roth's paper concerns issues pertaining to the role and place of laboratory experiments in economics. The topics discussed include voting in spatial games, bargaining, exchange economies and policy-oriented experiments. In the history of particle physics we know that conceptual advances followed the transition from the hunter-gatherer culture (early cosmic-ray physics) to the industrial-producer culture (contemporary particle-accelerator physics). We may hope similar advances will follow economics' move to the laboratory. Michael Redhead provides an important discussion of Bohr's doctrine of complementarity. He tidies up misunderstandings of this doctrine and provides an analysis of the place of complementarity in quantum mechanics. This is a very readable paper, and non-specialists may enjoy Redhead's discussion along with specialists in the field of philosophy of quantum mechanics.

Bas van Fraassen discusses epistemological issues generated by personal probability kinematics. van Fraassen is writing within the epistemological tradition which treats personal opinion as having many gradations and forms and not just the triad of belief, disbelief and neutrality typical of traditional epistemological analysis. van Fraassen's discussion of probabilistic issues is enhanced by an appendix by J.D. Collins. In a similar vein, Brian Skyrms discusses the issue of coherence in connection with some interesting features of Dutch Book arguments in probability theory. Aron Edidin provides an interesting discussion of issues relating to a verificationist account of truth. Neil Tennant provides an historical essay concerning the life and work of the early Carnap. Richard Creath, on the other hand, provides a witty discussion of the Grue paradox, and in particular of what Carnap should have said to Goodman.

The broad scope of the papers in this book will make the book of interest to a broad range of philosophers interested in philosophy of science and the methodology of science.

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STANLEY ROSEN. *Plato's* Symposium. 2nd ed. New Haven, CT: Yale University Press 1987. Pp. lxvii + 362. US$40.00 (cloth: ISBN 0-300-03954-9); US$15.95 (paper: ISBN 0-300-03762-7).

This 2nd ed. of Rosen's book incorporates changes and additions to the 1st ed. of 1968. The changes: two altered translations of Greek passages quoted (12, 240); four altered footnotes (35 n.99, 240 n.113, 241 n.115, 265 n.143); two altered portions of the text of Chapter Seven (240-2, 244). The additions: a Preface (xi-xxxvii); a Supplemental Bibliography of ten 'significant articles on the *Symposium*' not included in the 1st ed. bibliography (of 114 books, 46 articles, and 1 dissertation); eight Notes (329-42), the first two notes directed to the Prologue and each of the rest to a subsequent chapter.

With the exception of the above changes and additions, the text remains identical to that of the 1st ed. (including the pagination from 1-327) — although Brochard's *Les sceptiques Grecs* has been deleted, by error, from the bibliography. Indeed, while Rosen writes that 'every effort has been made to remove [the blemishes of the 1st ed.],' the author of *Platos dialektische Ethik* remains H.J. [sic] Gadamer (e.g., i n.29 [xxii, 1st ed.]), and *Nichomachean* [sic] Ethics (e.g., 355 [339, 1st ed.]) remains uncorrected.

The last error was pointed out in Stewart's review of the 1st ed. (*Phil. Quart.* **19** [1969], 355), and, while doubtless an oversight on Rosen's part, the presence of this error in the 2nd ed. does raise questions regarding his response to his critics. Although Rosen supplies further clarification of his arguments in his Notes, he offers us no explicit responses to the most substantial of the objections raised in the critical reviews of the 1st ed. Rosen explains that he included the changes and additions in response to several criticisms of the 1st ed., listing the seven 'major criticisms' in his Preface (xiii). The most telling of these seems to have been 'too much reading into the text of what is not there.' (See, e.g., Stewart [355]: 'Rosen's most acute and suggestive comments are on Plato's use of literary, especially Homeric, allusions [23, etc.]. But where the text provides no such overt allusions, he digs for covert ones, overdoes it, and finally becomes just irritating.' See also Rose, *Phil. Phen. Res.* **32** [1971].) Rosen writes that he was not 'able to follow' this criticism, adding (xv): 'This is not of course to say that I am entirely justified in this restraint. But even if I had found more to excise, the principle of not disowning one's children would have forbidden wholesale revision.'

But would Rosen really have had to 'disown his children' by dealing with the criticism? When speaking of 'his children,' Rosen might in fact be speaking of a pair of twins: (a) his interpretation of the *Symposium* and (b) his theory of interpretation. According to the latter, which elicited the greater critical response, the interpreter must recognize the significance of the *dialogue form* of Plato's works, attending closely to their dramatic and literary elements. In 1968 this approach was still novel among English-speaking commentators. As Easterling remarked (*Class. Rev.* NS **21** [1971], 364): 'Whatever one may think about the value of this kind of interpretation, it is at least true that Rosen's

book is strikingly different from most English writing on Plato.' Since his book appeared, that approach has become familiar and has gained respect. Thus one wonders whether Rosen might not in fact have enhanced the reputation of a child now grown to adulthood had he dealt with such serious criticisms as the following (Stewart, 355): 'Rosen overstates the significance of Plato's choice of form. Expository prose was not an established genre in Plato's day, so he would not consciously have avoided it. Aside from lyric poetry and forensic speeches, all important literature was still dramatic in style.' Moreover, the value of Rosen's approach could have been underscored had he attended to such helpful observations as the following (Stewart, 355): 'In view of the weight he attaches to literary associations, he should have looked into two significant parallels which he barely mentions (285-6): there are detailed parallels between the Diotima episode and the Lesser and Greater Mysteries (cf. Kerényi, *Eleusis*, chs. 3-4); and there are too many parallels between the whole dialogue and Satyr plays to be coincidental.'

Despite these shortcomings, however, what Troutman said of the 1st ed. still holds good of the 2nd (*Rev. Metaph.* **22** [1968], 388): 'The microscopic nature of Rosen's method makes his book a very long and complex journey, but one that in the end will be appreciated by the "lover" of Plato's *Symposium*.'

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D.C. STOVE. *The Rationality of Induction*. Don Mills, ON and New York: Oxford University Press 1986. Pp. iii + 231. CDN$61.95; US$37.00. ISBN 0-19-824789-3.

On the back of a recent paperback edition of Popper's *The Logic of Scientific Discovery* one finds the following two evaluations of the book, both of which originally appeared in *Erkenntnis*. The first, expressing outright condemnation, is from Reichenbach: 'The results of this book appear to me completely untenable ... I cannot understand how Popper could possibly believe that with respect to the problem of induction his investigations mean even the slightest advance.' In contrast, the second is a ringing endorsement. According to Carnap, the book is 'One of the most important contemporary works in the field of the logic of science.' Today, some fifty years after the first appearance of Popper's *LSD*, Stove's *The Rationality of Induction* will no doubt evoke this

same intensity of vigorous and diverse opinion, in equal measure scandalizing and enraging some, delighting and exhilarating others.

The book takes as its main task a defense of the rationality of inductive inference in light of the now prevalent presumption in favour of inductive scepticism. It was Hume's thesis in the *Treatise* that all inferences from premisses about the observed to conclusions about the unobserved are unfounded, and it is exactly this thesis against which Stove argues. Of course, Stove does not mean to argue against the thesis that inductive inference is fallible. Rather, his only aim is to show that, given minimal and plausible logical and probabilistic assumptions, such inferences often can and do raise their conclusions' probability in such a way that it becomes irrational not to accept them. To the sceptic who wishes to disallow discussion of logical probability altogether, Stove points out that the sceptical thesis itself makes use of such probabilities since the sceptical thesis is in fact a statement about how probable the conclusion of an inductive inference is in relation to its premisses (43). After all, in its strongest form, the sceptical thesis is just the denial of the proposition that a conclusion's probability is ever altered as a result of observational evidence (40, 42, 44). It is in this sense that the premisses of an inductive inference are often thought to be 'irrelevant' to their conclusion. In its minimal form the thesis is just that 'such conclusions never have, in relation to their premisses, as high probability as nonsceptics suppose' (44). Against both versions of the thesis Stove produces convincing counter-examples.

Central to Stove's purpose is his claim that inductive inferences, whenever they are in fact rationally justified, are justified necessarily. That is, whenever e is an inductive reason in favour of h, it is so necessarily. After all, even the sceptical thesis is simply a particular kind of assessment of the probability that one proposition has in relation to another, and such assessments are never contingent.

Stove gives two main arguments in support of this claim. The first is that, in the case of inductive inferences, such assessments of probability are compatible with every contingent proposition. Since a proposition is itself contingent if and only if there is some contingent proposition with which it is inconsistent, it follows that such assessments must themselves be necessary (4f.). Second, if the sceptical thesis were in fact contingent, as well as universal, Hume himself would have been forced to conclude on empirical grounds that there was no good reason for accepting the thesis, just as he was forced to conclude that there was no good reason for accepting any other contingent, universal proposition (46f.). Hume could no more consistently advocate the sceptical thesis than he could the proposition 'All ravens are black.'

It follows from the necessity of such assessments that there could never be some contingent presupposition, such as the uniformity of nature (23), the long-run success rate of inductive inferences (22, 45), or Mill's law of universal causation (45) upon which rested the justification of any particular inductive inference. It also follows on this account that many inductive inferences would be justified, and could be known to be justified, even if no proof of this fact was itself known. After all, although one can often prove a necessary

truth to be true, the proposition so proved may still be known independently of the proof. Still less does the proposition itself owe its truth to such a proof (26). Despite all this, Stove believes that in the case of induction the requisite proofs are forthcoming. In fact, Chapters V & VI have as their aim the presentation of three such proofs.

Many of the arguments which Stove presents in this book have been seen before, either in his *Probability and Hume's Inductive Scepticism* (1973) or in his numerous journal articles. Even so, it is valuable to have them polished and improved and bound together in one volume. Also new is an improved version of D.C. Williams's attempt in *The Ground of Induction* (1947) at using the law of large numbers to prove induction justified. Most of the second half of the book is a spirited defence of the theory of logical probability upon which the proof rests.

Chapter IX, entitled 'The Myth of Formal Logic,' can and should be read separately from the rest of the book. In this chapter Stove abandons the thesis that either deductive or inductive logic is purely formal. In the latter case, this denial is used as the basis of a solution to Goodman's so-called new riddle of induction. As Stove points out, once the idea that inductive inferences gain their strength from any purely formal characteristics is rejected, the force of Goodman's argument is diminished greatly, and perhaps entirely (78, 132). However, one need not subscribe to Stove's corresponding views concerning deductive logic in order to appreciate his argument with respect to grue or, for that matter, the rest of the book. And, in contrast to the rest of the chapter (which, by Stove's own admission [127], can only charitably be described as radical), section (ii) is a much needed discussion of the question of whether there can ever exist purely formal judgments of invalidity — it should be required reading for every logic instructor who enters the classroom. The following chapter, which addresses the question of whether deductive logic is empirical, is almost as good.

Although the book is tightly argued, Stove still manages to marshal a distinctively large dose of the same type of outrageous, polemical flourish which was characteristic of his recent *Popper and After* (1982). His clear, crisp and rigorous writing style makes the book a pleasure to read and serves to emphasize the adage that, next to truth, the most important virtue in philosophical *writing is clarity. It is an uncommon book that allows one always to be able* to point to the exact step in an argument where disagreement occurs. It is an enviable characteristic of this book that nowhere is one left with that vague, annoying feeling that *somewhere, somehow*, we have unaccountably been led astray on so slippery a topic as induction. Given the current state of play with respect to induction, this book deserves to become mandatory reading for both the contemporary inductive sceptic and the traditional dogmatist. Friends and foes alike will not be disappointed. The book is vintage Stove.

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HENRY TELOH. *Socratic Education in Plato's Early Dialogues*. Notre Dame, IN: University of Notre Dame Press 1986. Pp. vii + 241. US$29.95. ISBN 0-268-01724-7.

The eleven 'essays' in this volume are separate introductions to twelve of the early dialogues as well as 'chapters' in an 'essay' whose thesis is sketched in the Introduction. This thesis, presented against the background of Teloh's earlier *The Development of Plato's Metaphysics* but said to be 'largely independent' of it, concerns Socratic dialectic. 'Dialectic includes both *elenchus* and *psychagōgia*, and they are types of dialectical discussion' (22). Not surprisingly, in *elenchus* Socrates sets out to confound his interlocutor into admitting ignorance. It would appear that in this type of dialectic 'sound argument' (18) is not important and many of the logical infelicities in Socrates' arguments are to be excused on the ground that Socrates' art is ad hominem insofar as he always addresses himself to the 'core beliefs' of the individual he is interrogating. While Teloh's conception of *elenchus* is not without difficulties, he sees his main contribution to be the notion of *psychagōgia*, so I will concentrate on that.

In *psychagōgia* Socrates endeavours to set his interlocutor on the path toward knowledge. The clearest illustration of *psychagōgia* is to be found in the slave boy's geometry lesson in the *Meno*, 'a paradigm of a good dialectical discussion' (155). In this passage it is clear that Socrates knows the answer to the geometry question, a matter of some importance for Teloh's conception of *psychagōgia*. It is while engaged in this type of dialectic that Socrates implies his own positions (2). The most significant of these is his conception of virtue. Socratic virtue consists in knowing that wisdom, 'the knowledge of good and evil,' is the only thing good in itself and that all of the other virtues are identical to wisdom (17, 33-4, 66-7, 174, etc.). Since virtue is 'an efficient motivating cause' of action (34) the virtuous person knows what to do and is caused by this knowledge to do it. What precisely the virtuous person does remains something of a mystery. However, 'Socrates achieve[d] this virtue in a higher degree than any other person of his time' (22). 'Socrates' refers to 'the dramatic figure of the dialogues' (4), 'the model of the good man' (21). Therefore, each of the early dialogues must be read 'as a dramatic and philosophical whole' (4) insofar as it constitutes part of a larger portrait of the virtuous man in action.

Teloh provides one essay (chapter) each on *Euthyphro, Laches, Lysis, Charmides, Republic I, Gorgias, Meno, Protagoras, Hippias Major* and *Euthydemus* and one on the *Apology* and *Crito* together. What he finds portrayed in these dialogues is 'an educational failure, and an educational hero' (7). Socrates is a failure because his method almost never works, even with those, like Crito, who are favorably disposed toward him. Indeed, in addition to the slave boy in the *Meno* only Lysis and Cleinias (in *Euthydemus*) are to be numbered among Socrates' successes (12-13). This is hardly an impressive list. The former masters an isolated geometry problem while the latter two have no firmly held con-

victions to be overcome in *elenchus*. There is no evidence to suggest that any of them was securely placed on the path to knowledge. Yet, and in spite of his denials, Socrates is said to be a 'true teacher' (14) who fails 'because he uses a method which does not work in the prevailing conditions' (21) of his culture, or, in that culture as it is represented by Plato in the dialogues. Socrates is a hero because he persevered and was 'a decent person who care[d] for the *psychai* of his interlocutors' (21), a kind of patron saint of frustrated academics. One might well wonder why Plato wrote the early dialogues at all but, although this question is raised (4), it is never seriously discussed. By and large Plato remains the silent author (97) who either agrees with Socrates (195) or wants us to think about him (116) or to see him in action (148).

Although Socrates has 'positions' he doesn't have knowledge in the ordinary sense. Socratic dialectic cannot produce knowledge 'if by "knowledge" is meant a final certainty with guaranteed truth ... But dialectic can produce justified claims to knowledge' (22 & 16, 32, 65, 110, etc.). This curious distinction allows Socrates to have something close enough to knowledge to engage in *psychagōgia* while saving him from the accusation of lying when he says he doesn't know. Throughout all of this the reader may well hear a faint voice saying 'Yes, but ....' I suspect this voice will be the shade of Socrates. Unfortunately, the distinction never receives the attention it deserves and this points up a central problem with the book as a whole.

While it is addressed to specialists and non-specialists it is difficult to imagine either group finding the book satisfactory. Specialists are likely to find that the issues raised are not discussed in sufficient depth and will turn to other recent works in which early dialogues are treated as 'dramatic and philosophical wholes' (e.g., M.C. Stokes' *Plato's Socratic Conversations*). Non-specialists, and students in particular, are likely to find the individual essays too narrowly focused to serve as general introductions. For this purpose they will be better served by the introductions to particular editions or by such old stand-bys as Friedlander or Taylor, the first of whom has clearly had a significant influence on Teloh. The one possible exception to this is the essay on the *Apology* and *Crito*, an interesting and accessible discussion of Socrates' defense and the reasons for his subsequent refusal to flee Athens. However, it is rather jarring, to say the least, to discover that in the *Apology* Socrates eschews his normal practice of dialectic and 'states his values' (116).

Although he is aware of the problems created by the form he has chosen for his book (2-4), Teloh never really solves them. The book, as he admits, is repetitious, and, while he makes a valiant effort, I think that the decision to turn a set of essays into a book by adding an Introduction was ill-advised.

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Charles S. Peirce

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