on the role of the null hypothesis in testing other hypotheses—an emphasis often wholly missing from philosophers' discussions. While not mathematical in style, these two chapters convey in ordinary layman's terms the strength of these forms of scientific reasoning in a manner which compels respect for them.

The major strength of this work lies, however, in the very rich set of sample arguments, exercises, games, and activities employed after each chapter's relatively brief topical discussion. These are drawn from diverse sources: books of games, scientific experiments (particularly from the social sciences), letters to the editor, advice columns, newspaper articles, ESP experiments, court opinions, scientific texts and reports, and speeches. It thus directs the student's attention to the enormous wealth of inductive arguments at hand in daily life, and carefully leads the student through application of the techniques of argument identification, clarification and assessment commonly covered in courses for which this text is appropriate. Because of the emphasis on activity rather than exclusive preoccupation with arguments in written form, the engagement of the student is varied and a wider application of reflective techniques is facilitated. Consistent with this orientation, the text is "self-destructive"; like many workbooks, it is designed to be used up as it is used.

A *Field Guide to Inductive Arguments* has, by the author's report, been extensively tested on undergraduate populations. With a careful, knowledgeable instructor, it may provide a useful adjunct to a standard text in which the coverage of inductive arguments is relegated to a secondary, passive focus.

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A Cartesian Introduction to Philosophy, Fred Feldman

McGraw-Hill, 1986, 223 pp. (Instructor's manual: 109 pp.) \$15 pbk.

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Feldman's book and accompanying manual serve at once to tell us how he organizes an introduction to philosophy course around a single text and his rationale for organizing it in the way that he does. The result is admirable: His presentations are succinct, clear, to the point, faithful to the text he chooses. The instructor's manual makes explicit what he tries to accomplish in specific sections of the book, why he tries to accomplish this, what techniques have and have not worked in his attempts, how he has enlisted students' participation—even in the context of a lecture hall with 300 students—in developing particular points in the course, etc. The manual also provides sample quizzes, discusses how teaching assistants are best used in teaching the course, how grades are assigned, etc. One who is setting out to do the kind of thing Feldman tries to do in his course could not find a better helping hand in doing so.

An important premise underlies Feldman's effort. It is that philosophy students should be exposed to a series of philosophical issues and, perhaps more important, exposed to a philosophical *system*. Feldman believes that by building an introductory course around a single text which itself exemplifies systematicity, the students will have such exposure. He chooses Descartes' *Meditations on First Philosophy* because it treats a variety of philosophical issues and does so from the vantage point of an overall system of thought. The text obviously has other virtues as well: it is frequently mentioned elsewhere by other philosophers, it is a sustained treatment of interconnected problems and solutions, it continues to spark discussion several centuries after it appeared, the text itself is written well, it addresses philosophical topics discussed currently by many others, etc. Some of these considerations are essential

to answering a question which arose in me as I reviewed the text: How does Feldman manage to retain student interest through a regular semester (not a quarter) in one and only one text?

Feldman does not address this question directly. But for one thing, the course has two one-hour lectures a week supplemented by one discussion section once a week with a teaching assistant. This limits the time which Feldman has to cover the *Meditations*. And Feldman does supplement discussions of topics raised by the text with discussions of those topics from elsewhere. (For example, he cites a marvelous Mencken essay, "The Cosmic Secretariat," in connection with discussing theological arguments from design.) He is inclined to rely on twentieth century discussions for these supplements, but obviously one could also draw on other significant discussions from the history of philosophy. Another thing to do, which obviously Feldman does, is to engage the students in discussion which sets up certain problems for consideration.

For example, many think that the question 'What am I?' is readily answered. Feldman also engages his students in the project of trying to answer this question. He does so in such a way that students come to see that forms of behaviorism which identify selves with bodies are not satisfactory. This, in turn, helps students to understand why Descartes turns away from answers to the question which make essential reference to body and toward an answer which involves thinking. Feldman also then works at leading the students to see that knowing that the answer involves thinking by no means answers the questions adequately and that more work is needed. In this way, he leads them to empathize with Descartes' efforts in the second meditation to link his nature with thinking but not to settle there for the answer that he is precisely and exclusively a thinking thing. So one of the things that Feldman does in order to sustain interest is to engage students in discussion. (This is something we sometimes think is precluded by the large lecture hall situation.)

He also provides a valuable discussion of Descartes' views and alternatives. He formulates arguments explicitly and with admirable lucidity. What he also does is to articulate "cousin" arguments, arguments which are related to but not identical with particular arguments under consideration. He works hard, and it seems successfully, in developing the notion of an argument, a valid argument, and a sound argument early in the course. This leaves students with tools for formulating and evaluating arguments. In this way, too, Feldman does more than teach Descartes in his course: he teaches skills for dealing with any philosopher, indeed for dealing with thinking generally. And while it would go too far to say that Feldman's course is a course in critical thinking per se, it is appropriate to say that he goes a long distance toward teaching critical thinking in connection with a philosophical text. In sum, I think that Feldman sustains interest in his course by providing students with the opportunity to gain both knowledge and skills that go beyond the mastery of the Meditations. I am impressed by Feldman's success here. I have not been successful in maintaining interest in a text for more than four or five weeks.

There is a matter of interpretation of the *Meditations* worth noting here. One would not know from Feldman's comments that Descartes is a prominent mathematician and scientist of his time. Feldman does not emphasize the historical context in which Descartes writes and in this way he encourages seeing the *Meditations* as a sourcebook of arguments although, and again, Feldman *does* provide a significant antidote to the sourcebook view by means of his emphasis on Descartes' *system* of thought. Downplaying who and what Descartes is in his own time, Feldman misses a golden opportunity, the opportunity to relate Descartes' concerns as a mathematician and physicist to the other concerns which occupy Descartes and Feldman. I believe that an extremely important strand in the *Meditations* is Descartes' concern with science and the interconnection between his mathematics and his science.

For one thing, Descartes said that his physics just is his geometry (and people have puzzled about that remark ever since). And he convinced himself, even if not many others, that neither mathematics nor physics can be done seriously and adequately without prior theological knowledge. We may find this quaint and antiquated, but Descartes' system requires no less. Just as important, I think, is Descartes' remark to Mersenne that the *Meditations* contain

the entire foundation for his Physics: ". . . I may tell, you between ourselves, that these six *Meditations* contain all the foundations of my Physics. But please do not tell people, for that might make it harder for supporters of Aristotle to approve them. I hope that readers will gradually get used to my principles and recognize them for their truth, before they notice that they destroy the principles of Aristotle." The remark shows how Descartes conceives the *Meditations* relative to his Physics. And Descartes' express subversion of Aristotle's principles and Physics would be natural to use to explain why we identify the "new" science, and so-called modern philosophy, with developments of several hundred years ago.

Feldman is aware that Descartes' epistemological efforts are tied up with establishing, as Descartes himself puts it, "something firm and lasting in the sciences." But Feldman focuses on what he calls "maximal epistemic purification" (the task of eliminating all but incontrovertible beliefs) as an end in itself rather than as a means to an end such as bolstering science. The need to bolster science is such an important part of Descartes' effort that I could not teach the *Meditations* without taking up this concern. But there are other reasons for doing so.

Feldman sees representationalism as an important topic for Descartes. I agree completely. But by not focusing on Descartes as one who tries to justify his new scientific view, Feldman misses an important motive for introducing representationalism in the first place. One of the reasons Descartes is so concerned with the subtleties and complexities of representationalism is, I think, that he is driven to them by his recognition that on his view, bodies are not among the items that we perceive by means of the senses and that what we do perceive by that means are "ideas" which are at best indicative of those bodies which we never immediately perceive. This point is made admirably in the wax example where Descartes tells us that what we perceive by means the senses is no part of the essence of bodies, and that bodies are not among the things we do perceive. As Descartes proceeds to argue at the beginning of the third mediation, the task is to show that there is some connection between what we do perceive, sensible qualities, and their causes, physical objects which we do not perceive. Descartes' skeptical worries about perception are motivated, I think, by his desire to illustrate the seriousness of the need to solve this problem about the connections between the sensible and the insensible. That is, his dalliance with skepticism stems not so much from a tendency to sympathize with the skeptic as it stems in large part from the difficulties that his new science poses for the use of perception in gaining knowledge of the world of physical objects as understood by the new science.

By overlooking, ignoring or rejecting Descartes' concern with science, Feldman misses an opportunity to address another important topic, the relationship between philosophers' attempts to provide adequate ontological/metaphysical descriptions of what exists and the efforts of scientists to describe what exists. (Descartes, being both philosopher and scientist, worries about this connection.) Some of the most prominent philosophers, contemporary figures as well as those in the history of the discipline, either have been scientists themselves or have seen the need to make connections between what they say and what the scientists say. Some of Descartes' puzzles, I think, are the result of his speaking from these different contexts. Sometimes he views the world as he thinks an ordinary person would, as when he says near the end of the first mediation that his ordinary opinions return, are probably true, and have a right to occupy this thinking. But sometimes he seeks what Feldman calls epistemic purification, a state of accepting only those beliefs which are incontrovertibly true. Sometimes he sees himself within a circle of ideas and he attempts to exit the circle. Sometimes these various concerns come together, as when he tries to give the foundations for physics. He tries to prove that this idea of body as extension is incontrovertibly true in the sixth meditation by bringing several ideas together. Roughly, even grossly, his argument is this: because our ordinary perceptions involve ideas not under our volitional control, we are inclined to believe that these ideas stem from objects outside of us; given that we know with certainty that there is a good God and he would not give us an inclination toward falsity, we can know with certainty that such an inclination could only be true; hence there

is a world of physics, i.e., a physical world, of the sort which the new science proclaims. This complexity makes the picture of the *Meditations* more intricate, but it is another example of the systematicity which Feldman, admirably in my opinion, wishes to expose students to. So it is again regrettable that he passed by this opportunity.

The instructor's manual for the text has numerous virtues. One is that it lays out in detail what Feldman's goals in the course are. It gives summaries of what he attempts to do in particular class meetings, and it provides a sample syllabus and sample quizzes. He gives some idea of how he works with teaching assistants in the course. (He and they discuss what they seek in answers to questions. I think that they might benefit by grading some sample answers in one another's presence. This would help achieve the important goal of grading uniformly.)

Feldman expects students to be able to master difficult material such as the cosmological argument(s) of the third meditation. Here I think that he, and not his colleague who recommended against including such a discussion in his text, is correct. This is all the more so if one has been successful at such a task earlier in the course. Feldman assists and instructs students on the art of discerning arguments in the text before them. Exams include passages, some authentic and some made up for the occasion, from which students are expected to extract and evaluate arguments. With this kind of preparation, extracting theological arguments from Descartes' text is a manageable task for most undergraduates. In teaching students I have regularly divided classes into small discussion groups and assigned them the tasks of laying out the arguments for God's existence and goodness in the third and fifth meditations. There is always some insecurity expressed at first but I have never been disappointed with the outcome. And even students who have protested this activity initially have subsequently given it praise. To exhibit their results, some student groups have elected a speaker to report for the group, some have conducted mock interviews with Descartes and his contemporaries, some have written dialogues and then presented them to the whole class.

Although instructors' manuals are not written for students, I see no reason why they should not be read by students. In this case, there are things to be gained by doing so. Just making clear what the instructor is trying to do, spelling out why certain choices have been made, stating the goal of particular classes and sections of the course, etc., are all part of enhancing communication between instructor and student. Feldman's manual is so helpful on these matters that it is as valuable in conveying the rationale of the course and its "mechanics" as his text is in guiding students toward mastery of the *Meditations*.

Feldman does focus sometimes on details. He tells us that he gives students one point for putting their names on exam booklets, five points for any attempt to answer quiz questions, etc. I do not share or plan to adopt such practices. He gives his students the opportunity at the end of the semester to retake one of the quizzes. This enables students to improve their work for part of the course. It was not clear to me whether Feldman has them take exactly the same quiz or a quiz which covers the same material as the earlier one did. In any case, he says that they have the opportunity to improve their grades by showing better developed skills for one earlier part of the course. More often than not, they do show greater mastery of the material. This must be salutary for both Feldman and his students.

Overall, I think that Feldman has done a superb job. My reservations expressed above have more to do with what he does *not* do than with what he does do.

The final points I shall make have the appearance of a paradox. On the one hand, Feldman's efforts are so successful that I know of no better introduction to philosophy which is based on the goal of providing a guided entry to philosophy through scrutinizing a single, systematic, primary text. I am taken with how he conceives of an introduction to philosophy generally and with how he implements this conception. I am sure that his students exit his course with philosophical skills and knowledge which they can employ elsewhere.

On the other hand, just because his efforts are so successful, I have trouble envisioning how I could employ his text in teaching my own introductory course. There should be little need to say orally what he says in his book because he articulates so well his exegesis and

commentary. Using the text as a foil would be inappropriate in an *introductory* course where the emphasis is one mastering one interpretation of a classic text. (In my own case, I may be hesitant to use the book in an introductory course because I have a rival interpretation of the *Meditations*.)

Those teaching Descartes for the first time or two would profit greatly from the useful guidance and interpretation Feldman provides. To read his text is, in effect, to sit in on a fine course introducing one to Descartes and philosophy.

I can imagine using the text in an advanced course for philosophy majors. There the focus might be mastering two views of interpretation of the *Meditations*. For example, one could develop Feldman's view that "epistemic purification" is for Descartes an *end* and then look at interpretations on which it is a *means*. Although such an advanced course is not the context for which Feldman wrote, I think his efforts would be fruitful there nonetheless.

The instructor's manual itself speaks much sense, and no nonsense, about teaching philosophy generally. Feldman is open and communicative about his thoughts on teaching and on teaching the kind of introductory course he teaches. His opinions are worth considering and acting upon. And one could emulate his general approach in designing a course of one's own on some other primary text.

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William James: His Life and Thought, Gerald E. Myers

Yale University Press, New Haven, CT, 1986, 649 pp. \$35 cl.

T. L. S. SPRIGGE

This is an enormously long and thorough study of James's philosophy. A large part of it is concerned with the more philosophical aspects of *The Principles of Psychology*, but later chapters deal with James's radical empiricism, his pluralistic metaphysics, his positions on ethics and religion, and related matters. It is a considerable achievement.

The author has lived with James's thought over a long period and developed his own views on many issues in relation to it. He exhibits an affectionate respect for the enormous range of James's thinking which surely all those who have become at all involved in it must share. The result is sometimes discussions, both appreciative and critical, of James's positions which are helpful and perceptive. He well says, for example, that James's 'doctrine of "free will" may seem in "The Experience of Activity" to be reduced to the claim that sometimes an experience of striving is succeeded by an unpredictable experience in which one's purpose is realized.' He could have, indeed, gone further, and, taking into account James's view that what you intend is only settled by the fact that your experiences lead there, have simply said 'by an unpredictable experience, full stop.' However, some of the discussions (that of the doctrine of the Will to Believe, for example) are diffuse indeed and seem only gradually to stumble towards a definite point.

Moreover, some of the time Myers seems to criticise James simply for not taking account of what the author treats as fairly obvious facts, but the nature of which is in fact one of the main things which James invites us to think about freshly (329, 386). All in all, discussions are sometimes less helpful than they might be through being based on viewpoints of the author's own which are not made at all clear (as, for example, on consciousness of space). He is not, indeed, one is glad to find, guilty of the common fault of criticising a past philosopher on the basis of some presumed wisdom of the latest philosophy, for his own views do not seem to be of a particularly fashionable kind. For instance, he belongs to that much criticised tradition for which basic psychological words simply stand for distinct, not