
Israel Scheffler's Conditions of Knowledge has been reissued in 1978 by the University of Chicago Press, after having been first published in 1965. Scheffler begins the book with a brief introduction giving his purpose, to examine epistemological theory with an eye to its relevance to educators. He gives a short summary of three epistemological theories and their implications for a theory of education, albeit a simplified account. The "rationalistic" epistemology is represented by Plato's Meno; the "empiricistic," by Locke's theory of the tabula rasa and the importance of experience; and the "pragmatic" view, by Dewey's "trying and undergoing."

A brief account of questions about knowledge which would interest educators follows his summary. Of these questions, the book deals with only one, what is knowledge? Thus Scheffler is omitting evaluative (what sort of knowledge is best?), genetic (how does knowledge arise?), methodological (how ought the search for knowledge be conducted?) and pedagogical (how is knowledge best taught?) questions about epistemology and deals only with epistemology in the general sense. He takes this approach apparently for reasons of length and because the book is, after all, an introductory one. However, that these omitted epistemological questions are crucial to the educator is fairly clear.

Before launching into the main topic of the book, what is knowledge?, Scheffler introduces some distinctions derived from common uses of the verb "know" in his first chapter, "Knowledge and Teaching." Scheffler wishes to point out that there are different senses of "knowing" that have implications for teaching as well. He addresses the usual distinction between a weak sense of "knowing that" and a strong sense of "knowing that" in propositional knowledge. The weak sense depends on having true belief; the strong sense depends on being able to supply some reason for the belief, backing of some sort. "Any teaching is geared
to what the teacher takes to be true, and his aim is not merely that his student learn what he takes to be true but that he be able to support it by criteria of proper backing taken to be authoritative" (12-13). This point could be expanded into an "ethics of teaching" as James McClellan stresses in Philosophy of Education. Teachers must feel morally bound to teach the truth, since learners are vulnerable to the teaching of various sorts of untruth, especially younger learners. This point Scheffler addresses only briefly, as it is outside the scope of his book. The point could be further expanded in that advanced students, or any students who wish to be creative thinkers, must be able to identify proper criteria for their "beliefs" (hypotheses) before any discoveries will add to the body of knowledge. This strong sense of "knowing that," which Scheffler calls "propositional knowledge" forms the basis of the bulk of the book. Scheffler also includes a chapter on procedural knowledge or skill, that is, knowledge in the sense of "know how" as opposed to "know that."

The second chapter, "Knowledge and Truth," deals essentially with the modern problem of the fallibility of knowledge that, according to Scheffler, is our inheritance from the scepticism of Hume. Scheffler's exposition of the problem is clear and relevant to modern approaches to education. He feels that the pragmatic view of truth helps us to solve the problem that Hume's epistemology sets, without committing educators to either horn of the epistemological dilemma: that there is an absolute "Truth" waiting to be discovered, or that all truth is relative and limited to the perceptions of the moment. Scheffler discards what he calls the phenomenalist solution of the problem of fallibilism—that one is always sure at least of what one feels at the present moment. This provides only a "weak and transient kind of certainty" (p. 39), although it does clarify one sense of "knowing that" which does not require evidence. One knows that one is in pain without having to be able to prove it. According to Scheffler, it is a simple catagory mistake to say that since we cannot be sure, then there must be no absolute truth. "There seems, however, to be a fundamental confusion here between absolute truth and certainty. It is one thing to believe that truth is an absolute, i.e., unvarying property of ideas or beliefs: It is quite another to suppose we can ever be certain that we have the truth" (p. 47). For instance, according to Scheffler's account, Charles Sanders Peirce believes reality exists independently of our (possibly) fallible perceptions of it and will eventually be discovered if only we carry on responsible inquiry long enough.
Scheffler's point is that there are different kinds of propositional knowledge, with different proper criteria of truth. Although we may very well be mistaken in any given matter, we still must, and can, keep in mind that "our job is not to judge the truth infallibly but to estimate the truth responsibly" (p. 54). John Stuart Mill would have fit in well here, as giving an example of an epistemological theory of how we arrive at social and political truths, truths which appear to be much shadier areas of certainty than natural science or mathematics. Scheffler might have steered educators to On Liberty as a classic pluralistic theory which avoids the extreme relativism of which our age seems so fond while foreshadowing some elements of pragmatic epistemology. And it would have been helpful to see a more comprehensive coverage of Dewey's theory of doing and undergoing as a test of truth, especially considering Scheffler's many references to other pragmatic notions having to do with knowledge: belief and evidence.

Scheffler's chapter on the evidence condition of knowledge begins with the simple points that evidence must be (1) adequate, i.e., all relevant evidence must have been considered; (2) appropriate to the subject matter at hand (evidence for mathematics differs from evidence for morals and both differ from evidence for empirical matters: these are the three divisions that Scheffler offers); and (3) appropriate to the age level of the person making the judgments. Standards for evidence are culturally and historically relative as well. Finally, some matters are not subject to the evidence condition, as is shown in the above example about knowing when you are in pain. Outlining all these qualifications about the limits of evidence, Scheffler introduces J. L. Austin's analysis of the statement "I know" as a person's way of indicating that he is in a position of authority. Scheffler wishes to add to this analysis, because, as he points out, we can (and often do) investigate a person's right to make that claim. "Furthermore, even when he has said 'I know,' effectively asserting his authority to the claim in question and accepting full responsibility for it, we may still ask whether he does indeed have the authority he asserts" (p. 63). Scheffler brings in A. J. Ayer, who calls this our "right to be sure." In addition, Scheffler points out that it is often the case that a student can understand an authoritative argument or proof without having been able to make it up himself. This case also softens the evidence condition, since we commonly consider this adequate ground for a knowledge claim.
In Chapter Four Scheffler analyzes the belief condition of knowledge. One can believe something without knowing it, but whatever one knows one must also believe. But what is belief? Scheffler discusses the verbal behavior theory of belief following Rudolf Carnap, R. M. Hare, and, curiously enough, B. F. Skinner, in their accounts of belief as a verbal disposition to act, namely to say "I believe" in response to a question or a situation. But Scheffler adds that belief is not simply the tendency to affirm something, because it is possible to believe without affirming. If we supplement the verbal theory by saying that belief is indicated when the subject makes a decision to respond affirmatively and truthfully, Scheffler feels that some obvious objections to the verbal theory may be overcome, yet the verbal theory may have become circular. An alternative account is the dispositional account of belief, following Peirce who construes belief as dispositional: "belief . . . puts us into such a condition that we shall behave in a certain way" (p. 83). This theory would cover a broader array of responses due to belief, yet, as Scheffler points out, all beliefs are not always subject to the motivation of an occasion to respond. Here he introduces Hempel's analysis to account for the "quasi-theoretical assumptions" that people hold which in turn influence their actions. Scheffler concludes that a concept of belief must be broader than a disposition to act in certain ways, verbal or otherwise. "Belief is rather a 'theoretical' state characterizing, in subtle ways, the orientation of the person in the world" (p. 90).

The main thrust of the final chapter, "Knowledge and Skill," is that there are two kinds of "know-how." One is routine and does not imply the "intellectualist legend" that "knowing how" requires "knowing that." The other concerns "critical skills" involving thinking. Scheffler urges the need for educators to be aware that both sorts of know-how may require practice, but the kind of practice will differ if it is to result in skill in intelligent activities which is, after all, a very important part of what educators are after in the long run.

In general, this book is useful and clear, but suffers somewhat from the typical drawbacks of any introductory book attempting to cover a highly technical and wide-ranging topic, epistemology, from the point of view of the disciplines of education and philosophy. Educators may find that the philosophical arguments are too abbreviated and philosophers may think that the
educational view is too narrow to be philosophically adequate. Neither view is entirely true. Students of educational philosophy who are interested in a continuation of some of Scheffler's views and in the applications of modern philosophical analysis to the philosophy of education could, after reading Scheffler's book, turn to James McClellan's book, Philosophy of Education. This would enable the reader to continue further study in this area.

NOTES

1James McClellan, Philosophy of Education Englewood Cliffs: Prentice-Hall.