

# Book Review

## *Educating Reason: Rationality, Critical Thinking and Education* by Harvey Siegel

GARETH B. MATTHEWS *University of Massachusetts/Amherst*

Siegel, Harvey. *Educating Reason: Rationality, Critical Thinking and Education*. New York and London: Routledge, 1988, paperback, 1990, 191pp. + xiii.

Harvey Siegel's little book is a gem. In his almost ideally lucid discussion of critical thinking, Siegel displays the virtues of the very activity he has under discussion.

Without having to rely on jargon or canned formulations, Siegel first lays out and assesses the major competing conceptions of critical thinking; he then develops and defends his own conception and, in succeeding chapters, answers effectively two important objections that have been offered against critical thinking as an educational objective. In the final two chapters of his book Siegel applies his conception of critical thinking to two important issues in educational practice: (a) whether science education should be based on Thomas Kuhn's characterization of science and (b) whether it is a good idea to test students at specified stages in their schooling for "minimum competency." In a postscript, Siegel offers a brief sketch of a theory of rationality.

In Chapter 1 Siegel presents and criticizes (1) Robert Ennis's "pure skills" conception of critical thinking, (2) Richard Paul's more holistic and philosophical conception, and (3) John McPeck's

subject-specific conception. At the end of Chapter 1 and throughout Chapter 2 Siegel presents and defends (4) his own "reasons" conception of critical thinking.

Siegel finds Ennis's detailed consideration of distinct proficiencies in critical thinking both admirable and helpful; but he considers Ennis's idea that critical thinking consists simply in the tendency to utilize such proficiencies too confining. As for Paul, Siegel argues that his conception relies too much on philosophically contentious issues about world-views, egocentrism and self-deception.

No doubt it would have been appropriate at this point in Siegel's review to consider the unabashedly philosophical approach to critical thinking advocated by Matthew Lipman through his Philosophy-for-Children Program. That might have forced him and his readers to consider why, exactly, it is unfortunate, if indeed it is unfortunate, to make one's conception of critical thinking rely on philosophically contentious issues or concepts.

Instead, Siegel moves directly to McPeck, whom he criticizes for claiming that "teaching critical thinking *simpliciter* is a conceptual impossibility." (19) Siegel rejects McPeck's claim and his "insistence that logic (formal or informal) is either largely or entirely irrelevant to critical thinking." (24)

Siegel's own suggestion is that "a critical thinker is one who is appropriately

moved by reasons." (23) He argues that such a person "must have a good understanding of, and the ability to utilize, principles governing the assessment of reasons." (34) Such principles include subject-specific principles, as McPeck emphasizes, but also subject-neutral ones, that is, logical and methodological principles. So the study of logic belongs to the study of critical thinking. But being "appropriately moved by reasons" is supposed to mean, not just knowing principles, but much more besides; it also means having attitudes, dispositions, habits and traits of character that express a "critical spirit."

For Siegel, critical thinking is not just one academic subject among others; it is also a regulative ideal for all true education. Siegel seeks to justify this ideal as an expression of respect for students, as a way of empowering students to create their futures, and as a needed preparation for democratic citizenship.

In Chapter 4 Siegel considers, and rejects (for what seem to be good reasons) the objection that educational ideals like critical thinking, or rationality, cannot be justified independently of a prior ideological commitment. In Chapter 5 he considers and rejects (again, for what seem to be good reasons) the objection that "a student [must] become indoctrinated in order to become a critical thinker." (78)

In Chapter 6 Siegel explains how the conception of science that Thomas Kuhn presents in his influential work, *The Structure of Scientific Revolutions*, is "incompatible with the ideal of critical thinking." (93) Siegel then criticizes, boldly, what he calls "Kuhnian science education" for being relativistic; he defends, in its place, "critical science education."

Although Siegel's position here is very attractive, I must say that the issues raised by Kuhn's account of scientific revolution are far too intricate and complex to be dealt with satisfactorily in the short compass Siegel allows himself.

Finally, in Chapter 7, Siegel attacks the practice of testing students at selected grade levels to determine their mastery of specified competencies. His objection to this practice is that such testing assumes that "education is a matter of getting students to master the mechanics of linguistic and computational skills, and sufficient occupational skills for holding a place in the current economic order." (125) To anyone who is, like Siegel, committed to critical thinking as a central educational ideal, such goals will be much too limited.

There is unlikely to be a more crisply stated or cleanly argued position on critical thinking than the one presented in this little book. Of course Harvey Siegel has not written the final word on this topic. There can be justified protests from those who insist that critical thinking must be taught in a more richly philosophical setting than Siegel allows. And there can be reasonable objections that his position on science education is based on a discredited picture of how science really works.

More generally, some readers will find Siegel's ideal thinker ("one who is appropriately moved by reasons") too rationalistic to be attractive. There is surely room for a conception of critical thinking that requires critical thinkers to open even their most deeply-held beliefs to the scrutiny of critical examination, yet does not require of their motivational structure that it rest on reasons "all the way down."

Still, this is a splendid book. Many readers will be persuaded by it. And those who are not will be forced by the sheer clarity of Siegel's presentation to say exactly what they disagree with and why.

GARETH B. MATTHEWS  
DEPARTMENT OF PHILOSOPHY  
UNIVERSITY OF MASSACHUSETTS/AMHERST  
AMHERST, MA 01003 □