1-1-2004

Epistemology and Education: An Incomplete Guide to the Social-Epistemological Issues

Harvey Siegel
University of Miami, hsiegel@miami.edu

Recommended Citation

This Article is brought to you for free and open access by the Philosophy at Scholarly Repository. It has been accepted for inclusion in Philosophy Articles and Papers by an authorized administrator of Scholarly Repository. For more information, please contact repository.library@miami.edu.
Recent work in epistemology has focused increasingly on the social dimensions of knowledge and inquiry. Education is one important social arena in which knowledge plays a leading role, and in which knowledge-claims are presented, analyzed, evaluated, and transmitted. Philosophers of education have long attended to the epistemological issues raised by the theory and practice of education (along with the moral, metaphysical, social-political, and mind/language issues so raised). While historically philosophical issues concerning education were treated alongside other philosophical issues, in recent times the former set of issues have been largely neglected by philosophers working in the core areas of the discipline. Interestingly, the rise of social epistemology has been accompanied by a renewed interest by mainstream philosophers in philosophical questions concerning education. Whether or not this accompaniment is accidental, or is legitimately explainable in terms of broad intellectual, philosophical, or social/political currents and movements, I will not endeavor to address here. The increasing respectability of and philosophical interest in both social epistemology and philosophy of education are in any case salutary developments, each signaling both a broadening of the set of interests and issues deemed legitimate by practitioners of the parent discipline, and an increased willingness to take seriously the philosophical problems raised by the ubiquitous social/communal effort to transmit/transform culture(s) by way of education.

As already noted, those problems cover a broad range of philosophical sub-disciplines, including (at least) the core areas of epistemology, metaphysics, ethics, social-political philosophy, and the philosophies of mind and language. I cannot do justice to them all here. Rather, in this brief overview I will try to outline some substantive epistemological issues concerning education that should be of interest to social epistemologists.

1. The Fundamental Epistemic Aim(s) of Education

Over the long history of educational thought, many aims of education have been proposed. Some of these proposed aims, for example those concerning moral sensitivity and citizenship, are of fundamental philosophical interest but are not specifically epistemological, and so will not occupy us here. However, other proposed aims are indeed epistemological, and epistemologists of education have debated not only their legitimacy as epistemic aims of education, but also both their proper analyses and their relative importance.

One obvious candidate for the title of “fundamental epistemic aim of education” is truth. Its most prominent advocate on the current social-epistemological scene is Alvin Goldman:

The fundamental aim of education, like that of science, is the promotion of knowledge [i.e. true belief]. Whereas science seeks knowledge that is new for humankind, education seeks knowledge that is new for individual learners. Education pursues this mission in several ways: by organizing and transmitting pre-existing knowledge, by creating incentives and environments to encourage learning, and by shaping skills and techniques that facilitate autonomous learning and steer inquiry toward truth. This veritistic conception is a traditional picture of what education is all about, one aligned with an “Enlightenment” conception of epistemology. Despite popular critiques of the Enlightenment view, the veritistic model is still the best available, one that fits all stages of education from lowest to highest….

(Propositional knowledge is… education’s most pervasive and characteristic goal. (Goldman 1999, 349)

There is much to recommend truth as the fundamental epistemic aim of education, but
there are reasons to query the attribution of that status to it as well. First, there are many ways of getting students to believe truths – brainwashing, deception, indoctrination, etc. – but these modes of passing along truths to students are educationally unacceptable. Second, from the educational point of view, it matters not only that students believe truths, but also on what basis they believe them: mindless or manipulated student true belief is not the desired outcome of educational efforts. Third, our lack of ‘direct access’ to truth suggests that the relevant basic educational aim is not true belief per se, but rather student ability to judge, or estimate, the truth competently. These and other reasons are sufficient to call into question truth’s title as “the crucial epistemic aim” (Goldman 1999, 363) of education.

These same reasons call to mind a second candidate for the title of “the crucial epistemic aim of education”: rationality, or, as it is often labeled in the educational literature, critical thinking. Championed by the overwhelming majority of historically significant philosophers who addressed educational matters, and by contemporary authors such as Israel Scheffler and the present writer, this proposed aim of education also has much to recommend it, but also some difficulties. Most importantly, as Goldman forcefully argues, critical thinking is plausibly thought to be not an epistemic end in itself, but rather a very important means to the end of true belief. It is something of a challenge to establish that critical thinking and attendant rational belief are of more than instrumental value, i.e. more than means to the end of true belief. In addition, the aim of critical thinking is best understood as involving not only skills and abilities, but also dispositions and traits of character, and it is equally challenging to relate such matters as these to candidate epistemic educational aims. So the advocate of this second aim also has her work cut out for her.

Thus far we have been considering the question: “What is the fundamental epistemic aim of education?” It is worth pointing out that so posed, the question presupposes, controversially, that there can be only one such aim. But this presupposition can and in my view should be rejected, for the two aims considered thus far actually are both more adequate when conjoined. That is, there are actually two fundamental epistemic aims of education – truth and rationality – that are analytically distinguishable but are nevertheless each incapable of capturing education’s fundamental epistemic ends except when combined. When so linked, it is easier to see that the sense of knowledge most relevant to education is the strong sense: we want students to believe truths, on the basis of reasons that support those beliefs. True belief, absent supporting reasons and evidence is educationally sub-optimal, as is well-supported false belief. From the educational point of view, both are required.

I have briefly defended the view (of the fundamental epistemic aim(s) of education) that seems to me most plausible, but I do not pretend to have settled the matter here. My main point in this section is that this issue, given the essentially social character of education, is both fundamental to the epistemology of education and falls squarely in the domain of social epistemology. (So too do the rest of the issues discussed below.)

2. Testimony, Trust, and Teaching

Should students accept the testimonial pronouncements of their teachers? Should they trust, and accept without further justification, those pronouncements? If so accepted, are the resulting beliefs justified, and are the students/believers justified in so believing? Advocates of rationality/critical thinking typically answer these questions in the negative, urging that students accept only those teachings that are independently justifiable, i.e. justifiable independently of their teachers’ declarations. But recent work on the epistemology of testimony which suggests that testimony is itself an irreducible source of knowledge argues for affirmative answers. As Goldman articulates the issue:

A good bit of actual teaching consists of teachers “telling” things to students, that is, making statements or assertions without supporting reasons, evidence, or argument. Should students be expected to believe these statements? … Not only students but all sorts of hearers encounter unsupported assertions or
“testimony” from speakers. Under what circumstances are they justified in believing these statements? (Goldman 1999, 363-4)

Goldman here tightly connects the question of student belief on the basis of teacher testimony with the justificatory status of belief based on testimony more generally. Goldman’s discussion is highly suggestive, but I cannot treat it in detail here – this is clearly not the place to treat the general question of the epistemological status of belief based on otherwise unsupported testimonial pronouncements. But as with the question of the epistemic aims of education just discussed, here too a range of considerations are relevant to the epistemological evaluation of testimony in the classroom setting.

First, doubts about “reductionism” – the view that a student/hearer is justified in believing a testimonial pronouncement just in case the student/hearer has testimony-independent good reasons to trust the teacher/speaker on that occasion – lead Goldman to suggest, albeit tentatively, that students should at least on some occasions trust their teachers’ pronouncements despite the lack of independent, non-testimonial evidence of their trustworthiness. But whether or not Goldman’s doubts about reductionism suffice to reject that view is controversial. (My own view is that those doubts do not suffice to upend the “good reasons” view that students justifiably believe teacher pronouncements not on the basis of unsupported trust, but rather on the basis of testimony-independent good reasons that vouch for their teachers’ trustworthiness.)

Second, it is very important to be clear on the category of student being considered. All can agree that very young students cannot evaluate their teachers’ pronouncements for epistemic probity; they do not yet have the language, concepts, or cognitive capacity to do so. For such students, trust seems both inevitable and unproblematic. But there is a serious question – to be settled partly on empirical grounds (concerning cognitive development, etc.), and partly on more traditionally philosophical grounds – concerning the extent of the period during which students enjoy such a holiday from the ordinary demands of responsible oversight of their cognitive lives. Once students achieve sufficient command of their language, its concepts, and their reasoning ability, are they at that point justified in believing their teachers’ testimonial pronouncements without having good reasons for regarding their teachers as trustworthy? Anti-reductionists and friends of testimony more generally will answer affirmatively, while reductionists and advocates of critical thinking more generally will demure. Here the epistemology of testimony, in all its social glory, addresses the epistemology of education head on.

Third, is it true that students in general do not have testimony-independent reasons for trusting their teachers’ pronouncements? Those who think that students are justified in believing their teachers’ testimonial pronouncements without having testimony-independent reason for regarding their teachers as trustworthy, and who think this an important point to make, must think the envisioned situation to be not uncommon. For if it is only rarely that students find themselves in such a situation – i.e. a situation in which they have no testimony-independent reason for regarding their teachers as trustworthy – the point becomes (mainly) moot, since there are relatively few occasions in which such trust can be manifested. But it is arguable that, beyond some minimal stage of cognitive development, language acquisition and acculturation, students typically do have such testimony-independent reasons. Many such reasons arise concomitantly with classroom (or other) experience. Even if on the first day of class students typically have no testimony-independent reason for regarding their teacher as trustworthy with respect to the subject-matter at hand, as the class proceeds and the students hear the teacher lecture, explain, discuss student questions and tangents extemporaneously, relate apparently unrelated material, etc., they have more and more testimony-independent reasons for trusting their teacher. The teacher demonstrates her trustworthiness as the class unfolds. Moreover, independently of such demonstration, students can see for themselves that teachers are in positions of authority, are regarded as experts by others (including the students’ parents), etc. If all this is right, occasions for unsupported trust are relatively rare to begin with, at least once the pre-school/kindergarten/
early elementary years are past, and diminish even further as education proceeds.

All this of course requires much further discussion. But there is here a wealth of issues of interest to both the philosopher of education and the social epistemologist.

3. Teaching, Indoctrination and Belief

The matters just discussed lead naturally to consideration of issues concerning teaching and indoctrination. During the heyday of Anglophone analytic philosophy of education in the nineteen sixties and seventies, philosophers of education devoted considerable effort to the analysis of the concept of indoctrination. (Of course earlier philosophers of education also addressed it.) The theories of indoctrination developed then divided into three broad types, which located indoctrination in either the aim or intention of the teacher/indoctrinator [namely, to get students to believe matters independently of the evidence for them], the method employed in transmitting the relevant beliefs (that is, in a way that precludes student questioning or demand for reasons), or the character or content of the doctrines transmitted (that is, content that does not admit of rational support, or that is believed independently of such support). These three ways of understanding indoctrination have in common that [successful] indoctrination results in beliefs which students do not, will not and/or cannot subject to critical scrutiny. That is, indoctrination results, when successful, in student acquisition of both specific beliefs and of habits or dispositions to believe independently of the evidential status of the indoctrinated beliefs.

Indoctrination is of interest to the social epistemologist not only because of the epistemological dimensions of questions concerning the desirability of such habits and dispositions, but also because of its connection to the issues canvassed above concerning the fundamental epistemic aim(s) of education and testimony and trust, and because its possibility raises fundamental questions about permissible modes of social transmission of belief – especially belief transmitted from teachers to students in classrooms. Among the issues to be addressed are the following:

First, is indoctrination avoidable, or is it inevitable? If the latter, is it as a consequence not necessarily or always something to be avoided? Many have argued that indoctrination is unavoidable, and our earlier discussion of testimony and trust suggests the plausibility of such a view. After all, if students are incapable of subjecting teacher testimonial pronouncements to critical scrutiny until after a certain cognitive-developmental stage is reached, language and concepts acquired, and an appropriate level of reasoning ability attained, it is hard to see how teachers can help bring students to the point at which they can exercise their critical abilities except by indoctrinating them. The alternative view, namely that indoctrination is avoidable, requires a distinction between indoctrination and non-indoctrinating belief inculcation, but such a distinction is controversial.

Second, why should we value educational processes that result in student ability to subject candidate beliefs to critical scrutiny? (Indeed, should we value them at all?) Philosophers of education and social epistemologists who differ in their answers to the question of the fundamental epistemic aim of education will differ in their answers to this one. Veritists like Goldman will answer: because that ability will increase student acquisition of true belief. Fans of critical thinking will answer, rather, that student acquisition of rational/justified belief will be enhanced, and moreover, that desirable dispositions will be fostered. Pluralists will embrace both these answers. Those who think indoctrination inevitable may well deny that we should value such processes at all (and may deny that there are in fact any such processes). A similar range of answers will emerge from the range of possible answers to our second cluster of questions concerning the place of testimony and trust in education.

So questions of interest to the social epistemologist include: are the social processes required to educate students such that indoctrination is inevitable, or is it possible to educate students in a way that avoids indoctrination? Relatedly, should we give up the conventional understanding of indoctrination according to which it is a bad thing? If indoctrination is not inevitable, (why) should educators endeavor to avoid it? More generally, what social processes of belief
transmission (if any) are legitimate for teachers to use in their educational efforts?²¹⁰

4. Absolutism, Pluralism and Relativism

Basic social values vary among cultures. The same is true of educational values and ideals generally, and epistemic educational values in particular. For example, while many philosophers of education argue for the fundamental epistemic educational value of critical thinking, some cultures – e.g. cultures of a fundamentalist religious cast, and perhaps some Asian cultures¹¹ – value it less than other cultures, or even reject it outright as contrary to their other, more basic cultural values and commitments. How are we to understand such cultural divergence? Are some such values “absolutely” or “objectively” correct, while others are incorrect and should not be valued even though they in fact are? Or is such correctness relative to culture? Or is there some sort of pluralistic middle ground to be had here?

These issues are familiar to epistemologists, who, working in the days before the current enthusiasm for social epistemology, have devoted considerable effort to the absolutism/relativism controversy. Nevertheless, as it arises in the philosophy of education, the issues take on a social cast, in view of the social nature of education. I won’t review them in detail here, partly for reasons of space, and partly because they arise in connection with current interest in multiculturalism in the philosophy of education community, to be discussed in the next section. But they surely fall within the domain of interest to social epistemologists.¹²

5. Inclusion, Exclusion, Multiculturalism, and ‘Group Epistemologies’

The new flyer advertising this journal declares that “Social epistemology … brings classic philosophical concerns into contact with socio-political issues.” The cluster of issues to be discussed next exemplify such contact.

Philosophers of education have been greatly concerned in recent decades with issues of social justice in education, and while these issues have been pursued mainly in ethical and socio-political terms, they have important epistemological dimensions as well. Consider, for example, the cluster of issues revolving around inclusion, exclusion, and multiculturalism. It seems perfectly straightforward to reject as morally indefensible the deliberate exclusion – from advanced classes or “tracks” (e.g. “college prep” as opposed to “vocational”), from particular schools or programs, and from desirable educational opportunities generally – of particular groups of students on the basis of their gender, racial, or cultural identities. Equally straightforward-seeming is the embrace of social ideals of inclusion and multiculturalism: all students, groups and cultures should be fully included and fully embraced in our educational endeavors. But while these bromides are indeed correct, in my view, their obviousness dissipates in the face of further probing of their epistemological dimensions.

One cluster of questions concerns the justificatory status of the seemingly obvious moral judgments. Consider the embrace, in the educational context, of multiculturalism: that is, the view that students with diverse cultural backgrounds should have equal educational opportunities; that students should (at a minimum) not be penalized for their cultural identities and commitments; and, more generally, that cultural differences ought to be acknowledged, valued and respected in educational contexts rather than denied, trivialized, ignored or decried, or the members of “minority” cultures oppressed by the hegemonic dominant culture. Defenders of multiculturalism, myself included, argue that it should be accepted on moral grounds; that honoring its directives in educational settings is a necessary condition of the just, respectful treatment of minority (and indeed all) students. But this latter, allegedly justificatory claim is here offered in a culturally-neutral or “transcendent” way: the claim is that all students should be so treated, in all educational contexts, in all cultures – even those that do not embrace the multiculturalist vision. Can such a “universalistic,” culturally transcendent defense of multiculturalism be coherently defended, or is it rather an example of just the sort of totalizing, hegemonic imposition that multiculturalism is meant to reject?²¹³

A second, related cluster of issues arises in relation to the putative epistemic aims of educa-
tion canvassed above. Consider, for example, the aim of fostering student rationality, that is, the idea that education ought to endeavor to impart to students the skills, abilities, dispositions and habits of mind constitutive of critical thinking, and to aim at the production of students who are critical thinkers. Is this aim itself problematically “universalizing” and hegemonic? That is, do educational efforts aimed at fostering critical thinking mistakenly understand and wrongly treat some students and groups by imposing upon them the beliefs, epistemic values and epistemic standards of the dominant majority culture, thus denying the actual differences among them that should be acknowledged and valued rather than denied or rendered invisible? Put more starkly: is reason itself just “one more ideology”? Does that value have any more than “local” value or relevance? Here the social nature of the epistemological is brought to the fore, and its ramifications both for “individualistic” epistemology and for social practices like education are emphasized, while the alleged distinction between the epistemological and the political is called into question. There is clearly much here for the social epistemologist to ponder.

Like their multiculturalist colleagues, feminist philosophers of education raise related issues concerning the treatment of women students. Should the aims of education be the same for men and women, as Plato thought, or different, as Rousseau and many other historical figures held? Should all students be encouraged to master both traditional “male” and traditional “female” roles and abilities? Should we rather call these familiar categories into question? Should we instead reject reason and objectivity as themselves problematically “male,” and regard the attempt to foster them through education as an important site of the oppression of women, to be rejected rather than extended to women and girls? Similar issues are raised and treated by postmodernist philosophers of education. All the feminist positions just rehearsed have been defended in the literature, as have the related positions advanced by postmodernists; the issues raised fall squarely in (though they stretch beyond) the domain of social epistemology.

6. Knowledge and the Curriculum

Finally, a range of questions concerning curriculum content have social-epistemological dimensions. The first question concerns curricular subjects or areas. Should all students study, e.g., trigonometry and world history, or only those who are college bound? How about surveying or auto mechanics? This is in part a social/political question concerning student difference, but it also has an epistemological dimension concerning the value of particular areas of knowledge. A further issue concerns the specific content within an area. Consider science education, and in particular high school biology. It is well known that there is tremendous controversy concerning the appropriateness of including both evolutionary theory and “creation science” in the biology curriculum. This controversy is in part cultural/religious, but it clearly involves epistemology as well: is one of these more deserving of the title “knowledge,” and so of inclusion in the curriculum, than the other? If both are deserving of that honorific, is one more deserving than the other? Are extra-epistemological considerations, e.g. concerning the need to respect the cultural backgrounds of “minority” students, relevant to the determination of content? What is to be done when different cultures offer their own, “local” scientific (or “scientific”) beliefs and traditions of inquiry as candidates for the curriculum? Should science education in a multicultural context include all such “local sciences”? Only some or none of them? Isn’t traditional Western Modern (“White Male”) Science itself merely local, having been produced in particular historical/cultural locations? Even if so, does it enjoy some claim to universality that its alternatives do not? The context of science education raises these questions with particular vividness, but similar questions arise in virtually every subject-matter domain.

A further question concerns the origins, or sources, of curricular content. Is the specific content taught in the various subject areas discovered, or, as many conceive the matter, constructed? If the latter, in what sense? Does the answer to this question have ramifications concerning that content’s status as knowledge? The fact that those origins are typically social—both in science and in general, content rarely or never arises from the work of a single individual
who is not dependent on others – renders these questions also relevant to the social epistemologist. No doubt there are other curricular issues of interest to the social epistemologist as well.

**Conclusion**

The questions considered above are just a subset of those arising at the intersection of epistemology and education. The main conclusion I wish to draw here is that many or most of the live epistemological issues concerning education are or should be of great interest to social epistemologists. The philosophy of education, including questions concerning the epistemological dimensions of education, has for too long been neglected by mainstream philosophers. In the case of social epistemology, such neglect is a mistake. Education is a source of important grist for the social epistemologist’s mill.

**Bibliography**


Notes

1. The very quick arguments and declarations in this section are developed at greater length in Siegel (forthcoming).

2. The many aims proposed over the course of the history of educational thought include: the cultivation of curiosity and the disposition to inquire; the fostering of creativity; the production of knowledge and of knowledgeable students; the enhancement of understanding; the promotion of moral thinking, feeling, and action; the enlargement of the imagination; the fostering of growth, development, self-realization, and/or the fulfillment of potential; the cultivation of ‘liberally educated’ persons; the opening of minds and the overcoming of provincialism, close-mindedness, and prejudice; the development of sound judgment; the cultivation of docility and obedience to authority; the fostering of autonomy; the maximization of freedom, happiness, or self-esteem; the development of care, concern, and caring attitudes and dispositions; the fostering of a sense of community, social solidarity, citizenship, and civic-mindedness; the production of good citizens; the ‘civilizing’ of students; the protection of students from the deleterious effects of civilization; the development of piety, religious faith and commitment, and spiritual fulfillment; the fostering of ideological purity; the cultivation of political awareness and action; the integration and/or balancing of the needs and interests of the individual student and the larger society; and the fostering of the skills and dispositions constitutive of reason, rationality or critical thinking. Kevin Harris makes the point with dramatic humor:

There is a common belief, significantly shared by many beginning formal tertiary students in education, that ‘education’ has a fixed meaning, and distinct aims, which can be unveiled either by turning up a dictionary or by consulting a favoured authority. So, in the very first lecture of every course I give, I stress that ‘education’ is a changing, contested and often highly personalised, historically and politically constructed concept. To illustrate this I read a few dictionary definitions of ‘education’, as well as a selected set of stated ‘aims of education’. When students hear that D. H. Lawrence claimed education should aim to ‘lead out the individual nature in each man and woman to its true fullness’, that for Rousseau the aim of education was ‘to come into accord with the teaching of nature’, that R. M. Hutchins saw
the aim of education as ‘cultivation of the intellect’, that A. S. Neill believed the aim of education should be to ‘make people happier, more secure, less neurotic, less prejudiced’, and that John Locke claimed ‘education must aim at virtue and teach man to deny his desires, inclinations and appetite, and follow as reason directs’; hopefully the penny has dropped. Just in case it hasn’t I add in that while Pope Pius XI was declaring that the aim of education was to ‘cooperate with divine grace in forming the true and perfect Christian’, Sergei Shapovalenko insisted that education should aim ‘to inculcate the materialist outlook and communist mentality’. That usually does the trick. (Harris 1999, 1)

For brief defense of this claim see Siegel 2003, 305-6.

Other epistemic aims of education have also been recommended. Perhaps the most plausible of these is Catherine Z. Elgin’s advocacy of understanding as the fundamental epistemic aim of education. (Elgin 1999, 1999a)


See Siegel (forthcoming) for further discussion.

See Siegel (forthcoming) for further discussion.


For my own attempt to draw and utilize such a distinction, see Siegel 1988, ch. 5.

For further discussion of the issues raised in this section, see Siegel (forthcoming).

For discussion and references, see Goldman 1999, 147-8. Although Goldman’s discussion here concerns cultural norms that encourage or deter critical argumentation, its relevance to the topic at hand is manifest.


Note that analogues of the problems here raised for the aim of fostering rationality/critical thinking accrue to the other proposed epistemic aims of education, namely the advancement of truth and understanding, considered above.


For discussion and references see Siegel 1997, forthcoming a.

For further discussion of these matters in the context of science education, see Siegel 1988 ch. 6, 1997a, 2001, 2002, and Smith and Siegel 2004.

For discussion of constructivism in science education see Siegel 2003a.

As a look at the notes and references will reveal, the issues mentioned are at least in part reflective of my own idiosyncratic interests.

Harvey Siegel is Professor of Philosophy at the University of Miami. He is past President of both the Philosophy of Education Society and the Association for the Philosophy of Education. His books include Rationality Redeemed?: Further Dialogues on an Educational Ideal (1997); Educating Reason: Rationality, Critical Thinking, and Education (1988); and Relativism Refuted: A Critique of Contemporary Epistemological Relativism (1987).