

# Goldman and Siegel on the epistemic aims of education

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## 1. What we do in the paper

The debate on the epistemic aims or goals of education is very hot and on-going. Philosophers have claimed that education aims at fostering disparate epistemic goals—for instance: knowledge, true belief, understanding, epistemic character, critical thinking (for an introduction see Carter and Kotzee 2015: §6). In this paper we focus on an important segment of the debate involving conversation between Alvin Goldman and Harvey Siegel. Goldman claims that education is essentially aimed at producing true beliefs. Siegel contends that education is essentially aimed at fostering both true beliefs and, independently, rational beliefs. We summarize and criticize the arguments from both sides. We find Siegel's position intuitively more plausible than Goldman's, but we also find Siegel's defence of it wanting. We suggest a novel argumentative strategy on Siegel's behalf that goes from general epistemology to epistemology of education.

## 2. Goldman's view

In *Knowledge in a Social World* (1999), Goldman introduces *veristic social epistemology* (VSE), which investigates *epistemic* features of social institutions. VSE enquires whether institutions such as legal, scientific and educational systems produce *true belief* (called by Goldman *weak knowledge*) in those that use them. Goldman suggests that true belief is our 'dominant epistemic goal' (24).<sup>1</sup>

Goldman accepts a *moderate multiculturalism* but contrasts VSE with *postmodern* or *veriphobic* approaches to social epistemology that reject the existence of an objective, mind-

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<sup>1</sup> A partial defence of this thesis is in Goldman (2002).

independent truth while advocating constructivism, anti-representationalism, antirealism, pragmatism, metaphysical or epistemic relativism.

Goldman recognizes that education has different aims. However, he maintains that its specific *epistemic* goal is *the promotion of true belief in learners*. For him, there are various effective pedagogical methods to produce true beliefs in addition to the traditional “stand and deliver”.

Education pursues this mission in several ways: by organizing and transmitting pre-existing [true beliefs], by creating incentives and environments to encourage learning, and by shaping skills and techniques that facilitate autonomous learning and steer inquiry toward truth. (343)

Goldman recognizes that education may have various *epistemic* goals—e.g. fostering understanding, rational belief or critical thinking—but he contends that these aims are *mere means* or *instruments* to the *fundamental* epistemic goal of producing true beliefs. Goldman is thus a *monist* about the ultimate epistemic goal of education. He rejects the opposing *monist* view—prominently defended by Siegel (1988)—that the central epistemic goal of education is just *rational* (or *justified*) *belief* via fostering *critical thinking* in learners. Siegel locates his ideas within the long tradition—which draws from Kant, Sellars and McDowell—that identifies the central aim of education with *fostering* or *cultivating rationality*.

Against Siegel, Goldman claims:

I do not see critical thinking as an epistemic end in itself... Critical thinking ... is a useful means to the fundamental end of true belief. (1999: 363)

His point is that critical thinking produces rational beliefs, which are often *true* beliefs.

Goldman also contends that the use of critical thinking in education has a *scope limitation*: many of the claims made by teachers simply have to be taken *uncritically* on trust by students. For teachers cannot always provide reasons for the reasons they give: the chain of reasons must *stop* somewhere. Hence, in education, critical thinking is not as fundamental as Siegel thinks.

### 3. Siegel's current view

In the more recent paper 'Truth, thinking, testimony and trust' (2005), Siegel—like Goldman—accepts a moderate multiculturalism and opposes veriphobic/postmodern approaches that reject the existence of an objective, mind-independent truth. Furthermore, Siegel now acknowledges that in education the beliefs to be transmitted to students are (presupposed to be) *true*. Siegel (2005) thus drops his (1988) *monistic* view on the fundamental epistemic goal of education and claims, against Goldman, that *true belief* and *rational belief* (or *critical thinking*) are two *independent* fundamental epistemic goals of education. On this *pluralist* view, rational belief is *epistemically valuable in itself* and independent of its being a means to true belief.

Siegel (2005) also tries to rebut Goldman's claim that mere trust in testimony often supplants critical thinking at school.

### 4. Siegel's arguments are insufficient

Siegel notes that from the fact that VSE investigates education (and other social institutions) as a means to transmit true belief it doesn't necessarily follow that true belief is the fundamental epistemic goal of education. Then, he runs *four* arguments to support his pluralism. Here is the first:

(A1) If true belief were the only fundamental epistemic goal of education, teachers would aim at inculcating true belief irrespective of the method. So 'brainwashing, indoctrination, fabrication, deception, chemical manipulation, etc. would be permissible. But they are not.

(349)

A1 is questionable. Even if true belief were the only *epistemic* goal of education, teachers might not use certain method for *moral*, *legal* or *practical* reasons. Some methods—e.g. chemical manipulation—might be available and used in the future (cf. Buckland 2016: 106).

This is Siegel's second argument:

(A2) ‘Teaching must be carried out under appropriate restrictions of *manner*: as teachers, we aim to get students to believe curricular content that we ourselves take to be true, for reasons that we take to be good reasons for regarding that content as true; we aim further that our students’ resulting true beliefs will be held on the basis of those reasons.’ (2005: 249)

A2 isn’t very convincing. Goldman could reply that the fact that when we teach that *P* we often teach a reason *R* for *P* shows that we often teach *truths* and *skills to get to the truth* simultaneously.

A2 doesn’t show that rational belief (or critical thinking) is *independently* valuable in education.

Siegel’s third case is based on two thought experiments:

(A3) Maria and Mario ... both ... truly believe that *P*. Maria’s belief is rational in that it was generated and is sustained by her critical thinking, while Mario’s is not—Mario’s is a lucky true belief. It is uncontroversial that ... Maria’s belief is more valuable epistemically than Mario’s... A moment’s reflection reveals that the same valuation obtains in the case in which *P* is false. ... Maria’s and Mario’s beliefs have the same truth value; again, we judge Maria’s superior to Mario’s. ... Holding everything constant (including truth value) except justificatory status, the ... argument strongly suggests that rationality/justification has value independently of its instrumental tie to truth. (351)

Siegel’s claim is that in both cases Maria’s rational belief doesn’t seem to be valuable *as a mean to true belief*. For in one case it is already known that Maria’s belief is true, and in the other that it is false. But A3 is questionable. Goldman could insist that in both cases Maria’s belief is more epistemically valuable than Mario’s belief, not in itself, but only because it *indicates* that Maria is *more rationally skilled* than Mario. As only Maria is endowed with critical thinking, which is epistemically valuable only *as a useful means to true belief*.

Siegel’s fourth argument is this:

(A4) ‘Because we lack direct access to truth, we have no choice but to approach truth by way of justification. ... If so, the basic *educational* aim should be seen not as the production of true belief, *per se*, but that of enabling students to *judge or estimate wisely* the truth ...

Consequently, critical thinking, and its pursuit of justified belief, are at least as fundamental, *educationally*, as the aim of true belief. (352-353)

We find this argument unconvincing: we agree that Siegel’s considerations in A4 show that critical thinking is an *important* goal of education. Yet it seems to us that they don’t unmistakably show that critical thinking is an *independent* epistemic goal of education.

We support Siegel’s pluralism but we find his arguments weak.<sup>2</sup> In the following we outline an alternative argumentative strategy on Siegel’s behalf that we think has a good chance to succeed.

### **5. A top-down approach: from general epistemology to epistemology of education**

Thus far we have focused on the epistemic goals *of education*. One might wonder what fundamental epistemic goals there are *in general* (independently of education). Siegel (2005: 356) claims that his arguments in epistemology of education give us reason to conclude that true belief and rational belief are independent, fundamental epistemic goals *in general*. However, since we find Siegel’s arguments quite unconvincing, we doubt they could give us any reason to believe so.

Our view is that Siegel should proceed the other way round. Siegel could defend the thesis that true belief and rational belief are independent, fundamental epistemic aims *of education* if he could first successfully argue that:

(EA) True belief and rational belief are independent, fundamental epistemic aims *in general*.

If EA is true, it is in fact reasonable to conclude that:

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<sup>2</sup> Other scholars find Siegel’s arguments wanting; see for instance Buckland (2016).

(EAE) True belief and rational belief are independent, fundamental epistemic aims of *education*.

We will use the expression ‘epistemic *goods*’. There is no substantive difference between epistemic goals and goods. An epistemic goal is simply an epistemic good—i.e. an *epistemically valuable* state—that we aim to achieve in virtue of its being epistemically valuable.

## **6. Defending EA: our general strategy**

*Epistemic* goals or goods are typically characterized as those that *define* the states or activities investigated by epistemology.

There are at least two conceptions of epistemology. According to the mainstream one, epistemology investigates *knowledge*. According to an alternative—embraced for instance by Kvanvig (2005)—epistemology investigates *all forms of cognition*. For instance: knowledge, understanding, rational belief, responsible inquiry, making sense, and so on.

To defend EA, one could try to substantiate the second conception of epistemology and insist that each independent form of cognitions is defined by an independent goal, and that these goals encompass both true belief and rational belief. Yet since this is a minority view, we expect that only a few philosophers would find this way to proceed appealing. Also, we found no evidence that Siegel would accept this type of radical epistemic pluralism.

We prefer to stick to the mainstream conception of epistemology. Accordingly, we will outline an argumentative strategy to show that since *knowledge* is defined by (at least) the independent and fundamental goals of true belief and rational belief, the latter are independent and fundamental *epistemic* goals.

## 7. The goods that constitute knowledge

Epistemologists agree that *knowledge* must include some ingredients additional to true belief.

Internalists about knowledge—like Siegel<sup>3</sup>—think that rationality (or justification) is one of these additional ingredients. There is also agreement that knowledge must include some anti-luck condition, such as sensitivity or safety. For the sake of simplicity, we set aside the anti-luck condition. Nothing of what we say hinges on this condition.

Since true belief and rational belief are components of knowledge, they must be goals we aim at when we aim at knowledge. So they are *epistemic* goals. The next task is to show that they are both *fundamental* epistemic goals.

## 8. Rational belief as a fundamental epistemic goal

An important distinction is between *instrumental* (or *teleological*) conceptions of epistemic rationality and *categorical* (or *deontological*) conceptions of epistemic rationality. Instrumental conceptions are essentially *goal-directed*, whereas categorical conceptions are essentially *independent of the achievement of a goal*.

Instrumental conceptions hold that a belief is epistemically rational for a subject *S* just in case and because *S*'s holding it promotes or appears to *S* to promote *S*'s achievement of the fundamental epistemic goal(s). Suppose the ultimate epistemic goal is entertaining true beliefs.<sup>4</sup> Suppose *P* appears to be true to *S*, and *S* has no reason to distrust her appearance. In this case, the belief that *P* is epistemically rational for *S*, as believing *P* appears to *S* to promote the ultimate epistemic goal of entertaining true beliefs (cf. Foley 1987).

If epistemic rationality is instrumental, rational belief has no chance to qualify as a *fundamental* epistemic goal. For rational belief is valuable, not *per se*, but only as a *means* to achieve the

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<sup>3</sup> Siegel explicitly endorses internalism about justification (see for instance Siegel 2012). Furthermore, Siegel (2005) uses a notion of knowledge that includes justification. These two factors make Siegel an internalist about knowledge.

<sup>4</sup> Note that knowledge cannot be the ultimate epistemic goal if epistemic rationality is instrumental. Since knowledge presumably *includes* rationality as one component, knowledge cannot be the epistemic goal *in virtue of which* beliefs are *rational*, on pain of circularity.

ultimate epistemic goal(s). This is the view of epistemic rationality embraced by Goldman (1999). For him, our rational faculties—namely, those that produce *rational beliefs*—are typically *reliable*. So rational beliefs are epistemically valuable *just in virtue of* being probably *true*.

Categorical conceptions of epistemic rationality hold, on the other hand, that a belief is epistemically rational for a subject *S* just in case it is *sufficiently supported by S's evidence*. If epistemic rationality is categorical, rational belief qualifies as an epistemic goal *in itself* rather than a mere means to another epistemic goal. So it qualifies as a *fundamental* epistemic goal.

Therefore, a defence of EA must include a defence of a *categorical* conception of epistemic rationality.<sup>5</sup> Siegel himself has argued in favour of this conception (see for instance Siegel 1996). The most forceful cases to date are probably in Kelly (2003 and 2007). These arguments show that in ordinary circumstances our evidence can give us reasons to believe *P* even when we explicitly have the goal of *not* forming a belief that *P* or not-*P*. (Further arguments are in Bondy 2012.)

## 9. True belief as a fundamental epistemic goal

The following considerations shed doubts on Goldman's thesis that true belief is the fundamental epistemic goal (cf. Ritola 2011). Take these two propositions:

(A) True belief is the fundamental epistemic goal.

(B) Knowledge is epistemically more valuable than mere true belief.

(A) is Goldman's thesis. (B) traces back to Plato's *Meno*, and it is very widely endorsed. As DePaul (2001) has indicated, (A) and (B) are incompatible. If true belief were actually *the* fundamental epistemic goal, nothing should be more epistemically valuable than it.

The intuitive truth of (B) calls for explanation.<sup>6</sup>

<sup>5</sup> As Siegel (2005) notes, Goldman (2002) gives no reason to deny that epistemic rationality is categorical: his arguments only show, at best, that *if* it is categorical, *then* it cannot be *the only* ultimate epistemic goal.

<sup>6</sup> For comprehensive discussion see Marian (2005).



One might argue that (B) is correct because knowledge itself is *the fundamental epistemic* goal or good, whereas its ingredients are epistemically valuable *only as means to* produce, jointly, knowledge.

But this seems false: if the ingredients of knowledge are not valuable individually taken, why is their *sum* valuable? (Cf. Marian 2005). More importantly, if epistemic rationality is *categorical* and so is an epistemic goal *in itself*, its value cannot rest on its being *a mere means* to knowledge.<sup>7</sup>

Another possible explanation of (B) is that rational belief, but not true belief, is epistemically valuable *in itself*. But this looks strongly counterintuitive.

The explanation that we support is that (B) is true both because true belief and rational belief are independent *fundamental* epistemic goals. Knowledge is epistemically more valuable than true belief and rational belief individually taken simply because it is the *sum* of them.

## 10. Back to epistemology of education

If it is true that:

(EA) True belief and rational belief are independent, fundamental epistemic goals,

it is quite natural to conclude that:

(EAE) True belief and rational belief are independent, fundamental epistemic goals of education.

In particular note that, in light of EA's truth, EAE appears to be the best explanation of the data described in Siegel's cases A2 and A3; namely, the observation that teachers aim to provide students with not only true beliefs but also good reasons for them, and the observation that Maria's rational beliefs are more epistemically valuable than Mario's non-rational beliefs.

In light of EA's truth, EAE is *supported* by Siegel's examples and observations.

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<sup>7</sup> Buckland (2016) seems not to note this fact. He claims that the instrumental conception of epistemic justification is implausible but, nevertheless, he contends that knowledge should be taken to be *the* ultimate epistemic goal (at least in education).

## 11. Critical thinking and testimony

Goldman argues that the use of critical thinking in education is limited: many claims made by teachers have to be taken *uncritically* on trust by students because the reasons that teachers provide for them must stop somewhere. In a sense, testimony and trust are thus educationally more basic than critical thinking.

Goldman suggests that critical thinking's supporters would re-join by insisting that:

(GR) A hearer is never justified in believing what a speaker asserts unless the hearer has good independent [*non-testimonial*] reasons to trust the speaker on that occasion. (1999: 364)

Goldman responds beforehand that (GR) is based on implausible *reductionism* about testimonial justification: in most cases it is impossible for the hearer to have *non-testimonial* justification for believing that the speaker is reliable. This is indeed a motivational thesis of Goldman's VSE: when we come to epistemic justification we cannot exit the circle of testimony.

We agree with Goldman that (GR) is implausible if 'good independent [non-testimonial] reasons' refers to *empirical* or *mnemonic* evidence.

Siegel (2005) concedes that for *very young* pupils testimony and trust are educationally more basic than critical thinking. Yet he contends that (GR) is true for more mature students and launches himself into an example-based defence of (GR) *circumscribed to education*. We fear that Siegel's response as been dismissed as a form of implausible local reductionism (cf. Ferreira *et al.* 2016 and Buckland 2016).

We suggest that Siegel would have more chances to succeed if he defended this more plausible *coherentist* variant of (GR):

(GR\*)A (grown-up) student *S* is never justified in believing what a teacher *T* asserts unless *S* has good *coherence-based* reasons (resting on independent *testimonial* or non-testimonial data) to trust *T* on that occasion.

For instance, *S*'s good reasons to trust *T* could be *S*'s *assessed coherence* of a number of independent *testimonial* reports stating that *T* was trustworthy on other occasions, where each report is justified because it coheres with the others.

Since *S*'s good reasons stem from *S*'s assessed coherence (which is an exercise of *S*'s *critical thinking*), it is false that testimony and trust are more educationally basic than critical thinking.

## 12. Conclusions

In this paper we have outlined Goldman and Siegel's dispute on the epistemic goals of education. Goldman claims that there is one goal: true belief. Siegel contends that there are two independent goals: true belief and rational belief. We have suggested that Siegel's arguments are insufficient to substantiate his thesis. Yet we have outlined a top-down strategy—from general epistemology to epistemology of education—that might vindicate Siegel's view. Goldman claims that testimony on trust is more fundamental than critical thinking at school. We have put forward a variant of Siegel's response to Goldman that shields it from the charge of resting on an untenable form of testimonial reductionism.

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