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WHEN TO TEACH FOR BELIEF:
A TEMPERED DEFENCE OF THE EPISTEMIC CRITERION
Forthcoming in the Journal Educational Theory

School teachers have a lot of persuasive power over what their pupils come away from lessons believing, or disbelieving. A very important question is when if ever a teacher should attempt to impart beliefs to students or disabuse students of their existing beliefs on the one hand, and when they should not attempt to do either of these on the other. These approaches can be called ‘directive’ and ‘non-directive’ teaching respectively. Views vary about whether and when teachers ought to exercise their persuasive powers through directive teaching. Take just the case of religious beliefs. Some philosophers say that whether teachers ought to attempt to persuade their students that a given religious claim is true depends in part on what kind of school they are teaching in. While it might be appropriate to persuade students that a religious claim is true in a faith school, say, it would be inappropriate to do so in a non-denominational school. Other philosophers say that the answer should vary according to kind of beliefs that are in question. If we are talking about the sort of question that has been answered by the sciences, then it is appropriate to teach for belief in what the sciences have shown to be the case. If we are talking about the sort of question which the sciences cannot resolve however, moral or political questions, say, then it is appropriate to teach for what the community agrees on (e.g. that slavery is wrong, or that women deserve the vote). One powerful answer to the question cuts across types of schools, and denies that we ought to use different standards to settle the question for different kinds of belief. Michael Hand calls this the Epistemic Criterion.¹ Put roughly, on this view, if something is known to be true, it must be taught as true where its truth

¹ Michael Hand, “What Should We Teach as Controversial? A Defense of the Epistemic Criterion,” Educational Theory 58, no. 2 (2008): 213–228. This work is to be cited as TAC for all subsequent references.
is the subject of the lesson. If something is not known to be true, it may not be taught as true. Instead, if it has enough epistemic credentials to make it a live option, it may be taught as possibly true, with the teacher neither trying to impart beliefs, nor to disabuse students of their existing beliefs. Let us go back to the sorts of claims mentioned above: religious, scientific, political, and moral beliefs. On the Epistemic Criterion, one would ask: is this claim known to be true? If it is known to be true, one would impart it, if it were not known to be true, one would teach it non-directively, and if it were known to be false, one would disabuse students of that belief.

Critics have suggested that in the political sphere, another (‘Politically Authentic’) criterion for directive/ non-directive teaching is sometimes appropriate (Hess and McAvoy). Others have suggested that the categories of directive and non-directive teaching are falsely restrictive (Warnick and Smith). One critic has argued that that teaching for belief and disbelief is always suspect, and the teachers ought to focus on the procedural matters of how beliefs are generated, and corroborated, rather than on the substance of the beliefs themselves (Gregory). In this paper, I contend that the two key arguments made by Hand to advance the Epistemic Criterion are defective, but develop an alternative motivation for a more restricted application of the Epistemic Criterion. Building on other work of Hand’s and my own, I argue that regarding those propositions about which not being correctly informed is detrimental, an Epistemic Criterion is appropriate.

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The paper begins with some conceptual scene setting by mapping the directive and non-directive distinction onto a broader distinction between promotional and non-promotional educational aims, and distinguishing it from the closely allied concepts of teachers, in Hess and McAvoy’s useful terminology, ‘disclosing’ and ‘withholding’ their views. This is followed by a discussion of how to understand the distinction between directive and non-directive approaches, and which pedagogical actions might be consonant with each. I then spend some time discussing and rejecting two key arguments that Hand provides in defence of the Epistemic Criterion. In the next section, I argue that teachers should use the Epistemic Criterion in the limited case of momentous propositions (those propositions for which the stakes are high regarding the consequences of failing to believe correctly). In the case of momentous propositions, imparting knowledge is just as important as cultivating rationality; that is because the stakes are so high in such cases that it would not only be bad teaching but would be immoral to allow students to believe falsehoods and disbelieve truths. Finally, I critique those of Warnick and Smith’s objections to the Epistemic Criterion which go beyond their criticisms of Hand’s arguments in its favour, concluding that they do not represent a problem for my tempered defense.

THE DIRECTIVE/ NON-DIRECTIVE DISTINCTION

In this first section, I set the conceptual scene by mapping the directive and non-directive distinction onto a wider distinction between promotional and non-promotional educational aims, and distinguishing it from the closely allied distinction between teachers, in Hess and McAvoy’s useful terminology, ‘disclosing’ and ‘withholding’ their views. First let us distinguish between promotional and non-promotional educational aims. One may contrast the educator’s intent to impart something to, or promote or encourage something in, the student on the one hand (perhaps a belief, a disposition, or an understanding, for instance), with their not
intending to impart something on the other. The question ‘should we teach this subject matter directly or non-directively?’ gives the impression of an exhaustive and exclusive distinction, since it posits and negates a predicate. As Hand uses the terms, ‘directive’ denotes the intention to encourage belief or disbelief, and ‘non-directive’ denotes the intention to encourage understanding. So as Hand uses the term, non-directive teaching is promotional in its intention to promote understanding. These comments are in no way intended to undermine the directive/non-directive distinction as Hand draws it, but simply to map it on to a broader concept that might equally have been signified by those terms.

It is important to note that an education need not aim to affect some pre-determined formative influence over students. For instance, educational processes might merely have the highly non-instrumental goal of exposing students to certain practices, materials, and experiences. In so far as we are interested in exercising certain promotional aims, it is better, I submit, to separate out these issues and ask whether we ought to promote or ought not to promote particular formative outcomes in students: first, whether they understand a proposition, for instance, and, second, whether they believe or disbelieve a proposition in addition to understanding it. A given subject matter may be taught with promotional aims in some respects, while being taught with non-promotional aims in others. Thus, an understanding of political ideologies, and an interest in discussing politics might be promoted, while allegiance or opposition to any particular ideology is not promoted. Non-directive education of the proposition that some political theory (PT) is true can be represented in the following table.

<table>
<thead>
<tr>
<th>Attitude</th>
<th>Promotional</th>
<th>Non-Promotional</th>
</tr>
</thead>
</table>

6 Slightly differently, we may contrast their actually promoting or encouraging something (in a task sense), with their failing to do so (in an achievement sense).
7 Of course, as Hand recognizes, belief and understanding are not exclusive; indeed, he argued in his doctoral thesis and first book that belief presupposes understanding; Michael Hand, *Is Religious Education Possible?* (London: Continuum, 2006).
<table>
<thead>
<tr>
<th>Interest in truth of PT</th>
<th>x</th>
</tr>
</thead>
<tbody>
<tr>
<td>Understanding of PT</td>
<td>x</td>
</tr>
<tr>
<td>Belief that PT</td>
<td>x</td>
</tr>
<tr>
<td>Disbelief that PT</td>
<td>x</td>
</tr>
</tbody>
</table>

The question we are specifically interested in is whether one of the aims we ought to have as educators is to cultivate belief (or disbelief), and if so, when, why and how.

The directive/ non-directive distinction might reasonably seem to have evolved in Hand’s writings. Alternatively, it might be thought that Hand’s manner of expressing the distinction has grown clearer (I suspect that the latter is true). In his latest glossing of the terms, the distinction is succinctly put as turning on whether or not one intends to teach for a specific belief (rather than on any particular methods, or outcomes):

To teach a claim directly is to teach it with the intention of persuading students of its truth or falsity; to teach a claim non-directively is to teach it with the intention of not so persuading them.⁸

Earlier formulations of the distinction were somewhat different, and this difference may be responsible for some confusion on Warnick and Smith’s part in interpreting Hand, as when they feel the need to argue that teachers are entitled to disclose their views on topics which are

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⁸ Michael Hand, “Afterwords: Response to Warnick and Smith,” *Educational Theory* 64, no. 4: 425-426, the notion of non-directive teaching is described as turning on intending not to persuade, rather than not intending to persuade them, but this would open up the possibility for a third category in which teachers neither intend to persuade nor intend not to persuade.
not epistemically settled (a view that Hand claims not to have opposed).⁹ Previously, directive teaching was glossed as teaching matters “as settled or resolved,” where “a problem is taught along with its solution, a question along with its answer; the intended outcome is precisely that students should come to share the teacher’s view on a matter” (TAC, 213). Teaching a problem along with its solution, a question with its answer, sounds rather pedagogical in content. He adds that directive teaching is distinguished from non-directive teaching by “the willingness of the teacher to endorse one view on a matter as the right one,” but Hand does emphasize intention, and the pedagogical remarks seem rather like accidental rather than essential features. Indeed, how the intention may properly manifest itself is left wide open. Open that is, bar one stricture: namely that one may only use rational means to persuade. These means being: 1) appeal to perceived intellectual authority and 2) the presentation of all relevant evidence together with sound arguments.¹⁰ This is fairly intuitive: the acquisition of a belief can be warranted either indirectly, by reliable testimony, or by becoming directly acquainted with the stuff being testified to. In practice reliance on testimony can often only ever be reduced, never eliminated.

An intellectual authority is one who is a position to opine on topics in a reliable way. A perceived intellectual authority is a person who is considered to be such a person.¹¹ One can come to be in intellectual authority on a matter either by direct acquaintance with the stuff one testifies to, or by reference to a further authority that is itself acquainted to the stuff testified to (call this ‘inherited authority’). Perhaps Hand would admit one more form of rational influence, namely, that of providing the conditions within which students might discover the truth of some

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⁹ ibid
¹⁰ See, for example, Michael Hand, “A Philosophical Objection to Faith Schools,” Theory and Research in Education 1, no. 1 (2003): 89–99. This work is to be cited as POFS for all subsequent references.
¹¹ It should be added that the charismatic leaders of various cults are (mis)perceived as epistemic authorities by their followers, and can radically mislead their followers so fundamentally and systematically that their followers’ belief sets become incorrigible.
proposition themselves. This also captures the method of ‘steering’, which Hand, in turn, glosses as “guiding participants, by means of strategic prompts, questions, and interjections, toward a predetermined conclusion.” One might think of such closed-ended exercises as allowing students to conduct experiments to discover facts about the world, as not too dissimilar to steering: after all, when the experiments do not show what they are supposed to, the teacher says, ‘we did the experiments wrongly,’ not, ‘we have made an important discovery.’

It is interesting to ask how disclosure and withholding relate to directive and non-directive teaching. Some might suggest that disclosure amounts to directive teaching. At first blush, there is a tension between saying ‘I don’t want to steer belief’ on the one hand, and making assertions (or disclosing one’s views) on the other. However, while disclosing one’s beliefs (e.g. “I believe that Jesus is the son of God) is surely a form of promotion (namely endorsement), it can be a fairly weak form. Consider the difference between the statements: “Jesus is the son of God” and “we believe that Jesus Christ is the son of God” (where the ‘we’ captures the children in the class) on the one hand, and “I believe that Jesus Christ is the son of God” on the other. The first sentence is an assertion about the world (thereby putting an onus on the listener to accept their testimony). The second makes a statement about the students’ belief sets, and presumably a more prescriptive one, namely that this is what they should believe. The third sentence looks to be more of an assertion about the teacher’s own belief set. All three are cases of endorsement; all three are cases of disclosure; but the last seems importantly different from the first. Our reports of our own beliefs are only obliquely claims about the world, lacking the same commendatory force.

An endorsement is almost essentially some kind of recommendation. But a recommendation is weaker than an instruction, or stronger advocacy. It is interesting to ask what the difference is between directive teaching and disclosure in the context of non-directive teaching. Both directive teaching and disclosure might be thought to involve asserting a view and both can involve defending that view. But perhaps one requires prefixes such as “it seems to me,” and “personally, I am persuaded that,” and the other involves a higher degree of confidence, and perhaps legitimates marking students as incorrect when they answer wrongly on exams, say. In the clearest examples, ‘2 + 2 = 5’ can be marked as wrong, and so too can ‘the sun goes around the earth,’ but ‘blue is nicer than pink’ cannot. Perhaps in the former cases one would be less inclined to move on having failed to persuade students of the relevant conclusions, while in the latter one would have no such worry.

On Hand’s view, it is only when one intends to impart the view, rather than merely share one’s own view that one is indeed teaching directively. But this seems unsatisfying: can two teachers really act in just the same way, and the only difference which justifies the former and rules out the latter is the presence of an intention? If so, the Epistemic Criterion seems pedagogically idle. Warnick and Smith are right to wonder what the observable differences are between legitimate pedagogy and illegitimate pedagogy sanctioned by the Epistemic Criterion: fair enough the intentions are different, but people can act in ways that do not serve their intentions and be blameworthy for doing so: which pedagogical actions properly serve each intention? Vagueness on this point could spell vacuity for the thesis. Perhaps directive teaching debates could shift to debates about what answers may be marked as correct or incorrect in exams, and the character of informal verbal feedback. We shall consider this possibility now.

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13 For an interesting recent discussion of correctness criteria in Religious Studies in particular, see Craig Bourne, Emily Caddick Bourne and Clare Jarmy’s paper: ‘The Basis of Correctness in the Religious Studies Classroom,’ *Journal of Philosophy of Education* (available on Early View).
ALTERNATIVE CATEGORIES AND CONSONANT PEDAGOGICAL BEHAVIOURS

In this section I discuss whether the distinction between directive and non-directive approaches might be falsely restrictive, and which pedagogical actions might be consonant with each. Warnick and Smith suggest that “the categories of directive and non-directive teaching need to become more refined and nuanced” (COC, 229). On Hand’s account, this is an odd suggestion. As he observes in his brief reply: One either intends to impart a belief, or (by the law of the excluded middle) does not intend to part a belief; there no other options. As Hand admits, his rendering of the distinction is not very vocal on the question of which pedagogical actions satisfy it or not. However, his silence on pedagogical matters is somewhat frustrating to critics, Warnick and Smith, and Gregory. The point is not that intentions are too elusive to be material to ethical character evaluations; they frequently are not (although sometimes we must interpret actions in the most generous way where intentions are ambiguous). Rather it is that if no particular actions are required or ruled out, the distinction would seem to be of no practical value. Indeed, it rules out the possibility of negligent infringements motivated by the right intentions: but surely one might do wrong in promoting a view, or undermining a view or failing to promote or undermine a view without intending to promote or undermine a view.14 Surely this has to do with some particular set of observable actions.

14 This distinction between intention, and pedagogical behaviour should remind us of debates about rival criteria of indoctrination, and then we should remember to add ‘outcomes’ to the list. The complex interplay of these aspects of actions is beyond any detailed examination in this paper, but a couple of remarks may be useful. It seems that too much of an emphasis on actual outcomes obliterates the importance of what we risk, and what we intend, since whether or not we acted well comes down to how things may (even freakishly) turn out. I want to emphasize outcomes risked (in the form of pedagogical behaviours) and intention, rather than outcomes obtained. In general, I defend a threefold account of wrong doing: We do wrong when 1) we intend to frustrate goods or bring harm 2) we fail to intend to bring basic goods, 2.1) unknowingly, but negligently, 2.2) knowingly but irregardless, 3) when we risk frustrating goods or bringing harm, 3.1) unknowingly, but negligently, 3.2) knowingly and irregardless.

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Given this, Hand’s injunction looks to be too permissive with what pedagogies and actions are compatible with it: the very same action is wrong if it is motivated by one intention, and ok if motivated by another. This sort of feature need not be a deficiency with a view (it allows for a moral difference between those who are cruel to be kind, and those who are cruel to be cruel), but looks to be a deficiency with this view (at least for its utility). Consider how one might fill out the following table of actions. For to the extent that one cannot, the view may prove hollow.

<table>
<thead>
<tr>
<th>Consonant with imparting belief x</th>
<th>Not consonant with imparting belief x</th>
</tr>
</thead>
<tbody>
<tr>
<td>Marking x as correct</td>
<td>Marking x as incorrect</td>
</tr>
<tr>
<td>Nodding in agreement with x</td>
<td>Shaking head in disagreement with x</td>
</tr>
<tr>
<td>Asserting that x</td>
<td>Denying that x</td>
</tr>
</tbody>
</table>

Note that ‘x’ stands for the same propositional content at each column in the above table. It is of course true that where one marks ‘x’ as incorrect one acts in a way consonant with imparting the belief that ‘not x’. However, one most assuredly does not act in a way consonant with imparting the belief that ‘x’, in marking it as incorrect. One could expand the table by adding ‘neither marking x as correct, nor as incorrect’ to the second column.

We might term as ‘micro-directivity’ the use of almost invisible comments to round off a discussion or move a topic along, such as ‘that’s right,’ and ‘I would agree with that,’ nodding in agreement with one student’s assertions, raising a sceptical eyebrow over another’s and failing to comment before moving on, or challenging one comment and failing to challenge another. In particular, consider again teacher’s unreflectively slipping into the use of universal and prescriptive language, such as ‘we believe that’ and ‘it is true that’ or ‘certainly,’ or failing
to qualify assertions, e.g. by not adding ‘Catholics, like me, believe that’ to the claims like, ‘Jesus died for our sins’.  

While Hand’s way of drawing the distinction is admirably neat, it looks in the wrong in the direction, and following Warnick and Smith, and Gregory’s lead, we should consider pedagogy more explicitly. It might be that no table of actions could be drawn up without considering the particulars of a concrete case; perhaps actions are too context sensitive or fine grained for such treatment. Having broached these misgivings about the Epistemic Criterion, I shall now evaluate two arguments that Hand has used to advocate for it, finding them unpersuasive, before ultimately going on to defend it in the case of momentous propositions on alternative grounds.

TWO ARGUMENTS FOR THE EPISTEMIC CRITERION

It seems that Hand’s view is motivated by a concern that school pupils might recognize and understand decisive reasons to favour a view and yet fail to believe, and that they would recognize evidence for a view as poor and still believe it. Two arguments for the Epistemic Criterion, premised solely on the aim of promoting rationality as the key aim of education, can be found in his writing. I shall call these the Inclusive Argument and the Exclusive Argument; they can be summarized roughly as follows:

1) The Inclusive Argument: If children see their teacher fail to promote something which enjoys the support of compelling arguments, they will come to see the weight of evidence as not being decisive for enjoining belief, a result contrary to the demands of (epistemic) rationality (TAC)

15 This consideration ought to be balanced against Andrew Wright’s considerations of critical malaise if not relativism where people take it that Christianity can somehow be ‘true for them’ at the same time as Islam might be ‘true for others’.
2) Exclusive Argument: To succeed in imparting beliefs which do not enjoy sufficient probative force to make denial irrational means that one must have used non-rational means to secure that belief, which is indoctrinatory (POFS).

Roughly, the Inclusive Argument requires that where the evidence is decisive, we promote the view supported by it. The Exclusive Argument requires that where the evidence is not decisive, we do not promote that view. Both arguments are necessary for contending that (as the Epistemic Criterion requires):

a) We promote all those views whose truth is the subject of the lesson which are supported by decisive evidence

b) We promote only those views which are supported by decisive evidence

In some cases, promoting views which do not enjoy the support of decisive evidence is ruled out by the Inclusive Argument alone. In other cases, the Exclusive Argument is required to rule out their promotion. Consider the assertion made many Evangelic Christians that “the earth is 6,000 years old.” This is not a view which is supported by decisive evidence and argument and so it might look as though it is consistent with the Inclusive Argument to promote it. After all, the Inclusive Argument does not preclude promoting views which lack decisive probative support. However, the claim that “the earth is not 6,000 years old” does enjoy decisive support, and so we cannot promote the contradictory view that “the earth is 6,000 years old”. On the other hand, there are propositions neither whose assertion nor denial enjoy the support of decisive evidence and argument. While the Inclusive Argument leaves it open whether these may be taught directly, the Exclusive Argument closes this loophole. Over the next two sections, I will challenge both arguments, but will later attempt to save a version of the Epistemic Criterion on independent grounds (also due to Hand).
The Inclusive Argument is challenged by Warnick and Smith on the grounds that students need not think that their teacher will always attempt to impart those beliefs which it is contrary to reason to deny. For instance, students might think that where their teacher fails to promote a particular view, the teacher requires them to think for themselves about the correct answer. This is a counter-argument which I endorse. However, where the student has a view which is contrary to reason, it seems a dereliction of one’s epistemic duty to leave this unchallenged.16 Furthermore (as I shall argue later) there is often a duty to promote those views the denial of which is contrary to reason. The Exclusive Argument seems inapplicable to a large class of cases to which he takes it to apply. Hand says (ignoring one important qualification for the moment) that successfully imparting beliefs which can be rationally denied requires the use of non-rational means to secure that belief. But this seems wrong. Surely one can come to have beliefs on grounds with sufficient probative force to make belief rational; even if those grounds do not make it irrational for others to deny the belief (i.e. a variety of positions may be rationally tenable). Such a process could hardly be called indoctrinatory. All the same, I agree that teachers ought not to teach for belief where this is the case, but it cannot be said that the belief was inculcated by non-rational means if sufficient reason was given to make belief rational. I shall now outline, and support Warnick and Smith’s objection to the Inclusive Argument.

Warnick and Smith agree with Hand that education ought to promote rationality. In Hand’s words, “the central aim of education is to equip students with the capacity for, and inclination to, rational thought and action” (TAC, 218). However, they deny that this aim requires intending to impart belief X where the evidence for X is decisive, and not intending to impart

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16 There can be other reasons not to challenge a view such as doing so would cause them upset, but that is the sacrifice an epistemic duty for some other duty. Actually, I suggest there are moral reasons to disabuse people of false view (albeit tactfully) even where they are the source of happiness: 1) such views are vulnerable to disabuse in the future under less controlled circumstances, and 2) such views may serve as premises for an increasingly false view of reality. Indeed, I am tempted to cash out epistemic duties such as truth-telling, and truth-seeking as moral duties, so that we are not disposed to act ignorantly towards one another.
Y where the evidence for Y is indecisive. For them, rationality is not necessarily inhibited by violating these standards, or necessarily promoted by adhering to them. For this reason, they do not demand teaching for disbelief of propositions contrary to reason. They draw attention to Hand’s contention that “the plain implication of teacher neutrality on all matters which people are observed to disagree is that consensus, rather than evidence or argument, is the proper warrant for belief” (TAC, 218). “How,” they ask “does refraining from endorsing claims that enjoy the support of compelling evidence undermine rational thought and action?” (COC, 320). There are, they suggest, other ways that the scenario could more likely play out. Think of a teacher who gives students a math problem to work on, challenging them by not giving them the answer. Think of a teacher who poses a historical question as “something to think about.” If a teacher does not guide students toward the correct answers in these situations, it does not lead students to believe that “the teacher does not believe there is an answer,” or “there is no correct answer,” or “reason is unimportant.” Students simply (and correctly) make the interpretation: “In this situation, the teacher wants me to produce the answer” (COC, 320). Of course, it seems open to Hand to say that all that directive teaching involves here is intending that students adopt a belief. Teachers utilizing the Epistemic Criterion may urge that students attempt to find the answer on their own, but if they fail to find it, they may then tell the students to try it again, or give them a little more instruction about how to find it. All this is consistent with the Epistemic Criterion. Indeed, if teachers were to simply let the chips fall where they may without checking to see if the answers were correct and giving further input until they are reliably correct, something would be amiss. However, there could perhaps be room for teachers to set problems and ask questions to which the answer is known without their ever planning to tell their students the right answer: it is not an inherently rationality-damaging practice, as Hand’s argument requires. Having endorsed Warnick and Smith’s objections to the Inclusive argument, I shall now offer an original line of criticism against the Exclusive Argument.
A powerful objection against the Exclusive Argument is that one need not give bad arguments in support of those beliefs that can be rationally denied. As we have seen, the Epistemic Criterion would rule out any attempt to impart beliefs which enjoy sufficient probative force to make their belief rational, where contradictory beliefs are also rational.¹⁷ Let us take Religious propositions as an example, since, as Hand points out, reasonable disagreement is had about the truth of many religious propositions:

the truth or falsity of [many] religious propositions is a matter of disagreement among reasonable people. The evidence available is ambiguous. Some people judge that it points in one direction, others that it points in another (POFS, 93)

Hand takes this to be a reason that teachers should not promote religious belief. Teachers, thinks Hand, are not in a position to impart beliefs which are not known to be true without resort to non-rational methods, and thereby endangering students’ recognition of and responsiveness to good reasons. He argues that “teaching for belief in not-known-to-be-true propositions is, when successful, indoctrinatory, except where teachers are perceived to be intellectual authorities on those propositions” (POFS, 96). He further states that 1) where unsuccessful, that is no vindication, “teaching which would constitute indoctrination if it were successful is objectionable whether it is successful or not,” and 2) that “except perhaps in the earliest years of schooling, pupils [...] know that their teachers are in no position to testify to the existence of decisive evidence for the truth of religious propositions” (POFS, 96, 98). Granting that in absence of perceived intellectual authority, successfully convincing anybody of the truth of a belief that is not known-to-be-true, the “teacher must do more than merely present them with the evidence, for the evidence is not decisive,” and “implant beliefs in such a way that they are held non-rationally or non-evidentially” (POFS, 95). However, this view

¹⁷ This position tells us how to teach propositional content which appears on the curriculum. It does not tell us which propositional content to teach on the curriculum (which is hardly a deficit of the position – none the less, Tillson 2014 has attempted to make good on that).
seems incompatible with Hand’s abovementioned view that people may reasonably believe religious propositions: that they have come to believe them without having been indoctrinated, but on the strength of some reasonable interpretation of the evidence. If that latter view is right, surely such an interpretation could be given, and could motivate reasonable belief. In this way, it is possible to promote some beliefs that can be rationally denied without recourse to non-rational persuasion. All the same, one may argue that it is wrong to teach something that is not known to be true, as true, without its wrongness depending on having relied on non-rational means to impart the belief (as I shall argue in the next section).

Indeed, one may contest the notion that such beliefs are not known: perhaps even in a state of public disagreement, some people knew those propositions. Early, on, Darwin’s views about evolution by natural selection may have polarized the epistemic community, but that did not undermine the fact that his views constituted knowledge. Perhaps some religious people are right, and, moreover, are right for the right reasons; it might be fair to say that they have religious knowledge. In the next section, I will suggest that such considerations give us reason to require expert consensus to warrant directive teaching, especially to the extent that teachers can only reasonably aspire to inherited intellectual authority.

Hand writes that “to endorse claims for which the evidence is weak or ambiguous, is to undermine the core educational aim of nurturing rational thought and action” (TAC, 218). I take it that ‘endorse’ here means ‘teach directly.’ If the foregoing considerations are correct, we may deny the ambiguity part: to endorse a view for which contrary views are reasonable does not undermine the aim of nurturing rational thought and action, so long as the evidence does make assent rational. If the two major arguments offered by Hand in defense of the Epistemic Criterion are indeed faulty, we may wonder whether there are any other grounds on which is can be defended. In the next section I offer an argument in defense of the Epistemic Criterion in the limited case of momentous propositions, before going on to see in the final
section whether it can withstand further criticisms levelled against the Epistemic Criterion by Warnick and Smith.

IN FAVOUR OF AN EPISTEMIC CRITERION REGARDING MOMENTOUS PROPOSITIONS

While I have argued that Hand’s arguments for the Epistemic Criterion are faulty, I will now defend the ‘Epistemic Criterion’ for directive/ non-directive teaching in the case of what I have elsewhere called “momentous propositions.” In the case of momentous propositions, imparting knowledge is just as important as cultivating rationality; that is because the stakes are so high in such cases that it would not only be bad teaching to allow students to believe falsehoods and disbelieve truths, but immoral. To motivate this view it is helpful to turn to an article in which Hand argues that a discrete, compulsory, non-directive subject focused on the critical examination and evaluation of religious beliefs should form part of pupils’ education. I shall first explain Hand’s argument, and explain how it leads to the further thesis that, at least in the case of momentous propositions, teachers should use the Epistemic Criterion.

Hand’s argument is this: some religious propositions (about God, salvation, life after death, and so on): (a) ‘are sufficiently well supported by evidence and argument as to merit serious consideration by reasonable people’, (b) ‘matter, in the sense of making some practical difference to people’s lives’, and (c) require ‘a facility with distinctive kinds of evidence and argument’ in order to evaluate their plausibility appropriately. Hand concludes that children are entitled to being enabled to make rational judgments about the truth or falsity of these propositions. Bracketing the truth of the premises, the validity of this, Hand’s ‘possibility of

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18 Tillson, “Towards a Theory of Propositional Curriculum Content”
truth argument’, would imply the validity of what we can call the ‘certainty of truth argument’, that were some religious propositions certainly true, while satisfying the other premises, this would motivate their compulsory, directive teaching.\textsuperscript{20} It would be more correct to switch from describing ‘possibility of truth’ and ‘certainty of truth’ arguments to describing ‘supported by sufficient probative force to warrant serious consideration’ and ‘supported by sufficient probative force to make denial irrational’ arguments, but it would be too unwieldy.

For any proposition, a person may take one of the following (mutually exclusive) cognitive attitudes: belief, disbelief, or agnosticism. They may also take no cognitive attitude at all—at least in that case that they are unaware of the proposition. The key distinction to bear in mind is that between belief and non-belief (which captures all the other attitudes and non-attitudes). To determine a proposition’s moment, we ask what difference it would likely make if a person failed to be correctly informed (if they were wrong, agnostic, or had no opinion). A paradigm example of a highly momentous proposition is that smoking dramatically increases one’s risk of cancer. Knowing this may not stop everyone from starting to smoke, or make all existing smokers give up, but everyone for whom smoking is an available habit ought to know it because it ought to feature in their decision of whether or not to smoke. Indeed, suppose (counter factually) that it were only known that smoking causes cancer by doctors and that a heavy smoker with ailing health goes to see one who, after conducting the relevant tests, informs him that he has lung cancer. Devastated but also surprised, the man asks how this could be so. In response the doctor informs him that the cancer is very probably a result of his smoking. Again, the man is surprised: ‘but nobody told me smoking causes cancer’, ‘you never asked’, replies the doctor. The appropriate response is to feel that those in the know were guilty of a moral failing in not spreading the word. Moment in this case has to do with the avoidance of serious harm, but this is not the only grounds on which a proposition, if believed, would likely (or

\textsuperscript{20}Tillson, “Towards a Theory of Propositional Curriculum Content”
should) make a huge difference to the way one will act or live. This example should motivate us to accept that there exists an ethical duty to not only share, but to volunteer, and disseminate information or ‘spread the word’ in the case of momentous propositions, as well provide a striking illustration of a momentous proposition.

Supposing that Christianity were true, it would obviously make a practical, if eschatological, difference to their lives if children were not correctly informed about whether Christianity is true, just as much as it does make a practical difference if children are not right about how to ensure their physical health. The more ‘foundational’ a piece of information is, the more of a practical difference it is likely to make in the following ways: to undermine or re-cast much of what is already believed, or to provide a platform for the future assimilation and interpretation of further information. In the sciences for instance, evolutionary theory is foundational in just this sense for much of biology, zoology and anthropology.

Indeed, knowledge is fundamentally interconnected because facts about reality form a coherent and related whole. For this reason, judgements about which claims are true, which are false, and which are more or less reasonable, must be presupposed in the selection of further topics for further investigation. For those persuaded that the world is more nearly flat than spherical, designing functional GPS technology is impossible. As Jonathan Lowe has it, “Truth is single and indivisible or, to put it another way, the world or reality as a whole is unitary and necessarily self-consistent.”

Contemporary orthodoxy in science forms an impressively mutually consistent body of beliefs that can generate further research questions. Creationism on the other hand is incompatible with large swathes of science, and leads to no promising research projects. It may reasonably be worried, that to the extent that students’ views are given

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scope to diverge from expert community consensus through non-directive teaching, they will thereby (in all likelihood) move away from reality, as their false beliefs become premises even in valid arguments, becoming, at the limit, cocooned in delusion. One can only hope (in vain) that people with such beliefs accede to no political power.

Warnick and Smith advocate ‘soft-directive teaching,’ where teachers assert their own views in any case they care to, and do so in the same spirit in all cases: supporting them with such evidence as they can muster, dealing with objections, and all the while emphasizing their fallibility, and allowing space for contrary opinions to be heard:

> With “soft-directive” teaching the endorsement is made explicit, while the encouragement and guidance toward the position are more implicit. More important, the endorsement is surrounded by markers allowing for disagreement and encouraging critical analysis. The teacher might say something like “Here is what we believe is the most reasonable position and here are the reasons behind this position, but you should also think carefully about why we might be wrong.” Soft-directive teaching combines a tone of fallibilism and openness to being challenged with an explicitly endorsed position. (COC, 240)

The “Soft-directive teaching” advocated by Warnick and Smith makes no attempt to mark children correct or incorrect, and here it may come closer to Hand’s conception of non-directive teaching, together with disclosing. Except that where it allows sustained advocacy and becomes the centre piece of study we slip into a form of pedagogy which is of concern irrespective of the educator’s intentions. Indeed, notice the use of ‘we’ in the sentence: “Here is what we believe is the most reasonable position.”
I agree with Hand that there is something wrong with intentionally imparting beliefs when contrary beliefs can be reasonably held, and failing to when none can. I want to go further than Hand in saying that irrespective of intentions, we do wrong when we act in ways which are consonant with imparting beliefs when contrary beliefs can be reasonably held. We also do wrong in failing to act in ways consonant with imparting beliefs when contrary beliefs cannot be held reasonably. This view is implicit in Snook’s observation that “There is a distinction to be drawn between what we are entitled to say to our colleagues and what we can legitimately say to those who are our students”. One might be a Christian, and be a Christian for good reasons (i.e. have an epistemic entitlement to Christian belief). But the reasons are not sufficient to make denial of Christianity irrational. Similarly, one might be epistemically entitled to favour a certain account of the extinction of the dinosaurs. But the reasons are not sufficient to make disagreement irrational. Something would seem to be amiss, if the teacher taught that Christianity is true, and that, say, there are four gospels in the Christian Bible, as being on the same epistemic level, making no pedagogical cleavage between how they approached the two issues. Something would also seem to be amiss if the teacher taught that the dinosaurs died from an asteroid strike and that dinosaurs existed as being on the same level. ‘Soft-directive teaching’ (i.e. non-directive teaching plus disclosure) seems appropriate in some cases, in so far as it doesn’t slip into a systematic campaign to initiate children into ‘the world according to [insert teacher’s name here]’, but additionally hard directive teaching is also often appropriate where that is a systematic campaign to initiate children, by rational means, into the world as revealed to us by the most robust rational procedures. Albeit even in these cases, the fallibility of even the best attested claims ought to be admitted.

There does seem to be something wrong with teachers asserting as true something which is not known to be true, or, rather, something which is not orthodoxy in the relevant expert

communities. This wrongness consists in teachers giving students undue degrees confidence. It is to precipitate the shutting down of reasonable alternatives, which might, for all we know, be true, and thereby separating students off from reality. The worry with using soft-directive teaching in the case of both beliefs that can be rationally denied and those which cannot be rationally denied is that students are being given the same degree of confidence regarding how the dinosaurs died as regarding their existence, and that is surely absurd. Where teachers choose to disclose their views on epistemically unsettled matters, there seems to be need of a clear demarcation. Although fallibility and commitment to rationality and truth and following the argument wherever it leads ought to be emphasized in directive teaching, there still ought to be a demarcation between two categories of propositions turning on their degrees of epistemic credibility. It seems alright to assert ‘the dinosaurs roamed the earth,’ and use that as a premise, but it seems absurd to assert ‘God loves you,’ as a premise and go on from there. The reason being that in the first case you do have some (inherited) epistemic authority: you do know that dinosaurs roamed the earth; in the second case you really do not know that (or at least the proposition doesn’t enjoy decisive warrant, as is indicated by disagreement among relevant experts).

The first worry is that we should have is wasted time: there are very many positions known to be false, and it would be a tragedy to allow them to take up learning time to the exclusion of well warranted positions. Presumably the point of belief is tracking the truth (this is not incontrovertible – perhaps we ought to teach falsehood to promote happiness, but let’s put that to one side). The point of theoretical rationality is to facilitate true beliefs. I have argued elsewhere that considerations of finitude should motivate us to spend time and other finite

23 Indeed, Project PERFECT at the University of Birmingham lead by Lisa Bortolotti is investigating the cognitive benefits of delusions. The arguments of PERFECT’s researchers certainly need to be addressed. Indeed, they need to be addressed by all parties mentioned in this essay since we all agree that cultivating rationality is a desirable aim of education <http://www.birmingham.ac.uk/generic/perfect/index.aspx> [accessed 13 August 2016].
resources on beliefs that are genuine options, and only on options which are not genuine when students already have those beliefs, or are at risk of developing them. At first this will mostly require testifying to the truth of claims, together with cultivating some understanding of what those claims even mean, and gradually introducing some of the justifications that go into corroborating those claims. If one asks ‘do vaccinations cause autism?’ This appears to raise a question over it that does not any longer exist among those in epistemic authority. Similarly, one ought not to ask ‘did the holocaust happen?’ Where we know that it did happen and where students believe that it did, because to do so is to raise a doubt about it. One ought not to raise the question ‘are Jewish people evil?’ when nobody believes that they are: because this cues up a sense or concern that they might be. Where these are behaviourally controversial, it will be well to raise the issue in order to disabuse students of false notions. The second worry is that, in the words of James Ladyman, “there is no fact free form of thinking”. Students need to be broadly informed in order to come to a point where critical thinking makes sense, and which things we ought to tell them are those things which are most well attested by evidence and argument. The place to look for such information is what has been accepted as orthodoxy in the relevant epistemic communities. “What is the best source of facts,” asks Ladyman, Scientific orthodoxy!“

Gregory has argued that that teaching for belief and disbelief is always suspect, and that teachers ought to focus on influencing procedural matters of how beliefs are generated, and corroborated rather than on the specific content of the beliefs themselves. This seems rather a heavy burden for teachers. On the matter of which beliefs are well supported by evidence and arguments, we cannot expect teachers to be all-purpose experts on how to source, weight and assess evidence and argument, an expertise which must presuppose a good deal of subject

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25 James Ladyman, ‘Pseudoscience and Bullshit,’ <https://www.youtube.com/watch?v=32ZaTKa2IRg>
knowledge, for nobody can exercise judgement in the absence of information. Nor can we expect teachers to put students in this position (a position they are not in themselves) except through highly scaffolded instruction requiring a great deal of epistemic deference. If students have no faith in teachers, no progress can be made. For this reason, the range of domains within which teachers can be expected to delineate the contours of the debate, to provide or supervise students’ sourcing of information, and to simultaneously introduce students to procedural rationality will be dramatically limited. While I agree that initiating students into the practice of sourcing and evaluating information and martalling evidence and arguments is important, I suggest that the outcomes of such pedagogical practices ought not to be regarded as of the same standing as that of subject experts conducting investigations and debates, and must not pretend to be at the cost of seriously misleading students. For instance, if a classroom discussion casts doubt on Special Relativity that is reason to think that Special Relativity is beyond the grasp of these students rather than reason to reject it. The debates about which such discussions are going to be pedagogically manageable and map onto what there is in fact most reason to believe by objective rational procedures, are likely to be those that presuppose a lot of information provided by expert communities, and leave the smallest scope for discussion as a technical exercise.

Knowledge has to be vindicated as such by the epistemic community before it becomes reasonable to teach it as such: consensus among experts gives people reasonable further confidence in addition to the evidence (so far as the assent is independently given by each member, the convergence provides further reason for confidence).\(^\text{26}\) Suppose I execute some complicated sum and am somewhat sure of my result, having checked and re-checked. I might reasonably be surer yet when another person comes to the same result independently, and surer

\(^{26}\) In fact independence is too strong a requirement, after all the convergence had between Climate Scientists is in large part collaborative.
yet as others do. Furthermore, to the extent than the evidence cannot reasonably be assessed by me, I do better to defer to such consensus than to form my own views independently.

FURTHER OBJECTIONS TO THE EPISTEMIC CRITERION

 Quite reasonably, Warnick and Smith worry about teachers ‘encouraging’ students to believe, even for conclusions for which they have presented decisive arguments: they worry that the encouragement amounts to an additional and non-rational form of persuasion. Concordantly, they pose a dilemma: either the evidence motivates belief alone or students believe because their teacher told them to. In the latter case, the teacher is hardly ever going to be an authority such that their say should carry weight. To fill in the other side of the dilemma on their behalf, we should worry that if students believe on the ground of teacher say so, we have failed in attempting make them believe on the strength of the arguments. However, where they cannot understand the arguments, it can be reasonable to believe on teacher say so, but not because they are some kind of first hand expert or knowledge originator, but because their (inherited) knowledge comes from reliable sources. For instance, you can believe me when I tell you that Everest is higher than K2 not because I have measured either, but because I read about it in a reliable encyclopaedia. Ladyman gives good examples of rational deference to intellectual authority, emphasizing the sheer diversity of deep and narrow epistemic specializations required for undertaking and interpreting data from experiments conducted with the Large Hadron Collider.27 The complexities of each specialization are such that nobody can be conversant in all forms of expertise, and so not only is the epistemic labour split, but so too is any comprehensive and detailed understanding of the enterprise. Each contributor is heavily dependent on deference to the judgement of other colleagues, whose discipline they can

27 Ladyman, ‘Pseudoscience and Bullshit,’
understand only dimly and sketchily by comparison with their own, and certainly without the pretension of being an all-purpose critic.

Warnick and Smith observe that:

If the teacher has presented accurately the evidence and arguments as they have developed over time, the stronger position often speaks for itself without teacher or school endorsement (COC, 234).

However, manifestly, the world’s population at large has failed to converge on the most epistemically rational views about evolution, global warming, and the relationship between autism and vaccination, the reason being that they do not understand the relevant decision procedures and evidence bases. One response might be that these people have not heard all sides of the debate, but there are serious limitations on what they have time and competence to entertain and judge reasonably. This is due in no small part to the huge proliferation of disciplinary specialisation, of the decidability procedures evident in each, and of the knowledge that employing them presupposes. It cannot be supposed that these debates and ground for even the best attested theories can be made accessible to laymen in such a way that their judgement becomes as good as that of experts so that they are entirely deciding for themselves. Deference to epistemic authority is more unavoidable now than at any other time in the history of humanity. Given this background there is a serious question as to why one would spend any time presenting views which are roundly rejected by the relevant experts. Unless they are already believed by the students, or they are dangerously close to being believed, they ought to be ignored.28 To the extent that they are or might be believed, the question becomes how we

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28 Such beliefs need not be passed over in silence, it is a very important fact that many people deny climate science, the holocaust, or are persuaded by various conspiracy theories. In a review of Mackie’s *The Miracle of Theism*, Bernard Williams agrees with Mackie’s judgement that the balance of probabilities come out strongly against the
can most effectively disabuse people of or guard people against this nonsense. The view is clearly not adequate to many impressively complicated questions such as how old the universe is, whether anything might exceed the speed of light, or whether Fermat’s last theorem is provable. These are questions which are hardly well treated by saying: here are the arguments, now you choose. In the case of momentous propositions, it seems positively egregious to do so.

Warnick and Smith argue that cultivating students’ rationality requires their becoming familiar with and understanding content, and developing both critical thinking skills and epistemic virtues. Students, they say, need “confidence in rationality … in the face of social controversy” (COC, 230). Additionally, students need “confidence in themselves as rational agents,” and for this to be balanced with intellectual humility. Warnick and Smith emphasize the placing of trust in students as a pedagogical means to students’ developing self-confidence. After all, if teachers do not trust students’ rational powers, why should the students? However, it is clear that people can be more or less competent, and concordantly, can be more or less trustworthy. While it might be nice to trust our students to make rational decisions, we cannot always do so: trust ought to be apportioned to trustworthiness, and that is related to how far they are able to reach the correct answers. Students that consistently fail at maths ought not to be trusted to run the school budget, for instance. Warnick and Smith stress that one task of education is to build up students’ confidence in their own powers of reason alongside their ability to seek, provide and revise their beliefs in accordance with reasons. That is quite right. But students are not well served by being initiated into debates which they are not remotely in a position to

existence of god. None the less, he adds “It is only if religion is true that the most interesting question about it is its truth. If it is false, the most interesting question about it is not the truth or even reasonableness of what it claims to tell us about the cosmos, but the content of what it actually tells us about humanity,” Bernard Williams, ‘The Miracle of Theism: Arguments for and Against the Existence of God, by J.L. Mackie,’ Essays and Reviews 1959 – 2002 (Princeton University Press: Princeton, NJ) pp. 197-200, p. 200.
evaluate. To the extent that students are already enmeshed in debates about evolution and climate change, a large part of one’s duty as an educator is illustrate just how preposterous it is that students would be able to settle the matter having no disciplinary training. Indeed, tellingly, one of Warnick and Smith’s ‘tasks of reason’ is to supply children with “content knowledge” (COC, 230). The question could be asked: what counts as content knowledge if not information decisively attested to by evidence and argument?

I hope to have adequately motivated the view that teachers should use the Epistemic Criterion for deciding whether to teach directly or non-directively at least in the case of momentous propositions (those propositions for which the stakes are high regarding the consequences of failing to believe correctly). As to the further issues of what importance the Epistemic Criterion ought to have for practices beyond teaching, and how teaching and non-teaching contexts are to be clearly delineated, I am very much less clear.