

Cognitive Goods, Open Futures and the Epistemology of Education

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*What cognitive goods do children plausibly have a right to in an education? In attempting to answer this question, I begin with a puzzle centred around Joel Feinberg's observation that a denial of certain cognitive goods can violate a child's right to an open future. I show that propositionalist, dispositionalist and objectualist characterisations of the kinds of cognitive goods children have a right to, run in to problems. A promising alternative is then proposed and defended, one that is inspired in the main by Wittgenstein's 'hinge' epistemology as developed in his posthumous *On Certainty*.*

COGNITIVE GOODS AND EPISTEMIC RIGHTS

What cognitive goods should an education provide? There are a number of ways to approach this question, and one useful place to begin is from a rights-based perspective: an education should afford at least those cognitive goods children plausibly have a right to. What cognitive goods are these?

On a first pass, it seems reasonable to say that there are certain facts children have a right to know—and accordingly, that what children have a right to is some (propositional) knowledge, leaving it open exactly which specific knowledge. Extrapolating from this answer, we can call a more general position *vis-à-vis* the cognitive goods children plausibly have a right to 'propositionalism', where propositionalism is the claim that the kind of cognitive goods to which children have a right in education are instances of propositional knowledge.

Joel Feinberg (2007) gives expression to the propositionalist idea in his analysis of a Kansas Supreme Court case, where the state of Kansas refused to accept an exemption for Amish families who wanted to keep their children out of state-accredited schools altogether.¹ The Kansas court ruled against the Amish in this instance, and the legal rationale—aimed at protecting the rights of the Amish children (which the state as *parens patriae* is obliged to protect)—was in short that an education that withheld certain knowledge to children would effectively undermine a child's right to an open future.

For example, and in short, preventing a 13-year-old from knowing a range of basic facts about human biology makes it 'difficult to the point of

near practical impossibility' for that child to later become a physician or scientist. As Feinberg puts it:

An education that renders a child fit for only one way of life forecloses irrevocably his other options . . . To be prepared for anything, including the worst, in this complex and uncertain world would seem to require as much knowledge as a child can absorb throughout his minority. These considerations led many to speak of a child's birth-right as to as much education as may be available to him (Feinberg, 2007, p. 115).

On this line of thinking, something like propositionalism seems to be operating in the background—viz., in virtue of having a right to an open future,² the kind of cognitive good children have the right to in their education is knowledge of the sort that, by having that knowledge, a suitably wide range of practical possibilities remains open.³

PROPOSITIONALISM VS. DISPOSITIONALISM: A PUZZLE

It turns out that propositionalism runs in to certain problems—and this point can be made without even straying from discussions of children's rights to an open future (relative to which we just saw one way propositionalism might in fact look very plausible). In writing his majority opinion in a similar case a few years later—a case in which this time around, the Amish parents won when requesting to keep their children out of state accredited schools for two years, rather than altogether—Supreme Court Justice Burger says:

The value of education must be assessed in terms of its capacity to prepare the child for life. It is one thing to say that compulsory education for a year or two beyond the eighth grade may be necessary when its goal is the preparation of the child for life in modern society as the majority live, but it is quite another if the goal of education be viewed as the preparation of the child for life in the separated agrarian community that is the keystone of the Amish faith.⁴

Implicit in Burger's thinking here is that the life for which Amish children should be prepared is an Amish life, and if this claim is granted, then the cognitive goods constituting the 'value of an education' will plausibly be whatever cognitive goods facilitate that particular life.

Obviously, this is not yet a strike against propositionalism; after all, if the implicit assumption that Amish children will chose the Amish way of life is right, then the cognitive goods Amish children might be said to have a right to could just be whatever propositional knowledge is compatible with an open future indexed to an antecedent commitment to an Amish life. This is tantamount to the claim that the cognitive goods Amish children have a right to is whatever propositional knowledge does not foreclose a relevant class of options within an open Amish future.

But there's obviously something amiss with Burger's thinking—namely that Amish children might very well decide to pursue a different life.

Feinberg thus thinks Burger is in an important respect begging the question, and Feinberg's reasoning here is instructive:

How is the goal of education to be viewed? That is the question that must be left open if the court is to issue a truly neutral decision. To assume that the goal is preparation for modern commercial industrial life is to beg the question in favor of the state, but equally, to assume that the goal is preparation for a life aloof from the world is to beg the question in favor of the parents. An impartial decision would assume only that education should equip the child with the knowledge and skills that will help him choose whichever sort of life best fits his native endowment and matured disposition. It should send him out in the adult world with as many open opportunities as possible, thus maximizing his chances for self-fulfillment (Feinberg, 2007, p. 116).

Feinberg is effectively positing a kind of 'neutrality constraint' on an account of the goal of education that will by extension circumscribe what we can say about the cognitive goods children have a right to *vis-à-vis* education. Feinberg reveals how the issue of what kinds of cognitive goods a child can be said to have a right to must be characterised in a way that is sensitive to a balance of interests between, on the one hand, children's rights to an open future and, on the other, parents' rights to autonomy of choice in the manner their children are raised.

Question: is there a way to characterise the cognitive goods which children plausibly have a right to attain that:

- (i) does not violate the child's right to an open future (including a possible future that consists in a modern life); and,
- (ii) does not simply beg the question against parents (Amish or otherwise) whose supervisory objectives involve avoidance of certain cognitive influences via knowledge acquisition?

Propositionalism does not seem obviously problematic *vis-à-vis* (i),⁵ but (ii) is a different story. Indeed, propositionalism seems to have the resources to satisfy (ii) only at the cost of failing to satisfy (i). To see why, let us stipulate that '*K*' denotes a set whose members are propositions children have a right to learn (whatever these propositions are), in their education. (It follows from propositionalism that, for any given child, there will be such a set—viz., a set which includes all and only those propositions students have a right to know). Now, some propositions will uncontroversially be members of *K*—viz., propositions about basic arithmetic, geometry, spelling. Now, let '*S*' be a set of facts (to make things simple, call these 'secular facts') that include facts, the knowledge of which will maximise children's chances of self-fulfillment (by foreclosing the fewest possibilities). In order to satisfy (i) propositionalists must allow *S* to be a subset of *K*. But in order to satisfy (ii) propositionalists must allow that some propositions in *S* are not in *K*. These propositions, in *S* but not *K*, will be propositions the knowledge of which can be reasonably taken to contravene and/or undermine the supervisory rights of parents. Therefore, propositionalism cannot satisfy both (i) and (ii).

One way to easily satisfy (ii) would be to reject propositionalism in favour of what we can call ‘dispositionalism’. Let dispositionalism be the thesis that the cognitive goods to which children have a right in education are cognitive-dispositional goods, such as the inculcation of intellectual virtues). This position appears to offer a convenient way to bypass entirely any sort of ‘secular indoctrination’ objection that some parents might press against the propositionalist’s insistence that children have rights to know certain facts the knowledge of which stands (as in the case of the Amish) to conflict with supervisory rights. In short, dispositionalism offers an attractive way to get around the worry with (ii) that is not available to propositionalism: in a slogan, you cannot be indoctrinated if there is not a doctrine. Therefore, if children have a right in their education only to cognitive-dispositional goods—and it is primarily these goods that an education aims at cultivating—then there are no obvious grounds on which worries such as Burger’s about conflict with supervisory rights are going to look compelling.

Dispositionalism might be preferable to propositionalism as well on independent grounds.⁶ As Duncan Pritchard writes:

[The] epistemic goal of education might initially be the promotion of cognitive success [e.g. true beliefs] on the part of the pupil, this goal should ultimately be replaced with a focus on the development of the pupil’s cognitive agency, where this means her epistemic virtue (Pritchard, 2013, p. 246).⁷

Pritchard defends this suggestion by appealing to the distinction between friendly and unfriendly epistemic environments. In friendly epistemic environments (i.e. where one is trusting a reliable informant, under conditions of full transparency, in a familiar setting), knowledge can be acquired via testimony and in a way that involves little exercise of cognitive ability on the part of the agent. Merely trusting the word of another seems to be sufficient for acquiring much knowledge in such environments.⁸

However, a child suited to learn only in epistemically friendly environments is surely not very well cognitively prepared to face the world; as Pritchard remarks, ‘the greater the degree of epistemic unfriendliness in an environment, then the greater the degree of cognitive ability that is required in order to gain knowledge’ (*ibid.*). Dispositionalism seems to gain support then from the thought that a child has a right to be cognitively prepared for a range of environments—preparation one does not attain by passively acquiring knowledge, but by developing cognitive abilities.

However, dispositionalism seems suited to satisfy (ii) at the expense of failing to satisfy (i). This point can be made by going no further than Pritchard, whose remarks support a variety of dispositionalism, although not the variety that would be needed to satisfy (ii). Call *weak dispositionalism* the claim that children have a right to cognitive-dispositional goods in their education; that is to say: children have a (defeasible) right to have certain cognitive abilities fostered. Weak dispositionalism is compatible with the propositionalist’s claim that there is (as well) at least some knowledge to

which children have a right. To rule out such knowledge that renders (ii) difficult to accommodate, the kind of dispositionalist position needed is what we can call *strong dispositionalism*, the thesis that children's educational rights are exclusively rights with respect to the cultivation of their intellectual abilities. On this view, children do not have a right to know any particular propositions, *per se*, but rather to have certain dispositions fostered. This position, unlike weak dispositionalism, seems *prima facie* to satisfy the constraint in (ii).

But, problematically, strong dispositionalism will obviously fail (i).⁹ Foster in a child as many intellectual abilities as possible, it remains the case that if the child is bereft of certain items of propositional knowledge, many options become foreclosed. There is no way around the fact that failing to know certain propositions cuts off one's possibilities, and this is so regardless of how well suited one is to come to know them.

In sum, this is our puzzle: regardless of who is right between propositionalists and dispositionalists, it looks like Feinberg's neutrality constraint is impossible to satisfy in a satisfactory way; if the rights a child has to cognitive goods are propositional rights, then (ii) will not be satisfied; (ii) (strong) dispositionalism satisfies (ii), but then (i) will not be satisfied.

ELGIN, UNDERSTANDING AND FACTIVITY: AN OBJECTUALIST PROPOSAL

Catherine Z. Elgin's (1999) paper 'Education and the Advancement of Understanding' offers a potential way out of the puzzle just sketched. Elgin's primary target is what she calls 'Plato's Teaching Assumption' (PTA), the thesis that one cannot teach what one does not know. (In the *Meno*, this thesis operates in the background of Socrates' reasoning that there can be no teachers of virtue given that no one knows what virtue is.) As Elgin sees it, we can and do teach the unknown; if we could not, she reasons, then we would not be able to teach such things as philosophy and perhaps even science,¹⁰ where the matter of whether we know what we teach is in doubt. But we do teach such things and so, contra Plato, it is not true that we cannot teach what we do not know.

So what is our epistemic standing, then, toward the kind of material (e.g. philosophy) that we may teach even under conditions of (at least some level of) ignorance? On the view Elgin proposes, it is *understanding*. Understanding, unlike propositional knowledge, is non-factive (i.e. non-truth-entailing)¹¹ and at the same time it is a worthy educational ideal, one that may be promoted in a gradient way and which has as its object a subject matter or body of information. As she sees it:

... I suggest, teaching consists in advancing understanding ... First, understanding, unlike knowledge, does not require truth. An approximation, idealization or sketch, although not true, reveals some understanding of a subject. If I have a rough understanding of the workings of the spleen, I may be able to convey it to my students, thus advancing their even more rudimentary understanding of physiology. And if my

mechanic has a deep understanding of the workings of the carburetor, he may be able to convey to me at least a superficial understanding of it. Even if I acquire no truths about how the carburetor works (the details required for truth in this area being beyond my ken), I may now have at least some idea what is going on under the hood. And investigators who recognize that their current best theories are not precisely true may nevertheless have something to teach (Elgin, 1999, pp. 136–137).

If understanding is non-factive, and at the same time an educational aim, then notice how the view immediately suggests a potential solution strategy to our guiding puzzle from the previous section: perhaps the kind of cognitive goods children have a right to are not propositional knowledge goods or cognitive dispositional goods but rather the kind of cognitive good one achieves when one attains understanding. On such an Elgin-inspired line, we may say further that children do not have a right to know any set of propositions, but rather a right to understand certain bodies of information—viz., to grasp certain bodies of information and to see, as Wayne Riggs puts it when discussing understanding, how the various pieces of information ‘hang together’. Call this general position type *objectualism*: the kind of cognitive goods children have a right to are best described as objectual cognitive goods as opposed to propositional or dispositional cognitive goods.

We may now ask: does objectualism fare better than propositionalism or dispositionalism as a thesis about how to characterise the kind of cognitive goods to which children may plausibly be said to have a right? There are two potential worries here for an Elgin-style objectualist route out of the puzzle; one general, the other specific. The general worry is that it may be normatively problematic to suppose we have a right to understand anything. Here a brief comparison between understanding and propositional knowledge will be instructive. In contemporary social epistemology, it is a common view that propositional knowledge can be transmitted from speaker to hearer without the hearer having to do much (or indeed any) cognitive work. For example, according to the popular non-reductionist tradition in social epistemology,¹² if a speaker knows a proposition *p* and tells this to a hearer, then absent any undefeated defeaters possessed by the hearer—that is, so long as the hearer does not have a positive reason(s) to doubt that the speaker’s testimony is reliable—then the hearer thereby acquires knowledge.¹³

Understanding, by contrast, cannot as plausibly be transmitted via the same kind of ‘no-work’ mechanism on the part of the hearer.¹⁴ Understanding—at least, on most contemporary views—involves exercising a capacity to grasp the relevant coherence-making or explanatory propositions that constitute a given subject matter.¹⁵ Such grasping by the student, which is partly constitutive of understanding, is not something a teacher can (without the cooperation and some level of competence of the student) give the student in the way that knowledge can be given; it is *a fortiori* less plausible to suppose that the teacher may have a duty to impart understanding that would correlate with a student’s right to possess it. At

most, we might say, the teacher has a duty of non-interference; but such a duty of non-interference on behalf of the teacher is not one with respect to which we can easily make sense of the child's right, in the course of her education, actually to possess (objectual) cognitive goods.

Setting aside this general worry, there is a more specific problem with objectualism as a way out of our puzzle. The non-factivity element of the view—while it does well to satisfy (ii), seems to fail to satisfy (i). After all, if the kind of cognitive goods children have a right to are objectual goods which (as Elgin supposes) do not themselves entail factive propositional goods, then it follows that whatever rights a child has to cognitive goods can be satisfied even in a case where the child fails to know basic facts—secular or otherwise.

One might nonetheless argue that objectualism can be adapted to better satisfy (i). Kvanvig (2003) and Kelp (2016), for example, take objectual understanding to be a more demanding kind of epistemic standing than Elgin does. For Kvanvig, understanding a subject matter requires at least a core cluster of true beliefs, and for Kelp, it involves possession of (various items of) propositional knowledge. Moving to Kvanvig/Kelp-style factive objectualism would thus offer a promising way to satisfy (i) not available to Elgin-style non-factive objectualism. But then, such views fare no better than propositionalism *vis-à-vis* satisfying (ii). Accordingly (and regardless of whether we should opt for a non-factive or a factive version of objectualism), objectualism does not appear to offer a better answer than propositionalism or dispositionalism to the question of what kind of cognitive goods children have a right to.

A NEO-WITTGENSTENIAN RESPONSE

In this section, I sketch an alternative to propositionalism, dispositionalism and objectivism. On the view I propose, the kind of cognitive goods children have a right to in their education are best understood in terms of what Wittgenstein (1969) calls *hinges*. To a first approximation, hinges are propositions that play a certain indispensable role for a thinker within a given rational structure; they are identifiable by their epistemic profile, not by their propositional content *per se*. The idea that children have a right to certain hinges (or sets of hinges) offers a promising way—more promising than standard propositionalism, dispositionalism or objectualism—of capturing the thought that children have a right to certain epistemic goods in a way that (i) would not plausibly violate the child's right to an open future (including a possible future that consists in a modern life); and (ii) does not simply beg the question against parents whose supervisory objectives involve (reasonable) avoidance of certain cognitive influences via knowledge acquisition.

Theoretical Backdrop

A dialectical clarification should be registered, before moving forward, between (a) epistemic goods that children plausibly have a right to in education; and (b) epistemic goods that characterise an excellent (or even

good) education—viz., an education that is all-things-considered valuable, desirable, etc. The epistemic goods of interest here are exclusively of the former kind, which are only a subset of the latter. (And accordingly, that propositionalism, dispositionalism and objectualism are problematic ways to characterise the former kinds of epistemic goods need not imply that we could not articulate the overall aims of education—or the features of an excellent education—with reference to such goods.) That said, some grip on what an excellent education involves will help us to frame our thinking about educational epistemic right, and in a way that will be useful for approaching our puzzle.

Bearing this in mind, I shall begin with a rough idea of what an excellent education may involve, and work toward some more specific claims about rights. At a very general level, I am inclined to take as a starting point David Bakhurst's (2011) suggestion—one that is inspired by (among others) John McDowell's (1996 *passim*) epistemology—that the process of education involves a kind of initiation into the space of reasons. Human beings are not 'born' into the space of reasons, but education (or, for Bakhurst, *Bildung*) helps to guide them there, by turning them from a kind of non-rational animal into a 'thinker' or agent.¹⁶ As Bakhurst puts it:

the development of a human being is marked by a transformation: we become beings whose lives manifest freedom as we acquire rational powers, powers whose exercise is second nature to us ... formation of reason involves not merely biological maturation, but cultural formation, or *Bildung* (Bakhurst, 2012, p. 173).

How exactly does such transformation work, whereby we acquire rational powers (and thus our second nature) in this way? Here's Bakhurst with a summary sketch of the view he defends in *The Formation of Reason*:

Learning is a matter of acquiring the conceptual capacities and qualities of character that enable responsiveness to reasons, and teaching is a matter of facilitating their acquisition and development. Learning is successful to the degree that the learner gains command of the subject-matter or practice, where to have such command is to be able to make up one's mind about what to think or do in the relevant domain in light of what there is most reason to think or do. This involves the development and cultivation of theoretical and practical reasoning, understood not as formal or abstract techniques of thought, but as powers to engage intelligently with concrete subject-matter in all its presentness and particularity (Bakhurst, 2011, p. 136).

Acquiring the power or 'command to make up one's mind about what to think or do in light of what there is reason to think or do' is, as Bakhurst submits, a valuable form of *autonomy*, and thus, the idea that education initiates one into the space of reasons in the manner described comports with the corollary idea (explicitly embraced by Bakhurst) that education should be understood as aiming at autonomy—viz., at the kind of freedom

that is associated with wielding certain kinds of rational powers as second nature.

The above view is of course not one about what cognitive goods a student has a right to *per se*, but a view more generally about both the structure of the educational process and its aim. Nonetheless, the kind of picture Bakhurst advances—when paired with some further ideas—gives us all the materials needed to address in a promising way the initial puzzle articulated about rights.

There is, however, an initial hurdle. Notice that if (*a la* Bakhurst) a child enters into the McDowellian space of reasons¹⁷ by acquiring certain rational powers (and accordingly gains the associated kind of autonomy), then—at least *if* those powers are primarily unpacked as capacities or dispositions—then it is not clear how such a strategy would ultimately fare better than dispositionalist accounts as a way of navigating the puzzle about rights. Recall that, on the supposition that the kinds of cognitive goods children have a right to are dispositional goods, then the worry was that (ii) could be satisfied but not (i); in short, it seems that there are basic facts that children have a right to know, and dispositionalist views of the kinds of cognitive goods children have a right to cannot obviously countenance this.

However, there may be another way to think about how the child acquires rational powers, by focusing on certain *enabling conditions* (rather than the powers themselves), and then to view the right a child has to cognitive goods in an education as a right to such enabling conditions. This is the line I want to now pursue.

On the kind of epistemological position advanced in Wittgenstein's posthumous *On Certainty* (1969), the capacity to engage in the activity of giving and requesting reasons, and thus the capacity to exercise one's rational powers, requires that certain things are themselves *in deed* not doubted. As Wittgenstein puts it:

The questions that we raise and our doubts depend upon the fact that some propositions are exempt from doubt, are as it were like hinges on which those turn. That is to say, it belongs to the logic of our scientific investigations that certain things are in deed not doubted. But it is not that the situation is like this: We just cannot investigate everything, and for that reason we are forced to rest content with assumption. If I want the door to turn, the hinges must stay put (Wittgenstein, 1969, §§341–343).

Wittgenstein's 'hinge' metaphor, used to refer to propositions that play a certain role in our investigations, is the inspiration for what later commentators call *hinge propositions*.¹⁸ Hinge propositions have a special epistemic status. Firstly, they *must* be in place for rational inquiry to take place. And, secondly, they cannot themselves be rationally doubted, or for that matter rationally supported, from within the rational network they support.

It may seem initially perplexing that some propositions lie beyond what can be rationally doubted or supported. Wittgenstein's thinking here, historically at least, is a response to G.E. Moore's (1939) attempt to prove the

existence of external things by appealing to perceptual evidence indicating the presence of a hand, an external thing. Wittgenstein's objection, in short, is that Moore's reasoning is defective because he is no more certain of what he is appealing to (*viz.*, the presence of hands) than of what he's appealing to it in order to prove (*viz.*, that an external world exists).¹⁹ Implicit in this objection is a commitment to a more general principle about the structure of relations of rational support: one cannot support the more certain by appealing to the less certain. Here are some passages that reflect this idea:

If a blind man were to ask me 'Have you got two hands?' I should not make sure by looking. If I were to have any doubt of it, then I do not know why I should trust my eyes. For why should not I test my eyes by looking to find out whether I see my two hands? What is to be tested by what? (Wittgenstein, 1969, §125)

If someone doubted whether the earth had existed a hundred years ago, I should not understand, for this reason: I would not know what such a person would still allow to be counted as evidence and what not (§231).

My having two hands is, in normal circumstances, as certain as anything that I could produce in evidence for it. That is why I am not in a position to take the sight of my hand as evidence for it (§250).

Of course, if the very structure of rational support is such that what is less certain cannot be rationally adduced in support of (or to doubt) what is more certain, an interesting consequence is that those propositions that are *most* certain are themselves neither rationally supportable nor rationally doubttable with reference to any of the other things one believes. Such propositions—hinge propositions—must be in place, *qua* propositions that are not doubted, as an enabling condition for the exercise of rational powers in rational evaluation.

I shall return to this point. First, though, two final substantive points about hinges: (a) there are multiple categories of hinges; and (b) which propositions play the functional role of a hinge in a given category can change over time. Regarding (a): Martin Kusch identifies at least five different 'categories' of hinges in Wittgenstein's epistemology, which differ in how these certainties 'relate to evidence, justification and knowledge':

Category I consists of beliefs for which we have evidence that is both overwhelming and (at least in good part) dialectically mute. . . . (e.g. ' . . . here is a hand.' §1) Category II is the class of mathematical propositions that have 'officially been given the stamp of incontestability' (§655). Category III cases are fundamental empirical-scientific beliefs (e.g. 'The earth is round.' §291; 'Water boils at 100°C.' §293). Category IV embodies beliefs that constitute what we might call 'domains of knowledge'. I mean certainties like ' . . . the earth has existed for many years past' (§411), or ' . . . the earth exists' (§209). Finally,

Category V consists of fundamental religious beliefs, like ‘Jesus only had a human mother.’ (§239) (Kusch, 2016, pp. 29–31).

Each category features propositions that, due to various kinds of considerations, cannot be rationally supported by other more certain propositions.²⁰ Of course, some hinges are shiftable. That is, a given proposition *p* (e.g. ‘Water boils at 100°C’) may be a recently acquired hinge. Others hinges (e.g. ‘ $2 + 2 = 4$ ’) are not equally shiftable—a point Pritchard has drawn sustained attention to in recent work.²¹ Wittgenstein appreciates this point in his famous ‘river bed’ analogy:

It might be imagined that some propositions, of the form of empirical propositions, were hardened and functioned as channels for such empirical propositions as were not hardened but fluid; and that this relation altered with time, in that fluid propositions hardened, and hard ones became fluid. The mythology may change back into a state of flux, the river-bed of thoughts may shift. But I distinguish between the movement of the waters on the river-bed and the shift of the bed itself; though there is not a sharp division of the one from the other. . . . And the bank of that river consists partly of hard rock, subject to no alteration or to only an imperceptible one, partly of sand, which now in one place now in another gets washed away, or deposited (Wittgenstein, 1969, §§96–99).

The Proposal in Outline

Returning now to the bigger picture: I suggested that there may be another way to think about how the child acquires rational powers, by focusing on certain *enabling conditions* (rather than the powers themselves), and then viewing the right a child has to cognitive goods in an education as a right to such enabling conditions. I now want to suggest that these enabling conditions for a child’s acquisition of rational powers are certain kinds of hinges, and further, that it is access to such hinges to which children can plausibly be said to have a right in an education.

The strategy now will be as follows: I’ll show how my approach has the resources to overcome the problems that faced (i) propositionalism, (ii) dispositionalism, and (iii) objectualism, while retaining some of the key advantages of each. In the course of doing so, I will develop the core idea in more detail.

Propositionalism Revisited

Recall, again, the puzzle: Is there a way to characterise the cognitive goods to which children plausibly have a right to attain that:

- (i) would not plausibly violate the child’s right to an open future (including a possible future that consists in a modern life); and,
- (ii) which does not simply beg the question against parents whose supervisory objectives involve avoidance of certain cognitive influence via knowledge acquisition?

It looked like none of the views canvassed could preserve *both* (i) and (ii). Given that children plausibly have a right to know certain basic facts (else many futures they may later wish to opt for be closed off to them), propositionalism initially looked like a natural starting point. The view can make sense of the idea that children have a right to the kind of propositional knowledge we assume they have a right to. But, as Feinberg pointed out, once we make this knowledge explicit, then it will be either too narrow *vis-à-vis* an open future, or *too* wide to claim children have a right to it while at the same time respecting the supervisory rights of parents.

A hinge strategy offers a way forward. The ground-level idea is that children have a right to certain hinges, where a command of such hinges enables children to possess rational powers and by extension a valuable sort of autonomy. On such a view, children have a right in their education *not* (as propositionalism says) to particular items of knowledge *per se*, but rather to propositions only in so far as they play a particular role in a certain (to-be-specified) rational structure.

This of course raises the question: *Which* hinges do children have a right to? The answer, I want to now suggest, is a right to a sufficient supply of what Kusch terms ‘Category 4’ hinges, those that are at the foundation of various *domains of knowledge*. Take, for example, mathematics. There are certain axioms and rules that cannot very well be rationally supported from within mathematics but which must be assumed in order for one to even *do* mathematics; without access to such axioms, the capacity to traffic in mathematical reasons is completely foreclosed. Children will have a right to such axioms, and these are propositions, but the right extends to any given particular set of axioms only in so far as possessing it is indispensable to a certain kind of reasoning that characterises a domain of knowledge pertinent to the child’s open future. If it turned out that (*a la* the river bed analogy) a particular axiom became less certain over time from within the domain of mathematics, and that not doubting it was no longer necessary to *do* mathematics, then the *right* to that particular hinge will be undercut.

Take another example from Kusch: certain things (such as the existence of the earth, basic physical laws) must be held fast in order to *do* various physical sciences, where ‘doing’ these sciences at least involves reasoning from *within* the knowledge domain, *viz.*, taking and receiving the kinds of reasons that are characteristic of this particular domain of knowledge. *Without* access to such hinges, a student (quite literally) is without a certain kind of autonomy—*viz.*, the autonomy to exercise her rational powers in the scientific domain of knowledge, effectively cutting such domains off for her *and by extension* possible futures, the successful realisation of which would be predicated on the capacity to exercise such powers.

What is it like to have the capacity to think from within a discipline ‘cut off’ from one (as would be the case if one is denied access to certain hinges?) Here an analogy to Ian Hacking’s work on styles of reasoning is apt. As Hacking points out, some statements can be made in any language, though others require what he calls a ‘style of reasoning’. As Hacking puts it, ‘what is true-or-false in one way of talking may not make much sense in another until one has learned how to reason in a new way’

(Hacking, 1982, p. 331). Accordingly, for example, ‘statistical reasons had no force for the Greeks’, much as reasons offered in some ancient systems are incomprehensible to *us* today. Take, for example, ‘renaissance medical, alchemical and astrological doctrines of resemblance and similitude [which] are well-nigh incomprehensible . . . the way propositions are proposed and defended is entirely alien to us’ (p. 330). (For example, that mercury salve might be good for syphilis because mercury is signed by the planet Mercury which signs the marketplace, where syphilis is contracted.²²)

That statistical reasons had no force for the Greeks (and that medieval alchemical reasons have no force for us) is telling; without certain background commitments relative to which discipline-specific reasons are given their sense, we (literally) are not in a position to *think* within that discipline—viz., to be rationally moved by the kinds of reasons that are specific to that discipline.

Of course, a right to hinges is at the same time a right to certain propositions (including many of the facts that students will intuitively have a right to know²³), however it is not a right *de dicto* to any particular propositional contents (a specification of such a right in terms of specific propositional contents, recall, threatened to violate Feinberg’s neutrality constraint if specified widely enough to not undermine a child’s open future). The right itself may be satisfied even if the content itself shifts—viz., even if a proposition that at one time was necessary in order to reason in a particular domain-relevant way became no longer necessary.²⁴

The matter of *which* domains of knowledge are such that a child has a right in an education to the hinges that make possible rational moves within these domains is one that cannot be determined *a priori*. The facts that fix what count as the kinds of futures that should be left open—an issue beyond the scope of this essay—will also by extension determine the relevant domains of knowledge, as well as their breadth.

Dispositionalism Revisited

Dispositionalist accounts seemed to do well by way of (ii) in the puzzle, less so by way of (i). The worry, in short, was that if a right to acquire certain cognitive dispositions or skills is what characterises the kind of cognitive goods children have a right to in education, then such a right could in principle be satisfied *even if* a child failed to possess certain basic facts that a suitably open future would (very plausibly) demand they know. The proposed hinge view avoids this result; the right to certain hinges is at the same time a right to certain foundational propositions (many, if not all,²⁵ will be true or at least empirically adequate) and will *include* basic mathematical and scientific claims that dispositionalism cannot straightforwardly countenance.²⁶

Moreover, the hinge view retains a key benefit distinctive of dispositionalism: dispositionalism aligns with the thought that certain skills are prerequisites for a suitably open future, and that thus there is a *prima facie* case for a right to such skills in education. The hinge view can accommodate this idea, albeit in a qualified way; on the hinge view, the right in

question is not to the powers themselves (viz., it is not a right to be in the dispositional state one is in when one possesses such powers, and this due to complications that also faced objectualism) but rather to the enabling conditions for these powers—viz., to the hinges, command of which allows for the possibility of the exercise of rational powers in the relevant domains.

Objectualism Revisited

According to objectualism, the cognitive goods children have a right to are objectual goods—viz., to bodies of information or subject matters themselves, and moreover, such objectual goods are possessed only when grasped in the right kind of way, e.g. when one understands. Objectualism comported with the idea that, for instance, students have a right to understand chemistry, physics, etc., as opposed to merely to know certain facts or possess certain skills.

Objectualism, recall, faced a normative problem: the kind of grasping a subject matter that is plausibly partly constitutive of understanding it, is not something that a teacher can (without the cooperation and some level of competence of the agent) give the student. Accordingly, it is less plausible—certainly less plausible than in the case of propositional knowledge, which can be transmitted more straightforwardly—to suppose that the teacher may have a duty to impart understanding that would correlate with a student's right to possess it.

The hinge strategy, by contrast with objectualism, submits merely that students have a right to the *enabling conditions*, i.e. to be presented with the relevant hinges that correspond with certain domains of knowledge and without which the child would not be in a position to exercise her rational powers by reasoning from within these domains—viz., domains of knowledge that are apposite to a relevant range of open futures the child might later freely choose (from practical/vocational to the theoretical); the right is not to be identified as a right to understand (which takes effort and competence on behalf of the subject) but to have an opportunity autonomously to make certain kinds of rational moves.

CONCLUDING REMARKS

We began with a puzzle: apart from what cognitive goods characterise an excellent education—viz., the sort of cognitive states an education should aim at inculcating—is the comparatively narrower question of what cognitive goods a child has a *right* to in an education. How should such goods be specified? I've suggested, with reference to Feinberg's discussion of the relationship between education and an open future, that typical answers to the guiding question turn out to be problematic. In particular, it has been shown that propositionalist, dispositionalist and objectualist accounts of the kinds of cognitive goods children have a right to in education are each (for different reasons) inadequate. The alternative offered here is inspired by Wittgenstein's epistemology: children have a right to certain hinges, where a command of such hinges enables children to possess rational powers in certain domains of knowledge and by extension a valuable sort of autonomy

in these domains. This view has been shown to have important advantages over the three alternatives considered as a way of making sense of rights in education, and in a way that comports with plausible thinking about the goals of education.²⁷

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NOTES

1. State v. Garber, 1966.
2. The right to an open future that is claimed to be violated in the Kansas case is shorthand for autonomy rights children have ‘in trust’—rights that are ‘saved for the child until he is an adult, but which can be violated in advance’ (see Feinberg, 2007).
3. This suggestion is meant only as a useful starting point for discussion. As we’ll see, this idea quickly runs into some difficulties.
4. Wisconsin v. Yoder, 1972.
5. Although there may be philosophically sophisticated reasons for thinking that it is; see Pritchard, 2013, and Elgin, 1996.
6. For one notable defence of a reasoning-based version of dispositionalism, see Locke, 1988.
7. Variations of this idea are defended by two prominent positions in the epistemology of education. According to the intellectual virtue approach (e.g. Baehr, 2013) an education should aim in the main to inculcate intellectual character virtues in the student, such as open-mindedness, inquisitiveness, intellectual courage, etc. A different form of dispositionalism is the critical thinking approach, defended notably by Scheffler (2014) and Siegel (1988). For an overview, see Carter and Kotzee, 2015.
8. This is a view compatible with both reductionist and non-reductionist approaches in the epistemology of testimony. According to (local) non-reductionists, you’ll have already satisfied in friendly environments the testimony-independent reason requirement on testimonial knowledge acquisition; and, according to non-reductionists, you’ll have satisfied the no-defeater requirement on testimonial knowledge acquisition. For discussion of these views, see Lackey, 2008, and Goldman and Blanchard, 2016.
9. Strong dispositionalism may also fail (ii) as well. Consider, for instance, that open-mindedness, healthy scepticism, critical thinking, intellectual curiosity, epistemic rigour, scientific method, and so on, are not virtues that sit easily with many kinds of fundamentalist thinking. Moreover, it would be difficult to inculcate (for instance) many such dispositions without reference to certain specific propositions. For example, one cannot very well educate for a disposition to love truth without reference to particular truths. Thanks to David Bakhurst for raising these points.
10. As Elgin writes, ‘Even the “mature sciences” rarely yield knowledge, strictly so-called. Anomalies, discrepancies, and outstanding problems challenge the adequacy of our most strongly supported theories’ (Elgin, 1999, p. 39).
11. For critical discussion, see Carter and Gordon, 2016.
12. See, for example, Audi, 1997; Burge, 1993; Coady, 1992; McDowell, 1994.
13. Cf. Jennifer Lackey’s (2008) ‘compulsively trusting’ case for a notable challenge to this idea.
14. See Gordon, 2016, for helpful discussion on this point.
15. This idea has been defended by Kvanvig, 2003, 2009; Grimm, 2014; and Gordon, 2016.
16. For a critique of Bakhurst’s view of the kind of transformation that characterises the educational process, see Rödl, 2016. Cf. Bakhurst, 2015. It is worth noting that despite differences about the transformational view, Rödl would likely embrace Bakhurst’s position in the second block quotation.
17. It should be noted that nothing important here turns material adequacy of a further epistemological doctrine associated with McDowell’s epistemology, and also embraced by Bakhurst—namely,

- McDowell's epistemological disjunctivism about perceptual knowledge (see, for example, McDowell, 1995; Bakhurst, 2013 and 2018).
18. For representative discussions of hinge propositions in Wittgenstein's epistemology, see for example Moyal-Sharrock, 2004; Coliva, 2010 and 2015; McGinn, 2008; Stroll, 1994; Pritchard, 2012 and 2015.
 19. For an overview of recent work on Moore's Proof, see Carter, 2012.
 20. There may be a further category of hinge—what Duncan Pritchard (2015, p. 95) calls the *über-hinge*, which is a general hinge commitment to the effect that one is not radically mistaken in one's beliefs *en masse*.
 21. As Pritchard notes, 'someone in the future might not have a hinge commitment that she had never been to the moon (perhaps going to the moon as a child is so commonplace that it is the sort of thing that could well have happened without one being aware of it), and someone with a different name will presumably take it as a hinge commitment that her particular name is the name she thinks it is. The foregoing suggests a highly context-sensitive account of hinge commitments, and one might be tempted on this basis to regard one's hinge commitments as being entirely context-bound' (Pritchard, 2015, p. 95). Pritchard ultimately resists drawing the further conclusion that all hinges are context sensitive in this way (see previous footnote concerning the *über-hinge*).
 22. For a more detailed discussion of Hacking's view, see Carter and Gordon, 2014a.
 23. Some Wittgenstein commentators (e.g. Moyal-Sharrock, 2004) opt for a 'non-propositional' reading of hinges. Such a reading gains some plausibility when we consider the disanalogies between hinges, within a thinker's network of beliefs, and other more standard propositions one believes. However, hinges as described by Wittgenstein (and as demarcated through examples) are identified as having the semantic trappings of propositions; while registering the controversy, I am inclined toward the propositional reading as the most straightforward, if not the only plausible, interpretation.
 24. Of course, we can imagine some proponents of parental supervisory rights objecting that: (i) it does not matter whether a right to engage with certain propositional contents is not a right *de dicto* to any particular propositional contents if the parents find those particular propositions objectionable; and (ii) therefore, the hinge strategy proposed ultimately fails Feinberg's neutrality constraint. In response, I want to stress that the proposal offered is aimed at giving due consideration to *both* parental supervisory rights and a child's right to an open future. I am suggesting that the neo-Wittgenstenian approach has resources that other strategies lack for addressing both of these concerns in balance. It will not be surprising that such an approach might not satisfy certain very strongly articulated construals of Feinberg's neutrality constraint (just as it would perhaps not satisfy certain very strong construals of what is required to safeguard a child's right to an open future). Given that the approach has the advantages it does for addressing both competing interests, it should not be viewed as an intractable problem that the proposal will not satisfy all readings of Feinberg's neutrality constraint. Indeed, a strong reading of that constraint may well leave it practically impossible to satisfy while retaining even the weakest construal of a child's right to an open future.
 25. Cf. §239. Of course, it is a consequence of the view embraced here that students may have a right to some propositions that are not strictly factual. An example from Elgin (2007) is helpful: the ideal gas law is literally false—viz., though proceeding as if it were true is necessary for grasping the behaviour of actual gases. For related discussion, see Carter and Gordon, 2016.
 26. See, for example, Wittgenstein, 1969, §§655, §291 and §293.
 27. Thanks to Ben Kotzee, Duncan Pritchard, Lani Watson, Richard Menary, Emma C. Gordon, David Bakhurst, and to an audience at Edinburgh's Eidyn Research Centre for helpful feedback on an early version of this paper.

REFERENCES

- Audi, R. (1997) The Place of Testimony in the Fabric of Knowledge and Justification, *American Philosophical Quarterly*, 34.4, pp. 405–422.
- Baehr, J. (2013) Educating for Intellectual Virtues: From Theory to Practice, *Journal of Philosophy of Education*, 47.2, pp. 248–262.
- Bakhurst, D. (2011) *The Formation of Reason* (Oxford, Wiley-Blackwell).

- Bakhurst, D. (2012) Freedom and Second Nature in *The Formation of Reason, Mind, Culture, and Activity*, 19.2, pp. 172–189.
- Bakhurst, D. (2013) Learning from Others, *Journal of Philosophy of Education*, 47.2, pp. 187–203.
- Bakhurst, D. (2015) Training, Transformation and Education, *Royal Institute of Philosophy Supplements*, 76, pp. 301–27.
- Bakhurst, D. (2018) Trouble with Knowledge, *Philosophy*, 93, pp. 433–453.
- Burge, T. (1993) Content Preservation, *Philosophical Review*, 102.4, pp. 457–488.
- Carter, J.A. and Gordon, E.C. (2014a) A New Maneuver Against the Epistemic Relativist, *Synthese*, 191.8, pp. 1683–1695.
- Carter, J.A. and Gordon, E.C. (2014b) Objectual Understanding and the Value Problem, *American Philosophical Quarterly*, 51.1, pp. 1–14.
- Carter, J.A. and Gordon, E.C. (2016) Objectual Understanding, Factivity and Belief, in: M. Grajner and P. Schmechtig (eds), *Epistemic Reasons, Norms and Goals* (Berlin, De Gruyter), pp. 423–442.
- Carter, J.A. (2012) Recent Work on Moore's Proof, *International Journal for the Study of Skepticism*, 2.2, pp. 115–144.
- Carter, J.A. and Kotzee, B. (2015) Epistemology of Education, *Oxford Bibliographies*. Available online at: <http://www.oxfordbibliographies.com/view/document/obo-9780195396577/obo-9780195396577-0292.xml>.
- Coady, C.A.J. (1992) *Testimony: A Philosophical Study* (Oxford, Oxford University Press).
- Coliva, A. (2010) Was Wittgenstein an Epistemic Relativist? *Philosophical Investigations*, 33.1, pp. 1–23.
- Coliva, A. (2015) *Extended Rationality: A Hinge Epistemology* (London, Palgrave Macmillan).
- Elgin, C.Z. (1996) *Considered Judgment* (Princeton, NJ, Princeton University Press).
- Elgin, C.Z. (1999) Education and the Advancement of Understanding, *The Proceedings of the Twentieth World Congress of Philosophy* 3. Philosophy Documentation Center, pp. 131–140.
- Elgin, C.Z. (2007) Understanding and the Facts, *Philosophical Studies*, 132.1, pp. 33–42.
- Feinberg, J. (2007) The Child's Right to an Open Future, in: R. Curren (ed.), *Philosophy of Education: An Anthology* (Oxford, Blackwell), pp. 305–317.
- Goldman, A. and Blanchard, T. (2016) Social Epistemology, in: E. Zalga (ed.), *The Stanford Encyclopedia of Philosophy*, Winter 2016 edition. Available online at: <https://plato.stanford.edu/archives/win2016/entries/epistemology-social/>.
- Gordon, E. (2016) Social Epistemology and the Acquisition of Understanding, in: S. Grimm, C. Baumberger and S. Ammon (eds), *Explaining Understanding: New Perspectives from Epistemology and Philosophy of Science* (London, Routledge), pp. 293–317.
- Grimm, S. (2014) Understanding as Knowledge of Causes, in: A. Fairweather (ed.), *Virtue Epistemology Naturalized* (New York, Springer), pp. 329–345.
- Hacking, I. (1982) Language, Truth and Reason, in: M. Hollis and S. Lukes (eds), *Rationality and Relativism* (Oxford, Blackwell), pp. 48–66.
- Kelp, C. (2016) Towards a Knowledge-Based Account of Understanding, in: S. Grimm, C. Baumberger and S. Ammon (eds), *Explaining Understanding: New Perspectives from Epistemology and Philosophy of Science* (London, Routledge), pp. 251–271.
- Kusch, M. (2016) Wittgenstein's *On Certainty* and Relativism, in: H. Wiltsche and S. Rinofner-Kreidl (eds), *Analytic and Continental Philosophy: Methods and Perspectives. Proceedings of the 37th International Wittgenstein Symposium* (Berlin, De Gruyter), pp. 29–46.
- Kvanvig, J. (2003) *The Value of Knowledge and the Pursuit of Understanding* (Cambridge, Cambridge University Press).
- Kvanvig, J. (2009) The Value of Understanding, in D. Pritchard, A. Haddock and A. Miller (eds), *Epistemic Value* (Oxford, Oxford University Press), pp. 95–112.
- Lackey, J. (2008) *Learning from Words: Testimony as a Source of Knowledge* (Oxford, Oxford University Press).
- Locke, J. (1988) *Some Thoughts Concerning Education*, edited by J. Yolton and J. Yolton (Oxford, Oxford University Press). First published 1693.
- McDowell, J. (1994) Knowledge by Hearsay, in: A. Chakrabarti and B. K. Matilal (eds), *Knowing from Words* (Dordrecht, Kluwer), pp. 195–224.
- McDowell, J. (1995) Knowledge and the Internal, *Philosophy and Phenomenological Research*, 55.4, pp. 877–893.
- McDowell, J. (1996) *Mind and World*, 2nd edition (Cambridge MA, Harvard University Press).

- McGinn, M. (2008) Wittgenstein on Certainty, in: J. Greco (ed.), *The Oxford Handbook of Skepticism* (Oxford, Oxford University Press), pp. 372–391.
- Moore, G. E. (1939) Proof of an External World, *Proceedings of the British Academy* 25.5, pp. 273–300.
- Moyal-Sharrock, D. (2004) *Understanding Wittgenstein's On Certainty* (London, Palgrave-Macmillan).
- Pritchard, D. (2012) Wittgenstein and the Groundlessness of Our Believing, *Synthese*, 189.2, pp. 255–272.
- Pritchard, D. (2013) Epistemic Virtue and the Epistemology of Education, *Journal of Philosophy of Education* 47.2, pp. 236–247.
- Pritchard, D. (2015) *Epistemic Angst: Radical Skepticism and the Groundlessness of Our Believing* (Princeton, NJ, Princeton University Press).
- Rödl, S. (2016) Education and Autonomy, *Journal of Philosophy of Education* 50.1, pp. 184–97.
- Scheffler, I. (2014) *Reason and Teaching*, Routledge Revivals Series (London, Routledge).
- Siegel, H. (1988) *Educating Reason* (London, Routledge).
- State v. Garber (1966) Kansas Supreme Court.
- Stroll, A. (1994) *Moore and Wittgenstein on Certainty* (Oxford, Oxford University Press).
- Wisconsin v. Yoder (1972). United States Supreme Court.
- Wittgenstein, L. (1969). *On Certainty*, trans. G. E. M. Anscombe and D. Paul, edited by G.E.M. Anscombe and G.H. von Wright (Oxford, Blackwell).