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Cognitive Goods, Open Futures and the Epistemology of Education

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Abstract: 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 Feinberg's (2007) 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 (1969) '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 propositional goods.

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 to Amish families who wanted to keep their children altogether out of state-accredited schools.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 (2007, 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 future², 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:

¹(“State V. Garber” 1966).

²The right to an open future that is claimed to be violated in the Kansas case is short-hand 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).

³This suggestion, to be clear, is meant only as useful starting point for discussion. As we’ll see, this idea runs quickly in to some difficulties.

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 faith⁴.

Implicit in Burger's thinking here, in writing his majority opinion in favour of the Amish families, 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—as Burger seems to be thinking here—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 doesn't 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 (2007, 116, my italics).

Feinberg is here 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

⁴(“Wisconsin V. Yoder” 1972).

cognitive goods children have a right to *vis-à-vis* education. More carefully: 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 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 (as Feinberg worries) beg the question against parents (Amish or otherwise) whose supervisory objectives involve avoidance of certain cognitive influence via knowledge acquisition?

Propositionalism, as an approach doesn't seem obviously problematic (*vis-à-vis*) (i)⁵. But (ii) is a different story. To be precise: propositionalism seems to have the resources to satisfy (ii) only at the cost of failing to satisfy (i). To see why this is so, let's simply stipulate that 'K' denotes a set whose members are propositions children have a right to know (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 maximize children's chances of self-fulfilment (e.g., 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 (for instance) supervisory rights of parents. Therefore, as the worry goes, propositionalism cannot satisfy both (i) and (ii).

One way to easily satisfy (ii) would be via rejecting 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. This position appears to offer a convenient way to bypass entirely any sort of

⁵At least, propositionalism isn't obviously limited in its resources for accounting for the first desiderata. See however Pritchard (2013) and Elgin (1996) for some more sophisticated issues that stand in the way of the propositionalist's ability to accommodate (i).

‘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 slogan form, you can’t be indoctrinated if there isn’t a doctrine. Therefore, if children have a right in their education only to cognitive-dispositional goods (e.g., the inculcation of intellectual virtues)—and it is primarily with reference to these goods that an education is aimed at cultivating—then there’s no obvious grounds on which worries such as Burger’s about conflict with supervisory rights is going to look compelling.

Dispositionalism might be preferable to propositionalism as well on independent grounds⁶. As Duncan Pritchard (2013, 246) 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 virtue⁷.

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 seems to involve 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 environments⁸.

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

⁶For one notable defence of a reasoning-based version of dispositionalism, see Locke (1725).

⁷Variations 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 (2013). For an overview, see Carter and Kotzee (2015).

⁸This is, to be clear, a view that is 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 requirements 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).

cognitively prepared across 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 seemed to 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 that some such knowledge will be of the sort 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 don't have a right to know any particular propositions, *per se*, but rather to have certain dispositions fostered. This position does seem *prima facie* (and unlike weak dispositionalism) to satisfy the constraint in (ii).

But, problematically, strong dispositionalism will obviously fail (i)⁹. This is for two reasons. As this line of thinking goes: foster in a child as many intellectual abilities as possible, but it remains that if the child is bereft of certain items of propositional knowledge, many options become foreclosed. Put another way: dispositionalism will fail (i) because 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, then, a puzzle has emerged: 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) won't be satisfied; (ii) will be satisfied under strong dispositionalism (but not weak dispositionalism); but then (i) won't 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

⁹Strong 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 can't very well educate for a disposition to love truth without reference to particular truths. Thanks to David Bakhurst for raising these points.

she calls ‘Plato’s Teaching Assumption’, (PTA), the thesis that one can’t teach what one doesn’t know. (In the *Meno*, this thesis was operant 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 couldn’t, she reasons, then we wouldn’t be able to teach such things as philosophy and perhaps even science¹⁰, where the matter of whether we know what we teach is in doubt; but we do teach such things and so contra Plato it’s not true that we can’t teach what we don’t 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’s *understanding*. Understanding, unlike propositional knowledge, is not-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 (1999).

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 kind of cognitive good one achieves when one attains understanding. On such an Elgin-inspired line, we may say further that children have a right not to know any set of propositions but rather to understand certain bodies of information—viz., to grasp certain bodies of information and to see, as Wayne Riggs puts it when discussing

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.’

¹¹ For critical discussion, see Carter and Gordon (2016).

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 that children may plausibly be said to have a right to? 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 epistemology¹², 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 knowledge¹³.

Understanding, by contrast, can’t as plausibly be transmitted via the same kind of ‘no-work’ mechanism on the part of the hearer¹⁴. Understanding—at least, on most contemporary views—involves some exercise of a capacity to grasp the relevant coherence-making or explanatory propositions that constitute a given subject matter¹⁵. Such grasping on behalf of the student, which is partly constitutive of understanding, is not something that a teacher can (without the cooperation and some level of competence of the agent) give the student in the way that knowledge can (in the absence of defeaters) 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, to actually possess (objectual) cognitive goods.

Setting aside the foregoing general worry, there is a more specific problem with objectualism as a way out of the puzzle sketched. 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)

¹²See, for example, Audi (1997) Burge (1993); Coady (1992); McDowell (1994).

¹³Cf., Jennifer Lackey’s (2008) ‘compulsively trusting’ case for a notable line of challenge to this idea.

¹⁴See Gordon (2016) for helpful discussion on this point

¹⁵This idea has been defended by Kvanvig (2003); Kvanvig (2009); Grimm (2014); J. Adam Carter and Gordon (2014b).

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 attempt to retain objectualism as an answer-type to the question of what kind of cognitive goods children have a right to in a way that better satisfies (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, from Elgin-style non-factive objectualism 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)¹⁶. Accordingly (and regardless of whether we should opt for a non-factive or a factive version of objectualism), objectualism at the end of the day doesn't appear to offer a better kind of answer strategy than propositionalism or dispositionalism as a response to the question of what kind of cognitive goods children have a right to.

A NEO-WITTGENSTENIAN SOLUTION

In this section, an alternative will be sketched to propositionalism, dispositionalism and objectivism. On the view I want to now argue for, the kind of cognitive goods children have a right to in their education are best understood in terms of *hinges* (Wittgenstein 1969). 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 to 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) which does not simply (as per Feinberg) beg the question against parents whose supervisory objectives involve (reasonable) avoidance of certain cognitive influences via knowledge acquisition.

¹⁶Furthermore, even if a factive objectualist answer to the question of what kind of cognitive goods children have a right to could somehow get around the worry with (ii), there remains the lingering question of how (on either a non-factive or a factive construal) the corresponding duty to bring children into this state could be specified; this is for the reason, previously noted, that discharging such a duty by a teacher requires both the exercise of competence and some level of cooperation on the part of the student (and in a way that a duty to impart propositional knowledge, which can be passively gained, might not).

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 will be only a subset of the latter. (And accordingly, that propositionalism, dispositionalism and objectualism are problematic ways to characterise the former kinds of epistemic goods needn't imply that we couldn't articulate the aim of education—or the features of an excellent education—with reference to such goods.) That said, some grip on what an excellent education involves might help us to frame our thinking about educational epistemic right, and in a way that may be useful for approaching the puzzle in §2.

Bearing this in mind, I want to now 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 an agent¹⁷. 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*.

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

¹⁷For 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.

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 (2011, 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 a view 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 about 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 reasons¹⁸ 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's not clear how such a strategy would ultimately fare better than dispositionalist accounts considered in §2 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 from §2 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 can't 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 (1969) posthumous *On Certainty*, the capacity to engage in the activity of giving and requesting

¹⁸See, for example, Bakhurst (2013, 2018). It should be noted that nothing important here turns material adequacy of a further epistemological doctrine associated with McDowell's epistemology, which is his epistemological disjunctivism about perceptual knowledge. See, for example, McDowell (1995) for a concise discussion of this point.

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 isn't that the situation is like this: We just can't 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. (OC, §§341–43)

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*¹⁹. 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 to think 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 he is in what he's appealing to it in order to prove (*viz.*, that an external world exists)²⁰. Implicit in this objection is a commitment to a more general principle about the structure of rational support relations: roughly, one cannot support the more certain by appealing to the less certain. Here are some passages which 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 don't know why I should trust my eyes. For why shouldn't I test my eyes by looking to find out whether I see my two hands? What is to be tested by what? (OC, §125)

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. (Wittgenstein (OC §250)

¹⁹For some representative discussions of hinge propositions in Wittgenstein's epistemology, see for example Moyal-Sharrock (2004), Coliva (2015), Coliva (2010), McGinn (2008), Stroll (1994), Pritchard (2012), Pritchard (2015).

²⁰For an overview of recent work on Moore's Proof, see Carter (2012).

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. (OC §231)

Of course, if the very structure of rational support is such that what is less certain for one can not be rationally adduced in support of (or to doubt) what is more certain to one, an interesting consequence is that those propositions that are *most* certain for one are themselves neither rationally supportable nor rationally doubtable 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'll return to this point).

First, though, two final substantive points about hinges: (a) there are multiple categories of hinges; and (b) the matter of which propositions play the functional role of a hinge in a given category can change over time. First, regarding (a): As Martin Kusch (2016) has noted, there are at least five different 'categories' of hinges identifiable in Wittgenstein's epistemology, which differ in how these certainties 'relate to evidence, justification and knowledge' (2016, 29). Kusch divides hinges into five categories as follows:

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)²¹ (2016, 29–31)

Each of these categories features propositions that, due to various kinds of considerations, can't be rationally supported by other more certain propositions. Of course, some of these hinges are shiftable. That is, a given proposition *p* (e.g., "Water boils at 100C") may be a recently acquired hinge. Others hinges (e.g., $2+2=4$) are not equally

²¹There may be a further category of hinge—what Duncan Pritchard (2015, 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*. I will set aside here the question of the status of the *über-hinge*.

shiftable—a point Pritchard (2015) has drawn sustained attention to in recent work²². Wittgenstein appreciates this point in his famous ‘river bed’ analogy in §§96–99 of *On Certainty*:

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. (OC, §§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 to view 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 a hinge strategy as a response to the rights puzzle has the resources to overcome each of 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’ll be developing the core idea in more detail.

Propositionalism revisited Recall, again, the puzzle from §2: Is there a way to characterise the cognitive goods to which children plausibly have a right to attain that:

²²As Pritchard (2015) notes, for example, ‘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’ (2015, 95). Pritchard ultimately resists drawing the further conclusion that all hinges are context sensitive in this way (see previous footnote concerning the *über-hinge*).

- (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 (as Feinberg worries) beg the question against parents (Amish or otherwise) whose supervisory objectives involve avoidance of certain cognitive influence via knowledge acquisition?

It looked like none of the views canvassed could in principle preserve *both* (i) and (ii). Given that children plausibly have a right to know certain basic facts (else many futures they may later 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 explicit which knowledge they have a right to, then the specification of this knowledge will plausibly be either too narrow *vis-à-vis* an open future, or it will be wide enough *vis-à-vis* an open future but *too* wide to claim children have a right to it while at the same time respecting that parents have any level of supervisory rights.

A hinge strategy offers a way forward here; the ground-level idea is that children have an right to certain hinges (on this I'll say more), 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* (not to know any particular facts because the content of these facts is such and such), 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 in an education? The answer I propose turns on the preceding discussion of a distinction between hinge types: children have, I want to now suggest, a right to a sufficient supply of what Kusch (2016) has termed 'Category 4' hinges, hinges that are at the foundation of various *domains of knowledge*. Take, for example, mathematics. There are certain axioms and rules that can't 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 them is indispensable to a certain kind of reasoning that characterises a domain of knowledge (i.e., mathematics) 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 it subsequently became the case that not doubting it became less necessary to do mathematics (and thus to traffic in mathematical reasons), then the *right* to that particular hinge can 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 properly *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 (1982) work on styles of reasoning is apt. As Hacking points out, some statements can be made in any language, though others kinds of statements 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’ (1982, 331). Accordingly, for example, ‘statistical reasons had no force for the Greeks’ much like 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’ (1982, 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.²³) (1982, 330).

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) aren’t 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 to²⁴), however it isn’t 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 Fein-

²³For a more detailed discussion of Hacking’s view, see J. Adam Carter and Gordon (2014a).

²⁴Some 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 here, I’m inclined toward the propositional reading of hinges as this strikes me as the most straightforward interpretation, even if not the only one.

berg'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 necessary²⁵.

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 can't be determined *a priori*. The facts that fix what count as the kinds of futures that should be left open—this is beyond the scope of what I'll try to address in this essay—will also be the kinds of facts that by extension determine the relevant domains of knowledge, as well as their breadth.

Dispositionalism revisited Dispositionalist accounts, according to which the kind of cognitive goods children have a right to are cognitive-dispositional goods (see §2), 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 it seems that 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, not all of which²⁶, will be true or at least empirically adequate) and will *include* basic mathematical and scientific claims²⁷ that dispositionalism can't straightforwardly countenance.

²⁵Of course, we can imagine some proponents of parental supervisory rights objecting here along the following lines: (i) it doesn't matter whether a right to engaging with certain propositional contents isn't a right *de dicto* to any particular propositional contents provided 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 one that is aimed at giving due consideration to *both* parental supervisory rights and a child's right to an open future. I'm suggesting that the neo-Wittgensteinian 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 advanced here has the advantages it does for addressing both competing interests, it should not be viewed as an intractable problem that the proposal won't 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. Thanks to David Bakhurst for discussion on this point.

²⁶Cf., §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. Here, an example from Elgin (2007) is helpful. As Elgin notes, 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).

²⁷See, for example, OC §§655, §291 and §293.

Moreover, the hinge view retains a key benefit distinctive of dispositionalism and not to mere propositionalism: 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 the command of which allow 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 (on this view) possessed only when grasped in the right kind of way, *e.g.*, when one understands. Objectualism comported with the idea that, for instance, a student has a right to understand chemistry, to understand physics, etc., as opposed to merely to know certain facts, or to possess certain skills.

Objectualism, recall, faced a normative problem: the kind of grasping of a body of information or a subject matter that is plausibly at least partly constitutive of understanding a subject matter or body of information, is not something that a teacher can (without the cooperation and some level of competence of the agent) give the student; it's accordingly less plausible—certainly less plausibly than in the case of propositional knowledge, which can be transmitted more straightforwardly, in the absence of defeaters—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 to autonomously 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 (2007) 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's 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 (1969) 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 education²⁸.

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