



Free Thinking

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Free Thinking

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of the Graduate School of Education of Harvard University
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Abstract

In this dissertation I offer a justification of the claim that the development of those faculties necessary for autonomy should be a primary goal of public education, available to all children. To do this I 1) place autonomy into the framework of Capability Theory, showing why autonomy is essential to a full concept of human freedom, cleaning up some rough edges in the Capability Theory literature in the process; 2) demonstrate how thinking of freedom in terms of Capability Theory elucidates perennial questions and debates in the Philosophy of Education literature concerning autonomy; and 3) dig deeper into what educating for autonomy in terms of Capability Theory might look like through an analysis of rigor.

The questions which will guide my research are as follows:

1. What is "autonomy", and why is it a valuable goal to pursue in education?
2. Why must the state ensure that every child have the opportunity to become autonomous?
3. How can autonomy be developed, through schooling and through life?

Chapter 1 – Having Our Own Thoughts: Developing a Capability Theory Understanding of Autonomy

Your children are not your children.
 They are the sons and daughters of Life's longing for itself.
 They come through you but not from you,
 And though they are with you yet they belong not to you.

You may give them your love but not your thoughts,
 For they have their own thoughts.
 You may house their bodies but not their souls,
 For their souls dwell in the house of tomorrow,
 which you cannot visit, not even in your dreams.
 You may strive to be like them,
 but seek not to make them like you.
 For life goes not backward nor tarries with yesterday.

You are the bows from which your children
 as living arrows are sent forth.
 The archer sees the mark upon the path of the infinite,
 and He bends you with His might
 that His arrows may go swift and far.
 Let your bending in the archer's hand be for gladness;
 For even as He loves the arrow that flies,
 so He loves also the bow that is stable.

- Kahlil Gibran

“You may give them your love but not your thoughts, for they have their own thoughts.” So says the poet Kahlil Gibran in his poem *On Children*, which might be more accurately titled “On the Raising of Children”. The poem, in Gibran’s signature mystical style, exhorts parents to be like steady bows which send their children as arrows into the world. The implication is that a parent’s role is not to directly guide their children’s path but, having prepared them, allow them to fly unaided through life, making their own way. We should respect them and support them in their endeavors, he suggests, but not seek to make them in our image. Our children, in this sense, are not *our* children: they are not our possessions to shape as we wish, but unique expressions of the spirit of life, with their own drives and desires, motives and minds.

Yet what does it mean to “have our own thoughts”? Isn’t every thought we have “our own”? After all, all of our thoughts are, ultimately, the product of our own brains, the result of countless neurons firing in synaptic connection. To the extent that we must claim ownership of our brains, surely we must claim ownership of the thoughts our brains bring to birth. All our thoughts are “our own thoughts” in this sense. So what does Gibran mean? I think what he means is something subtle and profound: that there are ways in which parents (and, by extension, others) craft the minds of their children, either intentionally or not, which do not respect their autonomy. This dissertation – a work of philosophy of education – explores the question of what it means for a person to “have their own thoughts”, in the sense of being autonomous.¹

I begin, in this **first chapter**, by raising some initial questions which any discussion of autonomy must address, including a discussion of various forms of mental unfreedom a person might be subject to, and what it might mean to overcome them. Then, in order to begin to respond to these questions, I introduce “capability theory,” a philosophical framework originated by economist Amartya Sen and further developed by philosopher Martha Nussbaum. I then mobilize capability theory to clarify and justify a particular understanding of autonomy, and its central importance in life. In the process, I clean up some of the rougher edges of capability theory itself, in what I believe to be a novel and useful clarification of its central concepts, and a genuine contribution to the capability theory literature itself. I end this chapter with an understanding of autonomy which is comprehensive and quite strong, which has numerous educational implications.

In the **second chapter**, I apply this capability theory-informed understanding of autonomy to major questions in the field of philosophy of education, in order to demonstrate how thinking in

¹ Throughout the dissertation, I will use the terms “freedom of mind” and “autonomy” synonymously. I hope to clarify what I *mean* by autonomy, and why I take this view, in the course of my argument.

terms of the framework I have offered enriches the discourse. In particular, I compare a capability theory approach to autonomy to the work of three prominent philosophers of education who also have an interest in autonomy: John Dewey, Joel Feinberg, and Harry Brighouse. I note areas of congruence between my conception of autonomy and theirs, and also areas where I think my conception leads to a different conclusion as to what children can expect from their education, or introduces different considerations which those philosophers do not address. Then, I use my capability theory conception of autonomy to respond to three philosophers of education who have argued, in various forms, *against* enshrining certain understandings of autonomy as an educational aim: Hand, Winch, and Schrag. Thus, I hope to demonstrate that not only does a capability theory-informed understanding of autonomy complement and challenge some existing and important research in the field, but also helps respond to some strong criticisms that autonomy as an educational aim has been subject to.

Finally, in my **third chapter**, I drill down to a more practical level, analyzing “rigor”: a concept closely related to autonomy, which is often held up as an educational goal, but which frequently is unclearly defined. Using the approach to autonomy I have honed in the first two chapters, I provide a definition and defense of rigor as an educational good, and as a particularly powerful example of autonomous thinking.

My dissertation is therefore structured as a series of philosophical investigations which get progressively closer to classroom practice. We begin in space, in the vast open world of political and economic philosophy, discussing autonomy and human freedom at a certain level of abstraction, for which I marshal many arguments which have nothing to do with schools, and little to do with education. Then, we dive into the heady clouds of educational philosophy, seeing what we can do with the conceptual tools I have sought to clarify in the first chapter. Finally, we

arrive on earth, and examine rigor through the lens I have been progressively honing, and seeing what implications this might have for classroom practice. The literatures I mobilize to support and inform each chapter represent this trend: this first chapter makes reference to literature regarding the philosophy of autonomy, and literature regarding the relationship of autonomy to education; the second involves extensive engagement with literature in the sub-field of philosophy of education; the third uses both philosophy of education work *and* texts produced and used by teachers, politicians, and others with an interest in educational practice. I hope, then, that the arguments in each chapter not only add something valuable to each of the literatures which inform them, but that the dissertation as a whole demonstrates the value of some highly abstract philosophical theorizing when, through progressive clarification and engagement with educational issues, it is brought down to earth.

Having now provided a map of what is to come, I commence with my investigation of autonomy.

Forms of Mental Unfreedom

There are ways of raising children, Gibran argues in his poem, which might lead them to have thoughts which, while they are the product of the network in their skulls, are not authentically *their own* in a philosophical sense.

What sense is this?

Perhaps they are thoughts which are received uncritically by our children, which we pass to them as dogmas, which never go through their personal filter of thought and instead are adopted wholesale. In this instance, the idea is not “theirs” because it hasn’t been examined sufficiently through their own processes of thought – it is an *unexamined* thought which, even if the product of deliberation on the part of the parent, is not the result of deliberation on the part of the child.

The child has never wondered whether there might be other ways to think, has not *chosen* this thought for themselves.

Or, maybe, these are thoughts which are generated on the basis of insufficient evidence, which a child holds because critical information has been withheld from them – or has simply never been encountered. These thoughts are likely deficient, and are quite possibly false – but they are also a threat to mental freedom because the child does not know what they do not know. The lack of information inhibits their ability even to consider the truth or falsehood of their belief, restricting their range of mental action.

An even more sinister possibility is that thoughts can fail to be our own when they are the product of indoctrination or brainwashing, the result of an active attempt by others to control our minds. Many parents, nations, and religious regimes have a clear interest in controlling people's minds: since our thoughts affect our actions, infiltrating people's minds can be a powerful way to ensure propagation of certain ideals, values, or institutions – whether or not we would choose, absent their influence, to think in the way they desire.

There are, in short, many ways in which we can have thoughts which are not “our own thoughts”, and each of these ways is a threat to mental freedom. Understanding what autonomy is *not* is a helpful first step in understanding what it *is*: thus, just as an artist will often reveal a shape by shading the shadows surrounding an object, thus bringing that object into view, I will here present a series of scenarios in which mental freedom is absent, in order to begin to reveal what it might be when it is present.

[Fear the Mind Flayers](#)

When I was a child, I loved *Dungeons and Dragons*. I used to spend hours on my family's PC plumbing the depths of dank caverns, slaying monsters and collecting treasure. I was good at

these games: my character, invariably a spell-slinging wizard, battled back goblin hordes, vanquished giant spiders with ease, and even stood toe to toe with dragons, their breath breaking harmlessly against my magical defenses. Yet one creature in the *Dungeons and Dragons* universe filled me with dread: the mind flayers.

Part of this dread was due, certainly, to their gruesome appearance: their faces were a mess of writhing tentacles, piercing, beady eyes staring out at you from above a mouth lined with razor-spiked teeth. If you replaced your head with an octopus, you'd achieve something of the grotesquerie of the mind flayers. Yet far more disturbing than their looks were their powers: mind flayers have the ability to control your mind. Through overwhelming psionic force, they could take control of you entirely, making you do precisely as they wished. If so dominated, you would become their tool, chattel for their nefarious schemes (and mind flayers *love* to scheme). I remember the horror I would feel as I saw a pack of mind flayers shuffling toward me, because I knew, soon enough, that I would no longer be able to control my own character: my frantic mouse clicks would be worthless, and my keyboard would not avail. Once dominated, the computer would control my character, my proud wizard would turn his awesome magic on my own party, and we would most likely fall.

Mind flayers do not exist – thankfully. But what if they did? What if there were a creature which could “take over your mind”? This would, it seems, quite clearly be a form of mental enslavement – autonomy would be severely curtailed. Yet a close examination of this nightmare world – a ghoulish thought experiment – reveals complexities. Consider: if mind flayers were able to control *every* aspect of your mentation, you would experience no conflict between your own values and desires and theirs. Values and desires are part of our mental world, and an Ultimate Mind Flayer (UMF) could change both as easily as any other part of our mental

furniture. We would not only think what the UMF wanted us to think, but would *want* to think what it wants us to think. We would not consider ourselves mentally enslaved – would we, in that sorry situation, still enjoy freedom of mind?

A Novice Mind Flayer (NMF) might be able to control our actions, but *not* our thoughts. In this scenario, while we would be forced to do things which are against our will, we would know what was going on: our body would be like a robot with someone else at the controls, and we would be trapped inside, looking out in horror at our own actions, unable to stop ourselves. This would most closely mirror my situation as a *Dungeons and Dragons* player: I was sitting in front of my computer watching my digital avatar doing things I didn't want it to do, and I couldn't stop "myself". This scenario would certainly be upsetting, but would it make sense to say that a victim of an NMF has lost their mental freedom? After all, they can think whatever they like, even though they can't put their thoughts into action. They can imagine all the things they might want to do, and even develop strategies by which they might do those things. Their inner mental life would be intact, but they could never enact their will: like a person totally paralyzed in an accident, their body would not respond to mental commands – but the commands could be drafted and issued just as before. Is this person, like Hamlet, bounded in a nutshell yet the king of infinite space?

I think, in both cases, the mind flayers have compromised our autonomy. In the first case, both our values and desires, and the mentation which follows from them, have been perverted by an outside force, such that we have lost all influence not only over our intellectual processes but also the values and desires which inform them. An outside observer, viewing us before and after our encounter with the Ultimate Mind Flayer, would notice a change: before we wanted/valued A, B, and C, and acted accordingly; now, we want/value X, Y, and Z, and act differently. "What

has come over them?”, our friend might ask – and it would be a good question, because something would indeed have “come over us,” in the sense that an outside force was exerting total control over our intellectual apparatus, and we had no say at all in the role that outside force was to play in our lives. Ours was not a willing and considered submission to a different framework of values and desires: we were subject to a hostile mental takeover, *even if we now are unaware of that fact*. We went from exercising some influence over our own desires to exercising none – and that transition entails a loss of mental freedom (see Lukes, 1974, for a consideration of this phenomenon).

This is not to say that in the normal course of events, when unburdened with a Mind Flayer, we are at total liberty to select what we value or desire.² Our values and desires are frequently an outcome of our experiences, and we cannot *change* them through conscious effort. But to be autonomous, I argue, we need not be in *total control* over this aspect of our mental furniture: rather, we must learn to examine the values and desires that we, for whatever reason, have developed, and consider to what extent we wish to indulge them, resist them, or seek to change them if we can (Frankfurt calls these “desires about desires” second order desires). The UMF undercuts this possibility by preventing our ability to reflect on our values and desires.

Furthermore (and this is an idea which is slightly more difficult to express), I believe that to be autonomous we can at least expect that our desires and values are the result of our *own* experiences. One of the reasons the UMF represents such a total threat to autonomy is that they are essentially replacing central aspects of our personality – aspects which should be an outgrowth of who *we* are – with their own personality. They are seeking, in a fundamental way, to make us like them. This is not, I submit, mental freedom, because another intelligence is

² Thanks to Prof. Kate Elgin and Prof. Harvey Siegel for comments which helped develop this section.

selecting for us the evaluative framework which will guide our actions, and thus we are much more under their control than our own.

In the second case, the notion of infinite mental freedom within the physical cage of a non-responsive body is an illusion born of a misleading dualism between thought and action (see Ryle, 2009). If it were true that the only necessary condition for being in a state of mental freedom were to be able to think at all, and that no ability to make use of our thoughts were necessary, then our thoughts would never be unfree. It would be enough to say “I think therefore I am mentally free” – the fact that we could make nothing of our thoughts would be immaterial. This does not satisfy, because frequently our ability to develop our thoughts relies upon a measure of bodily freedom. We need to be able to test ideas out, express them, discuss them, and experiment with them, if we are to refine our current ideas or generate new ones. To “have our own thoughts”, we have to play with our ideas in a space outside our own heads, and engage with the thoughts of others – both pursuits are severely curtailed after our domination by the NMF. The “life of the mind” which University Professors are often said to pursue does not, despite the stereotype, play out entirely within their heads. At some point they must communicate their ideas in papers and conference presentations, consider the ideas of other people, or at least write or speak their own ideas aloud. Tell a University Professor that they no longer have access to books, papers, anything to write with, and any company, and they will look at you in horror: that horror is the recognition that mental freedom requires, at least to some extent, the ability to follow-through on our ideas.

I am not arguing, here, that a person with little or no capability to act on their thoughts thereby has *no* mental freedom whatsoever: we can imagine, and indeed there are examples, of people living in solitary confinement who are able to do remarkable things with their minds. Wole

Soyinka, the Nigerian playwright and poet, wrote a powerful account of his intellectual escapades while imprisoned by the Nigerian government for his political commentary (see Soyinka, 1972). Yet it strikes me that the more we restrict an individual's ability to follow up on their thoughts, the more we do indeed restrict their freedom of mind as well. It is not a one to one relationship, but there is a certain point of bodily restriction beyond which the mind cannot flourish. Soyinka was able to survive his confinement partly because he was able to scrounge from his environment tools with which to make things, and he exercised his mind's powers towards reshaping the world around him. The loving, needful way in which he writes about these tools suggests, at least to me, that they were fundamental to his freedom of thought at that time:

The compost beds were life, for they yielded tools... The first tool is the knife. It is the primal tool, the matrix of forms and shapes. That much is accepted, but I watched it happen, woke up one day to observe the evolution of the iron age and the liberation that came from it in the cave man... That first knife, made from a rusted piece cut from a metallic band was Release. (Soyinka, 1972)

In his narrative, Soyinka describes how his prison guards repeatedly took his tools away and, in one particularly violent raid, destroyed everything he had made: all the hanging mobiles, science experiments, and musical instruments he had fashioned to keep his mind alive, and there is the defiant sense that more than his bodily agency is being restricted: as his tools are swept away, part of his mind went too. At a certain point, restrictions on physical action can harm our autonomy.

We can conclude from these thought experiments, then, that mental freedom requires some level of input into our own values and desires: thoughts that stem from desires which we had no part in endorsing are not truly "our own thoughts". Further, we have learnt that it isn't enough simply to

be *able* to think: we must be able, in order to have our own thoughts to the extent, to follow through on our thinking in some way, to make something of it, if the life of the mind is to flourish.

Now let us say we escape the mind flayers entirely, yet grow up in a deeply religious sect which strictly curtails our access to information. Consider, for instance, the position of my friend Sam, a gay man who grew up in a family which encouraged him to believe that no other gay people existed, because the government had sought out and eradicated every single one – a belief he carried with him until his second year in college (see Wareham, 2011).³ Sam was not under the influence of a mind flayer or a hallucinogen: his mind was not directly overwhelmed by an outside force. Yet is it not correct to say that his mental freedom was nonetheless infringed? With such a significant falsehood part of his mental furniture, how could he make sense of the world, and his place in it?

I believe this is indeed an infringement on Sam's freedom of thought. First, consider the fact that it was clearly his parents' *intention* to seek to control his actions when they taught him something they knew to be false. They did not want a gay son, it conflicted with values which they held, and so they tried to do something about it. This, I think, points us toward the sort of freedom-infringement which is going on here. But, second, note that they didn't seek purely to restrict Sam's freedom of movement or action – although they did, in his account, do this too. They didn't tie him up in a basement. They tried to control his *beliefs*, in the hope that instilling in him a false belief would change his sexual desires and change the way he lived his life. It was only his experiences in college, plus the fact that he had developed the ability to critically assess

³ This is a true story. See <http://www.lgbtqnation.com/2011/08/survivor-mit-grad-student-samuel-brinton-remembers-ex-gay-therapy/>

his parents' beliefs, and the things they were telling him, for himself, which freed him from this mental cage. This is not to say that *all* falsehoods that one believes are necessarily a serious threat to freedom of mind. Believing in Santa Claus, for instance, may be a pretty harmless falsehood to teach your children. But some false beliefs are so momentous, make up such a large part of our mental landscape, that they affect our lives in dramatic ways which constitute, I argue, a threat to autonomy.

Finally, what about babies? Rousseau wrote "Man is born free, and everywhere he is in chains." Much could be said of this as a principle of political philosophy, the arena in which the quote was born, but is it true of *mental freedom*? Are human beings born with a free mind? We might be tempted to think so. After all, young children seem to have less limits on their thinking than do adults. They are often characterized as more imaginative and more open to new ideas. Picasso said that "Every child is an artist. The problem is staying an artist as you grow up." Similarly, the poet Rabindranath Tagore laments:

"I wish I could travel by the road that crosses baby's mind,
and out beyond all bounds;
Where messengers run errands for no cause between the kingdoms
of kings of no history;
Where Reason makes kites of her laws and flies them, the Truth
sets Fact free from its fetters."

For Picasso and Tagore, the journey from birth to adulthood is fraught with the risk that a certain freedom of mental movement might be lost. In their eyes there is an idyllic quality to the child's mind, something to be cherished and reclaimed. They both wish to wander the hallowed vale of childhood and enjoy the artistry and creativity of a mind free from the fetters of adulthood.

Yet on closer inspection, the idea that we are born with significant mental freedom breaks down. There are whole areas of intellectual life which babies and young children are entirely incapable

of exploring, from literary criticism to complex mathematics. While children's minds might be free *from* certain constraints, they are not free *to do* very much: free *exercise* of our mental powers is an achievement which young children have yet to make.

Prof. Harvey Siegel, in a response to an earlier draft of this chapter, offers the following critique here: isn't there a distinction to be made between "being free to do something" and "being able to do something"? Doesn't it make better sense to say that someone who has forgotten how to solve differential equations is nonetheless still free to go solve them if they want, even if they are currently unable?⁴ I admit here that my intuition runs counter to that of Prof. Siegel. To return to babies, I do not think it makes the best sense to say that a newborn is free to do differential equations, even though they have not learned how to do them yet. They may have, in principle, the right to do differential equations. Perhaps no one is going to stop them if they were, somehow, to try (I, for one, would be delighted to see a baby doing differential equations!). But I do not see freedom from restraint as equal to freedom in toto. Nor do I think the case of the individual who once learned how to do differential equations, but who has now forgotten, makes the case that you need not be able to do A to be free to do A.

I will say more as to why I take this position in the next section, in which I discuss the work of Amartya Sen, who takes a similar position to mine, arguing that "freedom to do" must include "ability to do". But to give some initial support to my position here, and to explain to some degree why I take that position in this dissertation, consider the following situations: first, what of an opera singer who, after suffering a stroke or some other brain injury, loses the power of speech and can no longer sing. I admit that such a person has suffered, primarily, a loss of an

⁴ Thanks to Prof. Siegel for the helpful commentary, and for the countless sleepless nights I spent pondering this question!

ability: they could once do something which they cannot do. But I also believe they have lost a significant component of their liberty. If I sought to console them by saying “You are still free to sing *Nessun Dorma*, even though you are unable!”, I think the person in question would consider me very heartless. Such a phrasing would not, I think, make best sense of their internal experience of loss and sorrow: they have lost the ability to do something which was very important to them, perhaps constitutive of part of their identity, and that, I submit, is a loss of freedom as well as a loss of ability.

A second example is closer to education. In the United States, it is common to hear the sentiment expressed that every child can grow up to be President. Indeed, this idea is so much a part of the political myth of the United States that it sometimes offered as *the* totemic characteristic American liberty. When people say this, I think they are most often not just trying to make a point about about *political* liberty: “every American child has the right, when they grow up, to run for political office, including the office of the Presidency.” Rather, I think they are trying to say something along the lines of this: “America is (or should be) a nation in which every child is offered the experiences and opportunities such that, if they work sufficiently hard, they have a genuine chance of actually becoming the President.” If we imagine ourselves in the position of a teacher speaking to a particularly promising student, I don’t think what we want to say to them is “Barack, you are free to become President some day! Sure, you will be *unable* to become President, and we are not going to teach you the abilities required for you to *actually* become President, should you desire. That freedom, though – you have it!” I think it better to say that in order to secure the freedom indicated by the phrase “every child can grow up to be President,” we need to provide all children with certain abilities – if we do not, the liberty does not exist.

I concede that in both these cases, it is conceptually possible to distinguish ability from freedom. It is open to critics of my position to say, for instance, that what the opera singer really wants is the *ability* to sing back, and not the freedom, which they have not lost. What the schoolchild needs is the *ability* to become President, not the freedom, which they have as a matter of political rights. But I here prefer an ability-inclusive conception of freedom for two reasons: first, if we contend that freedom-to-do-A requires ability-to-do-A, it seems to me to protect individuals better from neglect and abuse, and make our responsibilities to them clearer and more forceful. We cannot simply say “we’ve secured you the political freedom to vote, and no one is going to stop you getting to the voting booth so, even though we haven’t provided you any information on the candidates or educated you in such a way as to make sense of such information, your freedom is not infringed.” This way of thinking seems to me to leave a way out for people who wish to avoid certain developmental responsibilities toward people – responsibilities I believe we should not avoid.⁵ Second, I think making this sort of link between abilities and freedoms is particularly fruitful for educators and those who think about education, because abilities are the sorts of things we can educate toward, while political rights and rights of non-interference from others are not. If we were to make a very strict separation between abilities and freedoms, such that “being free to do A” *never* implies “being able to do A,” it seems to me then that educators would have to relinquish any claim toward promoting the freedom of their students. I think it would be more fruitful to see freedom as a complex construct constitutive of a number of parts, including the abilities to do the things we might want to do.

⁵ To be crystal clear, I am *not* saying Prof. Siegel would ever make such an argument. Rather, I’m arguing that *some* might make such an argument, and I want to forestall that.

Perhaps there is no general answer to this question which will satisfy in all contexts, and we should make a case for a form of epistemic pluralism here: perhaps in some situations, in response to some questions, it would indeed make better sense to separate ability from freedom in the way Siegel suggests, while in others, it will make better sense to see ability-to-do-A as a component of freedom-to-do-A. For the purposes of this dissertation, and for the reasons above, I will defend the idea that in order to be free to do something, we must also be able to do it – which leads us to the work of Sen, a political theorist who has argued just that.

Capability Theory

There are many ways, then, to be mentally unfree. It seems fair to assume, also, that the situations I have just described would be undesirable to most people. If you were to ask a thousand people whether they would like to suffer the forms of mental bondage outlined above – to be taken over by a mind flayer, to be raised in a family which fills your head with falsehoods, to remain mentally babyish all your life – my guess is you would not encounter a single individual willing to submit. People have a strong sense that their control over their own mind is important, and they are willing to fight hard to maintain it. Yet this doesn't get us very far. It suggests that there is something valuable in mental freedom, and that it might be worth promoting as a political and educational end. But to justify this intuition, we must give freedom of mind a robust philosophical description and defense.

I propose to do that here by using the framework offered by economist Amartya Sen's "Capability Theory", an approach to freedom which will, I argue, prove generative when applied to mental freedom. Toward that end I now provide a description of Capability Theory, first as originally advanced by Sen, then in the expanded form offered by philosopher Martha Nussbaum. Along the way I shall offer some brief commentary to highlight features of the theory

which I will make use of later in the chapter, and to uncover chinks in the theory's armor which will require additional work. Then, I will examine the existing body of research which ties capability theory to education, exploring its potential and problems (there are rather a lot of the latter). Finally, I will provide my take on how notions of mental freedom can be understood within the framework capability theory offers, in the process tightening up some key terminology and offering some (I hope) fresh perspectives.⁶

Capability Theory – An Approach to Freedom

Sen's capability theory was developed first and foremost to provide a way of evaluating the development of nations which focuses on people's substantive freedoms. He argues that the quality of a society should be judged on the basis of the "capabilities" it engenders in its citizens, where "capabilities" are defined as "the substantive freedom" a person has "to lead the kind of life he or she has reason to value" (Sen, 1999, p. 87). Sen distinguishes his method of evaluating development from three main competitors: the "economic" approach, which focuses on income and wealth as the main measures of development; the "utilitarian" outlook, which focuses on what Sen calls "mental satisfaction"; and the "libertarian" perspective, which is concerned with "procedures for liberty" (loc. 450). In essence, Sen argues that instead of asking after a country's GDP (or how wealthy are the citizens of a country), or how many legal rights are enshrined in that nation's constitution, we should ask "What ways of living can citizens of this nation in fact achieve? What *real* freedoms do they *actually* have to live lives they have reason to value?" To the extent that a nation affords its citizens more substantive freedoms, that nation should, he argues, be considered more developed.

⁶ I feel it important to note here that Claassen (2010) has done some work to sketch out the role of autonomy in capability theory also. The only version of Claassen's paper I can find is an unpublished manuscript online, for presentation at Politicologenetmaal, 2010, which Claassen requests not be quoted. Therefore, I acknowledge their work here, but do not quote from the text.

Understood another way, Sen is arguing that we should refocus our discussion of national development away from the consideration of goods with solely instrumental significance (like wealth) and toward the consideration of goods with intrinsic significance (loc. 1699). Economic growth and legal rights are mechanisms by which we achieve what we really want, which is freedom to live how we choose – so why not evaluate development directly on the basis of how many substantive freedoms a nation generates, rather than settling for evaluation of the instrumental mechanisms which give rise to substantive freedoms? The theory says, in effect, “Yes, economic development is important. Yes, legal rights are important. But they are important as means to an end – enhancing human freedoms – and that end should be measured, as far as is possible, directly.”

Central to Capability Theory, then, is a particular understanding of “freedom”: what, after all *is* this “substantive freedom” Sen wishes nations to promote? Sen argues that freedom should be understood as the ability to “lead the kind of lives we have reason to value” (Sen, 1999, loc 312). Sen is essentially arguing that a “freedom” is the ability to meet some need or desire a person has: to the extent that they are capable of meeting the need, they are free; to the extent that they cannot meet the need, they are unfree. Here, the shift in focus away from GDP measurements and lists of legal rights becomes understandable: having a right to free speech enshrined in law means little if you lack the means to exercise it, and having monetary resources doesn’t enhance your freedom if you cannot translate those resources into goods you have reason to value.

In order to elucidate his theory, Sen introduces the concepts of “functioning” and “capability”. A “functioning”, according to Sen, “reflects the various things a person may value doing or being” (Sen, 2000, loc. 1452). They may be very simple, like “being adequately nourished”, or more

involved, such as “being able to take part in the life of the community” (loc. 1452). Functionings, in essence, are things we have the faculties to do and states we are able to achieve.

Capabilities, by contrast, are complexes – by which I mean they are *combinations* of functionings which a person is able to *choose between*. A wealthy person in a society which offers many culinary options can choose between eating healthily or unhealthily; stuffing themselves or fasting; eating pizza every single day (as I am wont to do) or never eating it. All those different approaches to eating are “functionings”, and the option to choose between the whole range of them is that person’s “capability” in the area of eating. As Sen puts it, “Capability is thus a kind of freedom: the substantive freedom to achieve alternative functioning combinations” (loc. 1452). Sen’s argument is that *capabilities* – and not resources, or functionings – are what we should seek to maximize when we set out to promote human freedom. This definition is highly relevant to the above discussion of the relationship between abilities and freedom, because Sen here links the ability to “achieve alternative functioning combinations” with have a “substantive freedom”: to have the substantive freedom, Sen argues, we need to be able to achieve the functionings we desire.

To illustrate how capability theory departs from more established approaches to evaluating development, Sen presents an extensive reconceptualization of poverty such that it is viewed not as lack of income or resources but as lack of *capabilities*. While he sees the two as clearly linked – income can facilitate capability-development, after all – he argues that they are nonetheless distinct, and that justifying public policy on the grounds that it would reduce poverty of income “would be a confounding of ends and means” (loc. 1784). Reduction in poverty of income is itself desirable, Sen avers, *because* it can be expected to lead to expansion of human capabilities among those affected – and therefore capabilities are the desired end, not income per se. He

justifies this reconceptualization on the basis of three arguments: first, it focuses attention on the intrinsically important deprivations poverty represents (such as inadequate access to food and housing options), rather than on income, which is only instrumentally important; second, it helps us bear in mind that there are many factors which may cause someone to live an impoverished life beyond poverty of income, which we might miss were we to define poverty purely in terms of income; and third, that not everyone in every community is affected in the same way by poverty of income – some people might be hugely disadvantaged by it (in terms of their life options), while others may only be mildly disadvantaged by it. By treating poverty of income as the definition of what it means to live in poverty we may erroneously come to believe that we can, in every case, enable people to live lives free of impoverishment by giving them money – and this is not, Sen argues, always the case (1999, loc. 1699).

Finally, it is important to note that the concept of “capability” places inherent value on people’s ability to *choose* how to live their life. Freedom, in Sen’s framework, is understood as being able to choose between a range of functionings, *not* in terms of achieving particular functionings deemed desirable by *somebody else*. To return to the example of functionings related to eating, Sen is not arguing that a society is successful to the extent that everybody eats healthily – to the extent that everybody achieves that particular functioning. Rather, he is arguing that a society is successful to the extent that everybody has the *choice* to eat healthily – meaning that the functioning of healthy eating is in their capability-set.

Sen justifies this focus on capabilities over functionings by arguing that there is something inherently valuable about exercising choice over how we live: that, all things being equal, living in a society which offers you the option of eating healthily or unhealthily is better than living in one in which you are only offered healthy eating options, *even if* in the first society everybody

chooses to eat healthily. There is value in having the choice itself. Sen illustrates this (and the distinction between functionings and capabilities in general) by pointing out the difference between fasting and “being forced to starve”: “Having the option of eating makes fasting what it is, to wit, choosing not to eat when one could have eaten” (loc 1473-1486). While the functioning is the same in both cases – both the fasting monk and the starving pauper are not eating – the capabilities each enjoys are *not* the same. Having the *choice* not to eat – even if you choose to kill yourself in a hunger strike – is a form of freedom the pauper does not enjoy, and are not enjoying if they starve to death. Thus, a society seeking to maximize capabilities would not mandate healthy eating and ban fasting – that would be promoting a particular *functioning* rather than the development of a capability-set. Rather, it would provide people with the faculties, resources, and social contexts in which they have a range of options as to how to eat, which includes healthy eating as one such option.

To summarize:

- Capability theory was developed as a tool in the area of development economics, and was initially concerned with how we evaluate the development of nations.
- The theory is presented primarily as an alternative to other evaluative schemata in this area, particularly ones which focus on economic measures, measures of mental satisfaction, and measures of procedural liberty – all of which Sen feels miss important aspects of liberty which, when evaluating nations, we have an interest in capturing.
- Capability theory is based on an understanding of freedom which makes a distinction between “functionings” (the actual things a person is able to be and to do) and “capabilities” (the range of functionings they can choose between in a given sphere of life).

- Undesirable, freedom-limiting situations such as “poverty” can be understood as forms of capability-limitation, rather than as deprivation of resources only. This enables us to have a richer, more complex understanding of the ways in which phenomena such as poverty can restrict life options.
- Capability theory recognizes the intrinsic value of choice in human affairs, and prefers the expansion of people’s range of potential functionings to forcing people to function in a particular way

Preliminary Thoughts on Capability Theory and its Relationship to Autonomy

I believe there is much to recommend Sen’s approach to freedom. The distinction between functionings and capabilities has numerous benefits. First, it calls attention to the social and contextual nature of freedom: whether someone is free to live their life in a particular way depends as much on the context in which they live, and on what their society enables them to do, as it does on their personal resources or faculties. This can be demonstrated through further consideration of the options someone might have regarding their diet. A person’s substantive freedom to eat as they wish (put more formally, the range of food functionings available to them) can change dramatically depending on where they live, even if their personal resources and faculties do not change. Moving from an urban center to a rural enclave may limit the individual’s ability to purchase out-of-season produce, but increase their ability to buy fresh produce: the context shifts the range of functionings available, expanding in some areas and shrinking in others. The concept of “food deserts” can be understood as a limitation on freedom because even though an individual might have the monetary resources to purchase healthy food for them and their family *were outlets available to purchase it from*, no such outlets exist in the food desert, and thus a range of capability-space is cut off for that person. We are not free simply to the extent that our personal faculties enable us to do certain things in the abstract: we must be

able to *exercise* our faculties to achieve the functionings we desire, and that requires the cooperation of our context.

Second, the distinction between functionings and capabilities enables Sen to give proper respect to the inherent value of choice in human affairs. By focusing on expanding people's range of options to live life as they wish, Sen avoids forms of paternalism which dog some liberal political theories, and recognizes that while a good thing might still be good if we do not choose it for ourselves, it is probably *better* if we do choose it. This respect for choice makes capability theory a particularly potent framework for an exploration of autonomy, because it places evaluative faculties at the heart of all freedom. If freedom, for Sen, is the ability to choose between ways of living life a person has reason to value, then autonomy plays a role in at least two ways: it enables people to choose between available functionings (enabling them to judge, in essence, whether a particular functioning will achieve ends they value), *and* it enables people to come up with reasons to value various ends. Much more on this later.

Yet there are problems with capability theory which will have to be addressed if it is to serve as the basis of an educational program. First, there are some conceptual problems with basic terms in the theory – particularly the term “functioning”. To return to a section of his work cited above, Sen gives as examples of functioning “being adequately nourished” and “being able to take part in the life of the community” (Sen, 1999, loc. 1452). It is not at all clear to me that these are the same sort of thing. “Being adequately nourished” gives the sense of an achievement, something which an individual desired and then went out to accomplish. I desire to be adequately nourished, so I order a pizza, and (after an interminable and excruciating wait for the delivery) now I am adequately nourished. Functioning achieved. “Being able to take part in the life of the community” reads, to me at least, like a *potential for functioning*, rather than a functioning itself.

I can be *able* to take part in the life of the community without taking part, just as I can be *able* to make myself adequately nourished but (in a herculean effort of will) not pick up the phone to the pizza restaurant. A cleaner statement of the relevant functioning, more in line with “being adequately nourished”, might be “taking part in the life of the community” – this is something I can choose to do or not to do, something which might be part of my range of functioning options which makes up a capability. But “being able to take part in the life of the community” is not, to my reading, quite the same. This conceptual slippage – between functionings as “achievements” and functionings as what we might call “faculties”⁷ (abilities to achieve various functionings) recurs in numerous places in Sen’s description of his theory, and pervades the literature linking capability theory to education (as we shall see).

Second, Sen’s approach to capabilities will not serve, on its own, as the basis for an educational program. Sen is less than explicit when it comes to the question of *which* capabilities are most important to promote, a feature of his theorizing which Nussbaum notes, saying “Sen takes a stand on the valuational issue [of which capabilities are most important] by emphasis, choice of examples, and implication, but he does not attempt anything like a systematic answer” (Nussbaum, 2011, loc. 317). Educators do not have the luxury of being quite so implicit on this front: we have limited time to provide children with the skills, knowledge, abilities, character traits they will require to lead fulfilling lives, and there is a huge range of potential functionings which we could, in principle, enable them to achieve. The potential capability-space available to a human being is very large indeed. As such, educators *always* make decisions, either implicitly or explicitly, as to what functionings they want young people to be able to achieve. A more

⁷ I am going to recommend the use of this term later, to make precisely this distinction.

muscular *normative* version of capability theory is required. To that end, we now turn to the work of Martha Nussbaum.

Nussbaum's Extension of Capability Theory

No one has done more to expand and deepen the conceptual framework provided by Capability Theory than philosopher Martha Nussbaum. Essentially, Nussbaum takes Sen's ball and runs with it, expanding the theory beyond the economic arena, and working it into a full-blown account of human flourishing. She does this in two main ways. First, she introduces different types of capability she believes to be important when using the theory: "basic capabilities", "internal capabilities" and "combined capabilities". Second, she introduces and defends a set of "central capabilities" she believes to be of vital importance, and that every society should seek to develop in their citizens.

First, to Nussbaum's distinctions. "Basic capabilities" she defines as "the innate faculties of the person that make later development and training possible" (Nussbaum, 2011, loc. 277). While they are not precisely things we come into the world with, they are "innate powers" so essential to a decent human life that to be deprived of them is to be "mutilated" in some way (Nussbaum, 2011, loc. 272). Nussbaum gives the examples of "the capability for speech and language, the capability for love and gratitude," and "the capability for practical reason" (Nussbaum, 2006, p. 84).

"Internal capabilities" are "trained or developed traits and abilities, developed, in most cases, in interaction with the social, economic, familial, and political environment" (Nussbaum, 2011, loc. 247). In contrast to basic capabilities, which may be so rudimentary as to not offer access to desired functionings, internal capabilities are sufficiently well-developed such that desired functionings can be achieved: they are "sufficient conditions for the exercise of the requisite

functions” (Nussbaum, 2006, p. 84). Nussbaum gives the examples of “political skill” and “skill in sewing” – essentially, “internal capabilities” (Nussbaum, 2011, loc. 247) are things an individual learns to be able to do. They are not “functionings”, because to have an internal capability is to have the faculty to do something, rather than to actually do it.⁸ They are not full “capabilities”, because your faculty to do something can be constrained in practice by contextual factors which prevent you from actually doing what you are able to do.

“Combined capabilities” are, in her framework, more complicated: they are “not just abilities residing inside a person but also the freedoms or opportunities created by a combination of personal abilities and the political, social, and economic environment” (Nussbaum, 2011, loc. 242). She offers the example of an individual capable of exercising free speech (they have that “internal capability”) *and* given the political and social freedoms to *exercise* that “individual capability”: the combination of the two types of freedom Nussbaum calls a “combined capability”. Nussbaum wishes to distinguish between “internal capabilities” and “combined capabilities” because, she says, “A society might do quite well at producing internal capabilities, but might cut off the avenues through which people actually have the opportunity to function in accordance with those capabilities” (loc. 253).

Nussbaum’s second major contribution to Capability Theory literature is a list of what she calls “Central Capabilities”: ways of being and doing that, she thinks, are more important than the others, and which every government should strive to enable their citizens to pursue. These “central capabilities” are offered in response to the following question:

⁸ This is essentially the distinction I made above between “being able to be well-nourished” and “being well-nourished”. I did not take this distinction from Nussbaum because, as far as I can see, she doesn’t articulate a conceptual problem with the idea of “functionings” but rather, as I show later, introduces some new problems of her own.

“among the many things that human beings might develop the capacity to do, which ones are the really valuable ones, which are the ones that a minimally just society will endeavor to nurture and support?” (Nussbaum, 2011, loc. 325)

Nussbaum offers ten “central capabilities”, justifying them on the basis that they are essential to human dignity and therefore worthy of special protection by the state (Nussbaum, 2003, p. 40).

An analysis of each of the ten is beyond the scope of this dissertation, but two are of particular importance to my project: Nussbaum proposes “senses, imagination, and thought” and “practical reason” as two of the most important capabilities a society should seek to provide to every person. Furthermore, Nussbaum argues that “practical reason” is *particularly* important to a capabilities approach to human freedom, as it “pervades the others” (Nussbaum, 2011, loc. 438).

This is an especially significant insight which will form the basis of much of my argument here.

Nussbaum defines the capability for “senses, imagination, and thought” in the following way:

Being able to use the senses, to imagine, think, and reason—and to do these things in a “truly human” way, a way informed and cultivated by an adequate education, including, but by no means limited to, literacy and basic mathematical and scientific training. Being able to use imagination and thought in connection with experiencing and producing works and events of one’s own choice, religious, literary, musical, and so forth. Being able to use one’s mind in ways protected by guarantees of freedom of expression with respect to both political and artistic speech, and freedom of religious exercise. Being able to have pleasurable experiences and to avoid nonbeneficial pain. (Nussbaum, 2003, p. 41)

The description Nussbaum offers of the capability for “practical reason” is as follows:

Being able to form a conception of the good and to engage in critical reflection about the planning of one’s life. (This entails protection for the liberty of conscience and religious observance.) (Nussbaum, 2003, p. 41)

Both of these proposed “Central Capabilities” are relevant to my attempt to generate an educational concept of autonomy using capability theory, as I will explore in the next section.

Critique of Nussbaum

Two things recommend Nussbaum’s extension of capability theory to those, like me, interested in using the theory in the educational realm. First, Nussbaum tackles head-on the normative

question “What capabilities are most worth promoting?” This, as I have argued above, is central to the educational enterprise. All education involves the selection of some powers, some areas of life, some skills, some knowledge etc. to focus on over others. Education is an inherently normative activity, and Nussbaum’s list of “central capabilities” offers some pointers as to where educators might direct their attention. As I develop my theory of autonomy based on capability theory, I will return to Nussbaum’s list and say more about the two “central capabilities” I singled out in my summary of her approach.

Second, Nussbaum makes a very important contribution to the capability theory literature in her recognition that what she calls “practical reason” is *particularly* essential to the exercise of capabilities. She writes that it is “architectonic”, in that it “organize[s] and pervade[s] all the others” (loc. 439). Returning to our familiar example of capabilities related to nutrition, she argues the following:

“If people are well-nourished but not empowered to exercise practical reason and planning with regard to their health and nutrition, the situation is not fully commensurate with human dignity: they are being taken care of the way we take care of infants. Good policy in the area of each of the capabilities is policy that respects an individual’s practical reason...the opportunity to plan one’s life is an opportunity to choose and order the functionings corresponding to various other capabilities.” (loc. 439-444)

This is a critical insight. Clearly, central to the whole idea of capabilities is that it seeks to expand people’s range of achievable options for living life. The focus, as I’ve said, is one providing sets of functionings between which people can exercise choices. Sen’s phrase, which we have encountered before, is telling here: capabilities are sets of functionings a person can choose between because “they have *reason to value*” the life they will provide. Exercising capabilities – and thus enjoying human freedom – is, in Sen and Nussbaum’s views, dependent both on making informed selections between different life-choices and on reasoning about

values. If we cannot make informed choices, and do not have the faculties relevant to reasoning about values, we cannot exercise *any* capability. Freedom of mind is at the heart of capability theory. One point is important to stress here: in Nussbaum's conception (which I agree with), what she calls practical reason is important not only because it enables people to select between functionings which they believe will help them achieve their ends, but *also* because it enables people to reason about ends. This is the difference between being a very effective tool of a Mind Flayer, who decides your aims in life for you and allows you to exercise your practical reason as to how to achieve those aims, and between being an autonomous human being able to reflect on and change your own aims *as well as* make effective decisions about how to achieve them.⁹ I will expand on the educational significance of this below.

Yet despite its undeniable contribution to capability theory literature, there are in my mind some theoretical problems with Nussbaum's approach, too. First, I find the concept of "basic capabilities" to be vague and rather unhelpful. They are, in Nussbaum's description, "innate" but only *sort of* innate (the ability for speech certainly requires a supportive developmental context, for instance), and require to be considered "basic" a justification based on a concept of "dignity" which comes from outside capability theory. While this is not necessarily a strike against the evaluative framework Nussbaum wishes to employ to justify these as "basic capabilities", it raises the question as to why they need to be included within the scope of capability theory at all. Why not justify these basic faculties of human beings independently, on the grounds that they are essential to a dignified life¹⁰, and let capability theory go from there? In my judgment this would be a cleaner conceptual approach.

⁹ Thanks to Prof. Harvey Siegel for the note which prompted this clarification

¹⁰ I agree with Nussbaum's judgment regarding the basic importance of these faculties – I just think labelling them "basic capabilities" confuses more than clarifies.

Second, and more apposite to my argument here, it seems to me reasonably clear that Sen, when outlining the concept of “capabilities”, had in mind what Nussbaum calls “combined capabilities”. The force of his approach to freedom is precisely that it recognizes that genuine freedom relies both on individuals having certain powers, and societies providing them with the space to exercise those powers. The examples Sen provides of capabilities are almost *all* of the “combined” type¹¹: they include powers of the individual and contexts, provided by a nation, in which those individuals can exercise those powers. Saying to someone who lives in an authoritarian state that they have the “basic capability” of speech, and the “internal capability” of freedom of speech, even though if they *exercise* their freedom of speech in a particular area they will be executed is, in Sen’s terms, to say they do not enjoy the capability at all. This is precisely the point of his approach to freedom: it links “freedom to do something” with “ability to actually achieve that something”. Introducing the category of “internal capabilities” to mean simply “the powers individuals have which they might exercise, given the opportunity” seems to me to confuse rather than clarify: why not reserve the term “capability” for the complex of powers and opportunities Sen initially had in mind, and use different terms for the internal abilities people might choose to exercise, were they given the opportunity?

Perhaps some of this lack of clarity is due to two different ways one can understand the term “being able” to do something. On one reading, one is “able” to do something to the extent that one has developed the powers, as an individual, to do that thing in principle, were a situation to arise in which I might be called upon to do it. If you are flying from Boston to LA, and the pilot suffers a heart attack, a call might go out over the loudspeaker: “Is anybody able to land this

¹¹ The exceptions are those areas where he labels as “capabilities” those things I previously argued are better understood as “faculties”.

plane?” To answer “yes” to this question, you only need to have the skills required to get the plane safely to ground – in that sense you are “able” to land it. Yet capability theory points to another sense of “being able”: not just having the skill to fly a plane but the genuine opportunity, should one choose, to actually fly one when one desires. To achieve *this* form of “being able”, one might have to own a plane, or be able to rent one, or borrow one, etc. The second sense is more in line with what is meant by a “capability” – a genuine opportunity to engage in functionings one has reason to value. The first sense, though, has a strong intuitive pull, because it fits our sense of what it normally means to “be able” to do something. I think here there is some confusion between the two, which is detrimental to the theoretical framework Nussbaum is constructing.

In Nussbaum’s description of the “central capability” for “senses, imagination, and thought”, for example, I think we see some slippage between the two meanings:

“Being able to use the senses, to imagine, think, and reason—and to do these things in a “truly human” way, a way informed and cultivated by an adequate education, including, but by no means limited to, literacy and basic mathematical and scientific training.”
(Nussbaum, 2011, loc. 379)

We are able, in my view, to do these things in isolation, even in a highly repressive political or social environment. These are all things we might be able to do “internally”, as it were, without cooperation of our context. In this sense they are not truly (I think) “capabilities” in a Sennian sense. Yet the following *is* a “capability”:

“Being able to use one’s mind in ways protected by guarantees of freedom of expression with respect to both political and artistic speech, and freedom of religious exercise.”
(Nussbaum, 2011, loc. 379)

These are things we cannot do without a context which supports us in the exercise of different functionings which flow from our imaginative and intellectual activity. This formulation

recognizes that in order to enjoy a genuine capability in this area, we need not only the internal faculties to do all these things, but the social context to “follow through” in a meaningful way.

This conceptual confusion (and I say this with the greatest respect to Prof. Nussbaum) permeates her entire approach to capabilities. For instance, providing a definition of functionings, she writes “Functionings are beings and doings that are the outgrowths or realizations of capabilities” (Nussbaum, 2011, loc. 287). In my reading of Sen, this is simply incorrect:

capabilities are *sets* of functionings which an individual can actually choose to realize. The freedom to achieve various functionings is constitutive of the capability. This is why you can achieve a certain functioning without exercising a capability: for instance, a person on a hunger strike who is being force-fed is achieving the function of “being well-nourished” but, since they are not exercising a choice between various functions in order to reach an outcome they have reason to value, there is no sense in which this is the “outgrowth” or “realization” of a capability.

In an effort to resolve some of these conceptual confusions, I propose the introduction of a new term – “faculties” – to do the work Nussbaum intends “internal capabilities” to do. I think the distinction she makes between people’s powers to do various things, and their “capability” (in a Sennian sense) to do them is important, particularly for educators, but I believe it essential to keep clean conceptual boundaries around the term “capability”, to ensure the integrity of the original theory and to best make use of it. Thus, in my schema, “political skill” and “skill in sewing” are “faculties” which enable people to achieve various functionings. They are *not* capabilities, because they are not sets of functionings from which people may choose the ones they have reason to value. Rather, they are the skills, traits, disposition, knowledge-sets etc. which enable people to *achieve* functionings. Thus a rudimentary understanding of the development of an individual’s freedom, conceived in terms of capabilities, would be as follows:

1. An individual develops certain faculties essential to achieve various functionings they have reason to value
2. They then select from the functionings their newly-developed faculties open up for them, thus exercising a capability

This is a sketch of the approach I advocate in this chapter – I will go into greater depth later.

First, I must review various other attempts to relate capability theory directly to education.

Existing Research Linking Education and Capability Theory

The capabilities approach (this is the term which has become standard for views on a topic which use the idea of capabilities as a framework) has been extremely influential in numerous fields, and over the past fifteen years has become of increasing interest to educationalists, who have made use of it in various ways. Intriguingly, the ways in which educational theorists have used capability theory tend to mirror the main elements of his argument: a number of researchers seek to use the theory to affect international comparisons of educational systems, just as Sen intended the theory to be used to make international comparisons of development; some, either in addition to or separately from that endeavor, distinguish capability theory as an approach to evaluating education systems from other ways of evaluating such systems, just as Sen distinguishes the capabilities approach from human capital and utilitarian approaches to evaluating development; and a few seek to offer basic applications of the theory itself to concepts in education. A review of this research helps demonstrate what conceptual ground has been covered, and what remains to be explored.

Unterhalter, Vaughan, and Walker (2007) note that, just as with international comparisons of development, the effectiveness of education systems is often measured using proxies for what we're really interested in. Instead of evaluating what students can actually do with their minds

(which is difficult and expensive), we measure the effectiveness of educational systems by “what people say they want from their schooling [i.e. levels of student and parent satisfaction]; resources, for example spending per child; or outcomes in the form of examination results” (p. 1). All of these evaluative schemata are problematic, they argue: different populations might be satisfied with different levels of education (their preferences adapt to match what they have come to expect – see Nussbaum, 2006, Chapter 2); different communities may require different levels of educational resources to achieve similar outcomes; and examination results – particularly those of standardized examinations which are popular in the USA – are notoriously bad at assessing effectively what students are actually capable of. In place of these schemata, they offer a capabilities approach to education as a way of focusing attention of those who seek to evaluate education systems on the intrinsic goods we want education to provide, rather than on problematic proxies. Seeking an approach to education which recognizes that the aims of education might be broader than the development of human capital, which situates individuals within their social context without losing sight of their individuality, and which provides a normative framework which enables educational evaluations to be made, they propose the capability approach (p. 3).

Tikly and Barrett (2009) seek to use capability theory, combined with a social justice theory offered by Nancy Fraser, as a way to evaluate the quality of education in low income countries. Just as Sen does with the over-theory, they contrast the capability approach they champion with reigning methods of judging the quality of education a nation provides (namely methods which rely on notions of human capital and human rights), arguing that the capability framework offers a better way to evaluate whether a country’s education system is meeting social justice goals. They argue that education must not be judged primarily as a driver of economic growth (as in

human capital approaches to the value of education), nor simply as a mechanism for securing basic rights (as in human rights approaches), but in terms of how effectively it promotes social justice, understood in terms of capabilities.

Likewise Robeyns (2006) contrasts capability approaches to education with human capital and human rights approaches, concluding that capability theory offers a better way to evaluate educational systems than do competing models. She criticizes human capital approaches to education on the grounds that they are “economistic, fragmentized and exclusively instrumentalistic” (p. 69), and human rights approaches because they “[run] the risk of overemphasizing the legal aspects of rights”, instead of recognizing that rights on paper do not always translate into rights which can be exercised (p. 70). Robeyns begins her argument by examining numerous roles education might play in the life of an individual in community, separating these into categories representing the intrinsic and instrumental benefits of education, then further dividing the category of instrumental benefits of education along the “personal/collective” and “economic/non-economic” axes. Thus, for instance, she examines the “instrumental personal economic role” education might play in someone’s life (it helps people find jobs and make good economic decisions, etc.), versus the “instrumental collective economic role” it might play in society at large (it enables the population at large to achieve certain feats relevant to economic success) (p 70-71).

Robeyns then examines human capital, human rights, and capability approaches to education on the basis of these distinctions, seeking to show that human capital approaches tend to focus on the economic instrumental benefits of education, and that human rights approaches, while considering a broader range of educational goods than classic human capital approaches, risk becoming abstract commitments which don’t result in genuine advances in human freedom

unless supplemented by governmental action beyond the scope of a strict, legalistic interpretation of rights to education. Capability theory is then offered as a way to respond to these deficiencies, in that it respects all the roles education might play in the life of an individual and society, and allows for consideration of social complexities beyond the scope of rights language (for instance, when a right to schooling for every child is enshrined in law, but limited in practice by social pressures against the schooling of girls).

Continuing the theme of using capability theory to better evaluate educational quality, Walker (2005) argues that, under an approach informed by capability theory, “educational quality and well-being would be assessed in terms of a person’s ability to achieve valuable functionings” (p. 105). She argues, consonant with the research summarized above, that this form of assessment would be preferable to reigning models. Vermeulen, too, in an unpublished paper¹², seeks to use the capabilities approach as a way of evaluating the effectiveness of educational systems, focusing his attention on “the role the Capability Approach can play in analyzing, monitoring and evaluating the quality of education” (p. 12).

On a more theoretical level, Saito (2003) provides a wide-ranging exploration of the relationship between education and capability theory. First, she explains how the capability approach has been operationalized through the Human Development Index (p. 22-24). Then, she clarifies the relationship between the intrinsic and instrumental benefits of education, arguing that the capability approach provides a way to understand how they reinforce each other (p. 24-25). Most provocatively, she examines how we might “apply the capability approach to children, since children are not mature enough to make decisions by themselves?” (p. 25). This is a probing

¹² Available online at <https://uu.academia.edu/Ren%C3%A9Vermeulen/Papers>

question. It is widely accepted that it is legitimate for adults to make decisions on behalf of children: in capability theory terminology, we generally accept that it is appropriate, particularly in educational settings, to require children to exhibit certain functionings. Frequently, in school, we require children not only to be able to write (for instance), but actually to write, about specific things of our choosing. We require the functioning. This seems to go contrary to the stated purpose of capability theory, which is to respect people's autonomy by developing capabilities, while leaving the choice as to which functionings to exhibit up to them. So how can we justify requiring functionings in children if we seek to promote capabilities in adults?

Sen's answer (which Saito reports and expands upon) is predictable: it is by requiring certain functionings that future capabilities are developed. One cannot have the capability to write if one does not have the faculty (in my terminology) to write, and the only way to develop the faculty to write (we generally accept) is to encourage children to practice writing. We encourage certain functionings today in the hope of developing related capabilities tomorrow. We limit freedom now in order to promote it later. This is a useful perspective, because it orients educators towards two important facets of their work: first, it suggests that requiring functionings of children which cannot reasonably be thought to lead to future capabilities is unjustified. Second, it encourages pedagogical reflection: teachers can be expected to ask themselves "How might I present this topic in a way which furthers future capability development?" More on this later.

Furthermore, Saito argues that "education can play a role in teaching values in exercising capabilities" (p. 28), by which she means young people should be encouraged to think about how they are to exercise the capabilities they are developing. Here she departs from Sen, who seems to believe that freedom is a good per se, and therefore that all capabilities should, in principle, be developed. Capabilities may be bad-in-use, but are never bad in themselves, in Sen's eyes. Saito,

following Nussbaum, disagrees: he argues that capabilities are better considered to be “neutral” – potentially put to good or bad uses – and therefore the development of judgment as to how capabilities are used is required (p. 28-29). This, again, is worthy of further exploration.

Terzi (2004) takes a different tack, working off Sen’s definition of “basic capabilities” to argue that education should be considered a basic capability. Her argument is based on two observations: first, that not being educated causes particular harm to an individual, over and above the harm caused through deprivation of many other capabilities; second, that education assists in the development of many other capabilities. For both these reasons, Terzi believes education should be considered a “basic capability” (p. 2). She then goes on to determine which functionings and capabilities are constitutive of “education”, using criteria drawn from Robeyns (2003). Her final list includes literacy; numeracy; sociality and participation; learning dispositions; physical activities (essentially, the ability to participate in such); science and technology; and practical reason (“being able to relate means and ends and being able to critically reflect on one’s and others’ actions” - p. 16-17). This is provocative work, which I will dig into in more detail in just a moment.

Response to Existing Research

There is a certain elegance to the way in which current research on the relationship between capability theory and education mirrors the intellectual contours of the argument by which Sen established the theory. The question of how we evaluate the quality of our educational systems is an important one, and I agree with the research, summarized above, which argues that seeing the desired outcome of education in terms of capabilities is a positive step. The evaluative perspective offered by capability theory is particularly welcome given the perpetual tendency of

governments to prioritize the human capital aspects of education: the extent to which education will provide students with a secure and productive occupation.

This research also encourages educators and those who seek to reform educational systems to focus on ends of intrinsic value, rather than on proxies for those ends. Currently, educational discourse is overwhelmed by evaluative schemata which prioritize means over ends. Just as the regime which measured GDP über alles distorted the extent to which nations were developed, missing aspects of development central to human flourishing, the pursuit of standardized test scores in schools, and the evaluation of teachers on the basis of very thin metrics (for instance) distorts the extent to which students are generating genuine faculties, functions, and capabilities. Schools and teachers are judged on the basis of figures which relate as little to students' developing minds as does GDP to the rural poor.

I appreciate, too, some of the philosophical questions raised by the more theoretically adventurous research in the field. The question Saito raises – to what extent is it legitimate to require functionings of children during their education, and by so doing do we unduly limit their freedom? – is a generative question which I will probe in greater depth.

Yet there are problems with this research, too. While Sen's capability theory was an apt and forceful critique of reigning approaches to development literature in economics, challenging (and now, it seems, supplanting) frameworks which had serious problems which were going unaddressed, matching his intellectual moves in the sphere of human development as understood by educational theorists is less generative because we are not starting from the same place. The critiques of overly-narrow assessment criteria, problems with human capital approaches to education, questions regarding the nature of freedom (is it a universal good? Are there good freedoms and bad freedoms? Should we promote some and not others?) – all these issues raised

when researchers have applied capability theory directly to education have been raised already, well before capability theory came on the scene. Indeed, it is surprising how little the research linking capability theory and education draws on educational philosophy (or, indeed, any broader educational thinking at all). This impoverishes the discussion of the ways in which capability theory might inform educational theory. I intend to address this problem in the next chapter, when I put my refined version of capability theory to work by relating it to other work in the philosophy of education field which addresses the question of autonomy.

A further challenge is specific to those pieces of research which seek to justify “education” as a “basic capability”. In my judgment, this is problematic. “Education” is simply not easy to understand as a “capability” in the Sennian sense: it is not usually construed as a set of functionings from among which people can select, but as a process which gives rise to particular faculties. This distinction, as I have argued above, is important but little respected in the literature I have examined. Even if one wanted to construct a theory of education as a capability (basic or otherwise), “Education” is simply too broad a term to weave into the capability framework: it is not clear at all what functionings “being educated” might include, so the first step of justifying education as a basic capability is to identify precisely what functionings an individual should be equipped to achieve. That being the case, it would be clearer simply to specify those functionings as components of a basic capability-set, rather than use the broader term “education” and invite confusion.

Terzi (2004) provides an example which demonstrates some of the difficulties of this approach. After arguing that education is a basic capability, she then goes on to specify “what functionings and capabilities are constitutive of education thus conceptualized” (p. 12). The argument Terzi presents has the following structure: this is what I mean by “basic capability”; education should

be considered a basic capability for these reasons; this is what I mean by “education”. This is a rather peculiar form of argument, both because it leaves the reader guessing as to how precisely “education” is conceived, and because it renders the term “education” redundant: it would be clearer, in my view, simply to leave the term “education” out of it, and specify what functionings and capabilities are of particular importance to individual development in the educational arena.

Nor is it clear what calling education a “basic capability” adds to educational discourse, beyond the idea that it is very important to human flourishing and generative of further capacities. Since both these points are widely accepted in the literature already, this observation does not seem to advance the debate. Furthermore, it is questionable whether any formal education system is actually required to achieve the goals which defenders of the idea of education as a “basic capability” deem to be important. Many fundamental faculties – the ability to speak, read, write, perform basic arithmetic, discuss ideas with others, etc. – can be achieved, and frequently are achieved, by people who never encounter any formal system of education. If the desire of these theorists is to motivate the government to act in particular ways vis a vis education (and this does seem to be their desire), these very basic definitions of what “education”, as a capability, entails may not avail them.

To add to the litany of troubles, there is a sense in which those theorists defending education as a basic capability have reduced education to something rather *too* basic. One of the attractive features of capability theory as defended by Sen and Nussbaum is that it is not simply a minimalist account of what humans need to scrape through life. While Sen and Nussbaum are both concerned that nation states provide people with a certain capability threshold below which they should not be allowed to fall, the capability approach more broadly offers a full and vigorous approach to human freedom which recognizes that what is truly desirable is to go

beyond the minimum capability threshold toward a life filled with functionings and the opportunity to choose between them. By seeking to turn education into a “basic capability”, researchers in the field have lost sight somewhat of all the glorious things education can do for people when it goes beyond the basic.

Finally, the literature relating capability theory to education suffers from similar sorts of terminological slippage as we encountered when considering the foundational work of Sen and Nussbaum. The terms “capability” and “functioning” are frequently used in ways which do not clarify the concepts under discussion, and which risk confusing key points. For instance, Terzi (2004) writes: “The capability to be educated is basic, since absence or lack of education would essentially harm and disadvantage the individual” (p. 9). By this she means that “absence of education, both in terms of informal learning and schooling, determines a disadvantage which proves difficult, and in some cases impossible, to compensate in later life” (p. 9) – Terzi gives the example of feral children to support the idea that education in early life is central to human flourishing. Fair enough. But what does “capability” really mean here? Does it refer to a complex of possible functionings that a person might choose between, as in Sen’s theory? It seems not. Rather, it seems that what Terzi is saying is more like the following: “Without critical educational experiences in early life, children will not develop crucial faculties which would enable them to function in various ways, and thus the development of future capabilities will be stifled.” Capabilities are the end point, education is a facilitator of capability-development, but there is no “capability to be educated”.

Keeping the limitations of current research into the relationship between capability theory and education in mind, I now turn my attention to the constructive project which motivates this chapter: how can we use capability theory to better understand education in a philosophical

sense, and what might that fresh understanding of education offer when it comes to the development of autonomy? In the following section I construct an understanding of “education” based on my polished version of capability theory, and investigate how this understanding of education relates to other philosophies of education proposed by other thinkers. Then, I drill into autonomy itself, demonstrating that understanding education in terms of capability theory reveals some important nuances about autonomy and its importance to education.

Cleaning Up Capability Theory

The version of capability theory I propose has three central components: Sen’s “functionings” and “capabilities”, and my “faculties”. Faculties are traits of an individual which enable the achievement of functionings. They are, essentially, equivalent to Nussbaum’s “internal capabilities”, with the important caveat that they are understood not to be capabilities themselves. They are an individual’s skills, knowledge, dispositions, and virtues which equip them to *achieve* functionings. Thus, under my conception, “literacy” is a *faculty*: it’s a set of skills which enables us to function in numerous different ways. “Functionings” are, as in Sen’s original framework, actions we might undertake and states we might achieve which we have reason to value. For instance, reading the complete works of Shakespeare is a functioning: it is something that a person who is literate might choose to do have they reason to value it, and one of a range of options as to how to employ that faculty. I would consider, too, such educational aims as “being well read” as a functioning: these are states which we might achieve through the application of our faculties, given the opportunity to do so. Then there are full-blown capabilities: these are a complex of faculties, potential functionings, and supportive contexts such that we can make genuine choices as to how to live our lives.¹³

¹³ Thanks to Prof. Kate Elgin, who offered a comment which clarified this point.

For an individual to enjoy a robust capability-set related to literacy their life would have to display the following features: they must be literate, with the faculties required to read a wide range of texts; they must have the resources, monetary and otherwise, to access a wide range of texts (through purchasing them, access to a well-stocked library, an online database, etc.); and they must enjoy the political and social freedom to read what they choose without fear of reprisal from the government, or other actors which might impinge upon their liberty.

Someone who had all those things would, I believe, be close to having a genuine and worthwhile freedom in the area of reading. Yet this model is incomplete: it is missing the critical role played by autonomy (or, as Nussbaum puts it, “practical reason”). There are two ways autonomy, in my view, plays a role in this version of capability theory. First, we are exercising autonomy when we construct a vision of the good life which gives us reason to select between the functionings we have at our disposal as part of a capability-set. When people are constructing their “reasons to value” one functioning over another – when we are reasoning about values and how those values should guide their decisions – we are exercising our autonomy to some degree. Thus, autonomy plays a part in the realization of every capability: it is the faculty which enables us to choose between possible functionings in a reasoned way. It is in this sense that autonomy “pervades” (to use Nussbaum’s term) all capabilities. Second (and here is where things get meta and potentially confusing), autonomy is itself a set of faculties which, like other faculties, must be developed, and which enable various mental functionings. It is possible *not* to develop the faculties associated with effective exercise of autonomy, just as it is possible not to learn how to read, and this impairs the range of mental functionings we have at our disposal (and thus, by extension, our mental capabilities).

To further clarify my proposed definition, we might ask “How might an individual’s freedom, in the area of reading, be infringed?” Were we a malignant deity seeking to bring misery to book-lovers everywhere, we might restrict their freedom in numerous ways. We could attack the capability to read at its root, by denying someone the opportunity to develop all the faculties required for literacy. Perhaps we could ensure their childhood home has few books, make their teachers incompetent, or inflict them with a developmental condition like dyslexia. This might leave the poor person unable to read at all, or only able to read simple texts in a limited number of genres. This we might call “faculty deprivation.”

Alternatively, we could restrict their resources, making them too poor to buy books, flooding their local library, and infecting their computer with viruses so they couldn’t access texts on the internet. After all, a well-developed faculty for reading behooves you little if you can’t get your hands on anything to read. This we might call “resource deprivation.”

Working our wicked magic on the level of society, we might alter social conditions such that there are costs associated with reading certain texts. We could ban books, have the secret police follow and punish those who read forbidden texts, or institute such social stigma against reading that the threat of ostracism would discourage even those who *could* read, and *had* books, from actually performing that function. This we might call “contextual deprivation.”

Finally, we might impede the person’s autonomy in three ways: we could directly affect the evaluative choices they make regarding which functionings to select, perhaps through indoctrination, brainwashing, or mind-altering drugs (maybe even mind flayers!), thus supplanting the evaluative framework they might employ with one of our choosing; we could do this indirectly, through propaganda and other methods of persuasion which seek to undercut autonomy; or we could prevent them from developing the faculties required to construct such an

evaluative framework, so that even if they believe themselves to be acting in accordance with their own wishes, their wishes are produced through such inadequate mechanisms that we might fairly declare them unfree¹⁴. This we might call “autonomy deprivation.”

In all these cases we would restrict a person’s ability to achieve functionings they have reason to value, and therefore their freedom when understood in terms of capabilities. But autonomy deprivation is *particularly pernicious*, because it could potentially affect every capability-set an individual has. If I prevent an individual from getting hold of any written texts I have, under this conception of freedom, limited their freedom to read drastically. However, their freedom to play sports, for instance, is not necessarily affected. However, if I attack their autonomy, perhaps by preventing them from having experiences necessary to develop the faculties required to develop a conception of the good, then I have both infringed upon their freedom in the area of reading *and* in the area of playing sports because both, ideally, would be conducted in accordance with a conception of the good developed by the individual in question.

Now, a capability-theory informed definition of autonomy emerges:

- **Autonomy is the collection of faculties necessary to both create and defend conceptions of the good toward which we wish to aim our life, and to effectively choose between functions in a capability-set in order to move toward those aims.**

In addition, we can make a further claim about the *importance* of these faculties relative to others which might be promoted:

- **The faculties which enable autonomy are *particularly valuable* because they play a role in the exercise of every capability. Without them, *every* capability is impaired,**

¹⁴ This point requires much more argumentation to secure. See below.

because they are what enable people to develop aims they have reason to value, and to determine if a given functioning will help them achieve those aims. Autonomy deprivation, in other words, is especially damaging.

These discoveries, I argue, are enough to secure the development of the faculties which enable autonomy a central as a central aim in public education: they need to be learned, and without them freedom in every area of life is under threat. If we do *not* guarantee that every child has access to experiences we deem likely to develop these faculties, we run the risk that they might not develop them, or develop them only to a small degree. Therefore, all children have a right to expect that an attempt will be made to help them develop these faculties, and public education is the best way to do this (I will say much more in defense of this position in the next chapter).

Finally, this approach to capabilities, if convincing, suggests a number of potential roles education could play in enhancing human freedom by promoting autonomy:

- Education can develop in students the faculties necessary to construct hierarchies of functionings, so that they are able to intelligently choose between different options and thereby enjoy genuine capabilities.
- At a higher level, education can equip students with the faculties necessary to select which areas of capability-space they wish to develop, and to justify those decisions to others where necessary.
- Education can promote faculties in children which enable them to fight back against forces which would seek to override their own evaluative frameworks, such as indoctrination, propaganda, and other subversive appeals.

In the next chapter, I use the conception of autonomy developed here to explore such roles, and to respond to some prominent work in the philosophy of education literature.

Chapter Two – Applying a Capability Theory Approach to Autonomy to Education

If my arguments in the previous chapter succeed, we now have a way of thinking about autonomy, informed by capability theory, which demonstrates the centrality of autonomy to human freedom. To reiterate, I argue in the previous chapter that the faculties which enable us both to construct defensible conceptions of the good and choose between different functionings which might help us achieve that good, are learnable and are of special importance if children are going to develop capabilities and therefore enjoy genuine freedom.

In this chapter – essentially a series of dialogues with significant philosophers of education – I will apply these insights to major works in the philosophy of education, to demonstrate how the capability theory-informed approach to autonomy I have developed is useful when it comes in responding to perennial problems. In some cases, my approach provides support and clarification to existing theories; in others, my approach suggests there is something wrong with those theories which needs to be addressed. Each of the philosophers I have chosen to engage with were selected because I feel that, by entering into dialogue with them, my own ideas will be stretched and sharpened: these are six mental flints on which I am honing the blade this dissertation seeks to craft.

I begin with Dewey, one of the most prominent philosophers who wrote extensively on education. I then turn my attention to the work of Feinberg, and specifically his essay “The Child’s Right to an Open Future.” I articulate multiple areas of agreement with Feinberg, before exploring a case which illustrates a difference in view, and how capability theory elucidates that difference. Finally, I examine the work of Brighouse, and show how capability theory enables us

to construct a more robust defense of the intrinsic value of choice in human affairs than he seems to accept.

Having investigated the work of three philosophers who are broadly in support of autonomy as an educational aim, I turn my attention to three philosophers who have written against establishing certain understandings of autonomy as an educational aim: Hand, Winch, and Schrag. In responding to *their* arguments, I hope to demonstrate how relating autonomy to capability theory illumines key debates regarding the legitimacy of promoting autonomy as an aim of public education.

Three Philosophers in Favor of Autonomy

A Capability Theory Response to John Dewey

As has already been recognized by Walker (2005) and Elliot (2007), there are meaningful areas of synergy between the philosophies of John Dewey and Amartya Sen. As these scholars contend, Dewey's writings offer a way to both develop and challenge certain aspects of "capability theory", and capability theory offers a useful lens through which to understand Dewey's work. While Elliot focuses on making using Dewey's account of educational values to make a distinction between "human capital" theory and "capability theory" (a distinction with which so much of the literature regarding capability theory is concerned), I wish to explore the striking similarities between the two philosopher's views of what constitutes human freedom, as these ultimately serve as the driving force behind their philosophies of human development.

Dewey's definition of "freedom" aligns remarkably well with Sen's. Dewey states "the only freedom that is of enduring importance is freedom of intelligence, that is to say, freedom of observation and of judgment exercised in behalf of purposes that are intrinsically worthwhile" (1997, p. 61). Dewey further expands upon this, rejecting purely negative conceptions of

freedom, suggesting “freedom from restriction...is to be prized only as a means to a freedom which is power: power to frame purposes, to judge wisely, to evaluate desires by the consequences which will result from acting upon them” (p. 63-64). That freedom should mean “the power to frame purposes and to execute or carry into effect purposes so framed” (p. 67) works perfectly well as a summation of Sen’s position, and Dewey’s rejection of freedom framed purely negatively would also find favor with Sen. More importantly, the language of capability theory provides a way, as I sought to demonstrate in the last chapter, to understand *why* the “power to frame purposes” is so important: it is a component of every other freedom, when freedom is understood in terms of capability.

Further, Dewey’s belief that “[t]he ideal aim of education is creation of power of self-control” (p. 64) fits neatly with Saito’s (2003) reading of the educational implications of Sen’s work: students must not only develop their capabilities but also learn values to guide their appropriate use (and, I would add, develop the ability to analyze such values). But Dewey’s concept of “self-control” goes further, and highlights the importance of a rich understanding of “faculties,” such as I have defended (and which is missing in Sen’s original view of capability theory). Dewey believes that certain “attitudes”, once ingrained, can disable a person from fully exercising their freedom. Dewey illustrates this point through the example of the spoilt child. Spoiling a child “sets up an attitude which operates as an automatic demand that persons and objects cater to his desires and caprices in the future... It renders him averse to and comparatively incompetent in situations which require effort and perseverance in overcoming obstacles” (p. 37). The learnt disposition of the spoilt child is objectionable because it “limits later capacity for growth” (p. 38), stopping the child from fully engaging in future experiences, thus limiting their ability to see what opportunities new experience affords them. This suggests that a particular disposition –

openness to new experience and a desire to learn – is crucial to the development of freedom through the life-span. Dewey reinforces this point, saying “[t]he most important attitude that can be formed is that of desire to go on learning” (p. 48).

Sen’s approach seems to leave out this dispositional aspect, as does Saito’s modified approach: you may have the *skills* necessary to achieve a certain functioning, and you may be guided by appropriate *values*, but you may not have the *disposition*. In most situations this is perfectly acceptable: many of us have functionings which we choose not to exercise, and our ability to define which functionings it is valuable to pursue is a key element of Sen’s notion of freedom, and of my version of autonomy. However, if the disposition in question is the lack of desire to develop your capabilities further (for instance), then this might constitute a limitation to freedom, particularly in the developing child. Therefore, my notion of faculties – which includes dispositions – is in-line with Dewey’s concern here, and an important addition to the capability theory framework.

If, as we have already noted, “[t]he ideal aim of education is creation of power of self-control” (p. 64), then educational development must also include the inculcation of the disposition Dewey described as “self control”. If we were to translate this into Sen-speak, we might say “education is the process by which we progressively develop children’s capabilities, values governing their exercise, and the faculties of autonomy which guide their exercise – including a disposition towards further development of their capabilities”. The dispositional element here, called by Dewey the development of “attitudes”, is something that is missing from current accounts of the educational importance of Sen’s work – but something I include in my understanding of autonomy, since the term “faculties” is defined above as *including* relevant dispositional elements.

So we have reached, through Dewey, an enriched account of what it might mean to “educate for capability”. As Saito (2003) suggests, the desire to develop the capabilities of children (through developing their skills) must be supplemented with the inculcation of *values* regarding their exercise. In addition, we must be sure to encourage a “capability-seeking disposition”. A crucial question remains unanswered, however: what sort of experiences can the educational system provide that might *achieve* the desired outcome? In other words, we may accept that “freedom” in the sense that Sen describes it (with the additional concerns just outlined) might be a valuable *end* for an educational system to strive toward, and know little about the *means* by which we should pursue it. I will return to this question later.

A Capability Theory Response to Joel Feinberg

Joel Feinberg, in his classic essay “The Child’s Right to an Open Future” (1992), defends a conception of education and of autonomy which is close to my own. Distinguishing between the rights of adults and those of children, he identifies a special class of Children’s rights he calls “rights-in-trust”: “rights that are to be saved for the child until he is an adult, but which can be violated “in advance”” (p. 113). These are, he explains, similar to the rights adults have to such things as freedom of religion, except that the child cannot exercise them until they have matured: they must, in this sense, be “saved” for children until such time as they can make use of them. However, since the requisite maturation which would lead a child to be able to exercise these rights in the future could be stymied today, it is possible to violate these rights-in-trust by doing things which prevent the maturation process from taking place, or pervert it in some way. So, for instance, a child raised in a religious cult with no access to any information about other religions is having his right to freedom of religion violated “in advance”: they do not really enjoy the right *as a child*, but they should be able to as an adult, and the process by which they might “grow into” that right is being subverted. The child has a right to an “open future” in the sense that no

one should be allowed to make decisions now which prevent children from developing those rights which are held-in-trust for them: “His right while he is still a child is to have these future options kept open until he is a fully formed self-determining adult” (p. 112-113)

Feinberg’s idea of rights-in-trust is immediately relevant to our discussion of autonomy and its educational importance. First, it is possible to restate Feinberg’s case in the language of capability theory – and I believe that exercise to be illuminating. When we say that a child has a right-in-trust to freedom of religion, for example, what we are saying in capability theory terminology is that the child has a right to develop a capability in the area of religious belief and practice. If we conceive of the practice of different religions as functionings, we want a child to develop a robust set of functionings and the faculties required to choose between them. The child should, when sufficiently mature, be able to select, for instance, between Christianity, Judaism, Islam, Humanism, etc. – and do so on the basis of reasons they come up with themselves, and which serve to move them toward their chosen aims. To address Feinberg’s point regarding violations to rights-in-trust, we can say that anything which interferes negatively with the development of the faculties required to make such a decision threatens the rights-in-trust of the child: autonomy deprivation in children leads to rights lost as an adult. Since the faculties required for autonomy do not necessarily develop spontaneously, intervention by the state is justified to try to ensure that every child has a fair chance of developing them.

As a component of his argument, Feinberg discusses in-depth the legal dispute between Amish communities and the state of Kansas: the Amish communities wished their children to be exempt from state-accredited schools on the grounds that they believed that their children’s’ participation in such a form of education both threatened their way of life and infringed upon the rights of parents to determine the religious upbringing of the child. Feinberg notes, convincingly, that the

Amish are certainly sincere in their religious beliefs, and that those beliefs pervade the life of their communities. Furthermore, he notes that all of us benefit from the example they offer of a different way of living life: the existence of Amish communities provides a model of a way of living which expands our notion of the sort of life we might ourselves wish to live. It becomes an option we might choose when, were Amish communities to cease to exist, that option might not be so vividly presented to us (although, in principle, we could always read about their prior existence and learn about that life-option vicariously). So, perhaps the state should not be able to force children in Amish communities to go to state schools? (p. 114-115)

No, reasons Feinberg, because such a position does too little to respect the rights-in-trust of children, which must be protected even if their parents do not wish to protect them. In this case, the children of Amish communities should neither be forced into Amish life through an exclusively Amish education *or* forced out of Amish life through an education which leaves as their only option modern commercial-industrial life. Rather, public education should “equip the child with the knowledge and skills that will help him choose which sort of life best fits his native endowment and matured disposition.” (p. 116) It is clear, I think, that the “knowledge and skills” to which Feinberg is referring are roughly equivalent to what I am calling the faculties which comprise autonomy: they are the knowledge and skills (and, following the discussion of Dewey above, I would add dispositions) which enable us to choose between different ways of living. So far, his argument is in line with my own: I agree that students should be required to attend educational institutions which meet some minimal standards in an attempt to help them develop autonomy, because not to do so is to threaten all future capabilities they may wish to enjoy.

Where we part company, somewhat, is in his analysis of the different interests at play in this matter. Throughout his argument, Feinberg present the issue as a matter of balancing two sets of legitimate rights: on the one hand, the rights-in-trust of the Amish children, and on the other, the rights of their parents to practice their religion. Although he ultimately rejects it, he calls the case for an exemption for Amish children from the requirement to attend public “a strong one,” on the grounds that their religious life is sincere and that to live it is to live in a way which is “*prima facie* inconsistent with modern education.” (p. 115) I, in contrast, do not believe the claim of the Amish parents to determine so completely the direction over their children is strong at all – and I believe the capability theory conception of autonomy I have developed can help explain this is the case.

One of our primary responsibilities toward children, I have argued, is to develop their faculties of autonomy, on the grounds that without them they will have a much harder time enjoying any genuine freedom. The intellectual powers required to frame our own ends, and to decide intelligently how to achieve them, are an essential component of all capabilities. This is no less true in the matter of religious liberty. The form of religious liberty we should prize as a society is not merely the option to perform a set of functionings in accordance with some religious conception of life, but the *capability to choose* from different religious options. Religious freedom, like all freedoms, should be recognized as a capability. Not everyone who is a member of a religion came to that religion through the exercise of their own will: it is clearly possible to perform functionings consistent with living a deeply religious life without having chosen that life from a variety of religious options. But a society in which many different religions are practiced “freely” (in the sense they are not curtailed in their exercise by the state), yet where each person grew up in their religion and never developed the faculties necessary to consider other options, is

not one which is enjoying religious freedom. The existence of a functioning is there being mistaken for the existence of a capability.

Once freedom of religion is understood in this way, it seems to me that it is wrong to say that parents have a “strong argument” for acting in a way which could severely limit the religious freedom of their children by selecting educational experiences for them which risk curtailing the development of the faculties required for the exercise of the very same right. While children might doubtless learn many wonderful things as part of a traditional Amish education, a deep and sincere investigation of other religious modes of life will not be among them, and this severely limits the religious freedom (understood in terms of capability theory) of their children. One cannot with integrity say “In the name of my religious freedom I assert my right to deny you the opportunity to develop yours!” – even if you are speaking to your own child. The case that in order to enjoy one’s freedom of religion a parent must have the right to deny the development of that freedom in their children is *not* strong.

Parents, in their raising of children, certainly have special responsibilities towards them – duties of love, care, nurture etc. But one of those responsibilities, I argue, is also to develop their children’s faculties of autonomy, out of respect for the adult they might become. This, in the area of religious freedom, requires exposure to other religions and other modes of life. In requesting that the state not require them to offer their children an education which makes the development a capability of religious freedom, the Amish parents in this case disrespect their children: they are in essence forcing them to display a certain religious functioning instead of allowing for the development of a capability for religious freedom. But the converse is *not* true: in requiring their children to undergo an education which might enable them to enjoy true religious freedom, the state in no way disrespects the Amish faith or way of life, nor does it infringe on the rights of

Amish parents to practice their religion. People – including their children, after the time they spend in autonomy-facilitating education – are still free to evaluate whether the Amish way of living is right for them, and to choose it for themselves if they so wish. Indeed, it is *only* after developing the faculties of autonomy that they are free to do so.

A Capability Theory Response to Harry Brighouse

The final pro-autonomy philosopher I will consider is Harry Brighouse, whose work in the area of philosophy of education has been deeply influential over many years. Because his body of work is very large, and there are many points of agreement between us, this will not be an exhaustive analysis of his work. Rather, I seek to engage in dialogue with the sections of autonomy in his text *School Choice and Social Justice* (2003), demonstrating some areas of commonality and one illuminating area of difference, concerning the inherent value of freedom of choice.

The broad contours of Brighouse’s case for the role of autonomy in education are similar to the argument I have made here: Brighouse argues that “Individuals should be able to be rationally self-governing, in the sense that they should be regarded as the ultimate arbiters of what reasons they choose to act on and what evidence and reasoning they take to be compelling with respect to what to believe” (p. 12). In my terminology, individuals should be able to develop the faculties which comprise autonomy. He avers, as I have also argued, that Autonomy is not a state that is trivially achieved, but one into which children have to be educated to some degree” (p. 12). He argues that, because of this, “all children should have a realistic opportunity to become autonomous adults,” and that this opportunity is best secured through compulsory public education (or at least education which meets certain public standards) (p. 65). He argues too, as I will in greater depth later, that there are many sources of non-autonomy to which, although we

may not be able to eradicate them, we can learn to take account of and understand, thus enhancing our autonomy. In this sense, his understanding of autonomy and mine have a proactive aspect (opening up new opportunities for ways of living which would otherwise be impossible for the individual to achieve) and a defensive aspect (working against sources of non-autonomy with which we are saddled) (p. 66). I think Brighouse's arguments in these areas are strong.

Where I think he errs somewhat is in his too-swift rejection of the *intrinsic* value of autonomous action when compared with heteronomous action. Brighouse addresses this question in the context of trying to find an argument by which he can justify "having the state impose an autonomy-facilitating education on all children". In the process of searching for a defensible argument for that conclusion, he considers and rejects the idea that autonomy has intrinsic value because "Critical reflection on one's own goals and values...is an essential part of living well" – the old suggestion of Socrates that the unexamined life is not worth living (p. 67). His argument is as follows: consider two people who live "by exactly the same genuinely worthy values," one of whom has selected those values for themselves, while the other received them from their parents. Surely both lives are worth living! There is no way in which a life, in order to have worth (says Brighouse) *must* be conducted according to values which were autonomously selected by the individual living that life. Autonomy might *add* worth to life, but it is not an *essential* component of a life-well-lived and, since it is not, this will not serve as an argument for ensuring that every child gets an autonomy-facilitating education.

In place of this failed argument for the intrinsic value of autonomy, Brighouse offers what he calls an "instrumental argument": essentially the idea that it is legitimate for the state to require an autonomy-facilitative education for all children because a measure of autonomy is necessary

in order to construct a sense of what constitutes living well, and to rationally compare different ways of life (p. 68-69). Under Brighouse's instrumental argument, autonomy is essential as a framer of ends and a sifter of options, a mechanism for working out how to live well, but isn't itself intrinsically essential to living a good life.

I grant this argument as framed by Brighouse – I certainly do not wish to say that people who do not select the values which guide their lives are living worthlessly. Nor do I wish to argue that people who never develop the faculties which comprise autonomy are worthless, or that their lives are not worth living. Furthermore, I agree in the necessity of autonomy as a framer of ends and sifter of options – I have argued for this in my discussion of the role of autonomy in capability theory. But I think Brighouse gives up on an argument for the intrinsic value of autonomy too swiftly, for he was not looking for an argument, necessarily, which predicated human worth on autonomous selection of values but, initially, for an argument which justifies the state's imposition of autonomy-facilitating education on the inherent value of autonomy. I think I can provide such an argument.

To illustrate my case, consider the process of getting married. Marriage is a high aspiration for many people, and a functioning in the area of romantic and family life to which many aspire, and therefore seems to be the sort of thing public institutions might have an interest in enabling people to do as a matter of right. In my professional work as a clergyman I sometimes have the opportunity to conduct wedding ceremonies, and most often there is a part in the ceremony when I ask each of the partners whether they consent to the marriage. What am I asking them to do there? Certainly, to fulfil the formal requirements of the ceremony, all they need do is indicate in the affirmative, and the ceremony can proceed. But this is not what I am really asking: what I am asking, when I enquire as to the consent of the couples, is whether they have fully considered the

commitment they are about to make and whether they are willing to stand by that commitment in the future. I am asking, explicitly, if they are entering into the marriage autonomously. To translate into capability theory language, the action of “consenting to be married,” I argue, brings the requirement for autonomy to the fore in a way many actions do not, and without the faculties which enable autonomy, one can get married as a functioning, but not as an expression of a fully realized capability.¹⁵

While Brighouse might be right that there are good ways of living where the difference between autonomously endorsing the values which guide them and not doing so is small, in the area of marriage it seems to me quite large – the extent to which one is capable of autonomously endorsing one’s marriage might well be the difference between a successful marriage and a failure. It is not true of *all* areas of life that autonomy has a great intrinsic importance to successful participation in that area of life – when we go and see a movie with friends, we might well enjoy it just as much if they choose the movie than if we choose it – but it does seem to me that there is a class of actions (which we might call “consent actions”) where the ability to do them autonomously is almost commensurate with the ability to do them well at all. I think, too, that these areas of life tend to be extremely important: our decisions regarding or sex lives, romantic lives, and religious lives strike me as having a particularly strong need for autonomy if they are to be lived well at all. If this is the case, then there are functionings an individual might well wish to achieve, which could be central to their wellbeing, which *cannot* easily be undertaken well *without* the mental faculties necessary for autonomy. And if *that* is so, autonomy is elevated from a role simply as a framer of ends and a sifter of actions to an enabler of some of

¹⁵ I think a similar case can be made, along the lines of my response to Feinberg, with regards to religious conversion: that one’s conversion to a different religion is autonomous seems an important part of what is meant by a *genuine* religious conversion.

the most important moments of our lives. This seems to me a strong case to require those faculties be taught to every child. Autonomy, I submit, has intrinsic value in this sense.

Conclusion

Having examined the arguments of three prominent philosophers who uphold autonomy as an aim of public education, I think we can draw a number of conclusions. First, Dewey reminds us of the importance of dispositions to autonomy. It isn't necessarily enough to develop knowledge and skills: the faculties which facilitate autonomy must include dispositions too. From my response to Feinberg, I conclude that it is possible to defend the requirement, by the state, that all children engage in an autonomy-facilitative education, and that parental rights to freedom of religion do not constitute sufficient grounds to limit that requirement. Third, from my dialogue with Brighouse I conclude that autonomy can have intrinsic value, and that the intrinsic value of autonomy can play a role in the defense of autonomy as an educational aim.

Three Philosophers Critical of (forms of) Autonomy

Having examined the work of three philosophers supportive of establishing autonomy as an educational aim, and having sought to demonstrate that the capability theory-informed approach I take in this dissertation helps clarify, extend, and challenge their arguments, I now turn to three philosophers who put forward various criticisms of (forms of) autonomy as an educational aim. As with the pro-autonomy philosophers I have discussed, I seek to show how the conceptual framework I crafted in the first chapter elucidates the arguments presented by these philosophers, and helps defend the idea that autonomy should, indeed, be established as an aim of public education.

Not all educational philosophers laud autonomy as an educational aim. Some, like Hand (2006), argue that the development of autonomy should not be an aim of public education at all – either

because the concept of educating for autonomy is incoherent, or because it is objectionable in some way. Others, like Winch (1999) and Schrag (1998), accept autonomy as a legitimate aim of public education, but believe that only a limited form of autonomy can be encouraged in children while respecting the rights of parents. Here I respond to these arguments: first, to demonstrate why (contra Hand) public education can legitimately pursue the development of autonomy; second, to show (contra Winch) how the form of autonomy I wish to defend as an aim of public education is stronger than that which some philosophers prefer; and third (contra Schrag), to argue that a form of strong autonomy can be pursued as a goal in public education despite the wishes of parents to the contrary.

Contra Hand

Hand, in his influential paper “Against autonomy as an educational aim”, argues that “there is no quality of character one could plausibly call autonomy at which it is reasonable for educators to aim.” (Hand 2006, p. 536). To make his case, he first considers and rejects as educational aims two “ordinary senses” of the term autonomy, then a number of “technical” definitions, all of which he also thinks deficient. Before examining each of the definitions of autonomy he considers, it’s worth noting at this point that I do not defend the idea of autonomy purely as a “quality of character”, and I am not sure it is fair to the rich literature explored above to suggest that this is what most educational philosophers understand autonomy to be. Certainly, character traits may be a *component* of definitions of autonomy, but few philosophers of education, in my judgment, argue that it is best understood solely or even primarily as a character trait, a matter purely (in Hand’s words) of “dispositions or preferences” (p. 537). Thus an initial response to Hand would be to accept that “there is no quality of character one could plausibly call autonomy at which it is reasonable for educators to aim,” but to reject that as a criticism against all or even many philosophies of education which prize autonomy on the grounds that this is not what they

are defending – it is certainly not what Dewey, Feinberg, or Brighouse are defending. Hand certainly recognizes the potential for autonomy to be defined in ways other than as a quality of character – he notes that many definitions of autonomy exist, likening them to heads of the hydra (you lop one off and more grow in its place) – but it seems fair to point out that he has set up a target for himself which is relatively easy to hit. Even if his arguments succeed, they only succeed in depriving the autonomy-hydra of a particular type of head.

That said, there is much merit in Hand's arguments, which raise significant problems with the argument that autonomy should be a central goal of public education. He begins by examining two "ordinary" definitions of autonomy, asking whether either suits as an aim of public education. The first, "circumstantial autonomy": when you are "free to determine your own actions," (p. 537), and not under another's rule. This, says Hand, is a situation which cannot be achieved through education, since it is not a quality of a person but of their circumstances. Important though it might be to ensure people are neither enslaved or imprisoned, that is not a matter of *education*, Hand avers.

Second, Hand considers "dispositional autonomy": being disposed to follow one's own judgment instead of that of others. This latter, Hand agrees, is a character trait, so certainly amenable to education. But Hand contends it should not be a *goal* of education because action undertaken relying on one's own judgment is not always better than action undertaken under direction of others. An education which encouraged young people to be disposed to rely on their own judgment over that of others wouldn't, Hand argues, necessarily fit them better for life, because there are many situations in which deferring to others' judgment (acting heteronomously) is in fact a wiser course and would lead to better outcomes. For instance, Hand argues that in certain employment situations one should defer to one's superiors, and when we lack a relevant

expertise to adjudicate a matter, we should defer to those who have that expertise. Thus, education which cultivated an autonomous disposition, in this sense, wouldn't necessarily be desirable: instead, Hand argues, it would be better to encourage in students a *neutral* disposition, in which students judge whether to exercise autonomy or heteronomy depending on the situation, rather than having a built-in preference for one or the other (p. 537-539). Hand concludes "that neither circumstantial autonomy nor dispositional autonomy will serve as an aim of education. The former is desirable but not learnable; the latter is learnable but not desirable" (p. 539).

A number of responses occur to me here. First, while I agree that "circumstantial autonomy" cannot be taught, it can be a feature of educational systems, and its presence or absence might have profound educational importance. Some systems seek to exercise more control over student action than others, and this has been a matter of significant debate within educational literature. We might say, for instance, that the educational process should seek to maximize circumstantial autonomy in order to promote other types of autonomy. This is not, I concede, an argument for circumstantial autonomy as an educational end, but it is worth noting: we may have good reason to promote circumstantial autonomy as a component of a pedagogy, because we judge it to be important for the achievement of ends we value. The extent of circumstantial autonomy which should be afforded students is a matter for educators to consider – it is not irrelevant to the educational enterprise.

Second, and closer to the aims of this dissertation, Hand's definition of dispositional autonomy seems to me too narrow, and to ignore essential facets of his own examples. For instance, one would at least want, when one defers to another's judgment, to have reasons for so doing which conform to some acceptable standard. If one simply defers to another without being able to think through reasons why, one is essentially in a situation of circumstantial heteronomy: there is a

difference between reasoned deference and unreasoned obeisance. In capability theory terms, what is important is that people be able to live lives *they have reason to value* and, as I have discussed, the “reasoning” component of this is an essential component of freedom. Someone who simply follows order of a superior without internally-endorsed reasons for doing so is merely performing functionings, not exercising capabilities.

Furthermore, it is not clear to me that Hand’s description of someone who decides, on a case by case basis, whether to follow the advice of another, and who has the ability to make that judgment intelligently, describes someone who is acting heteronomously. When he offers his ideal situation, it sounds very much like someone who would be considered to have achieved a level of autonomy: “We may aim...at producing rational, well-balanced people willing and able to exercise independent judgment, rely on expert advice or submit to legitimate authority as the occasion demands” (p. 539). I think the philosophers whose work I explore above would consider such an individual a poster-child of autonomy and, indeed, when I offer my description of rigor later in this dissertation, it will be seen that the capacities Hand describes are part of my own definition of autonomy!

Hand might reply that a definition of “autonomy” which encompasses these characteristics is more “technical” than “ordinary” – and perhaps this is fair. But to suggest, as Hand seems to, that in order to act autonomously, even as the word is commonly used, one must consistently ignore not only the direction of others, but also *one’s own judgment as to the quality of that direction* seems to me to limit the term too severely. In common usage the term “autonomy” is not synonymous with “completely heedless of others’ advice”. Once we recognize that a more defensible definition of dispositional autonomy would be something like “being disposed to one’s own judgment, including one’s own judgment as to the reliability of others’ advice,” it

sounds both defensible and desirable – and such a definition is much closer to that found in the works Hand disagrees with. I suppose Hand could further reply that there are times when we should rely on others' judgment as to the reliability of others' advice, but even in such a situation the final analysis as to who to trust must be done by the individual concerned. at some point we either have to decide to judge for ourselves whether or not to follow someone in something, or to throw our hands up and say, essentially, "this time I'm not going to evaluate the reliability of this advice – I'm just going to defer." I can think of very few cases in which I would prefer people to take the latter option.

I now turn to the technical definitions Hand also rejects. Hand considers four "technical senses" of the term autonomy which he views as candidates for the coveted position of educational aim. The first sees autonomy as "the ability or capacity to determine one's own actions" (p. 540). It denotes a form of "intellectual competence to consider options and choose between them." The second technical sense of autonomy Hand considers is based on the work of Kant. The third relates to autonomy in belief-selection, and "relate[s] the term not (or not only) to the determination of actions, but instead (or also) to the determination of beliefs" (p. 544). The fourth and final technical sense of autonomy Hand examines "relates the term to the determination not of actions or beliefs, but of desires" (p. 546).

The first of Hand's technical senses of autonomy is most relevant to my study here, since it is closest to the version of autonomy I wish to defend, so I will focus on his objections to that. Because I wish to be fair to his case, and to reply closely, I will quote liberally in what follows. Hand lays out the bones of this view of autonomy as follows:

Autonomy is here defined as the ability or capacity to determine one's own actions. To possess this capacity a person need not be inclined to determine her own actions, but she

must have something more than the mere freedom to do so. What she must have, in addition to her freedom from external interference, is the intellectual competence to consider options and choose between them. (p. 540)

This form of autonomy, then, is more than a disposition to act on the basis of one's own judgments (though it may include one), and more than freedom from external constraints on action (though this is necessary), but also requires competencies on the part of the individual to determine a course of action. This view is thus, in Hand's words, a "halfway house between circumstantial and dispositional autonomy" (p. 540) – people must be free *and* able to determine their own actions in order to be autonomous. Hand concedes, it does seem on first glance that competencies such as those which makes one able to determine one's own actions are learnable – and therefore the right sort of thing to be set up as an educational aim. Perhaps this is a defensible understanding of autonomy which can be pursued through education?

Yet, Hand argues, things are not so simple: there is no easy distinction to be made between being "free" to act autonomously and being "able" to do so – and so perhaps there isn't a role for education here at all. His argument here has some complexity, and I wish to respond to it carefully, so I quote it at length:

"At first sight this halfway house between circumstantial and dispositional autonomy looks like a promising candidate for an educational aim. Independent action may not be required on every occasion but it is certainly required on some occasions, so equipping people with a capacity for such action must surely be a good thing. And since the capacity to act independently must presumably be acquired by learning, it is a property of the right logical kind to be cultivated in schools.

There is, however, something odd about this suggestion. We can see easily enough the difference between the person who is free to swim across the pool, in the sense that no-one is preventing her from doing so, and the person who is able to swim across the pool, in the sense that no-one is preventing her from doing so and she has learned how to swim. But is there a parallel distinction to be drawn between the person who is free to act independently and the person who is able to do so? Do we in fact encounter people who, though free to do as they please, have yet to acquire the intellectual competence to do so? And while we know well enough how to help children who come to us without the ability to swim, what kind of educational intervention would be appropriate for a child who came to us without the ability to act independently?" (p. 540)

Hand answers these questions, essentially, in the negative. Apart from corner cases – people like “Institutionalized convicts and battered wives” (p. 540), who have effectively incurred a mental disability due to extreme treatment – most people (including children) are autonomous in this sense already. Hand says:

it seems quite clear that the overwhelming majority of children acquire the ability to determine their own actions in the earliest stages of life, and certainly long before they begin their formal education. Children, unlike institutionalized prisoners and battered wives, are perfectly adept at considering options and choosing between them; they have no difficulty in acting on their own judgment. The capacity for autonomous action, though it satisfies our twin criteria of desirability and learnability, is redundant as an educational aim because children acquire it without need of educational intervention. (p. 541)

If it were true that acquiring the faculties which enable autonomy were a trivial matter, my argument that it should be established as a central aim of public education would be undermined. What seems clear to Hand, however, is far from clear to me – and this is where I believe his argument fails quite dramatically: he drastically underestimates the faculties required to make effective decisions for ourselves, and overestimates the extent to which most people, let alone children, possess these faculties.

I begin by noting the equivocation on the word “free” in the first passage quoted above: “Do we in fact encounter people who, though free to do as they please, have yet to acquire the intellectual competence to do so?”, Hand asks (p. 540). What is meant by “free” here, as is clear through reading what comes before, is “free from external constraint”. The question, rephrased as follows, doesn’t seem ambiguous at all: “Do we in fact encounter people who, though not prevented by others from acting in different ways in a given circumstance, have yet to acquire the intellectual competence to act in each of those ways?” I believe the answer to this question (which is really the question Hand is asking) is clearly “Yes.” Many adults who have gone through a full course of education are in such a position. The difference is between the citizen in a democratic society who is “free” to convert to any religion they choose, in the sense that no one is preventing them from doing so, and the citizen who is free and *able* to convert to a religion of their choice, in the sense that no-one is preventing them from doing so and they have learned how to weigh the different claims and commitments of the various religions on offer against each other. This is precisely one of the distinctions to which Sen was drawing our attention when he sought to develop, in capability theory, a way of thinking about freedom which is more than the formal right or circumstantial opportunity to do something: a capability requires a faculty to do something plus a facilitative context in which one is free to exercise that

faculty. By making the example less abstract, and removing the equivocation on the term “free”, the distinction is clear. I would not say that a person whom no one is preventing from changing religions, but who cannot make an effective decision as to which religion to choose because they don’t know enough, cannot weigh the different options, or cannot read even, is “autonomous” in the area of religion – and neither, I think, would the theorists to whom Hand is responding in this section of his argument.

Hand’s argument suffers further when he seeks to apply it to children:

“Children, unlike institutionalized prisoners and battered wives, are perfectly adept at considering options and choosing between them; they have no difficulty in acting on their own judgment... The problem to which we address ourselves as educators is not that children are unable to determine their own actions, but that the actions they determine are very often irrational, inappropriate, ill-considered or uninformed.” (p. 541).

First, I think Hand underestimates the extent to which we are, all of us and particularly children, more like institutionalized prisoners and battered wives than he allows. All of us are conditioned by our culture, upbringing, biology etc. to think in certain ways, and these forms of conditioning restrict our range of mental action in various ways. While the bars on our mental cage may encompass a much larger space than that of most convicts, we all live within cages of the mind. To the extent to which we understand that this is the case, we can enhance our mental freedom.

What are these “cages of the mind”? They are legion. To start with, our minds have evolved in such a way as to saddle us with countless heuristics and biases which affect our thinking, causing our response to particular sorts of problems to deviate from what might be expected in predictable ways (see Baron, 2007, and Hilbert, 2012, for instance). These heuristics and biases

are not always detrimental to us: often, they help us make quick judgments which turn out to be surprisingly accurate. Yet sometimes, they lead us dangerously astray. Tversky and Kahneman makes this point: “In general, these heuristics are quite useful, but sometimes they lead to severe and systematic errors” (Tversky and Kahneman, 1974, p. 1124). This sorry picture does not only affect “basic” mental calculations, like judgments of distance (something we frequently misjudge): it is true, too, of more complex and involved mental operations. For instance, we are not very good at making judgments about our own capabilities and responses. As Dunning, Heath, and Suls put it in a lengthy summary of research related to our capacity for self-understanding, “self-assessments of skill and character are often flawed in substantive and systematic ways.” (Dunning, Heath, and Suls, 2004, p. 69)

Furthermore, we are all affected by aspects of our character and consistent features of our mental world which routinely play into our thinking, but are not merely the result of built-in biases, heuristics, or fallacies. Consider, for instance, our deeply-held political or religious beliefs, or our affection for particular individuals in our lives. These “cages” can affect our thinking in dramatic ways. We will often defend to the death our favored political candidates, giving them the benefit of the doubt when they make mistakes while pillorying candidates whose views we dislike for similar behavior. This has obvious implications for our political decision-making: theories of “bounded rationality” demonstrate the systematic biases in our thinking in numerous fields, including political judgments (see, for instance, Gigerenzer & Selten, 2001; Kahneman & Tversky, 2000).

Or perhaps we are prone to anger or arrogance. We might say, in this case, that we habitually react to certain situations in predictable ways: we react to challenges with angry denials or arrogant assertions of our own superiority. Even habits like our style of dress, gestures and

patterns of speech can be used to influence our thinking if skilled communicators mirror them. Psychological research demonstrates that we are more likely to credit those who are similar to us in various ways, giving their words more weight than we do those who don't share critical characteristics with us. Cialdini writes "even small similarities can be effective in producing a positive response to another", warning us to "be careful around salespeople who *seem* to be just like you", and noting that salespeople are now frequently trained to mirror the body language of potential customers in order to steer them toward making a purchase (Cialdini, 1993, p. 174).

In all these ways we are subject to forces which can affect our thinking without our being aware of them – but it doesn't end there. We are by no means free from our mental cage when we understand the workings of one's own mind. We are not individual organisms living solitary lives, but agents embedded in a complex social framework with other agents. We must navigate not only our own minds but the minds of others, seeking to understand and associate with other people through the course of a life. Many of these encounters with other people represent a series of intellectual challenges which we can meet more or less effectively, and there is room for growth – and therefore education – in in our capability to navigate the social world.

In particular, power and privilege shape our life experiences. In a similar way to how the biases detailed above represent constant systemic threats to freedom of thought, structures of privilege and power exercise constraints over our experience which shape the ways in which we are able to think. Many of our characteristics (our race, our gender, our sex, our sexuality etc.) shape our experience of the world through others' reactions to us, and we are not always privy to the ways in which other people are altering their behavior in response to our identity. Is the girl who has grown up for 15 years ingesting cultural narratives – in movies, video games, comic books, parental admonishments, religious sermons etc. – about what it means to be a woman not in a

similar situation to the institutionalized convict in that their thinking about their own identity has been shaped by powerful forces beyond their control? Certainly there is a distinction to be made between the two, but I submit this distinction is one of degree, not of kind.

In short, to live in the social world as the sort of evolved organism that we are is to be subject to an enormous variety of influences on our thinking, many of which we know to systematically undercut our rationality. If we know this to be the case, and learn how to respond to these influences so as to minimize their effects on us – if, in other words, we develop the sorts of mental faculties proponents of autonomy suggest we should – we can gain a measure of mental freedom we would not have otherwise. If we are unaware of these influences, we are like a rudderless boat on the river, unable to adjust our course in response to the current. I argue that instilling some measure of knowledge of and resistance to these influences is necessary if young people are to become, in Hand's words, "perfectly adept at considering options and choosing between them." (Hand, 2006, p. 541)

The faculties which enable such resistance I consider to be components of autonomy, the ability to act on our *own* judgment. If it is true that social factors beyond our awareness and control affect our experience, and if our experience in some ways shapes our cognition (and how could it not?), then to the extent to which the shaping factors are unknown to us our thinking is less free. Conversely, by educating people about how power shapes experience (and therefore cognition) we increase their autonomy.

Hand's argument ignores all these sources of unfreedom, assuming that the ability to act "on our own judgment" is unproblematic, and developed by every person who does not have anti-developmental experiences like incarceration. But, I argue, the sources of mental constraint upon all of us are so numerous and well-evidenced that it makes better sense to think, in the words of

Brighthouse (2003), that “Autonomy is not a state that is trivially achieved, but one into which children have to be educated to some degree” (p. 12). Autonomy is best understood as a set of learned faculties, not as an inbuilt-endowment.

A more fundamental problem with Hand’s argument, though, is that in his attempt to rule out of bounds any conception of “autonomy” as an educational aim, has done an injustice to the concept. He seems to reduce autonomy to “any action an individual undertakes having decided to do it, as long as they are not coerced, regardless of however thoughtless, feckless, uninformed, unreasonable, or irrational it is.” This is not a definition of autonomy *any* of the philosophers Hand cites in the paper would accept – and it would seem to suggest that we are all acting autonomously all the time, for even the battered wives and incarcerated criminals Hand seemed earlier to accept as examples of non-autonomy can make *irrational and uninformed* decisions. What then, is the force of the contrast he sought to offer?

What is striking is that Hand seems to share many of the concerns promoters of autonomy in education are passionate about: he wants children to be educated to make rational, appropriate, considered, informed decisions, and to be able to judge when it is appropriate to defer to the expertise of others. All these things autonomy-promoters would celebrate too. Is it possible that his argument is simply against the use of the word “autonomy” to describe these desirable, teachable faculties? Perhaps so. But if this is the case, he has not presented an argument “Against autonomy as an educational aim” so much as an argument against labeling what many call “autonomy” with that label. That does not undermine my enterprise.

What do we learn from this response to Hand’s argument? First, it may be sensible to prefer, educationally speaking, an autonomous disposition to a heteronomous one: Hand’s argument does *not* show that schools are better off being neutral in that regard, and his notion of

“dispositional neutrality” fits many philosophers’ conception of autonomy in any case. Second, there is a defensible sense of “autonomy” which is the right sort of thing to erect as an educational aim: autonomy as the intellectual competence to evaluate different ways of living and to choose between them. We learn, too, that this is not an immediate achievement of birth, nor something which only those handicapped by circumstance must attain, but something which can and must be learned. Finally, we learn that there are many sources of mental unfreedom which Hand does not consider which, although they cannot be eradicated, can be taken into account when we make our decisions. To the extent we can do this, we are more autonomous – and this too, can be taught.

Contra Winch

Winch (1999) takes a different tack to Hand, arguing not that autonomy is indefensible as an educational aim, but that only a certain *sort* of autonomy is defensible as an aim for public schools – a weaker sort than is often championed by autonomy’s proponents. It’s critical to stress here that Winch is talking only of *public* education here: his opposition to what he calls “strong autonomy” is not conceptual, like Hand’s, but political: he believes that to require all children to undergo an education which promotes strong autonomy would undermine the very social compact on which public education is based (more on this later).

The version of autonomy which Winch defends as a legitimate aim for public education “does not prescribe ends or only allow choice regarding the means to achieve those ends: it invites citizens to choose from a variety of approved and tolerated ends”. Through a collective process, he argues, “society” would come up with a “set of values to be promoted or tolerated”, from which individuals should be enabled to choose to some degree. Thus, “a public education system has good reason to promote a variety of different goals in life which its citizens can

autonomously choose from” (p. 68). Under this conception of autonomy, individuals are like diners at a restaurant, while society is the restaurant’s management: we get to select from between the items on the menu, but management sets the menu (my analogy). This is “weak autonomy”.

Strong autonomists, by contrast (and in Winch’s characterization), argue that young people should, through education, be enabled not only to choose between the options on society’s menu of approved lifestyles and values, but *also* to question why those particular items are on the menu, *and* to seek nourishment outside the restaurant if none of the menu items suit. As Winch puts it, when speaking for strong autonomists,

“citizens have rights which cannot be violated; among the most important of these is that of choosing what kind of life they should lead. These rights impose a duty on society to respect them, and it follows that public education, as an agent of society, should respect those rights.” (p. 69)

Winch believes this argument fails for two reasons. First, he believes the proposal is ultimately incoherent:

“the premiss that individuals have inviolable rights to choose what kind of life they should lead...must be subject to some limitation if it is not to lapse into incoherence...It would not be open to the strong autonomist to say that *as a matter of right* it is allowable for someone to choose aims that involve constraining the rights of others” (p. 69, emphasis original)

In other words, if we place no limitation on the ability of individuals to exercise their right to choose how to live, people might choose to live in a way which infringes on others' right to choose how to live, which defeats the idea that such a right is inviolable.

Second, Winch argues that to allow the public education system to promote strong autonomy would be to undermine its compact with the public who is funding it, who have a right to expect that the service they are funding fulfil aims they endorse. If public schools promoted strong autonomy, according to Winch, three problems arise: 1) if you allow people to question the proposition that people's rights are not to be violated, "then weak and even minimal autonomy would be under threat."; 2) The promotion of strong autonomy violates the social agreement only to promote a limited set of ends which established the public education system in the first place; and 3) "proposing of strong autonomy would suggest that the system by which a consensus about aims is arrived at would no longer be stable, thus undermining the basis on which strong autonomy as an aim could legitimately emerge." (p. 69-70)

There is much to say about Winch's argument, but I will begin with some general observations about his presuppositions and approach. Winch proceeds from the premise that one purpose of a public education system should be to fit young people for adult life in the society which is providing the education, and he places strong weight on the needs of "society" and the authority of its pronouncements. He views the process of determining what it is appropriate to teach in public schools essentially in terms of a balance between the needs of the society which is providing it, and the needs of individual children which are undergoing it – this tension is evident throughout his paper. For instance, he sees the establishment of educational aims as a process of "accepting the integrity of personal values but coming to some arrangement concerning their implementation in the public sphere" (p. 67), he is concerned with the

promotion of “both social and human flourishing” (p. 68), and he believes that in considering what rights parents have to determine the sort of education they can provide their children though *private* means we must “balance” the desires of the parents with the “damage to civil society” their desires might cause if fulfilled (p. 71). His argument against strong autonomy as an aim of public education – and even, perhaps, or *private* education – makes sense in this context. Strong autonomy is seen as potentially destabilizing to the social regime: people didn’t sign up for it, it may result in questions about their rights, or even the promotion of values they do not collectively endorse!

The way I put this may be somewhat unfair, but I think not much. To demonstrate why, consider an alternate universe, not so different from our own, but in which the US Civil War resulted in the split of the country into two nations. In the North, slavery is banned, while in the South, it is still permitted and considered a matter of property rights – as it was, for generations, in the United States. Imagine, too, that both societies begin, as postwar America did, to establish national public education systems. Clearly the set of socially-sanctioned values which would serve as life-options for students in each nation would be quite different. By the people’s blessing, they would each offer their citizens different “menus” of socially-sanctioned values from which to select their life-path. How might the Confederate Nation respond to the proposal that students should be enabled to exercise strong autonomy in their schools, to the point of questioning? Perhaps with much the same arguments Winch makes: “What if students in our schools start questioning our right to own slaves? We didn’t fund our schools to raise abolitionists! This could undermine our whole society! That is simply outside the bounds of the range of acceptable values we have agreed to promote!” Such schools might well be seen to fulfil

the requirement for weak autonomy, but they do not seem to be morally or educationally acceptable.

Winch might respond that this is because the rights of African Americans were not sufficiently recognized, which violates his concern that rights not be traduced. Furthermore, he might point to the fact that he began his argument by saying that it pertains only to democratic societies, and a society in which African Americans can be bought or sold is not democratic. But this is precisely the point! Individual rights have historically been and are today consistently denied and circumscribed by social consensus, and those social consensuses are considered, from the point of view of those with the power to draft and enforce them, to be legitimate and binding. We cannot know for certain that we are not, today, committing an injustice as grave as was committed against those African Americans who desired an education. In the USA convicted felons cannot vote while in prison. This is certainly the considered consensus of the American people, who have supported such laws in every state. Yet this is quite possibly an assault on the rights of humankind. Perhaps in 100 years we will consider that a gross violation of rights, rendering our society non-democratic – we cannot be sure. It won't do to say “my argument holds only for democracies in which all people's rights are respected” when we cannot tell for certain that any society today fulfills the standard for being considered a democracy in that sense.

The notion of weak autonomy as a goal of public education, in my view, does too little to protect individuals from the potential tyranny of society, and to protect ourselves from our own bad judgments. Social consensus around values not only can be wrong but, looking from a contemporary vantage point, has consistently been wrong. The ethical history of humankind is a parade of injustices visited on one group by another – a parade which still continues. Given this history – slavery, sexism, homophobia, antisemitism – public education should proceed on the

assumption not that our social consensus around the appropriate ends of life is correct but that it is likely flawed. Our history suggests that it is our responsibility to *promote* skepticism about social consensus, given that we have ample evidence of how bad we are of developing a social consensus which respects the dignity of all people. Far from saying to students “Here is a menu of approved life options from which you might select,” we should teach students to ask “what might we be wrong about today, which in fifty years we will recognize as obviously wrong?” Certainly those schools which, in our own universe, secretly educated African American slaves were doing something the social consensus of their time considered deeply wrong. It went against the powerful convictions of many in that society. It was profoundly disturbing to the social order. But they were justified in doing so because what they did respected the rights of those individuals being educated, *despite* the fact that the social consensus of the time had decided they had no such rights. Public schools at the time (such as they were) were not appropriately balancing the needs of their society and the needs of individuals: they were trampling the rights of minorities with the fulsome blessing of the culture which was paying for them. They had a moral duty to educate African Americans which they were refusing to fulfil, and which the notion of weak autonomy fails to protect.

Winch tips his hand far too far when he says, in the course of his argument, that “a form of autonomy that encouraged people actively to question or undermine the institutions which allow...negotiation of the spending of public money would not be tolerated unless the society was already skeptical about the value of its democratic institutions. A healthy and self-confident democratic society would, then, quite properly be unwilling to prescribe strong autonomy as an educational aim” (p. 71-72). I argue that we *should* be skeptical about the value of our democratic institutions, because they have so frequently proved deficient when they were

thought to be just fine. Societies usually do not always look oppressive from the inside – it is often only with hindsight that we recognize injustice was done. A healthy and self-confident democracy would respect history by promoting skepticism regarding of the values and assumptions on which that society is based – in other words, strong autonomy.

What of the fear that, if we were to do this, some might act in ways which infringe on others' rights? First, Winch elides an important distinction: that between discussing, disputing, and debating whether something *should* be considered a right, and the development of the necessary skills to engage in such debate (which is what strong autonomists desire) and the *performance of acts* which infringe the rights of others. To use the current example, it is the difference between teaching students how to have an intelligent discussion as to whether slavery should be allowed or not, and standing by while students actually enslave each other. This can be understood in terms of capability theory: there is a difference between proscribing certain *functionings* on the grounds that they infringe upon other's rights, and threatening the exercise of all *capabilities* by restricting people's faculties in the area of autonomy by ruling certain discussions out of bounds.¹⁶ Those committed to strong autonomy as an educational aim – committed to teaching students the faculties required to exercise a wide range of capabilities; to establish an idea of the good life; and to choose between functionings – are not committed to allowing students to *act upon* every functioning they may decide would fulfill them. There is no incoherence here.

¹⁶ It strikes me that some might see a contradiction between the point I make here and the argument I made in the first chapter regarding the relationship between ability and freedom. I find the potential for self-contradiction here concerning, but here is how I think it can be avoided: to say that in order to enjoy a certain freedom one must develop the requisite faculties to perform functionings associated with that freedom (and thus that freedom is dependent on ability) is not to say that by restricting freedom by proscribing certain functionings, in the name of protecting others' rights, necessarily infringes on autonomy. It certainly impinges on that person's *freedom*, but the constraint is not one which *necessarily* attacks their faculties for autonomy. While I argue that *some* restrictions on functionings will lead to debasement of the faculties necessary for autonomy, not *all* do. I think this avoids the problem.

Second, and as suggested earlier, some things considered rights *should not* be considered as such (such as the “right” to own other human beings), and the only way to work out which is which is to enable people to engage in discussion about it. As a gay man myself I am sensitive to Winch’s concern: the idea of school classrooms dispassionately discussing whether same sex couples should have the right to marry makes me nervous. But what makes me *far more* nervous is the idea that the state has no responsibility to equip young people with the faculties necessary to *have* such a discussion – for if no one had those faculties some decades ago, I would not now be able to be married.

Contra Schrag

The final argument against autonomy as an aim of public schooling I shall consider is that of Schrag (1998). This argument is useful to analyze both because it introduces concerns not present in the previous two arguments, and because Brighouse (2003) *also* offers a response, and the difference between my response and that of Brighouse reveals a distinction between our conceptions of autonomy.

Schrag, following Galston (1995), seeks to defend a form of what he calls “deep diversity”, and the educational implications of that commitment. A society committed to deep diversity, he explains, is not only committed to offering and respecting a range of life-options (this he calls “superficial diversity”), but also to offering and tolerating a range of *stances* one might use to choose between different life-options. So, he argues, such a society would offer not only a range of different foods to choose from, but would tolerate different stances toward the selection of food: for instance, both secular viewpoints in which food consumption is governed by taste and preference alone, and religious viewpoints in which a set of additional religious considerations

come into play (p. 30). A state with a commitment to deep diversity would refuse “to use state power to impose one’s own way of life on others” (p. 32).

Since certain modes of public education would certainly impose a way of life on citizens, Schrag asks “What kind of educational regime is consistent with a commitment to deep diversity?” (p. 31) Schrag gives the example of the place of religion in US public schools, saying that “Over the last half century the Supreme Court in a series of controversial cases has curtailed any form of religious worship in public school” (p. 31), and arguing that neither excluding religion from public schools nor allowing religion into public schools is acceptable if one wants to respect deep diversity: the first, he claims, is a sort of imposed secularism, the second enforced religious worship (p. 32). He reasons that this is an insurmountable dilemma, and concludes that, due to the profoundly competing and incompatible stances toward life taken by different citizens, that *no* “monolithic public school system” is able to achieve respect for deep diversity (p. 32), and that we should, rather than threatening deep diversity, scrap state provision of secular public schooling and replace it with “a voucher scheme of some kind in which parents chose schools that conformed to their own educational philosophies reflecting their own diverse views of the good life” (p. 33).

Obviously, if there should be no secular public schooling promoting autonomy, autonomy as an aim of education could not be universally realized, as some parents would choose schools, consistent with their view of the good life, which do not promote autonomy (something Schrag accepts – p. 40). Luckily for proponents of autonomy as an educational aim, I think Schrag’s argument is confused. His exploration of the situation of religion in US public schools – and I think the conceptual framework of his case – is damaged by a seeming misunderstanding of the facts, and of the nature of secularism: it is not the case that “the Supreme Court...has curtailed

any form of religious worship in public school” as he claims. Students are at perfect liberty to set up religious clubs and organizations, and to pray and practice their religion in school. Teachers are allowed to supervise such groups and offer them guidance. What is *not* allowed is for the school itself, in formal announcements, or as part of its curriculum, to endorse a particular religious faith or non-religious ideology. Nor is a school allowed to give the students blessing to set up a Christian club, yet deny them the chance to set up an atheist club.

This situation is certainly a form of “imposed secularism”, but this is not equivalent to “imposed atheism” or “imposed Humanism”: what “imposed secularism” means when it comes to US public schools is that an environment is supposed to be in place within which students can make their own minds up about which religion, if any, to follow absent the power of the government (acting through its employees in the public school) influencing that decision. This, it seems to me, is precisely an attempt to respect “deep diversity”: the school is (or is at least supposed to) enable students not only to choose between foods but choose between stances with which to select foods, and it tries to ensure that freedom by refraining from putting its institutional weight behind any one stance.

Schrag might reply that some parents would object even to this form of secularism in public schools, on the ground that they don’t want their children to be able to consider different “stances” towards values than the ones they themselves endorse, and therefore that the public school system shouldn’t equip them with the ability to engage in such consideration. The secularism (properly understood) of public schools, these parents might argue, is disrespectful of deep diversity, because in exposing their children to other potential ways of life it fails to respect their stance that there is only one proper way of living life. The school system *is* putting its

weight behind a particular stance toward life – one in which an individual should be able to choose between different stances of life.

Yet here it is surely the *parents* who disrespect deep diversity: *they* are the ones who are denying its core commitment to the ability of individuals within a society to live life by differing sets of stances by denying their children the opportunity to learn that this is an option for them, and the opportunity to live life consistent with that knowledge. It seems odd to set up as champions of deep diversity parents who would, were they get their way, eradicate it through their educational choices. Respecting the “diversity state,” as Schrag calls it, seems to me to require a social commitment to ensuring that all people recognize that there are different stances toward life-options available – otherwise it simply devolves into superficial diversity, with the range of acceptable life options for a child determined by their parents. Providing people at least with the knowledge of options is central to respecting deep diversity. Schrag seems to accept this when he says the following when setting up the concept of deep diversity:

“Think of diversity operating at two levels. The ground level determines the particular items chosen but the deeper level determines the stance from which choices of particulars are made. Deep diversity is a matter of the *availability of different stances*, not the availability of different foods.” (p. 30, emphasis mine)

Yet his educational prescription – again, “a voucher scheme of some kind in which parents chose schools that conformed to their own educational philosophies reflecting their own diverse views of the good life” (p. 33) – does not guarantee that different stances are available to all children. Rather, it seems bound to *limit* their access to a range of different stances, and does nothing to ensure they have the faculties to intelligently choose between them. Some diversity!

The nature of the problem to which I am pointing here becomes clearer later in the paper, when Schrag uses an example of a woman who converted to Orthodox Judaism to demonstrate that an education which promotes Orthodox views of gender roles, to the exclusion of secular views which promote a different version of gender equality, are compatible with liberal commitments to human rights. Asking “Don’t fundamentalist communities violate human rights when they practice and preach the subordination of women?”, Schrag answers in the negative, using the testimony of Lisa Aiken (“a woman herself but one who did not grow up in an Orthodox Jewish milieu”) to support the idea that the decision to live such lives is compatible with respect for autonomy (p. 42-43). Aiken’s testimony, Schrag claims, “shows that this way of life is capable of being chosen by a woman who appears to be in full command of her rational faculties” and, since this is the case, her testimony that such a way of life is fulfilling is believable. This demonstrates, in Schrag’s mind, that it is possible for a woman to live a fulfilling life under what others would consider sexist conditions and, since this is in principle possible, and since “the characteristics that make that life fulfilling for a woman do not depend on its being chosen in the way Aiken did” (p. 44), the state should not deny that it is conceivable that some people who have lived their whole lives in such a community are *also* living fulfilling lives – and should not force them *out* of such a life by imposing on them a form of education they do not want.

In order to respond to Schrag’s case, I here present the most relevant piece of Aiken’s testimony, which he quotes in support of his argument:

[Aiken:] “After searching for an authentic expression of Judaism for many years, I discovered that observant Judaism was a complete and satisfying system in its own right. However, it required years of intensive study, investigation,

introspection, and honesty to appreciate how fulfilling it could be intellectually, emotionally, and spiritually (p. xvi).”(p. 43)

Brighouse (2003), as I said above, offers a response to Schrag’s argument, appealing to a concept he calls “constitution pluralism”: the idea that “people have different personalities, characters, or internal constitutions, that suit them differently well to different ways of life; and these differences do not correlate perfectly with the demands of their parents’ or their communities’ religious commitments” (p. 73). It is possible, he accepts, that some people might well grow up in an Orthodox Jewish community in which women are limited to certain social roles, yet who derive great satisfaction from their life even if they are never presented with an opportunity to consider other ways of living. They would lack autonomy, but they would be living well. *But*, Brighouse argues, some people are simply not made for such a life – for whatever reason, they cannot be happy and fulfilled there (he gives the example of “a homosexual boy who grows up in a community in which the religious norms prohibit any avenues for living well as a homosexual.” – p. 73).

I accept Brighouse’s argument. Some people simply wouldn’t be able to live well under a regime such as the one Aiken chose for herself, and this is a strong justification for the state playing a role in exposing all children to different ways of living so that they might find another way to live. Without such exposure, some children will be trapped in lives which they didn’t choose and cannot live well, with little chance of finding a way of life they would value.

But a more fundamental criticism is available here, which I believe better demonstrates the importance of autonomy-facilitating education, and which Brighouse does not pursue (I think because of the rejection of the idea that autonomy itself has strong intrinsic value, which I explored earlier): we may question Schrag’s contention that “the characteristics that make [the

life Aiken chose] life fulfilling for a woman do not depend on its being chosen in the way Aiken did.” It seems to me that Aiken makes it crystal clear in her testimony, as quoted by Schrag, that not only was her conversion to Orthodox Judaism a free choice on her part, but that the *fact* it was a free choice was central to her experiencing it as a good way of living. A plain reading of her words – “it required years of intensive study, investigation, introspection, and honesty to appreciate how fulfilling it could be intellectually, emotionally, and spiritually” – suggests precisely that it was *only* because participation in the Orthodox community was her free and rational choice that she could appreciate it. Her appreciation of it *required* (her words) a quite sophisticated level of autonomy, and in this sense the characteristics which make her way of life fulfilling to her *do* – at least in her judgment – depend on its being chosen in the way she chose it. There is no guarantee that life in such communities, if one is raised in them from birth and knows no other options, and therefore do not perform the “years of intensive study” Aiken did, has nearly the same character as Aiken’s experience.

Furthermore, Aiken could not have undertaken the “years of intensive study” her realization required without the intellectual faculties to undertake such an investigation – capacities which, had she grown up from the start in the same Orthodox community she later joined, she may never have developed at all. Thus, far from undermining the argument for the state’s role in providing autonomy-facilitating education for all children, Aiken’s testimony supports it: had Aiken grown up in the sort of community Schrag seeks to protect – a community which does not offer its children autonomy-facilitating education – she would have never gained the opportunity to do the deep investigation of Orthodox Jewish life which led her to the fulfilling situation in which she now lives. Sen’s comparison between fasting and starving comes to mind here:

Aiken's religious position is a freely-chosen social fact, not a forced spiritual starvation, and that makes all the difference.

Schrag seeks to undercut this conclusion, saying:

“When a person such as Lisa Aiken autonomously chooses not only a deeply different community, but a role within that community which outsiders would perceive to be subordinate, then her testimony about the fulfillment she finds in the new community buttresses the view that this community deserves the state's blessing no less than secular communities.” (p. 44)

But this statement elides the issue. Very few liberals would argue that communities such as Aiken's shouldn't *exist*. What is at issue here is whether communities such as Aiken's should be able to provide their children with an education which does not promote autonomy. Aiken's story seems to me to encourage the opposite conclusion to the one Schrag draws: it demonstrates clearly the benefits of autonomy-promoting education, in that Aiken, if we believe her own words, could not have lived the life she now lives without it. Further, it demonstrates that autonomy-facilitating education is not necessarily threatening to such communities, because people such as Aiken both received such an education and chose to live in an Orthodox community. There is no reason to believe that others wouldn't follow the same path.

I draw two points from my discussion of Schrag here: first, Aiken's story in my mind demonstrates the intrinsic value of autonomous decision-making, its capacity to enrich experiences which otherwise might be good-but-not-so-good, or even bad. Just as food you cook yourself often tastes better than the same dish ordered at a restaurant, choosing a way of life for yourself can facilitate a richer enjoyment of that life, or even turn it from a bad life to a good

one. Brighthouse doesn't really defend this position in his response to Schrag, but Sen makes much of the intrinsic value of choice, and I wish to follow him in this; second, Aiken's story, and the weaknesses in Schrag's argument, demonstrates the necessity of autonomy-promoting education *even for children in communities which would wish to remain closed to it*. Only an individual with those capacities would have been able to convert in the way Aiken did.

Conclusion

For the reasons I have offered here, I believe Hand, Winch, and Schrag's cases against autonomy as an aim of public education fail. Hand does not appreciate the extent to which we need to learn to be autonomous – the extent to which autonomy, in the sense considered here, requires the development of certain faculties to exercise. Winch defends an anemic version of autonomy, which in my view does too little to protect people from social tyranny and which is far too confident regarding the quality of current political arrangements. In critiquing their arguments, I haven't shown that *all* arguments against autonomy as an educational aim fail, but I think these three influential ones do, and I think exploring them clarifies the form of autonomy I wish to defend as an aim of public education.

Toward an Education for Autonomy

Taken together, I believe the arguments advanced above make a strong case that an autonomy-facilitating education is the right of every child, and that, since not all parents will provide such an education for their children if left to their own devices, a public system of education should provide it. I have, I think, made a strong case (or at least a case worth answering) that the development of those faculties which facilitate autonomy be one aim of public education. But what *are* those faculties, and how might they be developed? If autonomy is a legitimate *end* of public education, what can we say about the *means* by which this end can be achieved?

It may be useful, first, to note that a number of educational approaches have been advanced by philosophers which are clearly *not* compatible with the development of autonomy. In order to elucidate what pedagogical strategies might be appropriate, it may help to first rule out some of these inappropriate approaches. Sen's redefinition of "freedom", and the refined version of it I have offered here, precludes pedagogies which do not consider the growth of human freedom their primary goal, or which endorse pedagogies that would lead to the diminution rather than the expansion of students' capabilities. Saito (2003) notes one example of an incompatible pedagogical system:

If the education system takes an extremely 'top-down' approach and stresses competitiveness, children tend to study subjects that are required for examination success. Under this kind of education system, children find difficulties in learning to become autonomous. In this case, the children have no choice but to follow what others tell them to do and are considered to have limited capabilities even though compulsory education is provided. As a consequence, it seems appropriate to argue that education which plays a role in expanding the child's capabilities should be a kind of education that makes people autonomous. (p. 27-28)

I should like to add a few more methods, favored by other philosophers of education, to the list of approaches that can immediately be set aside if we wish students to achieve autonomy (and thereby the opportunity to enjoy capabilities).

How Not to Achieve Freedom

The most immediately obvious candidates for exclusion are any pedagogical strategies which see the indoctrination of children to be their primary aim. Those who are indoctrinated into the belief that a particular way of living is "best" are not able to freely exercise their own judgment in

selecting what sort of life they might like to lead: their capacity to *choose* between various ways of living is attacked directly. Thus, a Sennian approach to education must reject indoctrination as a tool.

Further, we may reject any form of educational philosophy which advocates that people should be “free to choose ignorance”. Galston (1991), for example, argues that “liberal freedom entails the right to live unexamined as well as examined lives” (p. 254), suggesting that the state has no right to require children to question the beliefs with which their parents endow them. This leads Galston to argue in favor of a very minimal form of civic education, in which only the “minimal conditions of reasonable public judgment” (p. 254) are taught. It is clear how a Sennian educator might respond to this: the “right” to live an unexamined life is simply not a freedom in the sense of a capability to choose between an “unexamined” or “examined” life unless there is the potential for a meaningful comparison between them, and this entails by necessity children being exposed to the “examined” life even if their parents do not wish it. Thus we can argue on the grounds of maximizing capabilities that the school system should do more than Galston suggests: it should provide the experience of multiple ways of living beyond those that are available in the home, and should encourage and equip children to question the beliefs of their parents.

Other educational philosophies which a Sennian view is forced to reject are those based on a view of freedom that emphasizes freedom from constraint over freedom to meaningfully choose between different options. Perhaps the most obvious example would be the educational philosophy of A.S. Neill (see Neill, 1960). Neill’s philosophy is based almost entirely on the desire to see children free from restraints, and as such promotes an extreme form of negative freedom. He states: “[m]y view is that a child is innately wise and realistic. If left to himself without adult suggestion of any kind, he will develop as far as he is capable of developing”

(1960, p. 4). Echoing Rousseau, Neill believes children are born in a state of freedom, but gradually are impinged upon by society in various ways and become *less* free – at times it seems that Neill sees *any* interaction with another person as a limitation to their freedom!

The view of freedom I promote here, following Sen, contrasts significantly with Neill's view. For Sen, freedom from constraint is not enough – individuals must be free in the sense that they must have real choices between one way of living and another. This *requires* freedom from certain constraints, but is not *satisfied* by it: we may still be free from constraint but not have many options we can meaningfully exercise because we do not have the faculties to exercise them. Furthermore, as I have argued, autonomy itself is facilitated by a set of developed faculties, probably will not develop without assistance. This suggests that we cannot help children realize the sort of freedom Sen argues they must attain by allowing them to do what they want all the time: we must instead make some effort to help them develop their faculties – including their faculties of autonomy – so that they might meaningfully exercise choices.

Finally, a view of education in which the only (or primarily) desired outcome is economic productivity must be cast aside – this is the thrust of Elliot's writing on this matter (2007). As Saito (2003) and Walker (2007) note, Sen's concept of "human capability" is much broader than the concept of "human capital" that has so much currency in educational discourse today. Saito notes that while concepts of human capital "[tend] to concentrate on the agency of human beings in augmenting production possibilities," concepts of human capability "[focus] on the ability—the substantive freedom—of people to lead the lives they have reason to value and to enhance the real choices they have" (Sen, 1993, p. 293, quoted in Saito, 2003, p. 24). The latter includes the augmentation of people's "production possibilities", but requires rather more as well – simply making people into economically productive citizens does not satisfy the requirement to develop

their autonomy, because it presupposes that the sort of life they should value is one of economic productivity. Further, Sen argues that economic productivity should be seen as a *secondary* goal in terms of human development: the freedom and wellbeing of individuals should be the central test of development (see Saito, 2003 p. 24). Educational approaches which seem to prioritize productivity over all else would not pass muster.

We can now reject four educational approaches that simply won't satisfy the need to develop children's autonomy in the way that has been described: authoritarian approaches which do not see the development of freedom to be the goal of education; approaches which advocate that ignorance is a reasonable "choice"; philosophies which privilege negative freedom with no regard to its positive counterparts; and views which prioritize the development of human capital over human capabilities (the distinction central to Elliot, 2005). But what of the positive side of the ledger? What are the faculties necessary for autonomy, and how might they be developed? The final chapter of my dissertation will consider, in light of what has been established, what an education system which prized the development of autonomy might look like.

Conclusion

Fusing the insights in this chapter together, an initial portrait of what "educating for autonomy" might look like emerges. The educator interested in autonomy must ensure that their students develop a "capability-development disposition" by which they will seek out the further development of their capabilities. They must reject indoctrination as a tool, must expose the student to multiple ways of living beyond those they encounter in the home – even if their parents do not wish such exposure to occur. They should feel free to restrict the child's negative freedom in order to help them develop capabilities they would otherwise lack, and must not prioritize economic goals over other intrinsically valuable educational experiences. The educator

must take care to equip students with the faculties necessary to resist those biological and social influences which all people are subject to, so that they might make their own decisions by taking these factors into account. And the educator should promote a form of strong autonomy, which includes the capacity to question even the deepest commitments of the society in which they live. An education which provided all these things, I think, would be like the bow in Gibran's poem: a strong, supple foundation from which, once released, a child can fly through life.

Yet still one aspect of my project remains: I must conduct a much more specific account of those faculties which enable autonomous thinking. In the final chapter, I begin that process by examining the concept of rigor: one important example of autonomous thinking.

Chapter 3: Rigor

Introduction

Throughout this dissertation I have sought to defend an understanding of autonomy which presents it as a set of faculties required for an individual to construct a vision of what a good life means for them, and to think about how to pursue that vision by weighing different life options. I have argued, too, that these faculties are central to human freedom, because they potentially play a role in the exercise of all capabilities, and therefore that “autonomy deprivation” – when people are rendered unable to develop or make use of these faculties – is particularly pernicious. For this reason, I maintain, the development of autonomy should be considered a central goal of education, *and* can be erected as an aim of public education systems. All children in every society have a right to an education which seeks to develop the faculties which will enable them to live autonomously so that they might enjoy genuine freedom.

However, I have so far said very little regarding what, precisely, these faculties which enable autonomy are. I have spoken of them as skills, sets of knowledge, and dispositions required to create and evaluate a conception of the good, and to evaluate competing life-options, but I haven’t gone into great detail as to what these skills are, and what they might look like in a classroom context. This final chapter of my dissertation seeks to begin to fill that gap by exploring a concept which has frequently been promoted as an educational good by teachers and philosophers of education but which, in my view, has received too little sustained attention.

Rigor is, as I understand it, a component of autonomy: the ability to think rigorously encompasses some of the skills, dispositions, and sets of knowledge required for us to have our own thoughts. In this chapter, I characterize rigor according to a set of philosophical standards I outline, and show how this characterization plays a role in autonomy. I don’t argue that rigor is all there is to living autonomously – but I do believe it to be an important component.

Controversy at Cambridge

The year is 1992. The University of Cambridge has decided to grant an honorary doctorate to Jacques Derrida, father of deconstructivism and controversial champion of “continental” philosophy. This does not meet the approval of three members of the University’s Philosophy Department, who mount an attempt to veto the award. The three are supported by an international band of analytical philosophers who, in an open letter published in *The Times* of London on May 9th, accuse Derrida of producing “semi-intelligible attacks upon the values of reason, truth, and scholarship”, which are not “sufficient grounds for the awarding of an honorary degree in a distinguished university.” (The Times, 1992)

“M. Derrida's work”, they aver, “does not meet accepted standards of clarity and rigour.”

Derrida eventually received his honorary doctorate, after a vote of the Cambridge faculty. But he was stung by the controversy, and by the *Times* letter in particular, calling it “a serious and dogmatic abuse of [the authors’] authority in the press” (Derrida, 1995, p. 404). Rejecting the signatories’ criticism, he described his work as “competent, rigorously argued, and carrying conviction” (p. 409).

It is reasonably clear what it means for work to lack clarity. Competence is not so difficult to define. Conviction might give more trouble, though it is far from opaque. But what is this quality, “rigor”, which the indignant philosophers accused Derrida’s work of lacking, and which he himself felt compelled to assert his work possessed? This is the question this chapter intends to solve.

In Search of Rigor

This is not solely a theoretical question. The quest for greater “rigor” in education has been a perennial concern of educational reformers and, in recent years, rigor has become a buzzword (Klein, McNeil, and Sawchuck, 2009). The trumpet was sounded by *A Nation at Risk* (1983), which decried the lack of “rigorous academic standards” in US schools, and asserted that high expectations of students are to be expressed partly through “the presence or absence of rigorous examinations”. President George W. Bush took up the charge in 2004, arguing the need for more rigor in vocational education (Cavanagh, 2004). Most recently, “rigor” is said to have been *the* educational value of choice in the first Obama administration (Klein, McNeil, and Sawchuck, 2009; Jacobs and Colvin, 2009). “Rigor” has been courted by both Republicans and Democrats for decades, and apparently “Increasing academic rigor...is perhaps the most commonly heard rallying cry among policymakers responding to public dissatisfaction with the quality of the nation’s high schools.” (NHSA, 2006, p. 1).

Practitioners, too, have vigorously pursued our quarry. Rigor is variously hailed as the key to college success (ACT, 2007), the exclusive province of an education in “the classics” (Jago, 2000), a form of challenging or high quality educational content (NHSA, 2006), a component of 21st Century Skills (Wagner, 2008), deep immersion with a subject (Washor and Mojkowski, 2007), a classroom environment of high expectations (Blackburn and Williamson, 2009) and even the ultimate aim of all intellectual endeavor (Keyser, 1925).

Yet, despite the reverence in which rigor is held by many educational thinkers, not everyone is convinced that it is at all desirable. As Strong, Silver and Perini note, “A certain severity surrounds the concept of rigor” (2001, p. 5), and one prominent educationalist deplores the “cult of rigor” which he feels saps schools of “the joy of discovery” (Kohn, 2011).

This ambivalence toward rigor – the almost all-conquering attributes with which it is imbued by its champions, and the antipathy with which it is viewed by its detractors – is the telltale sign of deep conceptual confusion. It is not at all clear that the academics, practitioners and politicians who are so excited about the possibilities of increasing the amount of rigor in classrooms are discussing the same thing. The term, when it appears, is frequently left completely undefined, even as it is touted as central to school improvement. Those definitions which do appear tend to be vague, over-broad, or both, such that rigor becomes a numinous uber-quality which encompasses all aspects of good (or bad) teaching and learning.

Similar deficiencies extend to the philosophical literature, in which the concept has received hardly any attention at all. There is no entry for the term in the Stanford Encyclopedia of Philosophy, and I can find only one sustained philosophical analysis of the idea (Keyser, 1925). This is even stranger given the almost universal high regard in which the term is held in philosophy departments. The Derrida affair is exemplary of this: even Derrida himself, facing the claim that his work lacks rigor, chose to refute the charge on its own terms (his work is “rigorously argued”, he disputed) rather than to deny its validity as a standard of judgment.

This lack of clarity has consequences. When reformers base their proposals on poorly-defined buzzwords they are more likely to develop confused and inarticulate programs. They face the danger that they will talk past each other, each thinking they know what the other means when in fact key terms are being used differently. Readers of reform proposals, and teachers who have to enact them, are left without a clear idea of precisely what they are being asked to promote. And we run the risk of rehashing old solutions under a new heading, which then expands to encompass every possible trendy innovation.

In this chapter I wish to bring clarity to this muddled area by subjecting the concept of “rigor” to sustained philosophical analysis.

A Note on Methods

Philosophical Analysis

Scheffler (1954) argued that one use of the philosophical method in education is to provide “critical precision” regarding central educational terms. Just as terms central to philosophy are routinely subjected to scrutiny so too, he argued, should educational terms be refined:

“if obscurity surrounds such basic notions as “existence,” “truth,” and “confirmation,” notions crucially employed and continually refined in the exact sciences, it may surely be expected to hamper the understanding of key notions like “disposition,” “experience,” “skill,” “achievement,” “training,” “intelligence,” “character,” “choice,” “growth.”
(Scheffler, 1954, p. 228)

“Rigor” does not make Scheffler’s list but, as we shall see, much obscurity surrounds this term, which has increasingly become a central term in educational discourse. The absence of a consideration of “rigor” in Scheffler’s own work, given his stated project, is somewhat ironic since it is a term he himself uses to justify the value of his methods: “what I am urging generally is a recognition of the need, by a rigorous and thorough application of such methods, to clarify the meaning of our basic educational ideas, as of all ideas we hold important” (p. 230). We shall have cause to revisit Scheffler’s use of the term “rigor” later, but for present purposes it is enough to note his approach to the philosophy of education: the use of the tools of linguistic analysis to provide greater clarity to key educational terms. Essentially, this is the approach I will be taking in this chapter, seeking to dispel the fog of obscurity from the term “rigor” so that understanding is not hampered.

Types of Definition

One other aspect of Scheffler's work helps determine the philosophical method employed in this study. In *The Language of Education* (1978) Scheffler drew a series of distinctions between three types of definition - stipulative, descriptive and programmatic – which he then applies to problematic educational terms. By determining which role a given definition is playing within a particular discourse, he argues, we gain greater clarity regarding how that definition might be evaluated. Since his distinctions are valuable for the present analysis they are worth briefly sketching here.

Stipulative definitions are effectively a form of shorthand, when a given term is stipulated to have a certain meaning for the purpose of facilitating a given discourse: “A stipulative definition exhibits some term to be defined and gives notice that it is to be taken as equivalent to some other exhibited term or description, within a particular concept” (Scheffler, 1978, p. 12). Such definitions are generally indifferent to any prior usage of a given term – “they do not purport to reflect the predefinitional usage of the terms they define” (p. 15).

Descriptive definitions are different in that they *do* claim to reflect predefinitional usage. They try to describe what a given term means with reference to the history of use of that same term, and can be judged inadequate if they do not reflect that history effectively. In order to be judged successful, descriptive definitions must ensure that clear instances of a given term are encompassed by the definition, and that clear non-instances are not. There may be room, however, for multiple adequate descriptive definitions of a given term which adjudicate differently when unclear instances of a term are considered.

Finally, **programmatic** definitions seek to defend, expand or limit the scope of a definition's practical role in promoting a particular orientation toward a certain thing (p. 19). In effect such

definitions attempt to affect social practice by arguing that something should be included (or excluded) from the purview of a given term, when such inclusion or exclusion will have a practical effect (Scheffler gives the example of definitions of the term “curriculum” which seek to expand what is considered “curricular” in order to indicate a school’s sense of responsibility for the newly-encompassed practices). Programmatic definitions can seek to expand the purview of a term (including more things under its umbrella), to contract it (closing the umbrella a little), or to keep it exactly the same (I like my umbrella as it is, thank you!).

Though these distinctions may seem technical, they are highly useful for present purposes, since the different definitions of “rigor” offered by different thinkers and practitioners which I will analyze in the following section fall into one or more of these categories. By determining the nature of the definitions under analysis it is possible to evaluate them more effectively.

Criteria of Adequacy

Scheffler’s distinctions also help to determine my own goal as a philosopher in this instance: I wish to create a primarily *descriptive* definition of rigor which is capable of judging clear cases of rigor to be examples of rigor, which excludes clear cases of lack of rigor, and which has well-justified criteria for adjudicating unclear cases. I will not be satisfied if I simply stipulate that “for the purposes of discussion when I say rigor I mean X”. Rather, I am concerned with how the term has been used in the past, and how it is used now by other thinkers.

I should also note that my definition will be, to some degree, *programmatic*, in that I wish not only to define rigor but to defend it as a worthwhile educational value. Sensitivity to the programmatic element of my project is essential, because programmatic definitional claims frequently figure in debates surrounding rigor – the Derrida affair is an example in which an

attempt is being made to define rigor such that it excludes the work of a particular thinker, with the clear practical effect of preventing that thinker from gaining an honorary degree.

Scope

Finally, a word on the scope of my analysis. The term “rigor” has a wide variety of applications, not all of which are directly relevant to an educational context. For instance, it is used frequently in medical circles to describe the shaking which can occur during a fever, or the stiffness of a body after death (“rigor mortis”). The term “formal rigor” finds use in the arts, and can be used to describe films as well as formulae. Spirited discussions have been conducted as to what constitutes “formal rigor” in linguistics (Ludlow, 1992).

A short study such as this cannot hope to contend fully with all these definitions. I therefore propose to limit my scope primarily to educational uses of the term “rigor”, such as when it is promoted as a goal in a school curriculum or government program, with support from more general philosophical discussions of the term. I hope that the analysis I present will be of use in elucidating the fields mentioned above – indeed, my definition would hardly be adequate if it had no bearing on any of them – but I will be focusing most of my attention on educational uses of the term.

Existing Conceptions of Rigor

In this section of my chapter I will critically examine the existing literature on rigor in the educational sphere, enumerating both its strengths and weaknesses. One challenge with such an enterprise is that educational reports, curricula and research frequently appeal to multiple conceptions of “rigor” within a single document, making it difficult to untangle precisely what the term is supposed to mean. Therefore, I have identified several common uses of the term which recur frequently in the educational literature, and give examples which exemplify each.

Rigor as High Standards (Challenge, High Expectations and Examinations)

Perhaps the most pervasive understanding of “rigor” in recent educational thought is the idea that rigor means having high academic standards which are demonstrated through the presentation of challenging content and assessed through tough examinations. *A Nation at Risk* (NCEE, 1983)¹⁷ takes this tack, bemoaning the lack of “rigorous academic standards” and repeatedly suggesting that increased rigor is an antidote to the nation’s educational malaise.

Although rigor is not explicitly defined in the report, it is clear from the context that it is seen primarily as a quality relating to high levels of expectation and challenge. The report laments that American students are not working hard enough, and are succumbing to low educational expectations. We are told that “history is not kind to idlers”, and the “risk” which threatens the nation is related again and again to low standards of education: the weakness of the USA in international comparisons of test scores, lack of literacy skills, low achievement on standardized tests etc. All across the education system standards are low and expectations lower, and rigor is part of the answer:

¹⁷ Page numbers for citations from *A Nation at Risk* are not available as no source I have found provides them.

In some metropolitan areas basic literacy has become the goal rather than the starting point. In some colleges maintaining enrollments is of greater day-to-day concern than maintaining rigorous academic standards. And the ideal of academic excellence as the primary goal of schooling seems to be fading across the board in American education. (NCEE, 1983)

In the report's findings the authors review four "aspects of the educational process", and rigor is explicitly listed as a component of "expectations", rather than as a component of "content", "time", or "teaching". One of the ways high expectations are conveyed to students is "by the presence or absence of rigorous examinations requiring students to demonstrate their mastery of content and skill before receiving a diploma or a degree" (NCEE, 1983).

This emphasis on rigor as a component of "high expectations" is reinforced in the report's recommendations:

"We recommend that schools, colleges, and universities adopt more rigorous and measurable standards, and higher expectations, for academic performance and student conduct...Textbooks and other tools of learning and teaching should be upgraded and updated to assure more rigorous content...In considering textbooks for adoption, States and school districts should: (a) evaluate texts and other materials on their ability to present rigorous and challenging material clearly; and (b) require publishers to furnish evaluation data on the material's effectiveness." (NCEE, 1983)

For the National Commission on Excellence in Education, then, "rigor" is a quality of academic standards displayed through challenging work, high expectations of students and difficult examinations.

Blackburn and Williamson, too, offer a definition of rigor based on high expectations and challenge: “True rigor is creating an environment in which each student is expected to learn at high levels, each student is supported so he or she can learn at high levels, and each student demonstrates learning at high levels” (Blackburn and Williamson, 2008).

Problems with this Definition

This definition is problematic. First, and as I have discovered is common with calls for more rigor in the classroom, the *A Nation at Risk* report’s use of the term “rigor” is not at all clear: if material is to be “rigorous *and* challenging” then perhaps “challenging” and “rigorous” are not to be seen as synonymous, but no way is given of distinguishing one from the other. If the terms are meant to be interchangeable, then it is not clear what the term “rigor” adds to the description (except to add weight to the programmatic aspect of the definition by associating the desired educational reform with a value frequently held in high regard). When the report stresses that “In considering textbooks for adoption, States and school districts should...evaluate texts and other materials on their ability to present rigorous and challenging material clearly”, what work is the term “rigorous” really doing in the sentence?

Further, there is significant slippage in how the term is employed throughout the report: definitional drift occurs throughout *A Nation at Risk* to such an extent that “rigor” appears in no less than five different forms without ever receiving a clear definition, referring variously to examinations (in the section entitled “Findings Regarding Expectations”), standards (“The Learning Society), challenge (“Recommendation C: Time”), content (“Recommendation B: Standards and Expectations”), and effort (Recommendation A: Content”). If you wanted to discover what is meant by “rigorous content”, for example, you would be disappointed – this is never explained. And therefore, despite *A Nation at Risk*’s clear admiration for the term, the

report does not provide an adequate definition of it: neither necessary nor sufficient conditions for achieving “rigor” are presented.

Finally, the Blackburn and Williamson definition, equating rigor with high levels of expectation, learning, and demonstrated capability, seems clearly to be either of the “programmatic” or “stipulative” kind. They could be using their definition programmatically, to focus our attention on particular aspects of “rigor” which they feel merit deeper discussion. On the other hand, they could be interpreted as merely stipulating that the term “rigor” is simply to mean what they are *really* interested in: the high levels of achievement just described.

One consideration in support of a less generous interpretation is the fact that Blackburn and Williamson do little to *defend* their definition. Rather, they simply assert that “Only when you create a culture of high expectations and provide support so students can truly demonstrate understanding do you have a rigorous classroom” (p. 2). Why so? We are left in the dark. This does not help much to advancing our understanding of “rigor” as a separate concept to “high educational achievement”, leaving more descriptive work to be done.

Rigor as Preparation for the Future

Another conception, closely linked to the idea of “rigor as challenge”, associates rigor with the sort of academic work which serves to prepare students for their future, either in college or the workplace, or as a participant in civil society. This view of rigor is promoted by ACT, who define rigor as “the quality and intensity...of the high school curriculum”, in the hope that this will “improve the quality of core courses that really matter in preparing students for college and work” (ACT, 2007, p. 1). The link to preparation for a future career is made clear in the warning that “If we do not raise the rigor of core courses, U.S. students are in danger of entering the workforce unprepared for the challenges of competing in a technology-based global economy”

(p. 7). Thus, the “rigor” of a school is assessed by the percentage of students meeting the ACT College Readiness Benchmarks – if a high percentage of students meet the benchmarks, then the school is more rigorous in the eyes of the ACT, since those students are now better prepared for college and the workplace.

As with the conception of rigor as challenge and high expectations, however, the picture becomes fuzzier the more you read. Later in the report “rigorous schools” are defined as ones which “have recently shown greater-than-average increases in ACT Mathematics or Science Test scores, even though their overall performance on the ACT did not differ substantially from that of all ACT-tested high schools nationally” (p. 4). But what qualities such schools possess which *lead to* these “greater-than-average increases” are unspecified: the assumption seems to be that such schools are doing better than other comparable schools, and therefore they must be doing something special, and that something is referred to as “rigor” (an entirely stipulative definition).

Prof. David Perkins of the Harvard Graduate School of Education raises a question here, in response to an earlier draft of this chapter: whether it might not be fairer to interpret these as programmatic definitions, particularly since the authors do not formally stipulate something to the effect of “For our purposes, rigor means X”.

With many thanks to Prof. Perkins for his insightful critique, I want to maintain my position for the following reasons: the authors in question they don’t defend their definition anywhere in the text, and they don’t take into account pre-definitional usage of the term at all. They seem, in fact, to be merely using the word “rigor” as a label which they slap on those things they like most about schools – an implicit stipulation if not an explicit one.

By contrast, I would expect a programmatic definition to be more purposeful. The examples Scheffler gives of programmatic definitions are ones in which the authors consciously expand or contract the definition of a term to serve a particular discursive project: “What should happen if we redefine “Curriculum” to include this?” they seem to say. These authors are not so purposeful: “rigor” is used as a black box in which resides all manner of educational goods.

The National High School Alliance (NHSA, 2006), in *Increasing Academic Rigor in High Schools: Stakeholder Perspectives*, takes a similar approach. They warn that students increasingly “are not...equipped with the knowledge and skills they need to be successful in post-secondary education and work” (p.1). In response, they note that “leaders nationwide are advocating for increased academic rigor to ensure students are prepared for college, careers, and active civic participation” (p. 2).

Problems with this Definition

How convincing is the idea that “rigor” is essentially related to preparing students for college, the workplace, or civic life? I think not very. Some forms of employment do not obviously require “rigor”, and to prepare students for them may not involve promoting that value. And if “rigorous work” simply means “work which prepares you for college”, then once a student is performing well at college we would have to concede that they had achieved some level of rigor. But what if the college’s programs and classes themselves are not rigorous? This is a common complaint, and seems incompatible with the idea that rigor is simply that quality of instruction which prepares someone for college.

Ultimately, both the ACT and the NHSA seem to be offering stipulative definitions: “rigor” simply becomes a catch-all term that denotes “everything that prepares students well for post-secondary education, career and civic participation”. The NHSA is explicit on this point:

“the term “rigor” in the context of high school improvement can be used as shorthand for a set of ideas, principles and strategies that lead to a desired outcome—all students are well prepared for post-secondary education, career and civic participation.” (p. 5)

Such a definition will not serve as a descriptive definition of the sort we are seeking: it is far too broad, robbing the term “rigor” of any distinctive power, and it fails to meet the established criteria of adequacy. Things which would not normally be considered components of rigor are captured by it: you may be well-prepared for aspects of post-secondary education if you take a course in responsible drinking and safe sex, for example, but one would not automatically therefore consider such a course “rigorous”.

Rigor as a Type of Content

Some thinkers associate rigor with a particular type of curriculum content. One such definition, offered by Jago (2000), is that rigor is associated with reading classic texts in the literary canon, where “classic” is defined as those works which have enduring value across the ages. For Jago, only courses which include the required content can be considered “rigorous”, and she bemoans the fact that many students, never having the opportunity to study the “classics”, are missing out on a rigorous education. Rather, she believes there should be “rigor for all”, and that this will be achieved when classic texts are restored to the curriculum.

Problems with this Definition

Any definition which attempts to link rigor too closely with a particular curriculum content will run into a problem with pre-definitional usage of the term: rigor is, in common parlance, used to describe an extremely wide range of content, and Jago’s definition does nothing to explain that history of use.

Even if we are more generous and assume that her association of rigor with “the classics” is only meant to hold for the study of English Literature, this still seems to me an inadequate definition, since it is not clear that engagement with “the classics” is either sufficient or required to produce rigor. Certainly, engagement with “the classics” is no *guarantee* of rigor: a course on Shakespeare can be sloppily and shallowly taught, and lead to little understanding, and we cannot accept that such a class is “rigorous” merely because it includes Shakespeare. And neither is it clear that a failure to engage with “the classics” necessarily betokens a lack of rigor: it is possible to imagine, I think, an extremely rigorous classroom which uses for its material the articles in each morning’s newspaper, subjected to exacting scrutiny.

Further, if what is to be considered a “classic” is a work which has enduring value across the ages, then what will be considered rigorous in the classroom will change depending on the current assessment of the value of a given work. While this may not be a bar to a useful definition, given how wildly assessments of the “enduring value” of a work fluctuate, it seems unwise to base a definition on such fickle foundations.

Rigor as a Quality of People

Another way of approaching rigor is to ascribe it as a quality to people. Gessen (2009) takes this tack in *Perfect Rigor*, her biography of Russian mathematical genius Grigori Perelman which, though the biographer is an enthusiastic mathematician herself, focuses almost all its attention on the traits of the man rather than the mathematics. The traits she ascribes to Perelman are those shared by many mathematical geniuses – extraordinarily high scores in mathematical tests and competitions, a seemingly superhuman dedication to mathematics, and a startling facility with numbers – but more interesting for our purposes is Gessen’s general focus: when the title talks of

“Perfect Rigor” it seems clear she is referring to Perelman himself. And, indeed, it is common to speak of people as “rigorous” or not.

Problems with this Definition

The problems with this way of conceiving rigor become apparent when one moves away from fields such as mathematics. It’s not immediately obvious that it is meaningless to say “Monet was an extremely rigorous painter”, but it is much less obvious what one means by “rigorous” in the context of painting than it is to say “Perelman is a rigorous mathematician” (this probably has something to do with the close relationship mathematics has always had with rigor, as we shall see). Nor is it very clear that it really makes much sense to say that someone is a “rigorous person” outside the context of some pursuit or domain. While I am either brown-eyed or not, and while I might be courageous or not, I’m not certain that it makes sense simply to say that I am or am not “rigorous” and to leave it at that. And if that is the case, it is worth digging deeper to find out the relationship between an understanding of rigor as a set of personal characteristics and the contexts in which those characteristics might be displayed.

Alternatively, it is possible to interpret Gessen as simply suggesting that Perelman habitually produces rigorous proofs, or thinks in a rigorous way: we call him “rigorous” because he acts rigorously and creates rigorous products. Nonetheless, this leaves our problem unsolved: it merely kicks the definitional can down the road. We still have to decide what characterizes a rigorous product or practice – and so our quest continues.¹⁸

Rigor as Mindlessness

Some thinkers offer an extremely negative definition of rigor, leading them to reject it wholesale as an educational value. Kohn (2011) offers the harshest view. In a wide-ranging critique of

¹⁸ Many thanks to Dave Perkins for this point.

current educational practice entitled “Feel-Bad Education: The Cult of Rigor and the Loss of Joy”, he suggests that “schools are not places of joy” and that in schools today we seek to raise test scores, “not to promote thinking, much less the joy of discovery” (p. 147). Children are treated as workers rather than learners, and are unhappy (p. 147-148). The reason for these problems, he asserts, is that schools are “beholden...to a cult of rigor.” (p. 148).

What precisely he means by this is unclear: he offers no definition of “rigor”, and although it appears in the title of his essay, the word is only used once, in the above quote. He seems to associate it with “direct instruction of isolated skills” and “less opportunity for students to play an active role in their own learning” (p. 149), both aspects of current teaching practice he critiques, but he never explains why he chooses the word “rigor” to refer to such techniques.

Kohn is most useful in his criticism of the “cult of rigor” when he deplores what he calls the “Listerine theory of education”. Recalling an advertisement which once promoted a mouthwash by suggesting that “if it tasted vile, it obviously had to work well” (p. 149), Kohn suggests that current standards-driven educational models are motivated by a principle of “Self-denial...and redemption through suffering” (p. 150).

Wraga (2011) also paints a thoroughly negative picture of rigor, noting that dictionary definitions of the term frequently include synonyms like “severe”, “strict”, “sharp”, rigid”, “harsh”, “inflexible”, “stringent” and “uncompromising” (p. 60), and noting, as I have done above, that the term is frequently poorly-defined. He recommends we jettison “academic rigor” in favor of “educational vigor” – a phrase he feels is much more positive.

Problems with this Definition

Clearly Kohn’s extremely negative view is not a conception of rigor I wish to defend. Luckily, there doesn’t seem much analytical weight behind his characterization. First, as has already been

noted, Kohn is in good company when he fails to define precisely what “rigor” is before damning it, and it seems open to the defender of rigor simply to deny that Kohn’s negative conception is what she has in mind.

Second, Kohn assumes too much when he lumps together a lack of joy in the classroom, a focus on high-stakes standardized testing, pedagogies which prioritize direct instruction and self-denial all under the heading “rigor”. Rigor was a highly thought-of quality long before standardized testing of the sort now employed by US schools existed (which makes the link between the two tenuous at best), and it doesn’t seem to me absurd to suggest that students might develop rigorous ways of thinking and working in a classroom environment in which they are very active and even joyful. As with some other definitions explored above, it seems that Kohn is using “rigor” in a stipulative manner: as shorthand for everything he dislikes about education.

Wraga raises more cogent points, and provides one of the few examples of a descriptive definition of rigor I have been able to find but, I think, his recommendation to abandon the term is premature (more on this below).

Kohn and Wraga’s analyses are useful, though, in that they prove cautionary. The idea that rigor is harsh, uncompromising, and might involve a sort of “redemptive suffering” is not without precedent. As Strong and Silver (2001) note, “A certain severity surrounds the concept of rigor” (p. 5), and this sense of severity may come from the understanding that certain sacrifices are required on the part of a student to attain it. If a descriptive definition of rigor can be crafted which explains both the esteem in which it is held by its champions *and* the calumny in which it is despised by its detractors, such a definition would have a strong claim to adequacy.

Rigor as Quality of Thought

A final category of definition suggests that rigor is a particular sort or quality of thinking.

Boggess (2007) provides one example of such a definition, arguing that it “is the quality of thinking, not the quantity that defines academic rigor” (p. 62). His definition is worth quoting at length, because there is much of value:

One definition of rigor is “difficulty,” but just because something is difficult does not mean that it meets the test of reflective thought. It is possible to present students with questions that are difficult but require only simple recall answers. Likewise, merely adding to the length of assignments may make them more difficult, but this is not what is expected in rigor. Academic rigor is learning in which students demonstrate an in-depth mastery of challenging concepts through thought, analysis, problem solving, evaluation or creativity. (Boggess, 2007, p. 62)

This short paragraph is, surprisingly, one of the best sustained attempts at a definition of “rigor” I have uncovered. Boggess rejects, as we have done, ideas of rigor which relate only to the amount or difficulty of the work given to students. Rather, he sees rigor as a particular “quality of thinking” where students “demonstrate an in-depth mastery of challenging concepts” – a definition which isn’t as obviously problematic as those which have come before.

Another valuable attempt in this vein is Washor and Mojkowski (2006/2007). They, too, reject the notion that rigor means simply “more work”, instead arguing that

“Truly rigorous learning – both academic and nonacademic – involves deep immersion in a subject over time, with learners using sophisticated texts, tools, and language in real-world settings and often working with expert practitioners who serve as mentors. In such settings, students – like academicians and clinicians who are rigorous about their work –

encounter complex, messy problems for which tools and solutions may not be readily apparent or available. Their work is open to peer and public scrutiny.” (p. 85)

A number of valuable ideas are introduced with this definition: rigor can be found in non-academic pursuits; there is some relationship with expertise and how experts practice their subject or profession; characteristics of the sort of problem space in which rigor might be required are articulated; and community criteria for judging the quality of thinking is alluded to.

Finally, Strong, Silver and Perini (2001) offer another definition of this sort, suggesting that “Rigor is the goal of helping students develop the capacity to understand content that is *complex, provocative, and personally or emotionally challenging*.” (p. 7, emphasis original).

Problems with this Definition

These definitions have clear benefits over the others, in that they make an attempt to distinguish rigorous thinking from other forms of thinking, even giving examples of what they have in mind. They establish a framework for understanding rigor which goes beyond the academy – a key component of any adequate definition of a term whose history of use includes much application in non-academic contexts.

But, still, a certain fog surrounds rigor. For instance: Washor and Mojkowski (2006/2007), giving an example of non-academic rigor, suggest “we see rigor in the work of a New York City restaurateur who, while balancing the restaurant's accounts and managing his staff, still finds time to catch some of the fish his restaurant serves” (p. 85). While I certainly applaud the restaurateur, and look forward to dining at his establishment, it is not clear to me that he is really displaying the qualities which leap to mind when we say “He is a *rigorous* person” (or even “He is a rigorous restaurateur”) simply because he makes time to trawl a net in between balancing the

books. And if he *is* displaying such qualities, then Washor and Majkowski do not tell us precisely what they are: would it be rigorous, for instance, for the restaurateur to do the accounts, manage the staff, and catch fish *badly*? Would it be less rigorous were he to focus on fewer aspects of restaurant management, but do them better?

Aspects of Strong, Silver and Perini's (2001) definition are equally problematic: what precisely does it mean to say that "Rigor is the goal of helping students develop the capacity to understand content that is complex, provocative, and personally or emotionally challenging"? Rigor is the "goal"? Does this mean it is to be found in the helping, in the content, in the capacity to understand the content, or in the development of the capacity to understand the content? Greater clarity would be welcomed, because the meaning and utility of the term depends upon distinctions such as these.

Generally, though, I believe these thinkers are on the right track. As I hope to demonstrate below, conceiving of rigor as a quality of thought (or, in my more expansive definition, a quality of practice) has many benefits over the other approaches explored in this section.

Have We Found Rigor?

These many different definitions demonstrate the depth of the conceptual confusion that surrounds the concept of "rigor". First, there are simple disagreements over what the term means. Second, there are disagreements over the value we should place on the term – whether we should court it or despise it. Third, rigor is located in many different places: some see it as a quality of work and of schools, others as a property of particular content or people, yet others as an examination procedure.

Another difficulty with many of these definitions is that they simply use "rigor" as a handy way to encapsulate the entirety of an organization or individual's educational agenda. When ACT

associates rigor with college-preparedness, the NHSA with those qualities in high schools they seek to promote, Jago with her beloved classics, and Kohn with the high-stakes standardized testing he deplors, it is hard to escape the conclusion that “rigor” is simply being used as a label to describe a concept they already have in mind. It comes to mean “whatever I like about education” or “whatever I hate about education”, and ceases to be a term with its own specific qualities. In Scheffler’s terms, many of the definitions offered are, at root, stipulative, and make little effort to engage with the term’s history of use, or to defend a conception for the term which will prove philosophically useful.

In this sense I agree with Wraga (2011), who argues that, ironically, “the term rigorous academic curriculum is not an academically rigorous term” (p. 63). However, despite the difficulties faced by those wishing to pin rigor down, I do not agree with Wraga that it is wise to simply discard the word. It has a long history of use in educational and academic contexts, and is widely held to be of high educational and intellectual value. There are very few thinkers who would happily declare themselves to be lacking in rigor, and I think this points toward the necessity of offering a clearer, more carefully-justified characterization of the term. It is to this effort which I now turn.

Defining Rigor

Having determined that none of the definitions offered thus far are quite adequate to provide a sufficient definition of “rigor”, the task now is to construct one. However, before we begin, it is worth taking at least something from the definitions just analyzed: Boggess (2007) and Washor & Majkowski (2006/2007) suggest we consider rigor primarily as a form of thinking, and I think this contains insight. I wish to build upon this insight by suggesting that rigor is best considered a quality of *practice* – a way of doing things (more on what “a practice” is below).

Why? First, because with this understanding we can make sense of how the term “rigor” is so frequently applied to different things. If rigor is a quality of practice, then we can meaningfully speak of rigorous pedagogy (pedagogy which promotes rigorous performance of a practice, or itself a rigorous performance of teaching); we can talk of rigorous content (content which was produced through rigorous practice, is exemplary of it or, in conjunction with rigorous pedagogy, might promote it); rigor as preparation for the future (students must be prepared for academic pursuits, professions, or civic roles which require rigorous practice); and rigor as a quality of people (people who characteristically engage in rigorous practice).

Second, and relatedly, such a definition will allow us to use the term “rigor” in a wide variety of domains, including but not limited to academic and professional pursuits. This matches how the term is frequently used in everyday speech, and enables us to recognize that what is rigorous in one domain may not be what is rigorous in another. Rigor, I argue, is contextual: what it means to act rigorously depends upon the practice one is engaged in at a particular time. It becomes meaningless to ask, simply, “Was that process rigorously performed?” Rather, one must ask “Was that process rigorously performed given the area of practice in which the individual was engaged?”

Third, by defining rigor in this way we can recognize that it is a scalar property: someone can perform a task in a more or less rigorous way, and we need not be hemmed-into saying that their performance either is rigorous or not. Indeed, we will be able to separate out aspects of the performance of a practice which are rigorous, and other aspects which are not: this seems to me a useful trait in a definition, since it enables us to make finer distinctions.

In this sense rigor, I argue, is rather like “efficiency”. We can speak of people being efficient, of efficient content, efficient pedagogy etc. and, at root, we understand efficiency as a quality

attached to a particular way of doing things, which can apply in many different domains and may apply differently in different domains.

What is a “Practice”?

We have already made some progress, I think, but before moving on I must address a critical point: I have referred above repeatedly to “practice” and “areas of practice”, arguing that to be rigorous is to engage in a practice in a particular way. But when I say a “form of practice”, what do I mean? Here, Rawls is helpful¹⁹. In *Two Concepts of Rules* (1955) Rawls, in the process of demonstrating a distinction between “justifying a practice and justifying a particular action falling under [said practice]”, describes what he calls the “practice conception of rules”:

“On this view rules are pictured as defining a practice. Practices are set up for various reasons, but one of them is that in many areas of conduct each person's deciding what to do on utilitarian grounds case by case leads to confusion, and that the attempt to coordinate behavior by trying to foresee how others will act is bound to fail. As an alternative one realizes that what is required is the establishment of a practice, the specification of a new form of activity... in a practice there are rules setting up offices, specifying certain forms of action appropriate to various offices, establishing penalties for the breach of rules, and so on. We may think of the rules of a practice as defining offices, moves, and offenses.” (p. 24)

While Rawls is concerned with questions of ethics in his paper, his “practice conception of rules”, and his definition of “practices” as established, specified, rule-governed processes to

¹⁹ Many thanks to Prof. Kate Elgin for pointing me toward *Two Concepts of Rules*, which greatly elucidated my thinking on this topic.

regulate conduct, is extremely valuable in this case, too – for it is these sorts of “practices” which I suggest can be more or less rigorously performed.

It is clear that the areas to which the term “rigor” is most frequently applied – at least in the educational and scholarly context under discussion here – are “practices” of this sort. To study the beloved classics of Jago or to erect Keyser’s “divine architecture” of mathematics is to engage in a rule-governed practice with offices, acceptable moves, and “penalties” for the breach of rules etc. It is clear too that these practices can be performed better or worse along a number of axes – faster, more accurately, more comprehensively etc. – and my argument is that to be more or less “rigorous” in a given pursuit is to perform a practice more or less well in certain specific ways.

What ways? What distinguishes rigor as a way of doing things in contrast to other ways of doing things? Since, per Scheffler, any adequate descriptive definition of the sort we seek will need to unequivocally encompass clear examples of rigor, it makes sense to begin with some examples.

Below I offer three examples of practices which are described as “rigorous” in different domains: the training undergone by sushi chefs, a proposed new training for those wishing to carry concealed handguns, and the conduct of mathematics. I submit that if common features can be extracted from these examples, each from a different area of life (the culinary arts, the proper use of dangerous technology, and an academic subject), then we may find a good starting-point for a definition of rigor.

Raw Fish with Rigor

“700 chefs undergo rigorous training to reach the top of their craft” – Genji, 2012

Although it may sound surprising, sushi chefs are often described as “rigorous”. South (2008) documents their “rigorous training”, sushichefschool.net speaks of training programs which

provide “a rigorous introduction in the exquisite art of sliced fish” (Sushi Chef School, 2012), while Genji, llc. (“a premier provider of all-natural sushi and Japanese cuisine”) assures potential customers that their “700 chefs undergo rigorous training to reach the top of their craft” (Genji, 2012). But what is it that sushi chefs are being trained to do which might be described as rigorous?

Lowry (2005, p. 253-255) gives the clearest answer. He describes the long apprenticeship that all sushi chefs are expected to complete before they are even allowed to stand beside their master at the cutting board (South, 2008, suggests five years as a normal length of apprenticeship). During this time the apprentice learns how to select fish at market, how to prepare the restaurant to ensure a clean environment (essential when dealing with raw fish), and how to brew the tea offered to diners.

The next stage is to learn how to prepare the rice, a practice which can vary from restaurant to restaurant, each having a different recipe. At this stage the young apprentice may also be allowed to remove the parts of the fish which will not be served, such as fins, gills, and skin.

Once the master is satisfied with the consistent quality of the apprentice’s rice, they will be promoted to a yet more prominent position next to the cutting board. They will assist with the preparation of actual sushi, but most likely will not be considered capable of crafting it without direct supervision, and his products are considered part of the training process. If the apprentice satisfies at this level, *then* they are ready to become a fully-fledged “itamae”. Now they are prepared for the exquisitely-detailed process of sushi preparation: the cutting of the fish, the composition and construction of each piece, the presentation of the sushi on the plate.

This process, I think, is what writers are referring to when they describe the training of traditional sushi chefs as “rigorous”: it is part of a preparation for the final rigorous practice of sushi-making. And, indeed, this is the sort of training that is described by Genji (2012), South (2008) and the Sushi Chef School (2012). Anyone who goes through such training, they suggest, will be able to make sushi with rigor.

The Rigor of the Gun

“From firearms training to intelligence gathering, be prepared for a rigorous program”- Criminal Justice School Info

Although the domains may seem radically different, firearms training, too, is frequently described as “rigorous”. Those wishing to apply for FBI Special Agent training are warned “From firearms training to intelligence gathering, be prepared for a rigorous program” (Criminal Justice School Info, 2012), while prospective postal workers are offered “Rigorous firearms training provides beginning through advanced students with the skills needed to handle firearms safely and develop shooting proficiency” (United States Postal Inspection Service, 2012).

Behm (2012), describing a recent proposal to require members of the public carrying concealed weapons to take “the most rigorous training available”, outlines what such training might look like: practicing firing a gun in different contexts, including at day and night and in different weather conditions; facing off with instructors, “firing high-speed paintball shells at each other”; training through simulated situations to gain familiarity with possible contexts in which firearms might be used; and learning how their physiology will change when drawing a gun in a real situation (more rapid, less controlled breathing; higher blood pressure; tunnel vision; loss of contextual awareness).

Further, law enforcement professionals who carry firearms (who *have* received “rigorous” training) are drilled in and required to follow a series of steps before firing (the “use-of-force continuum”), which are designed to avoid the use of deadly force:

Step one is identifying yourself as an officer, followed by nonthreatening commands such as requesting to see identification. Then the volume of commands increases, shouting out "Stop" or "Get down on the ground." In the continuum, this can be followed by physical force to gain control: grabbing and holding a suspect, or blocks and punches to restrain the person. Next is the use of a baton or Taser to immobilize a combative person, or pepper spray to restrain the suspect. If an officer decides that nothing else can be done to gain control of the situation and stop the threat, then lethal force is justified, according to this universally taught continuum.

It is clear throughout the article that the professionals Behm interviews consider these to be the central components of the rigorous training they think should be required of all carriers of concealed weapons. Successful trainees will be able to practice the rigor of the gun.

Algorithms – The Perfect Rigor of Mathematics

“To challenge the worth of rigorous thinking, is to challenge the worth of all thinking” – Keyser, 1925

Perhaps the least surprising of my three examples is the practice of mathematics, which is seen by some philosophers as the exemplary embodiment of rigor. Poincaré (1953) opens his *Science and Hypothesis* by asking “from whence is derived that perfect rigour which is challenged by none?”, and the image of mathematics as a “perfectly rigorous” system has been discussed by philosophers for centuries (see, for instance, Kitcher, 1981, for a clear investigation of the question of rigor in mathematics). A full examination of the use of the term “rigor” in mathematics is beyond the scope of the current enterprise, but for our present purpose – finding a

defensible descriptive definition of rigor which will serve for use in educational settings – it makes sense to consider one example of how rigor is perceived within mathematics.

Keyser's (1925) essay *The Human Worth of Rigorous Thinking* outlines his vision of rigor as the essential quality and the ultimate goal of mathematics. Making a distinction between mathematics as an enterprise and as a body of achievements (a distinction that recalls my choice to see rigor as a quality of practice, rather than as an outcome of a practice), Keyser states:

“As an enterprise mathematics is characterized by its aim, and its aim is to think rigorously whatever is rigorously thinkable or whatever may become rigorously thinkable in course of upward striving and refining evolution of ideas.” (p. 3)

Rigorous thinking is variously described as “perfect thought” and a “spiritual enterprise”, the goal of which is the “attainment of logical perfection” (p. 3-4). In a delightfully ebullient passage Keyser declares that most of the world's thinking is not rigorous:

“most of the ideas with which men and women have constantly to deal are as yet too nebulous and vague, too little advanced in the course of their evolution, to be available for concatenative thinking and rigorous discourse...most of the thinking done in the world on a given day, whether done by men in the street or by farmers or factory-hands or administrators or historians or physicians or lawyers or jurists or statesmen or philosophers or men of letters or students of natural science or even mathematicians (when not strictly employed in their own subject), comes far short of the demands and standards of rigorous thinking.” (p. 6)

Later in the text he elaborates on the “demands and standards of rigorous thinking”, describing “simplicity and clearness”, “compatibility and independence”, a “step by step” approach to the

construction of proofs (he calls this “a kind of divine masonry” – p. 7). He then continues by outlining his view that concepts in other fields can be “mathematized” in order “to fit them finally for...the austerities of rigorous thinking” (p. 12). Indeed, he views the whole intellectual history of humankind leading to increased mathematization of concepts, increasing their clarity and logical form.

Thus, for Keyser, non-mathematical thinking can never be fully “rigorous” – it lacks the precision, clarity and systematicity that pure mathematics provides. It is these qualities which give mathematics, for Keyser, its perfect rigor.

Evaluating the Examples

There are clear differences between the three forms of rigor we have explored in my examples.

For instance, the narrow definition of rigor offered by Keyser would not encompass either of the other two cases: I cannot imagine that sushi preparation would meet the almost religious “demands and standards of rigorous thinking” he outlines, even if the training does take five years or more. Nonetheless, all these instances have telling similarities which point the way toward the sort of descriptive definition I have set out to provide:

1. They all establish a set of rules by which some process should be performed. In other words, in describing how a particular process should be carried out, they create a set of criteria for rule-governed action within a particular sphere of life – in Rawls’ term, a “practice”. The sushi-chef must abide by a set of rules in order to create sushi²⁰, the individual who wishes to carry a concealed firearm also must abide by a set of rules to

²⁰ This might seem an odd claim at first blush: the “rules” a sushi chef is to follow might not be easily amenable to codification as a set of verbal instructions. Nonetheless there is clearly a set of stringent adequacy criteria which determine quite closely how each stage of the process is to be performed, and these criteria are far stricter than in many other forms of cooking. I think it fair to consider these criteria “rules” which govern the “practice” of sushi making. Thanks to Prof. Dave Perkins for requesting clarification on this point.

ensure safe usage, and the mathematician must follow the rules of mathematical proof-making if they are to be successful.

2. The rules are designed to achieve a desired goal: in other words, the practices are goal-oriented. The end of the practice of sushi-making is to make good sushi; the end of the practice of mathematics is to construct solid proofs.
3. They require that the person engaged in the practice be able to apply the rules, and imply penalties if the rules are breached. The sushi chef must be able to actually make the sushi, and if they are not able to demonstrate their capability in performing each section of the practice they will not progress in their career: an intellectual understanding of the process, without the ability to carry out the process, is not sufficient.

A hazy picture of rigor now emerges: for someone to be acting rigorously they must be working according to a set rules which serve to establish a “practice”, a set of rules which are designed to aid completion of a given task or the performance of a social role. The participants must, to act rigorously, be capable of fulfilling any requirements placed upon them by those rules. An examination of each of these criteria now follows.

Rigor is Rule-Governed

This is perhaps the clearest necessary condition for someone to be acting rigorously: an actor must be acting according to a set of rules. They must be engaging in a Rawlsian “practice”. In all three examples above the training programs and practices described revolve around the learner coming to appreciate a set of standards and guidelines which regulate their behavior in a particular domain.

For instance, those undergoing “rigorous” training before being allowed to carry a concealed firearm are expected to know and follow the “use-of-force continuum”: identify yourself; make

non-threatening demands; make more forceful demands etc. A trainee who went through the program and then did not regulate their behavior in this way – did not follow the rules they had been given – would not be acting rigorously as regards the use of a concealed weapon. Likewise, with the example of mathematics, someone who did not follow the painstaking process of building a mathematical proof step-by-step, and who skipped essential steps of the argument or made logical errors when linking one step to another, would not be acting rigorously when it comes to mathematics.

Two possible objections arise here: that an individual might encounter a situation in which they feel they are justified in acting differently to how the rules state – a legitimate exception; or that an individual may develop a new process – a new rule or set of rules – which nonetheless achieves the purpose of a given practice²¹. We might imagine a situation in which the owner of a firearm decides to lower their gun instead of escalate a conflict by following all the steps leading to the use of deadly force, or the development of a novel mathematical operation. In either of these cases it would seem churlish to criticize the individual for not being “rigorous”.

Here, again, Rawls’ conception of the “rules of practices” is extremely helpful, because it draws our attention to the fact that practices are established for a *purpose* and may well admit of both exceptions from and changes to the rules if it would better achieve their purpose. Once this is understood these objections disappear: the “exceptions” are instead seen as “a qualification or a further specification of the rule” (Rawls, 1955, p. 27), and the development of novel procedures which nonetheless achieve the purpose of a practice are to be celebrated from the perspective of the practice itself. Lowering one’s weapon if it avoids the use of deadly force, or developing a

²¹ Thanks to Prof. Kate Elgin for raising these objections.

new mathematical “rule” which enables you to solve a previously intractable problem, shows a broader understanding of the purpose of the practice one is engaged in – and I will later argue that this is a component of rigor properly understood.

Rigor is Goal-Oriented

Stepping away from these objections, it is clear, too, that it would mean very little to say someone was acting “rigorously” if they were in fact acting in an arbitrary manner, without reference to any goal at all. If they were simply following one action with another in random sequence to no particular purpose this would not be rigorous – indeed, it seems like the antithesis of rigor – and this, I submit, is because randomness is the absence of any and every rule and goal which might govern behavior.

We can only say that a sushi chef is acting rigorously or not in relation to the goals of the practice – to make great sushi – and we can only meaningfully assess the rigor of a mathematical proof in light of the purposes of the practice of mathematics.

This does *not* mean that individual rules which make up a practice might not seem have an arbitrary character from the perspective of an individual engaged in the practice, but simply that, viewed from the perspective of the purpose of the practice *as a whole* the rule will have its place in promoting that purpose. If it is judged that a given rule truly plays no valuable role in the practice, perhaps even retarding the purpose of the practice, then it may need to be revised or removed (more on this later). But it seems difficult to imagine a process that is both goal-less and rigorous.

Rigor is Competent

Finally, that you are engaged in a practice which is rule-governed and goal-oriented is not, alone, enough to make your behavior rigorous – particularly in educational settings. For instance, you

can engage in a clearly-defined practice and break many of the rules through incompetence. Therefore, it is clearly necessary that for rigor to be achieved requires more than a simple knowledge of the rules of a particular enterprise: the practitioner has to actually be able to apply the rules. It is no good if the mathematician can rattle-off the logical rules governing successful mathematical investigations if, when they come to writing their proof, they cannot actually apply those rules. And the sushi chef who can describe the rice-making process but not actually perform it is no use to a hungry customer. Calling them a rigorous chef because they can tell you how one *might in principle* make sushi seems perverse.

This is not to say that to be rigorous is the *only* goal which is educationally desirable. Competence does not imply excellence, and there are many ways in which, in any area of practice, one might ascend beyond the “rigorous”. A chef might be rigorous but uninspired, lacking the creativity necessary to invent something new. They may be competent (and therefore meeting the minimal definition of “rigorous”) but not *expert*, capable of complying with the basic requirements of a set of rules but nothing more.²²

One can see the necessity of these three criteria for rigorous behavior by considering the difference between “running around” and “playing tag”. It seems nonsensical to say that a child can “run around” rigorously, but quite reasonable to say they can “play tag” rigorously. This is because, I submit, “playing tag” is a “practice” with rules, goals, and a basic level of competency required. We can ask “Does the child know the rules of tag?”, “Does the child know the goal of tag?” and “Are they capable of abiding by the rules of tag?” – and only if we answer “yes” to all three questions can we meaningfully say the child is acting “rigorously”.

²² What more might there be? There is much to be said on this matter, but it is beyond the scope of this chapter, which is limited to exploring the term “rigor”.

Further Considerations

These three criteria seem to me to be necessary components of rigor. But are they sufficient? Are there yet situations in which an individual could perform a task in accordance with these criteria and *still* fairly be said to not to be acting rigorously? I think so. Consider the following cases.

Mangling Mathematics – the Why of the Rules

Imagine a student studying mathematics whose teacher translates every mathematical idea into a set of procedures to be memorized – a rule-set to solve every mathematical problem on the curriculum. The student industriously memorizes each of the procedures and is able to perform them flawlessly, consistently churning out the correct result. However, the teacher neglects to teach the student what the procedures actually *mean*. The processes which the student is engaged in are *mere* processes, a system of algorithms for turning one set of numbers into another.

The student's behavior is rule-governed, goal-oriented, and the student can perform the necessary steps. But something seems amiss if we were to describe the students as a “rigorous student of mathematics” or on their way to becoming a “rigorous mathematician”. Perhaps, if one were inclined to be generous, one could call them a “rigorous taker of mathematics examinations”, but this seems to miss the point. Certainly from an educational standpoint something is amiss: the outcome just described would not satisfy those calling for more rigor in schools.

What I think is missing here is a further requirement: the individual in question must understand the *purpose and workings* of the rules they are following. It is not enough for them to know what the rules are – if they are to be considered rigorous they must also know, at least to some degree, *why* the rules are what they are. A sushi chef who mechanistically follows a set of procedures

which creates fantastic sushi every time (or, indeed, a machine which does so) may well be a fantastic sushi chef, but would not, I think, rightly be considered a *rigorous* one²³.

Why is this the case? First – and here is one of the critical links between rigor and autonomy – without an understanding of the purpose of the rules one is following, one is acting without real autonomy and, as I have argued, control over our own minds is central to human freedom, when freedom is understood in terms of capabilities (see also Scheffler, 1973). When educators call for more rigor in school classrooms they are not hoping that students be trained to become automatons capable of following formulae without a proper understanding of the processes they are engaged with, and thus to accept a definition of rigor which allows for such an understanding does not do justice to the pre-definitional usage of the term.

Second, because we ideally do not wish the performance of rules to become merely routine, which is a danger when an individual does not understand *why* the rules are as they are. When a performance is *merely* routine individual judgment in difficult cases can be more challenging, and it is clear that individual judgment is an important component of all of the exemplary practices described above.

One might object that it is highly desirable for some aspects of a practice to become automatic and therefore “unthinking”, since when certain aspects of a practice are automatized the mind is freed to concentrate on other things – and indeed this might be so. However, it is surely preferable for a student to understand the purpose of a given rule *at some point*, even if in the

²³ An intriguing objection might be raised here: suppose the math student is to say “I *do* understand why the rules are why they are – they are designed to help me do well in my mathematics examination!” Are they then rigorous? I think not, still, because the purpose of the *examination* is to evaluate their strength in mathematics, not to stand as an end in itself. This way of thinking of the problem might shed light on the frequently-bemoaned phenomenon of “teaching to the test”: students, in being encouraged to spend huge amounts of time practicing for tests, come to misunderstand or fail to even perceive the broader purpose of the practices in which they are engaged, which is non-ideal.

future they go on to automatize it. There is a distinction between a practice becoming automatized after long experience and a series of mechanical steps which can be automatically performed even though their purpose and workings are not understood.

Gaining such an understanding of the rules of a given practice will stand a student in better stead if, at any point, the rules need to be revised, and may even enable them to be more creative: understanding why a rule is part of a practice, and how each step actually moves toward the goal of a practice, might help judge whether it is truly necessary in its current form.

This is because the rules governing a process do not exist independently of each other, but are in fact part of an interconnected framework guiding action toward a particular goal, and someone who does not know the whys of the rules will be unable to make modifications to their process if it becomes necessary (more on this in the next section). The individual who is unaware of the “whys” behind a practice risks becoming governed by individual rules in isolation rather than by the practice as a whole, and therefore could miss chances to further the goal toward which the practice is oriented.

Rules, therefore, should ideally be *reflectively endorsed* by a practitioner if the practitioner is to be considered rigorous. They must understand, on reflection, why the rules are there, and believe them adequate to achieve their goals. In this I follow Sosa, who defines “reflective knowledge” as follows:

One has *reflective knowledge* if one’s judgment or belief manifests...understanding of its place in a wider whole that includes one’s belief and knowledge of it and how it came about. (Sosa, 1985, p. 242)

I agree, too, with Elgin when she states that a subject will be unfree if she acts “on the basis of beliefs that she cannot on reflection endorse, for beliefs and desires...jointly underwrite action” (2010, p. 317). Reflective endorsement of the rules of a practice is valuable both because it promotes autonomy and enables understanding of the “wider whole” of which any given rule of a practice is a part.

And if, on reflection, a subject finds the rules of a practice *inadequate*, they must know how to change them. This is where we now turn.

Changing the Rules

There will be occasions in any practice when the rules of the game must change, often due to a change in circumstances. A new rule may be required, one might be safely removed, or some might have to be modified. Consider, for instance, a new species of fish is discovered which has, being wholly new to humankind, never before been used in sushi. There will be no rule to govern the use of such a fish. But the truly rigorous sushi chef will not just throw up her hands. We do not expect rigorous practitioners of an art, craft, profession or discipline to be stymied in this way. Rather, they will be able to extrapolate from the rules that they do know and understand to generate something new: cut it in this way, combine it with that ingredient, present it like so, etc.

Likewise, if human beings were to evolve such that their vision at night is precisely the same as their vision during the day, then it might be prudent to drop from the governing set of rules the stipulation that individuals who wish to carry firearms should practice at night and daytime – the rule will become redundant (thus reducing the rigor of the practice – see below).

And if, as sometimes occurs, a new method of pursuing mathematics is created which proves to be more effective than previous methods, or a proof is constructed which demonstrates the inadequacy of previous methods, then the rules of the game must change if they are to continue

to provide a solid process for reaching the desired goal. It would *not* be rigorous for a mathematician to continue to use naïve set theory after Russell has unleashed his paradox.

To rigorously perform some action means to be rule-governed, certainly (and therefore rigid and inflexible to a point), but not to be bound by the rules so strongly that they are never open to question when situations change. Indeed, in a sense, this criterion is merely an extension of the “tight rule-set” criterion: circumstances may change such that your rule-set ceases to be as tight as it once was. Perhaps we can express this criterion by saying a rule-set must be tight but not completely constraining – it must have some give.

Rigor’s Duty of Submission

“Surrender to the truth as quickly as you can.” – Eliezer Yudkowsky, 2006

To appreciate one final component of “rigor”, consider the following vignette:

A respected scientist responsible for groundbreaking research in their field has been developing a given theory for much of their professional career, enthusiastically promoting it and considering it superior to its rivals. At a conference presentation by a colleague, however, evidence is presented that proves beyond doubt that their theory is false: it simply cannot account for the new data. Despite the scientific community’s judgment that the new data is sound, and that the scientist’s theory has been discredited, the scientist refuses to accept the situation and continues to make ever less-convincing attempts to prove their theory.

Initially, such a scientist might be justified in rejecting the evidence presented: they might believe the experiment through which it was evinced to be flawed, or the interpretation of the data to be incorrect. They may make continued efforts, within the framework of their discipline

(the area of practice in which they are engaged) to refine their instruments, design different experiments, or alter their theory in order to justify their position.

But after a certain point the scientist's unwillingness to accept the increasing weight of data which speaks against them is a sign that such a scientist is lacking in rigor – indeed, the scientist's failing seems to me an archetypal case of lack of rigor²⁴. But even given the expanded criteria I have so far outlined it is not quite clear why: the scientist is acting within a set of rules which they understand and endorse; the rules are well-designed to meet the desired outcome; they can apply them (they have been successful in the past, after all); they know that the rules sometimes change, because they have been part of the process of changing them. What, then, is the scientist's crime?

An unwillingness to submit. It is not enough, I argue, simply to know how to apply the rules of a practice and yet to apply them selectively, following the rules only when it benefits you. Rather, if you have endorsed the rules for good reasons, and have no solid grounds for altering them, you have a duty to see them through to their conclusion, however unpalatable the outcome. This, in a sense, represents a negative capability on the part of the practitioner: they must be willing not to break the rules. And if you *fail* to do this – if you choose not to follow the rules even though you are otherwise able – you have committed the cardinal sin against rules of rigor: you have *cheated*. You cannot change the rules simply because the referee rules against you.

²⁴ A careful reader will here surely ask the question “after *what* point?” This is a challenging query, because it seems that the answer will be case-specific and somewhat subject to individual judgment, may differ from discipline to discipline, and with the state of scientific knowledge in the area. The question is, essentially, “At what point must a researcher dedicated to a particular view accept that the view has been discredited?”, and I have no simple answer. I believe, however, that my general characterization of the problem illumines an important property of “rigor” even if a clear response to this question is not here provided.

An essential component of rigor, in the sciences particularly, is accepting this final fact. You may well make brilliant guesses. You may well construct gorgeous theories. You may well conduct experiments with great precision and care. But if you cannot accept that what you wish to believe is wrong when presented with incompatible evidence, you are not rigorous.

Fundamentally, I believe this to be due to the fact that a scientist in this situation is putting their own aims above the aims of the practice in which they are engaged. To be rigorous you must not only know how to apply the rules but you must also be willing to submit to them in pursuit of the goal toward which the practice aims. Science does not exist to gratify your ego but to further understanding, and no rigorous scientist would put themselves above their discipline.

Rigor: A Definition

Now I think we have crafted a defensible definition of rigor:

An individual is acting rigorously when their behavior is governed by a set of rules which are oriented toward a particular goal (i.e. they are engaged in a “practice”). The individual must understand and reflectively endorse the rules they are applying and be able to apply them, while understanding in which contexts changes to the rules might be necessary and warranted. The individual must, as well as being able to play by the rules, be *willing* to do so, even if the outcome is undesirable to them.

To be rigorous then, I argue, is both to be able to engage in a “practice” while, *in addition*, standing in a particular relationship to that practice. A rigorous practitioner doesn’t simply know the rules of the game and how to play by them (although this is essential). They also understand how the rules fit together, why the rules are important in relation to the goals of the practice, when it is appropriate to change them. And they are willing to play by the rules even when the umpire rules against them, if such a ruling advances the goal of the enterprise.

A metaphor might elucidate my idea here. Imagine that a practice (in Rawls' terms) is like a web spun collectively by many spiders (our forebears in a given practice). To be engaged in the practice is to be somehow connected to this web.

Some spiders get stuck in the web: they can't navigate it at all. They cannot truly engage in the practice. They lack the necessary skills even to play by the rules. They are far from rigorous.

Others can walk individual strands of the web, changing directions when strands intersect, and they rarely fall off. However, they move about without an understanding of the architecture of the web as a whole or a sense of why the strands intersect where they do. They can follow the rules of a practice, and even achieve valuable results, but don't really know why the strands are positioned as they are. They may be competent, but they are not rigorous by my definition.

A third sort of spider can traverse the web quite happily, and understands its structure and organization. They may even have contributed to it. However, at times they are willing to break strands of the web in order to take shortcuts which are beneficial to them, but perhaps deleterious to the integrity of the web as a whole. They may be capable of rigor, but do not always exercise it: sometimes they break the rules.

A rigorous spider, though, can navigate the web with fluency and accuracy while also having some understanding of its whole structure. They can follow its strands, certainly, but also, if necessary, develop new strands and tell you why they did so. Nonetheless, they recognize the importance of *staying on the web* and know what purpose the web serves as a whole. They aren't willing to break well-established strands simply because it would make their lives easier. They are capable of rigor and receptive to its demands upon them. This, I suggest, is rigor.

More or Less Rigorous Practices

Now we confront a problem: having defined rigor as a characteristic of behavior, how do we make sense of the fact that practices *themselves* are often described as more or less “rigorous”.

We might well say, for instance, that astronomy is more rigorous than astrology.

I do not think this as big a problem as it might at first seem. I think what we are describing when we talk of more or less rigorous practices is essentially a difference in the nature of the rules which govern a practice – a difference, to return to our metaphor, in the nature of the *web* rather than the spider. Rigorous practices are ones with “tight” rule-sets: rules which demand, in order to achieve success in a particular practice, rigorous behavior.

What makes a “tight” rule-set? First, the rules must, if followed, generally increase the success of achieving a certain aim. It would be nonsensical to say a mathematician was acting “rigorously” if she were assiduously following a set of logical principles which, being fallacious, never lead to accurate conclusions. Likewise, it would be strange to say a sushi chef was acting rigorously were he, by following a given set of rules, always to create terrible sushi. This is particularly true in an educational context in which students are being trained to perform tasks *well*: I cannot imagine that any of the educational reform efforts dedicated to promoting rigor in schools would be happy were the outcome to be lots of students thinking in rule-governed ways which do not lead to successful thinking or completion of tasks.

Furthermore, the rules must not be superfluous. A rule which neither improves nor detracts from successful performance of a process is doing nothing to improve the rigor of that practice. It would be odd to say, for instance, that our sushi chef was acting rigorously in the preparation of sushi if, as part of their routine, they bounced a basketball three times before preparing each Maki roll. Certainly, their master may have told them to do it – it may be part of the rules they

have been told to follow – but it adds nothing to the rigor of the process because it is superfluous to it and distracting from it. This problem is easily perceived if you imagine the chef having to perform a large number of such superfluous actions between every stage of the sushi-making process: clearly, that would be very far from rigorous even if it was rule-governed and consistent. Likewise, it would not be rigorous for the rifleman to always click his heels three times before unholstering his weapon. It may not affect his aim, but neither does it improve it. The practice would be more rigorous were such a rule to be removed.

Finally, it would seem odd to call a practice very “rigorous” if much of the activity which makes up the practice is governed by very loose rules which can be satisfied by a wide range of different behaviors. We might say that tag, for instance, is less rigorous a *game* than baseball, because – although tag has rules and a goal, and therefore admits of more or less rigorous play – baseball requires much more rigor (many more rules to learn and to learn how to abide by) simply to play it at all. The important distinction here, between a “loose rule” and a “tight rule” – is not the *number* of rules governing a practice, but the variety of *behaviors which satisfy a given rule*. Tag has essentially a single rule which can be satisfied by a very wide variety of behaviors, while baseball has rather a lot of rules which are each satisfied by far fewer behaviors.²⁵

I suggest, then, that rigorous *practices* are governed by “tight” rule-sets of the following kind:

- Following the established rules of the practice must generally increase your chance of achieving the goal of the practice.
- None of the rules are superfluous. I.e. every rule, if followed, will take you closer to achieving the goal of the practice.

²⁵ Thanks to Prof. Kate Elgin for a comment which inspired this clarification.

- None of the rules are detrimental to achieving the goal.
- The goals are clearly-defined.
- Most aspects of the behavior which comprise the practice are governed by rules.

In these “webs” almost every strand has a particular purpose and positioning, and less is left to the discretion of the spider. This, I believe, helps us understand what Keyser is looking toward when he heralds the rigor of mathematics, and the increasing “mathematization” of other disciplines: he is hoping that the rules which govern them become tighter, more focused, and more comprehensive in the way described above.

Educational Implications

My definition is valuable because it can help clarify the profusion of different definitions and concepts which I analyzed at the start of this chapter, and because it has clear implications for educational practice. First, the proposed definition fits in neatly with discussions of the value of helping students develop an understanding of subject disciplines. When Gardner calls for students to develop “disciplined minds”, going “beyond facts and standardized tests” (Gardner, 2000), and when Perkins advocates the importance of students “playing the whole game” when it comes to different subjects (Perkins, 2009), they can be seen as advocating greater rigor.

What they want, essentially, is for students to understand the deep structure of disciplines: not just “facts and figures” but the rules and roles which govern how facts and figures relate to each other in mathematics, in history, in the arts. They want students to be able to engage in the practice of different disciplines as autonomous, reflective agents who know, for instance, not just what chemists have discovered but *how they discovered it, and why those methods are important*.

These thinkers consider disciplines as discrete epistemic “practices”, and argue that if we truly want students to receive a more rigorous education, and display more rigor in their thinking and

their work, then we will attempt to help them understand how the different academic, professional and civic “games” they will be expected to play are played by experts, what the rules are and how to abide by them, and why the rules came to be the way they are.

This understanding, in turn, brings greater clarity to the concern over “low standards” (such as those voiced by NCEE and *A Nation at Risk*), and the criticisms of standardized tests which are common in educational circles. When those who seek higher standards advocate “greater rigor”, what I think they are asking for is not simply that students “do more math” or demonstrate their capability to “do harder math”. Rather, they want students to come to understand math as a practice, to be able to successfully engage in that practice and, if they continue on to higher studies, to contribute to the developing practice itself. They want students to be able to demonstrate a rigorous orientation toward the practice of (for instance) math.

We can better understand, too, why certain content might be associated more closely with “rigor” than other forms. Some texts, for instance, will better exemplify aspects of a practice which we wish students to learn so that they can practice literary criticism rigorously. To return to the metaphor of the web, some content exposes different strands and intersections of the web more readily, just as a particular play in a football game might be especially demonstrative of the importance of a certain rule.

The definition helps us understand, too, why certain people might be considered more “rigorous” than others: do they regularly, and across many practices, demonstrate spider-like qualities? Do they know the rules of different intellectual games, can they play by them, and do they have a sense of why those rules are important? Do they, perhaps, understand that *in principle* any area of human inquiry could be understood as a Rawlsian “practice” with rules and roles and moves

to be mastered, even if they are currently unaware of them? If so, it seems fair to call them “rigorous” – and this seems a set of qualities which we would certainly desire in our students.

Perhaps most interesting as an implication for practice, my definition strongly encourages viewing rigor not just as a set of faculties but also as including a “negative faculty”: if rigor is a form of willing submission to a set of rules you have chosen to endorse, then it is, in part, a form of intellectual *duty* requiring a certain fortitude of character on the part of the student. The ability to recognize and rise to meet our duties is one of the most important aspects of human living, but it is not always easy. In many academic, professional and civic fields rigor places upon us a stringent and challenging requirement, and this may hint as to why the term carries so many negative connotations. Its synonymy with “harshness”, “unyieldingness”, “stricture” and other unforgiving terms is revealed by my definition as a response to the toughness of rigor’s challenge to be true to the rules – rules we understand and have ourselves endorsed – even when it makes our lives more difficult.

Rigor as a Component of Autonomy

So far in this chapter I have spoken little of autonomy, and the reader could be forgiven for thinking I have forgotten the purpose of our quest! A particularly attentive reader might note, too, that while I defined autonomy as a set of faculties, I have here defined rigor as a way of engaging in a practice. So how can they be related? However, I believe that the foregoing investigation of rigor has much to teach us about the faculties required for autonomy. To see how this is the case, let us revisit my proposed definition of rigor:

An individual is acting rigorously when their behavior is governed by a set of rules which are oriented toward a particular goal (i.e. they are engaged in a “practice”). The individual must understand and reflectively endorse the rules they are applying and be

able to apply them, while understanding in which contexts changes to the rules might be necessary and warranted. The individual must, as well as being able to play by the rules, be *willing* to do so, even if the outcome is undesirable to them.

First, note some intriguing similarities linking what it means to act rigorously to the standards I have previously set for autonomy. If, to be rigorous, one must act according to a set of rules which you reflectively endorse, then you satisfy one key requirement of autonomy: that any guidance you are following is followed not out of blind obeisance but because you, yourself, have reflected on the value of the rules it is proposed you follow, and have decided to do so. Further, note that in order to act rigorously you must be able to apply the rules which you are attempting to follow. This, I suggest, is similar to our discussion in the first chapter of the relationship of freedom and ability. I have argued here that in order to act rigorously you must act effectively, just as I have argued that in order to be free you must be capable. Finally, in my discussion of rule-changing above, I suggested that a truly rigorous participant in a practice would be able to take a sort of bird's-eye view of that practice, and judge when rules need to be changed. This, too, seems relevant to autonomy: it is similar, I think, to the sort of higher order shaping and evaluation of aims I have previously discussed as an essential component of autonomy.

So what is the relationship here? I want to suggest that rigorous thinking be considered a particularly refined form of action in which at least some of the most important faculties required for autonomous action in general are distilled and brought to the fore. Someone who is acting rigorously in a given area of practice, I think, is displaying to a heightened degree some of the faculties required for autonomy, and thus rigorous activity makes the general features of autonomy particularly clear. I do not wish to say, precisely, that rigorous activity is a *subset* of

autonomous activity – I think it is still possible to act rigorously but not autonomously (for instance, you can become a rigorous sushi chef without having chosen to become a sushi chef in an autonomous way). Rather, I want to claim that rigor, in the way I have defined it, exemplifies some of the faculties required for autonomy.

If this is the case (and I accept a much more solid argument would be required to secure this conclusion), this makes the teaching of rigorous activity particularly useful for educators, because in having students learn how to act rigorously in a particular area, they will be practicing some of the key faculties they require to become a free thinker.

Conclusion

I have attempted to show why each of the criteria I have described is a necessary component of rigor, properly understood, and I believe that someone meeting all the specified criteria, and none other, could reasonably be considered rigorous regardless of the practice in which they are engaged (in relation to the goals of that practice). The definition encompasses the essential characteristics of my three exemplars, while excluding some obvious (and some less obvious) cases of lack of rigor and thus, I believe, meets the standard of adequacy I began with.

The proposed definition has valuable educational implications, in that it brings greater clarity to long-fought educational debates and helps us understand what the proponents of greater rigor may in fact want from students. It also helps understand why “rigor” is a concept which has detractors as well as supporters, highlighting its close relationship to the sets of rules which govern different practices in life and our duty to submit to those rules even when we might be unwilling to do so.

But if living rigorously sometimes makes life harder, it also makes life more fulfilling – for remember, the rules to which we must submit were first established and endorsed due to their

success in helping us achieve some desired goal. Therefore, I suggest we jettison rigor's morbid association with death, and stop being trapped in "rigor mortis", and instead celebrate the life-enhancing qualities of well-governed action: rigor vitas!

In Conclusion – Give them Your Love

In this dissertation, I have sought to take readers on a philosophical journey exploring the concept of autonomy – or, as I like to call it, “free thinking”. In each chapter I have endeavored to clarify the concept of autonomy, engaging with the works of other thinkers who have given the concept significant attention, while offering what I hope to be novel questions and approaches related to those questions. That journey doesn’t end here: there is no way in which I have settled any of the questions I raise in this dissertation, and there are many more avenues to pursue. There are aspects of my own argument which I recognize require refinement and further depth. I believe, nonetheless, that the considerations I have offered here are a valuable contribution to the debate around the role of autonomy in education.

I began my dissertation with a poem by Kahlil Gibran. One section of the poem says this:

You may give them your love but not your thoughts,
For they have their own thoughts.
You may house their bodies but not their souls,
For their souls dwell in the house of tomorrow,
which you cannot visit, not even in your dreams.
You may strive to be like them,
but seek not to make them like you.

I want to suggest, in closing, that one of the truest ways to love our children is precisely to refrain from giving them our thoughts, and enabling them, through education, to have their own.

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