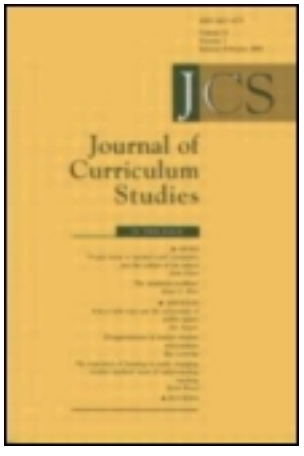

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Atli Harðarson

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Equality and academic subjects

ATLI HARÐARSON

> We all observe, and we all reason, […] we all ascertain truths […] If we could not do it in any degree, we should be mere instruments in the hands of those who could: they would be able to reduce us to slavery. (Mill 2009 [1867]: 154–155)

A recent national curriculum guide for upper secondary schools in my home country, Iceland, requires secondary schools to work towards equality and five other overarching aims. This requirement raises questions about to what extent secondary schools have to change their curricula in order to approach these aims or work towards them in an adequate way. Textbooks on curriculum theory commonly invite their readers to choose between different perspectives that are presented as mutually exclusive. From one perspective, they tend to emphasize academic subjects, to the exclusion of perspectives that focus on improvement of society or individual development. There are, however, reasons to doubt that organizing a curriculum emphasizing general aims such as equality excludes using academic subjects as its principal building blocks. In this paper, I argue that if we take equality seriously as an aim of education, we should indeed emphasize academic school subjects, just as advocates of liberal education have done for a long time. Focusing on subjects and focusing on aims, such as equality, are therefore not mutually exclusive perspectives but two aspects that must coexist in any reasonable and sound pedagogy.

Keywords: educational philosophy; educational objectives; curriculum design; equality

A recent national curriculum guide for upper secondary schools, issued by the Icelandic Ministry of Education, Science and Culture (2011: 14–22), requires secondary schools to work towards six overarching aims, called fundamental pillars of education. These are literacy; sustainability; democracy and human rights; equality; health and welfare; and creativity. This requirement raises questions about to what extent secondary schools have to change their curricula in order to approach these aims or work towards them in an adequate way. Can they continue to emphasize academic subjects like mathematics, foreign languages, history, literature and social and natural sciences as they have done for a long time?

Some well-known authors of texts on curriculum theory, for example, Eisner and Vallance (1974), McNeil (1977), Kliebard (1987), Walker and Soltis (1997), and Schiro (2008), take curricula that emphasize academic subjects as being merely one out of a handful of possible options, the others being, for instance, curricula emphasizing social recon-

Atli Harðarson is principal of a comprehensive secondary school, Fjölbrautaskóli Vesturlands, Vogabraut 5, 300 Akranes, Iceland; e-mail: atli@fva.is. He is also a PhD student in The School of Education at the University of Iceland. His academic interests centre on philosophical problems related to educational aims.

struction or individual development. In what follows I argue that these options are compatible and, therefore, we do not have to choose between focusing on subjects and focusing on general aims having to do with improvement of society. We can do both. I single out for consideration one general aim, which is equality. According to the curriculum guide mentioned above, education for equality promotes social equality and justice, and involves both appreciation of the value of equality and knowledge about the circumstances that lead to 'discrimination of some and privileges for others' (Ministry of Education, Science and Culture 2011: 20). My argument shows that education for equality in this broad sense not only is compatible with a subject-centred curriculum, but actually requires emphases on particular academic subjects such as history, literature and social and natural sciences. This conclusion supports a traditional subject-centred curriculum. My argument has, however, a radical bent because it underlines the importance of enabling all students to participate in rational and critical discussions of political and social issues.

I am aware that some educationists, like e.g. Byhee (2010), emphasize the importance of the so-called STEM subjects, i.e. science, technology, engineering and mathematics, for adaptability, innovation, technical skills and hence economic prosperity. They defend subject-centred curricula from another point of view than I do. I have, however, no quarrel with them as I think schools have many different purposes and a balanced curriculum could and should be made to serve both the economy and political ideals like social justice, democracy and equality.

Allegedly exclusive perspectives on school curricula

In a review of several attempts to classify theoretical views on school curricula published in 1992, Philip W. Jackson examines a textbook on curriculum by McNeil (1977), a collection of essays edited by Eisner and Vallance (1974), and a book by Kliebard (1987) on the history of school curricula in the USA from 1893 to 1958. All these works describe several perspectives, or different ways to think about school curricula, that are depicted as competing with one another so that 'the choice of any one perspective rules out the others' (Jackson 1992: 16). For instance, Kliebard outlines four different approaches to curriculum design that were taken in the first half of the 20th century. 'First, there were the humanists, the guardians of an ancient tradition tied to the power of reason and the finest elements of the Western cultural heritage' (Kliebard 1987: 27). Arrayed against them were, according to Kliebard (1987: 27–29), three different kinds of reformers, one focusing on the natural order of development in the child, another on social efficiency and the third on social change and social justice.

In a similar vein, McNeil (1977: 1) says that 'there are four prevailing conceptions of the curriculum, humanistic, social reconstructionist, technological, and academic'. Likewise, Eisner and Vallance (1974: 3) describe 'five orientations that have been formulated: the cognitive processes approach, curriculum as technology, curriculum for self-

actualization and consummatory experiences, curriculum for social reconstruction, and academic rationalism'.

A number of more recent textbooks classify curriculum perspectives in ways similar to those reviewed by Jackson. Walker and Soltis (1997), for instance, describe three perspectives: student-centred, society-centred and knowledge-centred. They claim that each of these perspectives 'puts one part of the entire educational situation in the foreground, and that inevitably pushes the other parts to the background' (Walker and Soltis 1997: 33). Another representative, and relatively new, textbook by Schiro (2008) distinguishes between four curriculum perspectives: scholar academic, social efficiency, learner-centred and social reconstruction. Schiro describes these four stances as four great magnets that 'tug on all of us who are interested in education, pulling us in four different directions' (Schiro 2008: 9).

The perspectives mentioned so far are distinguished by different views concerning the purposes of education, wherein one camp, variously denominated *humanist*, *academic* or *knowledge-centred*, allegedly assumes its main purpose is to teach subjects, while the other camps focus on aims having to do with the improvement of society or individual development. There are, however, other criteria of classification. Kelly (2009), for example, elaborates upon three perspectives that differ in their views on the organization of curriculum design and development, rather than on what purposes are most important. One of the perspectives Kelly describes focuses on subject matter or content; another on objectives, aims or purposes; and the third on procedural principles.

Although his approach is different, Kelly goes along with Walker and Soltis, Schiro, and the authors reviewed by Jackson in describing the emphasis on school subjects as a separate option, rather than, say, as an ingredient in any potentially reasonable curricular approach. In several publications on the philosophical aspects of curriculum theory, the English philosopher of education, White, seems to concur with Kelly on this. In a recent paper, White writes about subject-centred approaches to the development of school curricula and asks, 'Why start with academic disciplines and seek justifications of them? Logically, curriculum planning has to start with aims, not with vehicles whereby aims may be realised' (White 2010: 125). White traces the history of modern subjects-based school curricula in the UK back to the 16th century and complains that:

> Through all the reforms since 1988, governments have insisted that the existing structure of academic subjects is not to be tampered with. Rather than seizing the opportunity to rethink school education as a genuinely aims-based enterprise, they have clung to the centuries-old pattern described in this paper. (White 2010: 139)

White's underlying assumption seems to be that the building blocks of a 'genuinely aims-based' curriculum are something other than academic subjects.

In his review, Jackson points out that the various classifications that have been given of perspectives on school curricula are strange. He describes them as academic abstractions that 'do not hold up as being

genuinely inhabitable' (Jackson 1992: 18). In what follows, I defend and expand upon Jackson's stance and argue that we do not have to choose between academic subjects, on the one hand, and education as a genuinely aims-based enterprise or a vehicle of improvement or reconstruction of society, on the other. Before I proceed, I will reflect on Kelly's distinction between two types of non-subject-centred approaches to curriculum design and clarify what is involved in talk about general educational aims.

Educational aims and principles of procedure

Peters (1973: 122–131), who was a pioneer in educational philosophy in the UK in the latter half of the 20th century, once proposed that some so-called general aims of education are really principles of procedure rather than ends to be reached. The process model of curriculum design, defined by Stenhouse (1975), is based on this proposal. Stenhouse put forth his process model in opposition to the objectives model defined by Bobbitt (1972 [1918]) and Tyler (1949). The objectives model was later refined and elaborated in detail by Bloom (1956) and Taba (1962), and it was dominant for most of the 20th century (Elliott 2007, Kliebard 1987: 121, Pinar *et al.* 1995: 140–148). Although it was most prominent amongst advocates of social efficiency as the primary aim of school education (Schiro 2008: 51–54), the objectives model was embraced by various groups with different views on education and the purposes of schooling (Pinar *et al.* 1995: 155).

As Kelly (2009: 15, 67–68, 93–94) makes clear, his distinction between perspectives that focus on educational aims and those concerned with procedural principles is, basically, the same as the distinction between Bobbitt's and Tyler's objectives model on the one hand and Stenhouse's process model on the other. The objectives model assumes that the first question to be answered by those who design or develop a curriculum is just what educational purposes the school should seek to attain (Tyler 1949: 1). The gist of this model is expressed clearly and succinctly by White (1997: 52–54) where he says that school improvement schemes should start with the aims which are to power everything else. The next stage is 'to see what follows from these aims about sub-aims which are their necessary conditions'. When the sub-aims have been identified, experts in various fields are called on to figure out the details of implementation.

Stenhouse concedes that the objectives model fits some important parts or aspects of school education. Nevertheless, he opposes this model and proposes focusing on disciplines that have their built-in standards of excellence, and thus 'can be appraised because of the standards immanent in them rather than because of what they lead on to' (Stenhouse 1975: 84). Kelly (2009: 95) recommends a version of Stenhouse's process model and says that it allows us to have goals, purposes, intentions or aims without taking them to be extrinsic to the educational process.

To clarify the distinction between objectives and procedural principles, it is, I think, helpful to distinguish on the one hand between two types of ends or purposes and on the other hand between two different

sorts of relations between means and ends. The different types of purposes I have in mind are *objectives* that can be reached, and *ideals* that people can work towards although the task cannot be completed. Painting the kitchen or going for a walk together next Sunday are aims of the first type. Keeping a beautiful home and having a happy marriage are lifelong tasks of the second type. Educational aims defined in terms of behaviour typically belong to the first category. Memorizing who is married to whom in Njál's saga (a 13th century work of literature read in Icelandic secondary schools), or facts about the constitutional assembly at Eidsvoll in 1814 (which had consequences for the development of democracy in the Nordic countries) can be seen as objectives. Understanding sexual relations in Njál's saga, or what effect events of 1814 had on politics in Scandinavia is, however, not something one does once and for all. In all these cases, our understanding depends on other knowledge that is evolving and under review, and can therefore not be complete and final. Likewise, learning to use Newton's inverse square law to calculate the gravitational force between two masses may be understood as an objective in this sense, but understanding gravity is better seen as an ideal that cannot be conclusively reached. When has a student understood gravity: When he/she has learnt to do simple calculations based on Newton's formula? Is able to explain how massive objects affect space-time? Has mastered the concepts used to describe black holes? Can participate in debates about the differences between gravity and the other fundamental forces of nature? Understanding gravity is an ideal that people can approach in countless ways but which can arguably not be completed.

Open-ended aspirations or ideals form what the Canadian philosopher Taylor (1999) has called our *horizon of significance*. In an earlier work, Taylor (1989) called such ideals *frameworks*. If Taylor (1989: 507) is right, such horizons or frameworks are a necessary precondition of meaningful existence. In light of the examples, I have given it seems plausible that, without ideals, objectives are pointless. Memorizing formulae, like the inverse square law, or facts about events that took place two hundred years ago is worth something, provided we are trying to understand nature or society; painting the kitchen or going for a walk together is desirable if we want to keep a beautiful home or have a happy marriage. I will let this brief discussion of the two types of purposes suffice for the present, and will now turn to the other distinction: the different sorts of relations that obtain between means and ends.

The different means-end relations are, on the one hand, *causation*, and, on the other hand, *subsumption*, where the means are constitutive of the end. As an example of the latter type of relationship, let us suppose that I carry someone's bag in order to help that person to get home with a load of goods. Carrying the bag is then a means to the end of helping. Carrying the bag and helping are, however, not two events where the former causes the latter. Here, talking of means and ends are two ways to describe the same action where the second description justifies that action by subsuming it under a category of deeds that do not need further justification.

Table 1. Four types of purposive actions.

	Objectives (can be completed)	Ideals (lifelong endeavour)
Ends caused, or causally contributed to, by the means	1	2
Ends that are constituted by the means	3	4

Putting these two distinctions together, we have four types of purposive acts or endeavours, represented in the following table (where my example of carrying someone's bag in order to help would belong to category number three) (table 1).

The process model advocated by Stenhouse (1975) and Kelly (2009) is best seen as focusing on categories number three and four rather than as denying that school education should be organized to serve ends, aims or purposes. This is because, as White has pointed out, emphasis on principles of procedure 'takes it for granted that the teacher wants to instil in his pupils a respect for rationality, benevolence, or whatever. In so far as he does, this is what he is aiming at' (White 1982: 6–7). Biesta, an educational theorist and philosopher who is, like Stenhouse and Kelly, critical of the objectives model, has recently made a similar point and argued that, in education, means and ends are 'related internally or constitutively' (Biesta 2007: 10).

In some of what they say, Bobbitt (1972 [1918]) and Tyler (1949) seem to be primarily concerned with category number one. In recent years, their objectives model has largely been incorporated into the so-called Bologna Process in Europe (Karseth 2006: 270). In a paper in the Bologna Handbook, Kennedy *et al.* (2006) advocate specific outcomes in almost the same terms as Tyler used to do. Like Tyler, and Bobbitt before him, they seem to focus mainly on category number one. Although Bobbitt, Tyler and later advocates of the objectives model can perhaps be justly criticized for this overly narrow focus, their basic tenet—that curriculum development should begin with a statement of educational purposes—does not exclude the other three categories. So, although focusing *exclusively* on category number one would be antagonistic to any potentially reasonable curricular approach, it is not clear that there is generally an opposition between the process model and those methods of curriculum design that emphasize educational purposes.

In the beginning of the second book of his *Nicomachean Ethics*, Aristotle argued that people learn to be virtuous by acting in accordance with virtue (Aristotle 1941: 952–953). On this account, each virtuous action performed by someone who is not yet (completely) virtuous is both worthwhile in itself and good because it causes the doer to become (more) virtuous. In this case, both of the types of means–ends relations that I have outlined above apply to the same action: The end is partially constituted and partially caused by it. Something similar seems to apply to equality as an educational aim. Promoting equality is probably best

seen as belonging both to category number two and to category number four. If equality as a value or norm is built into school practice and this causes pupils to appreciate the value of equality, then the practice simultaneously *exemplifies* the end and *contributes to it causally*.

If what I have said about means and ends is right, we should think of Kelly's two non-subject-centred perspectives as compatible rather than as mutually exclusive. But, what about the subject-centred perspective? Can it co-exist with the other two? And if it can, is it perhaps compatible with most, or even all, of the views on the purposes of education elaborated by Eisner and Vallance (1974), McNeil (1977), Kliebard (1987), Walker and Soltis (1997), and Schiro (2008)? A negative answer seems to be taken for granted by those who see the different perspectives as mutually exclusive. From their point of view, the persistence of subject-centred curricula bespeaks failure of aims-driven school reform. Kliebard, writing on the history of school curricula, says for instance:

> If the success of the 65-year effort to reform the American curriculum is to be judged by the extent to which English, mathematics, science, history, geography and the like simply survived the assault against them, then the effort must be counted a failure. (Kliebard 1987: 269)

How plausible is this? Did the school subjects persist because reform failed, or did they persist because they were needed to reform schools and make them serve the needs of students and society? It is outside the scope of the present paper to propose a general answer to this question. Focusing on one type of reform, namely education for equality, I will show that it is not antagonistic to subject-centred curricula but, on contrary, needs support from induction into knowledge within fields typically represented by academic school subjects.

I do not deny that focusing exclusively on subjects or content can cause people to neglect educational aims like equality. Preoccupation with aims, without concern for the knowledge that makes them comprehensible and intellectually defensible, may likewise cause educators to underestimate the value of the rich intellectual traditions that stand behind academic school subjects. Why should a good pedagogue not be mindful of *both*, like a master builder who focuses simultaneously on building materials and aesthetic criteria and understands that using bricks does not exclude harmonious proportions?

Apprehension of worthwhile aims

The far longest chapter of Tyler's classic statement of the objectives model, published in 1949, is entitled 'What educational purposes should the school seek to attain?' Tyler emphasizes the importance of beginning with clearly defined goals or purposes, and points out that they can be obtained through various areas of study including philosophy, psychology and studies of contemporary life outside the school (Tyler 1949: 3–62). Although he tells his readers where to look for educational objectives,

Tyler takes a neutral stance towards questions of value and says very little about what the purposes of school education should be. The closest he comes to advocating one sort of purposes rather than another is when he says that 'commonly, educational philosophies in a democratic society are likely to emphazise strongly democratic values' (Tyler 1949: 34).

Tyler's work focuses on methods of curriculum development and he tries to justify neither specific content nor definite aims. He probably wanted his curriculum-science to be value neutral, the way good scientific work was supposed to be in the middle of the last century, when philosophers, as diverse as Ayer (1971 [1936]) and Sartre (1956 [1943]), taught that values were ultimately a matter of choice rather than discovery or rational deliberation, and hence outside the field of scientific study. True to the spirit of his time, Tyler declared that 'in the final analysis objectives are matters of choice, and they must therefore be the considered value judgements of those responsible for the school' (Tyler 1949: 4). Ever since there has been a tendency amongst a certain group of influential curriculum theorists to fight shy of questions of value. Writing in 1984, the philosopher of education Barrow saw this tendency as predominant within the curriculum field and maintained that:

> North American curriculum writing, which forms the bulk of curriculum writing, has deliberately eschewed the problem of values, and built up a body of curriculum theory on the pattern of engineering, a subject the ends or objectives of which are relatively uncontentious. (Barrow 1984: 17)

As long as we see the purposes of schooling as matters of choice, or political decision, rather than as something to be found out or discovered through research and rational argument, it is tempting to think that curriculum design begins with a statement of what we want to attain. If, on the other hand, we reject subjectivism about values, and require that the purposes of school education be supported by rational argument, the logical starting point of curriculum design becomes the knowledge we use to apprehend the aims or purposes.

In a publication from 2004, White asks how far the curriculum should be planned on a subject basis. 'School subjects are, after all, only vehicles to achieve certain ends: they are not self-justifying entities. Now that we have a set of overarching aims, could these be realized by other kinds of curricular vehicle?' (White 2004: 1). Granted that we need education to apprehend aims, we can turn White's question upside down and ask: How far should the curriculum be aims-based at all? Educational aims are, after all, only values that we have learnt to appreciate: they are not self-evidently worthy of choice. Given that, we have a set of school subjects, could the understanding achieved through them give rise to different educational aims?

This is reminiscent of the riddle of which came first, the chicken or the egg. The aims of a course of education are, as White points out, logically prior to its content. Prior to the aims, there has to be some educational content or knowledge that enabled the designers of school curricula to acquire the understanding they have of what aims are worth seeking. The concepts needed to apprehend educational aims having to do with,

say, equality, democracy or critical thinking have been forged and refined through a critical discourse whose development has taken a long time, and our understanding of these aims depends on large bodies of knowledge.

Understanding equality

To what extent educational aims are discovered and to what extent they are chosen is a complex issue that I will not try to settle here. For present purposes, it suffices to argue, as I do below, that our understanding of equality as a rationally justified overarching aim of school education depends on academic disciplines.

The first thing to notice is that many of the deep questions about equality are questions within academic subjects such as philosophy, literary studies, history, sociology, psychology and biology. Our understanding of gender equality is, for instance, evolving through academic work in philosophy and social sciences, and premises from fields as various as biology and history are relevant to weighty questions about what is involved in sexual equality. Other aspects of the complex ideal of equality, such as equality before the law, also have historical and philosophical ramifications that scholars are still in the process of working out. In one of the most distinguished philosophical books on equality written in recent years, Walzer (1983: 26) says that to get this large idea right 'is to map out the entire social world'. Walzer was, like Williams, Dworkin and Rawls, to whom I refer below, amongst the most important moral philosophers of the last decades of the 20th century.

Second, much of moral and political philosophy from Hobbes, Spinoza and Locke to the present can be read as a search for a rationally justifiable conception of human society as a community of equals, and, according to Dworkin (1978: 127), questions of equality have 'been central to political theory at least since Kant'. Rationally defensible answers to these questions depend on understanding of society and human nature. As Williams (1962: 130) has pointed out, they need contact with such things as economic needs and human desires. More recently, Rawls (2007: 6) has argued that democratic politics requires a background culture citizens come across 'in their conversation and reading, in schools and universities and in professional schools'. All in all, our understanding of equality is being negotiated and is progressing through discourses that are dependent on rich intellectual traditions. This is, I think, also true of other educational ideals of comparable scope, such as democracy. It requires learning to sort out legitimate from illegitimate interests, understanding of what is for the good of all from ideologies and illusions. This sorting-out goes on, to a large extent, within academic subjects.

An obvious implication of what I have said so far about our understanding of equality is that a great deal of learning is needed to organize a school curriculum if it is to promote equality in a way that can be rationally justified. That is, however, only part of the story. Another part of the story is that people cannot form a community of equals without some

understanding of what is involved in equality. If it is only the authors of the curriculum who understand the ideals aimed at, then the pupils who are supposed to behave in accordance with them, without themselves having such an understanding, will be mere followers of prescriptions meted out by others. In that case, these others, who set the terms, will be 'more equal' than the pupils, like the pigs in Orwell's (2000 [1945]) *Animal farm*. A third, and no less important, part is that society cannot be a society of equals unless ordinary citizens have the intellectual means to evaluate political proposals and participate in rational discussions about the good of society. Such participation requires knowledge, and therefore, as Mill pointed out, we all require the ability 'to form a rational conviction on great questions of legislation and internal policy, and on the manner in which our country should behave to dependencies and to foreign nations' (Mill 2009 [1867]: 154). This point, which was made by Mill in the 19th century, is supported by the Australian educationist Fenwick (2011) in a recent paper where she reviews attempts to promote equality through curriculum reform, and argues that this cannot be done without emphasizing academic learning and advanced thinking skills for all students. In his recent work, the English sociologist Young defends a similar view. Young (2008, 2009, 2010a, b, 2011) argues that there is no contradiction between supporting a subject-centred curriculum and emphasizing social justice as a purpose of schooling. To support this conclusion, Young argues that the knowledge students gain from learning academic school subjects is 'powerful knowledge' in the sense that it is reliable, can be used to explain and predict, and enables people 'to move beyond their experience and locate themselves in a wider context' (Young 2010a: 11). From his account of knowledge, he concludes that 'there is a link between the emancipatory hopes associated with the expansion of schooling and the opportunity that schools provide for learners to acquire "powerful knowledge"' (Young 2009: 17). Although my argument has a similar conclusion, it is a different argument because I focus on the nature of equality rather than the nature of knowledge. My main point is that equality requires understanding of what equality involves and such understanding depends on academic learning.

I do not think it follows from this that education for equality requires everybody to study all the subjects relevant to achieving an understanding of what equality involves. The utter inability to participate in critical discourse on issues related to equality is one extreme on a wide spectrum of capacities. The cultivated ability to do serious academic research into deep and difficult questions about fairness, equity, power and subordination is another extreme. I do not see how we can aspire to equality without trying our best to help everybody progress towards the latter-mentioned end of this spectrum. A community of equals is hardly viable unless most people are at least able to express their own protests, doubts and reservations, in a comprehensible and rationally respectable way, when they confront political notions that appear to them treacherous and oppressive. The tried and true way to foster this ability is by teaching school subjects such as history, literature studies, philosophy, sociology, psychology and biology.

Our knowledge of what educational aims to seek, and what aims such as equality really involve, is not settled. It is under debate. We cannot both aim at equality and be content with a system of education where only some are able to participate in this debate and form a minority that sets educational aims for others who do not possess the intellectual means to criticize them. In other words, the ideal of equality demands that students have a share of the knowledge used to adjudge the educational ideals that give sense and direction to curriculum objectives and content.

This argument may seem to support curriculum perspectives that view the school subjects as merely instrumental. Yet, it would surely be rash to conclude that we can do without them. Likewise, language is, in a sense, an instrument we use to express our thoughts, but it does not follow that the same thoughts could exist without language, and could somehow be expressed by different means.

Equality and liberal education

What the conclusions, I have reached so far amount to, is that equality, as an educational ideal, requires at least a minimal autonomy for all, that is to say an ability to evaluate and reflect critically on political aims, including the very aims of education, and such ability, is fostered by teaching academic school subjects.

If we view the approach to educational ideals, such as equality, as dynamic and grant that we, as a community, are still learning how to understand them, then we cannot take the content of education to be simply subservient to a dogma of aims. Once we face the fact that our understanding of educational aims is limited, and evolving, we are bound to assume a dialectical relationship between educational aims and educational content. What we learn in history or philosophy may, for instance, change what we take equality to involve. If some subjects are especially apt to have such consequences, emphasizing them should not be viewed simply as means to previously defined ends, but also as enabling students to find out themselves what ends are worthwhile. This is what liberal education aspires to. It seeks to develop the pupil's own judgement, and is thus, as US curriculum theorist Null (2011: 15) points out, 'the opposite of indoctrination'. The spirit of liberal learning is more apt to help students transcend the aims set by educational authorities, than to bring about predetermined changes in their views.

Advocates of liberal education are sometimes taken to claim that academic subjects are worthwhile in themselves, while others grant them at most an instrumental role. But, I do not think that a sharp distinction between ends and means can be drawn in this context, just because the ends are partially constituted by, or exemplified by, the means. Studying a subject is simultaneously a way of being rational and autonomous and a means to become more so.

We can think of subjects such as history, literature, philosophy or biology as means for realizing such educational ideals as grasping what equality involves and why it is so important. That does not allow us to

conclude that the end can be apprehended and sought independently of the means. It is not plausible to suppose that a defensible conception of equality can be posited as an educational aim and realized as such otherwise than through the medium of intellectual traditions like those that support the academic subjects.

Numerous writings on curriculum theory present an emphasis on academic subjects as one option out of a handful. We do not have to choose, however, between teaching subjects and working towards equality. Those options are complementary, not antagonistic.

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