Is the traditional curriculum past its prime?

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1. Introduction

In Japan 'cases of bullying, physical punishment, school phobia and suicide show that education, instead of performing its proper function of encouraging life and growth, has in fact become an agent for distorting development...' 'One survey shows that half the children in the upper grades at elementary school respond that they do not like school, and that about 80% of children in junior high school don't understand what they are being taught. In school they are exhausted in the competition to get good marks, lose intellectual curiosity...'

These are comments made by Teruhisa Horio in his article in the first issue of this *International Yearbook* last year (Horio 2006). They echo evidence from Britain of widespread distress and disaffection among school students in that country. I cannot speak for Japan, but in Britain the inappropriateness of the school curriculum is increasingly acknowledged to be a major cause of this negativity.

Since the National Curriculum was introduced in England and Wales in 1988, all children in state schools from 5 to 16 have been obliged to follow a curriculum based on a number of largely traditional school subjects. It originally consisted of ten foundation subjects, of which three – English, mathematics and science – were 'core' subjects'. The others were technology, history, geography, a modern foreign language, music, art, physical education. The subjects specified in 1988 were in fact virtually identical to those prescribed in 1904 for the first state secondary schools – attended mainly by children from middle-class families. Those in turn are similar to those recommended for so-called 'middle-class schools' by the Schools Inquiry Commission (Taunton) Report of the 1860s – about the time when Japan began its transformation into a modern society along Western lines. These middle-class schools – unlike the major public schools for the upper classes, whose curriculum was based mainly on Greek and Latin studies – were to have a so-called 'modern' curriculum based on a comprehensive range of academic subjects. For those leaving school at 14, this was to 'include the elements of Latin or a modern language, English, history, elementary mathematics, geography and science.' (Simon 1960: 324).

In Britain, a curriculum which a hundred and fifty years ago was thought appropriate for the small proportion of the population belonging to the middle classes has now become the basis of nearly every child's education. We have come to accept in Britain, and perhaps in Japan too, that a largely academic curriculum, arranged around discrete subjects and taught in discrete, brief timetabled units, is at the heart of a good school education. We have come to take this for granted.

2. Can the traditional curriculum be justified?

But should we? Are there good reasons for it? What was most remarkable about the National Curriculum that appeared in 1988 is that was virtually aimless. The British government specified in considerable detail what should be taught within the subjects, but gave scarcely any indication of what all this was supposed to be *for*. It seemed content merely to reinforce a traditional pattern.

We need an argument to show *why* these subjects – English, maths, science and the other 1988 items – should constitute the school curriculum. What about the benefits they bring in their train? We need to read and write our native language for innumerable purposes; we need an understanding of science and technology in order to understand the social and economic world; we need physical education in order to keep fit; we need to be familiar with, if not practitioners of, the various arts to be in a position to choose or reject them as a part of our preferred way of life.

All this is true enough. The downside of this move for the *status quo* is that the focus widens. The starting point is no longer subjects themselves, but goods like the ones just mentioned. We start from personal and social

benefits and show how subjects facilitate these. The devastating conclusion for the *status quo* is that there is no reason – in advance of a proper aimsbased enquiry – why traditional subjects should be the only, or even the most desirable, vehicles for generating these benefits. If we start from the good life for the individual or from the good society, it is an open question what kind of curricular arrangements best promote this.

One way of trying to put the lid back on this Pandora's box is to argue that extrinsic reasons for studying academic subjects are trumped by intrinsic ones. In other words, science, history, music and the rest are worth studying for their own sake. The pursuit of knowledge and of the arts is an end in itself and needs no wider rationale.

This is a seductive argument but like many seductions is finally disappointing. We all know that some people like listening to music or solving mathematical puzzles as an end in itself. When they do this as an activity of their own choosing, there is no problem from an ethical point of view. They are doing something personally worthwhile, something which makes their life more fulfilling.

But when music and mathematics become part of a *compulsory* school curriculum, the ethical landscape changes. Children have not chosen these activities, let alone as ends in themselves. We need a good reason why these things are intrinsically good for them, even where they are obliged to pursue them.

Philosophers have tried to provide such reasons, but their arguments remain unconvincing. (White 1982, Chapter 2). They are more persuasive when they move away from the strong claim, that music (or whatever) is intrinsically worthwhile for anyone, to the weaker one that having to study a range of subjects opens the door to a large number of possible intrinsically valuable options. But this also re-opens Pandora's box. For the starting point is, once again, not subjects themselves but something wider – personal fulfilment and the place of intrinsic pursuits within this. And once we start from here, we see that there are *all sorts of* possible candidates for worthwhile activities of this sort. Time spent with friends, for instance, sexual intimacy, gardening, watching films...Options opened up by mathematics, geography and foreign languages are not the first things one is likely to think of. They may have a place in some people's flourishing, but so does a host of other things. The traditional curriculum is still short of a sound rationale. The arguments just given show that curriculum planning should not begin with curricular components like school subjects. It needs to start further back, with an account of what school education is *for*. Aims come first; ways of realising them, by subjects or by some other route, come second. I will return to the notion of an aims-based curriculum later in the paper.

Meanwhile, let me turn from justification to explanation. When an idea proves philosophically indefensible, the question naturally arises: why is it that we came to have such an ungrounded idea in the first place? For some philosophers, this has been true of the idea that God exists. In past ages this was taken for granted: no one questioned it. But once philosophical scepticism on the matter began to corrode traditional defences, some began wondering how it was that we had ever come to believe something so dubious. This led them into anthropological, historical, psychological and sociological explanations. As belief in the virtues of the traditional curriculum is corroded – as is now happening fast in my part of the world – the same sort of question arises. Why has the notion been so persistent? From where did it originate?

No doubt sociology can throw light on the first of these questions. It is in some people's interests to put their children through an academic regime. In Britain, middle class families have traditionally been much more used to this kind of schooling than more deprived groups. They know how to handle it, know how best to help their children to overcome its rigorous demands. They know that pain now is likely to mean a place at a good university later. This grasp of the system puts them at an advantage over lower social groups and reduces competition from that quarter.

Such sociology, as is clear from the above, has a historical dimension. Why is it that the middle classes in Britain have been traditionally attached to this kind of curriculum? We saw earlier the link which the Schools Inquiry Commission Report of 1868 made between a 'modern' curriculum and 'middle-class schools'. Can we trace the origins of what we now call the 'traditional' (rather than the 'modern') curriculum further back than this? If we can, did it make more sense to educators of an earlier age than it does to us today?

3. The Ramist origins of the traditional curriculum

The story begins in the middle of the sixteenth century. And it begins with the Frenchman Pierre de la Ramée, also called Ramus, (1515-1573) who, as the grandson of a poor charcoal burner in the north of France, rose to become Regius Professor of Eloquence and Philosophy at the University of Paris in 1551. Since the late 1930s Ramus has been recognised as a major, perhaps *the* major, intellectual force behind the development of Puritanism in New England and in Britain. He was a logician, reputed to have introduced a new kind of logic to replace Aristotle's. This logic was built around a system of dichotomies, beginning with the most abstract of categories and becoming ever more concrete. Although Perry Miller, the historian of seventeenth century New England, and others have emphasised the central role of Ramist logic in Puritan thought, it has not been clear until very recently why it should have occupied this position. New light has now been thrown on this by Howard Hotson's book *Commonplace Learning: Ramism and its German manifestations 1543-1630* (Hotson 2007).

Hotson argues that Ramus's prime motivation was pedagogical. As someone from a modest background himself, his aim was to make learning easier and more efficient for non-privileged scholars. In this, his attitude towards Aristotelian logic has been misunderstood. It is not that he *rejected* this. What exercised him was the difficulty of getting inside Aristotelian and other texts, not least for those with little time and resources, given the complexities bequeathed by the scholastic tradition from the middle ages and into the sixteenth century. Even before his conversion to Protestantism in the early 1560s, Ramus had begun developing his new system of learning. He wanted disciplines traditionally studied at university like logic and rhetoric to be made more accessible to the learner. The key to this was his famous idea of the one, single 'method'. This based the teaching of any discipline on definitions and logical divisions. This meant arranging its components in a clear and easily assimilable way, beginning with the most general principles, especially the purpose or end of the discipline itself, and branching out by repeated dichotomisings towards particularities. As the Ramist scholar Walter Ong says, from the mid-1550s 'Ramus begins seriously to "methodize' everything.' (Ong 1958: 30) - Caesar's account of the customs of the Gauls, his art of war, the biography of Cicero. (For the latter, see Fig 1).

[Insert Fig 1]

Ramus himself wrote that 'method is used not only in the matter of arts and curricular subjects, but in every matter which we wish to teach easily and clearly' (Hotson 2007: 48).

It is universally acknowledged today that as a logician Ramus is of no account. In the history of philosophy he scarcely figures, if at all. But in the field of education, the field that meant most to him, he was a revolutionary. His diagrammatic presentations of knowledge, with their bifurcating tables – highly suited as they were to the new age of the printing press – made it far easier for people to acquire and remember the bones of a subject. His pedagogy included extensive practical exercises to make abstract material more assimilable. He held that logic is, in his own words, 'best taught by practical applications as opposed to rote memorisation of abstract rules' (ibid.). This emphasis on the practical is also found in his idea of the point of studying a discipline. In his words again, 'the goal of the art was practical use in the real world' (ibid.).

Ramus's revolution put the emphasis not on the authority of classical texts, but on the allegedly common logical structure of the disciplines these dealt with. His ideas proved of special interest to radical protestants in England, Scotland, Holland, Germany and, later, New England. For these largely Calvinist groups, an individual's acquisition of knowledge about God's created universe was a sacred duty, a prerequisite of personal salvation. This was the supreme practical benefit which Ramist learning brought with it. But there were others, as we now shall see.

Hotson's book charts the growth of Ramism in Calvinist circles in Germany in the late sixteenth and early seventeenth centuries. He shows how it developed in the hands of subsequent scholars like Keckermann at Heidelberg and his successor Alsted at Herborn and was increasingly assimilated with elements of humanist thought with which it was originally at odds. The details do not concern us. What is of more interest here is the take-up of Ramist and post-Ramist forms of pedagogy in gymnasia (high schools) and academies catering for boys from the mercantile élite in Hanseatic cities like Dortmund and for pupils needed to fill the increasing ranks of officials, ministers and teachers in petty principalities like Nassau-Dillenburg, the home of Herborn Academy. A universal method of teaching and learning that was efficient and relatively inexpensive met these demands perfectly.

Two further features of this pedagogical movement are also crucially important. One is encyclopaedism. As Ramist method was applied by Ramus's successors to more and more subjects, the whole gamut of what then counted as knowledge was incorporated in encyclopaedias, the most celebrated being that of Alsted, the second and definitive edition of which was completed in 1630. Schoolboys were not expected, of course, to be able to master all this content, but the idea that they should be introduced to the basic features of all the major academic disciplines was already wellentrenched. Around 1606, for instance, the Danzig gymnasium provided a compressed three-year course in philosophy, in which logic and physics were taught in the first year, metaphysics and mathematics (including arithmetic, geometry, astronomy and geography) in the second, and practical philosophy (ethics, politics and economics) in the third (Hotson 2007:154).

The second feature is time-management. For the Calvinist, life was a serious undertaking, every moment of which was to be devoted to God's service. This affected the classroom as much as it affected the home and the counting-house. As early as 1610 Alsted outlined for each discipline of the curriculum [a] 'a general calendar breaking down the period to be devoted to [it]' and [b] 'the timetable to be followed on each day of that period' (Hotson 2007: 189-90). 'Every weekday began and ended with prayers and readings from Scripture, while the bulk of the day was broken into a rhythm of public lectures, private reading, and public and private exercises. The result was a regularized, almost mechanized approach to learning in which daily studies, weekly sermons, fortnightly reviews, monthly disputations, and termly examinations gradually added up to the three-year rhythm of the *cursus philosophicus* as a whole.' (Op.cit., p.191)

It is not difficult to discern in these two features seeds of the modern academic curriculum, with its logically demarcated subjects covering between them the whole range of knowledge, taught in a rigid timetable framework, and examined at regular intervals.

4. The story continued: developments in Britain

How did Ramism influence curriculum developments in Britain? We have seen that the Taunton Report of the 1860s proposed a broad academic curriculum for middle-class schools. But the 1860s are two and a half centuries away from the events described in Section 3. What fills the gap?

Although Ramist ideas had a toehold in Britain in the late sixteenth century - especially at Cambridge University and the University of Glasgow, whose Principal Andrew Melville was a former pupil of Ramus in Paris – it was not until after the late 1620s and until 1660 that they became really influential. The central figure here was Samuel Hartlib (c.1600-1662), one of the socalled 'three foreigners' who worked together on a series of radical educational projects during the period of puritan political influence between 1640 and 1660, not least during the puritan interregnum after the execution of King Charles I in 1649 (Trevor-Roper 1967). All three had been educated in the German Ramist tradition described above, all three in fact having been taught by pupils of Keckermann. The other two members of the Hartlib group were John Dury (1596-1680) and Jan Comenius (1592-1670). The latter was a pupil of Alsted at Herborn Academy and carried on the latter's work on an encyclopaedic knowledge of the world, now under the label 'pansophia'. He is a giant in the history of education, both for his theoretical work The Great Didactic - subtitled 'the whole art of teaching all things to all men' so that they shall 'quickly, pleasantly and thoroughly become learned in the sciences, pure in morals and trained to piety, and in this manner instructed in all things necessary for the present and for the future life' – and for his many textbooks, including his engaging Orbis Sensualium *Pictus* (Comenius 1658), an illustrated encyclopaedia in miniature for younger children.

The Hartlib circle, with these three at its centre (Comenius more of an inspirational power behind the scenes, since he was able to be in England only for short periods), maintained a steady pressure on the puritan regime to introduce a series of radical educational reforms. As Webster (1975: 210) writes, 'Hartlib was thus able to provide parliament with plans for a complete system of education, including research, teacher training, inspection, schools and workhouses for all social classes and for both sexes.' There were also proposals for scholarships for gifted poor scholars to enter the ministry (p212), for local colleges of higher education (p.217) and for a university of

London (pp.222ff). A project for a university at Durham actually led to its establishment in 1657. (It lasted only until 1659).

The most urgent reason for this relentless educational activity was religious. Millenarianist belief that a golden age of religion was soon to arrive was widespread in puritan circles – the same belief that in New England generated the famous notion of the 'city on the hill'. No time could be lost in preparing the conditions for this utopia. Prominent among these conditions was education. It was held that universal enlightenment would not only benefit believers themselves, but would also promote, via the practical uses to which they put their learning, a more general social amelioration. Among the 'three foreigners' only John Dury seems to have been a millenarian himself; but the work of the Hartlib circle was encouraged and promoted by millenarian devotees outside it (Webster 1975: 21, 29).

Influenced by Baconian ideas as well as Ramist, puritan interest in personal salvation and in social improvement as a religious duty meant that the Hartlib reforms included a scientific understanding of God's world as a curriculum objective. More generally, Dury's proposed subjects for the puritan Common School curriculum included, as well as the basic subjects; 'a description of the natural world, the history of civilisation and Christianity, elementary rules of reasoning, the principles of justice, and the constitutional history of England' (Webster 1975: 211).

In 1660 all this fervid planning came to a sudden end. Puritan government gave way to the restoration monarchy of Charles II. Laws were passed between 1661 and 1665 forbidding those who did not conform to the tenets of the Church of England from attending universities, holding public including clerical office, teaching, congregating together and, if clerics, being in or near towns. Nonconformists, or dissenters, as they now came to be called, managed to hold together something of their own communities despite the persecution they now suffered. (This was relaxed somewhat by the end of the century). In education, the bravest of them, like Richard Frankland, a tutor at the puritans' Durham University, began to found academies for dissenting ministers and in many cases the teenage sons of dissenting laymen. These kept alive what was left of the Ramist project, given the extensive modifications this had undergone in the seventeenth century. In academy after academy one finds the curriculum pattern with which we are now familiar: a neatly demarcated organisation of disciplines, covering a wide range of knowledge, and subject to regular examination by

sponsoring groups. In the 1720s one of the most famous, Northampton Academy, ran a four-year course which included

First Year: logic, rhetoric, geography, metaphysics, geometry, algebra

Second Year: trigonometry, conic sections, celestial mechanics, natural and experimental philosophy, divinity, orations

Third Year: natural and civil history, anatomy, Jewish antiquities, divinity, orations

Fourth Year: civil law, mythology and hieroglyphics, English history, history of nonconformity, divinity, preaching and pastoral care.

In addition, French was an optional subject and Hebrew, Greek and Latin, besides being used in prayers, were also taught in evening tutorials (MacLachlan 1931: 147).

It is important to stress what a deviation such a curriculum was from the standard education of the time in grammar schools and in the (only) two universities of Oxford and Cambridge. This was built around Greek and Latin authors rather than around academic disciplines. In this way, it was a direct descendant of the educational system which Ramus had rejected nearly two centuries before. The dissenters' curriculum at Northampton and elsewhere was not taught in a classical language, but in English. Science, in the shape of 'natural philosophy', and mathematics were increasingly important subjects, benefiting now, unlike the early days of the Ramist revolution, from the massive advances that had taken place during the scientific revolution, especially since Newton. As earlier in the history of radical Protestantism, a thorough understanding of the workings of God's created universe, its scientific aspects not least, was deemed important both as a condition of one's own salvation, and for the social improvements it enabled one to engineer. Hence the insistence on a *comprehensive* course of study. Elsewhere in Britain in the eighteenth century, not least in London, private academies were springing up and offering tuition in most of the subjects of the modern curriculum for whoever wanted to study this or that field. What they did *not* offer was a compulsory course built around a wide range of subjects and unified by an underlying purpose (White 2006: 117-8). By the mid-eighteenth century dissenters, barred from public office by the post-1660 legislation, had applied the gospel of hard work to which they were committed for religious reasons to activity in what we would now call 'the private sector', not least commerce and manufacture. The industrial revolution which took off in the latter half of that century was massively indebted to their ability to absorb and apply large quantities of knowledge, as well as to their methodical ways of organising their mercantile enterprises, banks and factories.

The dissenting communities formed the backbone of the 'middling classes', some of whom rose to great wealth during the industrial revolution, sandwiched between the Anglican establishment and the poorer classes below. Swelled from the mid-eighteenth century onwards by the followers of Methodism - founded within the Church of England but influential also among dissenters, the middle classes increased in power and influence throughout the nineteenth century, coming to share them with the old landed class of aristocrats and gentry, with whom, at their top end, they gradually merged.

This merging was indeed already evident in the case of the most famous and influential of the Dissenting Academies, Warrington Academy. This flourished from 1757 until 1786 and catered for upper middle class students. These were mainly dissenters but also included a sizeable minority from the Anglican establishment. Its full five-year course included languages and mathematics (Yr 1 and Yr 2); logic, natural history (Yr 2); natural philosophy (Yr 2 and Yr 3); moral philosophy (Yr 3 and Yr 4); theology (Yr 4); vocational studies (Yr 5). (Maclachlan 1931: 210) The Academy's timetable of studies from 1778 (op.cit. p.227) shows both the great range of disciplines that were taught, and also, more particularly, a regime of switching after every hour from 7 in the morning until 9 in the evening to a totally different subject or activity (White 2006: 128). The parallel with standard timetabling arrangements in British secondary schools today is striking.

But post-Ramist conceptions of the curriculum were preserved not only by the Dissenting Academies (and schools like Kingswood, founded by John Wesley, the father of Methodism (a term, incidentally, deriving from the Ramist notion of 'method')). At least as significant were the four Scottish universities – which had close links with the Dissenting Academies – and leading Scottish secondary schools and academies like those at Ayr and Perth. These reflected the Presbyterian culture of the country in the broad, modern curricula to which they were attached and which played an important role in the Scottish Enlightenment and the contribution of its economists (eg.Adam Smith), engineers (eg. James Watt) and philosophers (eg James Mill) to the creation of a modern, industrialised Britain.

After 1779 English dissenters were legally allowed to be schoolteachers. Dissenting schools set up after that date like Congregationalist Mill Hill (1807) and the Quaker schools Grove House, Tottenham (1828) and Bootham, York (1829) followed the now traditional 'modern' curriculum pattern. So did the Manchester private schools studied in a report of 1834, a high proportion of whose teachers were dissenters. Dissenters joined secular utilitarians in the creation of London University (later University College London) in 1826, an institution patterned on Scottish as well as Prussian and American universities – all of these in states with a protestant cultural history. The compulsory components of its general course are a world away from the classics-based education of Oxford and Cambridge and have unmistakable signs of a dissenter pedigree:

Years 1 and 2 Latin, Greek, Mathematics, with Natural Philosophy as alternative to Mathematics in Year 2.

Year 3 Logic and the Philosophy of the Human Mind, Chemistry and Natural Philosophy

Year 4 Jurisprudence, Political Economy, Natural Philosophy, Moral and Political Philosophy

French, German, English composition and History were among optional courses. (White 2006: 120).

The London Matriculation exam was introduced in 1838 as a precondition of taking a London degree course. It was based on a compulsory range of academic subjects, very close to those taught in the early UCL course and required for a London BA more generally. These were revised in 1858. It was soon used for entry into institutions affiliated to London University, like Owens College, Manchester and other colleges, often with dissenting connexions. Soon, too, it was being used as a school examination, and not only for potential university entrants. Its existence reinforced the movement towards a modern curriculum in secondary schools. As the Schools Inquiry

(Taunton) Commission reported in 1868, 'A considerable number of private and proprietary schools have accordingly adapted their courses of study to the requirements of this examination' (Great Britain Schools Inquiry Commission Report: Vol I p.327)

Mention of the Schools Inquiry Commission brings us back to where we began. The Commission was one of three set up in the late 1850s and 1860s to prescribe what sorts of schools there should be for each of the three social classes of the time. While the upper classes were to receive a still largely classical education in one of the nine leading public schools, and the masses a basic education in the 3 Rs, the Schools Inquiry Commission in its 'Taunton' Report proposed that middle class schools – among whom dissenters'children were still the most significant group – should, as we saw above, be based on a broad range of modern subjects.

5. Conclusion

The current National Curriculum in England and Wales belongs to a certain tradition of thinking about the curriculum. This goes back, via the Secondary Regulations of 1904, the Taunton Report of 1868, Presbyterian and other dissenting academies and universities in Scotland and England, and the work of the Hartlib circle, to Ramist activity in early seventeenth century Germany, and finally back to Ramus himself.

I have not studied in such detail the curricular histories of such places as the USA, Germany and other North European countries, in all of which radical Protestantism has been powerful in the culture. It would be interesting to see whether, as I suspect they do, these share the same origins. Given that the contemporary Japanese, and indeed the Chinese, school curriculum have been heavily influenced by Western models, it could be that they, too, share these beginnings.

The story could have been otherwise. A quite different way of thinking about the curriculum could have come to prevail. The features with which we are now all familiar – the division of the total course into discrete areas of knowledge with further subdivisions among these; the stress on a comprehensive initiation into all major disciplines; the value placed on effective learning; the timetabling of disconnected curricular units in short periods of time; regular testing and examining - are not, by any means, the only way in which school learning can be organised.

The planning of the school curriculum cannot begin with the curriculum itself. It has to start with aims. The curriculum is, after all, only a vehicle to bring about certain desired ends. We have to begin with large, fundamental questions about what schooling is intended to be for. Only when these are satisfactorily answered can we ask what means are best to bring about the aims we desire. There should be no assumption that these means will take the form of the traditional academic curriculum. They may, or they may not.

There was a time, as we have seen, when the academic curriculum had a clear rationale in religious terms. It was intelligible as a means to salvationist ends. Today, its rationale is hard to discern. That is why there is now a strong case for going back to first principles – for thinking hard about what we want schools to be for and then thinking about the best vehicles to bring about our ends.

In doing this, we should try to avoid a kind of regression to the mean that has played a less than helpful part in the more recent history of the curriculum. Again, I have in mind chiefly the British experience. Until the nineteenth century, virtually the sole focus of the academic curriculum was the acquisition of knowledge. This is understandable given the curriculum's radical protestant pedigree. In Puritanism and allied beliefs there was little place for the arts, at least as repositories of aesthetic or emotional experience rather than as the source of moral and psychological truths. The Romantic movement and its later derivatives were a boost to the gradual incursion into the curriculum of the arts – music, literature, the visual arts. But it has been difficult for these to detach themselves wholly from the grip of the knowledge tradition. This has been true not least in literature, where knowledge of plot, character, verse forms etc has often been central at the expense of enjoyment of the work. This can be seen even today in the requirement that every child undergo a national written test at 14 on a play by Shakespeare.

In the last few years, as it has become obvious to many that the school curriculum in Britain needs to reflect wider social and personal aims, new subjects have been added to those already there. These include citizenship; personal, social and health education; and, most recently, education in economic well-being. Once again, good teachers have had to resist the tendency to assimilate these to the knowledge tradition: important though a knowledge of the electoral system may be, becoming a good citizen goes way beyond this.

So the way forward is not to add desirable aims piecemeal on to the existing structure, but to think more fundamentally about what schools should be aiming at. This is a large topic. Although I cannot deal with it adequately here, presumably any decent education would be designed to help young people lead fulfilling personal lives. It would also dispose and equip them to help others to lead fulfilling lives, in more intimate arenas as their friends, lovers and neighbours, as well as nationally and globally as citizens and workers.

Central to this two-fold aim is the notion of a fulfilling life. But what is this? We would need to explore the question with some thoroughness if the aim just mentioned is to be more than a slogan or soundbite. Some young – and not so young – people think of a flourishing life as a life packed with enjoyable experiences, the intenser the better, a life of great wealth, power, freedom to do whatever one wants. Are they right? Or is it part of a school's job to challenge such views, to test their credentials? If so, by what criteria do we do the testing?

We are getting into philosophical territory and would need more space than we have here to explore it fully. All I wish to underline is that this is the way educational thinking should now be going. It needs to face up to questions about what schools should be doing and to bigger questions about personal and social flourishing that lie behind this. I have provided a sketch of my own views of what the aims of school education should be in my recent short book *What schools are for and why* (White 2007). This also includes a brief rationale for the aims I have selected.

It is only once we have some clearer picture of what we should be aiming at that it makes sense to think about the best ways of trying to realise these aims. How far is the traditional instruction-based course within a discrete discipline a good vehicle? What place is there for work arranged around themes or topics rather than within subjects? How might school ethos be pressed into service? What room is there for activities within the local community or other out-of-school activities, for time for private reading and reflection, for student choice of activity?

I have no doubt at all that much of what is currently studied in traditional subjects will find its place in such a differently-orientated scheme. To lead a fulfilling life and help others to do so, young people will have, for instance, to know a good deal about the society and about the world they live in, its social structure and economic basis. This knowledge in turn depends on some understanding of the technological, scientific and mathematical basis of a modern economy. My proposal, is, therefore, not that everything we have at present be scrapped, but that we should reconceptualise how we think of school education so that its parts fit together in a coherent whole. At present, we are living too much off the legacy of a past scheme of education that may have fitted in well with the cosmological outlook of a previous age but makes much less sense today.

In 1923 the future director of my own Institute of Education in London University, Sir Fred Clarke, wrote that 'the ultimate reason for teaching little Johnny long division is that he is an immortal soul' (Clarke 1923:2). Eighty years ago it was still possible to write in this way, knowing that many in one's audience would be in the same belief system as oneself. For those who thought that way, it made sense to see children essentially as intellects, not as social animals with passions and desires which can help them to lead the only life they have. It made sense to treat these intellects as individual units, keep them each behind their separate desk, so making it maximally easy for them to assimilate new items of knowledge from the teacher at the front of the class. It made sense to teach them that ignorance is a sin, and that mistakes made in their work are not only intellectual errors, but moral ones too. It made sense to make their acquisition of knowledge as timeefficient as possible, packing its items into a timetable grid of short periods spent on discrete subjects, so that none of God's time for us in our mortal life need be wasted.

Given that nearly all of us now think differently about human beings and the nature of human life, it makes less and less sense for us - all over the globe – to continue organising our school systems on assumptions we can no longer accept. It is time for us all to get down to some radical rethinking.

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