

Why general education? Peters, Hirst and history

Science, mathematics, history, art, cooking and carpentry feature on the curriculum, not bingo, bridge and billiards. Presumably there must be some reason for this apart from their utilitarian or vocational value. (Peters 1966: 144).

Peters (1966, 1973) set out to discover this reason. During his enquiry, practical subjects like cooking dropped out of the picture, leaving 'theoretical enquiries' concerned with the pursuit of truth, like science, history and literary studies. Peters also collaborated with Paul Hirst, whose 'forms of knowledge' theory was published in 1965. This, too, sought to justify theoretical disciplines on intrinsic grounds. Hirst and Peters (1970) took these forms of knowledge as the basis for the curriculum.

With the passing of time, this project, then so influential, seems hard to make sense of. 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.

Looking back, too, there seems to be more to be said than philosophers thought at the time for Michael Young's comment that Hirst's view

appears to be based on an absolutist conception of a set of distinct forms of knowledge which correspond closely to the traditional areas of the academic curriculum and thus justify, rather than examine, what are no more than the socio-historical products of a particular time.

Young 1971: 23

Certainly, it is hard not to read the above quotation from Peters as taking the traditional school curriculum as read and assuming there must be good reasons for it.

Granted, as Young points out, 'forms of knowledge' are not school subjects. Even so, as he suggests, there is something of a fit between 'forms' like mathematics, physical science, history, literature and the fine arts, and religious knowledge and many, if not all of the areas of the traditional curriculum.

1.

There is another feature of the Peters-Hirst project that is hard to fathom. Utilitarian reasons for teaching science, mathematics or history are not hard to find. But the reason they favour is intrinsic. Why?

This may not seem to raise difficulties. Aren't teachers justly delighted when a pupil develops a passion for doing science, not out of any instrumental motive, but because it is intrinsically fascinating?

I'm sure this is right, but it's beside the point. For what is patently true of Hirst's theory, and only marginally less so of Peters' (1966), is that pupils are expected to be intrinsically motivated not only, if at all, in a subject for which they have a passionate interest, but *across the board*, that is, in *every* mode of understanding.

This demand for comprehensiveness is fully explicit in Hirst, for whom to have a rational mind is to have been initiated into all the forms. Peters' 'transcendental argument' for curriculum activities brings him close to Hirst's comprehensiveness. It states that

..in so far as [a man] can stand back from his life and *ask* the question 'Why this rather than that?' he must already have a serious concern for truth built into his consciousness. For how can a serious practical question be asked unless a man also wants to acquaint himself as well as he can of [sic] the situation out of which the question arises and of the facts of various kinds which provide the framework for possible answers? The various theoretical enquiries are explorations of these different facets of his experience. To ask the question 'Why do this rather than that?' seriously is therefore, however embryonically, to be committed to those inquiries which are defined by their serious concern with those aspects of reality which give context to the question which he is asking. In brief the justification of such activities is not purely instrumental because they are involved in *asking* the question 'Why do this rather than that?' as well as in answering it. (p.164)

Both Hirst and Peters, therefore, favour initiation into a comprehensive range of theoretical enquiries pursued for intrinsic reasons. This means all students taking an intrinsic interest not only in, say, science, but also in a wide range of other disciplines. Psychologically, this is asking a lot of them. No doubt there are occasional pupils who adore everything they learn. But why expect everyone to develop an intrinsic interest in *every* mode of understanding?

In the light of this, it is not surprising that whenever Hirst or Peters attempts a justification of their 'intrinsic' position, they never quite succeed. The most celebrated justification is Peters', quoted above. This is formally similar to Hirst's (1965: 256) justification of the pursuit of the seven forms of knowledge. Both arguments fail to show, as they claim to do, that in asking for justification one is already committed to the intrinsic pursuit of a broad range of kinds of knowledge. It is true that in asking 'Why do this rather than that?' or (in Hirst's case) 'Why pursue knowledge?', one wants to know the true, well-founded answer to one's question. If you like to put it this way, the questioner is committed to the pursuit of knowledge *on this very specific point*. But this does not mean he or she is committed to the pursuit of *science, philosophy, literature* etc, as the Hirst-Peters position requires. (White 1973: pp.10ff, 78ff).

Peters' (1973) wrestlings with the same likewise fail to clinch things. In Ray Elliott's words, Peters here claims that

the educational pursuit of truth in disciplines such as science, philosophy, literature and history is in certain fundamental respects the same as the pursuit of truth in everyday life or any other non-educational context, since in any context the pursuit of truth involves virtues such as truthfulness, clarity, non-arbitrariness, impartiality, a sense of relevance, consistency, respect for evidence, etc.

(Elliott 1977: 231)

The educational study of the disciplines and their objects is justified on the ground that through it the learner acquires the rational virtues which are essential for reflective thought on matters of a different kind, chiefly what the individual is to do or has done, what he believes and feels about the various matters with which he is existentially concerned, what style of life he is to adopt, and whether the style of life he has adopted is a good one.

(p.232)

As Elliott points out, this is a very different kind of justification from that found earlier in Peters. It makes a practically wise life the main function of education, bypassing the earlier emphasis on pursuing science, philosophy etc for their own intrinsic features.

There is another aspect to Hirst's 'transcendental' justification. He writes that 'the achievement of knowledge is necessarily the development of mind in its most basic sense' (Hirst 1965: 256). Given this equation, this gives Hirst a way of justifying the pursuit of the seven forms of knowledge that avoids the problem mentioned earlier. Drawing on Greek philosophy, he sees a link between the development of mind and the good life, the latter to be understood in terms of the former (257).

The argument is only sketched in. But it is problematic. Our mental life is various: it includes, for instance, emotional experience as well as states connected with knowledge. Hirst says that acquiring knowledge is the development of mind 'in its most basic sense', but in what way is it more 'basic' than, say, using one's imagination? Again, why is the good life to be understood in terms of mental development (= the pursuit of knowledge), seeing that others have located it in artistic activity, living for others, a mixed life of all sorts of goods, and so on?

The Hirst-Peters justifications for the intrinsic pursuit of intellectual enquiry on a broad front fail to hold water.

Ray Elliott also says that although Hirst and Peters (1970) ‘emphasise that the forms [of knowledge] are historical institutions, which have undergone a long period of evolution’, it is surprising that Peters elsewhere gives such an *a priori* account of them.

The aims and procedures of historical institutions...will tend to be extremely complex, and to be discoverable only by resolute and sensitive empirical enquiry.....[Peters] does not anywhere acknowledge that the disciplines stand in need of thoroughgoing interdisciplinary investigation and critique. His attitude seems to be that they are self-correcting and should be trusted absolutely. (Elliott 1977: 97-8).

In this connexion, look again at the earlier quotation from Peters:

Science, mathematics, history, art, cooking and carpentry feature on the curriculum, not bingo, bridge and billiards. Presumably there must be some reason for this apart from their utilitarian or vocational value.

The kind of ‘reason’ that Peters has in mind concerns *justification*. But if we want to know why science, mathematics etc feature on the curriculum, it is more natural to take this as a request for *explanation*.

I turn now to a historical explanation of the traditional school curriculum. This not only draws attention to its contingent character; it also suggests answers, historically located and not timeless answers, to the questions: why is *comprehensive* knowledge – getting inside *all* the forms of knowledge – educationally important? And why is it important to be *intrinsically* motivated to have this comprehensive knowledge?

In saying that ‘Science, mathematics, history, art, cooking and carpentry feature on the curriculum’, Peters was talking about a *particular kind* of curriculum. In a British context, this was, broadly speaking, the curriculum for so-called ‘middle-class schools’ proposed by the Taunton Commission of the 1860s and made compulsory for the new state secondary grammar schools introduced in 1904.

The nineteenth-century rival of this ‘modern’ curriculum had been the classics-based curriculum. This was seen as appropriate for the top public schools by the 1861-4 Clarendon Commission. The third great commission of that class-conscious decade, the Newcastle, proposed a curriculum based on the 3 Rs for the working classes.

By the 1960s, when Peters was writing, the victory of the ‘modern’ curriculum over its rivals was well under way. It was sealed by the National Curriculum in 1988, which imposed it not only on every state secondary school but also on every state primary. The ten compulsory subjects of 1988 were almost identical to those in the 1904 Secondary Regulations.

How did this ‘modern’ curriculum grow up in the first place? Why, by the 1860s, had it been officially identified with middle-class schooling? Two preliminary points.

[1] Its core had always been *knowledge* in its different forms. Physical education and more purely aesthetic pursuits had been added in the nineteenth and twentieth centuries, English literature having been part of the knowledge-based core since the eighteenth century, mined for *truths* about human nature and society.

[2] The curriculum had always been based on a notion of *general* education. Although all kinds of institutions, from 1600 onwards, have taught individual subjects, from Italian to fencing, the modern curriculum that came down to us via Taunton was a compulsory course in a range of types of knowledge.

This curriculum can be traced back before the 1860s. You find it in the newly-founded University of London in 1826; and after 1838, in the London Matriculation exam required for entrance to the London course, but soon used by secondary schools for other purposes. You find it in the English Dissenting Academies, set up after 1662 to provide a higher education or ministerial training for dissenters excluded from Oxford and Cambridge; as well as in dissenting secondary schools. You find it from 1570 onwards in the Scottish universities [1].

It is no accident that most of these institutions had connexions with English Dissenters and Scottish Presbyterians. These, often with backgrounds in industry and commerce, formed a large part of the ‘middling classes’ who rose to political power in the nineteenth century and for whom Taunton’s ‘middle-class schools’ were intended. They were the intellectual descendants of radical protestant reformers, mainly Calvinists, of the sixteenth century.

How is it that these largely Calvinist groups came to be associated with the ‘modern’ curriculum?

3

Pierre de la Ramée (Ramus) (1515-1573), a poor boy from northern France, became Regius Professor of Eloquence and Philosophy at the University of Paris in 1551. His central concern was pedagogical. Educated Europeans of his day had been brought up in a tradition of Aristotelian scholarship based on Greek texts and commentaries on them. It was hard for scholars to make headway through the obscurities, and even harder for those unable to afford many years of higher education. Ramus provided them with a swift, manageable, way of mastering what they needed to know in a whole range of subjects and classical authors. (See Hotson 2007 for material relevant to this Section).

The key was his idea of the one, single ‘method’. This was based on three principles. Items of subject matter had to be all true (unlike dubious material in existing textbooks); they were to be grouped together in their proper categories (so that, for instance, material on geometry would no longer be included in a work on arithmetic); the order of

presentation was to be from general to particular (and so more assimilable). (Graves 1912: ch 5)

A logical breakdown of the subject-matter was represented visually as a tree diagram of the main categories, typically with dichotomised branchings taking one towards particularities. Lecture courses led students systematically through the material, with planned private study based on practical exercises, and feedback to the tutor.

Ramus applied his method to the basic teaching of a wider range of subjects than was usual at the time – including arithmetic, geometry, optics, physics and music as well as grammar, dialectic and rhetoric. He created a seven-year curriculum to teach these subjects to boys at a Paris school (Grafton and Jardine 1986: 164).

His pedagogical revolution was continued after his death by three Calvinist scholars at Herborn Academy in north-west Germany. These were Keckermann, Alsted, and Comenius, each of the last two the pupil of the preceding one. Together, they pared away inadequate material in Ramus' system, expanding its range to cover more and more disciplines and sub-disciplines, including developments in empirical science from Bacon, Kepler and others. The process reached its culmination in Alsted's comprehensive account in his 1630 *Encyclopaedia* of all branches of theoretical and practical knowledge, as well as of the mechanical arts.

Comenius carried on the encyclopaedic project under his own label 'pansophism', developing ways of transmitting a vast amount of knowledge in simplified form, eg via his illustrated *Orbis Pictus* (Comenius 1658) for younger children. His theoretical treatise *The Great Didactic* (Comenius 1907) shows the continuity of the Ramist tradition since its founder. It advocates first giving children a general outline of a subject; comprehensive coverage of the curriculum; adherence to a single method; elimination of unnecessary content; efficient organisation so no time is wasted; practical application to everyday life.

4.

By 1600 the pedagogical revolution that Ramus initiated became closely associated with Calvinism. Although there was by no means a complete overlap, the emphasis in Calvinism on an ordered system of beliefs, paring away excrescences, simplicity and directness, efficiency and time-saving, reduced reliance on authority, diligence in study, and useful application of knowledge makes its take-up unsurprising. There was a close association between the two movements in Britain, elsewhere in Northern Europe, and in New England, where Ramist ideas long remained dominant in Harvard College (founded 1636).

Given the close connexion, how far do religious reasons help to explain attachment to the Ramist tradition? Pre-1600, in the north German context, Hotson (2007) puts most weight

on *secular* motivation. He emphasises the attractiveness of a useful, efficient and relatively inexpensive education to both a mercantile élite and to local princes building up a civil service

But religious reasons became increasingly important after 1600, as religious divisions sharpened across Europe, not least in Britain where Puritans were gaining strength. The secular hypothesis may well show the appeal of *useful* knowledge, but does not account for the interest in *encyclopaedic* knowledge.

Traditionally, the pursuit of knowledge had been problematic for the Christian, given its role in the Fall. Bacon's *Instauratio Magna* charted a solution which strongly appealed to his puritan disciples. He believed that 'all knowledge is to be limited by religion, and to be referred to use and action.' As Webster (1975: 22) says,

This conclusion was perfectly adapted to the puritan position; investigations conducted into secondary causes, and with utilitarian ends in mind, would incur no risk of transgression, but instead glorify God...

There is a related view about the Fall that weighed with reformers. Man had been created in the image of God. The Fall meant that there had to be a new 'instauration' in man of this image. Not all had been lost. The human mind still contained 'slender rays of its pristine light', as manifested in its intellectual and volitional abilities (Hotson 2005:1). The school was the institution in which these abilities could be developed, and therewith the image of God in man restored. The Calvinists Keckermann, Alsted and Comenius all thought this way. It was closely connected with their encyclopaedism. In Alsted's words

Although God alone is wise and all-knowing, nevertheless he impresses the image of his perfection on men who desire to learn, as is seen especially in those who by vehement force of mind embrace the whole orb of the disciplines,' that is to say, 'what is commonly called the *encyclopaedia*.' (Hotson 2005:11).

Comenius' *pansophism* and the education he devised to realise it have the same rationale. He writes

it is evident that man is naturally capable of a knowledge of all things, since, in the first place, he is the image of God. For an image, if it be accurate, necessarily reproduces the outlines of its archetype, as otherwise it will not be an image. Now omniscience is chief among the properties of God, and it follows that the image of this must be reflected in man. (Comenius 1907: 41)

Unlike the secular rationale, this religious argument provides a powerful reason, within its own terms, for an encyclopaedic education. It is man's duty on earth to become as omniscient as possible.

It could be that curricula originally devised for religious reasons by *educationalists* like Comenius appealed to many *students and employers* for secular reasons, to do with getting on in the world. But the two motivations are not, in any case, discrete. Calvinism was devoted to diligent social and economic improvement as a sign of devotion to God. The two kinds of reason for a modern, general education interweave through its later history in Britain from the seventeenth to the nineteenth centuries.

We find both of them in the extraordinary story of the ‘Three Foreigners’ who ran educational policy for the Puritans between 1640 and 1660. These were Samuel Hartlib, John Dury, and Comenius himself – all educated by pupils or admirers of Keckermann (Hotson 1994: 45). Comenius, invited to England by Parliament in 1641-2, projected a millenarian reform of English education for the approaching ‘last age of the world...in which Christ and his Church shall triumph... an age of Enlightenment, in which the earth shall be filled with the knowledge of God, as the waters cover the sea’ (Trevor-Roper 1967: 271). To this end, he recommended a national system of education from a central ‘Pansophical’ college down to elementary schools.

After 1660, Anglicanism triumphed. Puritans and other radical protestants – e.g. Quakers – who refused to conform were excluded from public life. But the schools and academies that these ‘Dissenters’ now set up, often illegally, kept alive the modern curriculum. As earlier, religious reasons went along with secular ones.

Three examples of the former. Philip Doddridge (1728: 48), writing of students like himself following a modern curriculum at Kibworth Academy around 1720, states that ‘they are taught in all the several Branches of their Course to acknowledge God and direct their Enquiries and their Labours to his Glory’.

In 1786, Thomas Barnes, principal of the new Manchester Academy, wrote

Of all subjects, DIVINITY seems most to demand the aid of kindred, and even of apparently remoter sciences. Its objects are GOD and MAN: and nothing, which can either illustrate the perfections of the one, or the nature, capacities, and history of the other, can be entirely eliminated...Natural Philosophy, in its widest sense, comprehending whatever relates to the history or properties of the works of Nature, in the Earth, the Air, the Ocean, and including Natural History, Chemistry, &c. has an immediate reference to the one – and to the other belong, all that Anatomy and Physiology can discover relating to the body, and all that Metaphysics, Moral Philosophy, History, or Revelation declare concerning the mind. (Sell 2004: 11-12)

Grove House School, in Tottenham, was a Quaker foundation of 1828. It included natural philosophy (physics) in its broad curriculum, partly for reasons of mental training, but also because it helped pupils to acquire

a clearer and enlarged vision of the wisdom of the Supreme Being in the wonderful regularity of the Laws of Nature.

(Brown 1952: 8)

6.

I come back to Hirst and Peters and the problem of justifying a general, modern curriculum on intrinsic grounds. We saw earlier that their own arguments are problematic. The historical sketch shows us that, in the earlier history of this modern curriculum, there *was* a good reason, given a certain religious framework, why it [a] should cover the whole range of knowledge, and [b] be intrinsically important. [2]

Could there be any echoes of the old religious justification in the writings of the 1960s? In case this seems totally implausible, let's look for a moment at Philip Phenix's theory.

Phenix

Philip Phenix (1964) discusses the ideal curriculum somewhat as Hirst does – in terms of a small number of logically distinct categories of understanding.

Phenix was educated at Union Theological Seminary in New York. In Phenix 1961 he wrote that 'the central task of education is religious conversion' (p242), and that 'We are reserving the name of *religion* in the present analysis for a reverential attitude to what is of ultimate value' (p237). 'This is the one supreme purpose which unites all the lesser purposes of education: to engender reverence' (p252).

In Phenix 1964 he spelt out his abstract schema for the curriculum, based on six 'realms of meaning': symbolics, empirics, esthetics, synnoetics, ethics and synoptics. The book's first words are

It is not easy to sustain a sense of the whole. Many a person pursues his own limited calling with scarcely a thought for his place in the total drama of civilised endeavour (p3).

And a little later he writes

Students and teachers alike are prone to take the curriculum as they find it, as a traditional sequence of separate elements, without ever inquiring into the comprehensive pattern within which the parts are located (ibid).

This last quotation assumes that the traditional curriculum *does have* a comprehensive pattern behind it, but has come to be taken as a collection of disparate items. Phenix is a latter-day encyclopaedist, recalling his readers to a wholeness that once lay behind the

curriculum's now disconnected parts. At the same time, he does not see this wholeness as an undivided totality: like Hirst, and like the Ramist thinkers, he sees it as subdivisible on logical principles into a number of discrete realms.

Peters

Phenix's emphasis on reverence reminds us of Peters' comment in his transcendental argument that, unlike games, academic disciplines are not 'hived off from man's curiosity about the world and his awe and concern about his own peculiar predicament within it'. He fills this out by a quotation from Whitehead about the value of religion to a human life in merging 'its individual claim with that of the objective universe' (Peters 1966: 164). As Ray Elliott (1986: 57) writes, Peters'

response to Being-in-totality and to human being-in-the-world, on the contemplation of them, is one of piety... he attaches what is, according to his own account, a religious significance to that which gives and discovers meaning and which receives and discloses it.

When he wrote the passage mentioned above, Peters had been a Quaker for some thirty years. His teaching experience after the war had been in the Quaker school at Sidcot in Somerset, founded in 1699. In 2008 the school's on-line prospectus tells us that 'Education should be a joyful experience of self-development and an inspiring introduction to the wonders of creation'. This reflects, as perhaps does Peters' comment, Quakerism's attachment since its inception to the revelatory power of the natural world and to the role of science in exploring it.

I do not know how much weight, if any, to put on the suggestion that Peters' argument may have some continuity with older religious justifications. At least it helps to make sense of it. Otherwise, it remains simply a sturdily held but unconvincing argument living in a time-bubble.

Hirst

The last remark could also apply to Hirst's justification. One way of bursting the bubble would be to fill out his account with arguments taken from the Ramist tradition, but this would be to saddle it with a theological rationale which he would reject.

Three features of Hirst are reminiscent of this tradition.

First, both favour an education in every branch of knowledge. As with Keckermann, Alsted and Comenius, Hirst makes it clear that this ideal can only be realised at the level of general principles, not detailed content (Hirst 1965: 261).

Secondly, the totality of knowledge subdivides by logical principles into smaller categories. Hirst's seven forms of knowledge parallel the academic disciplines identified

by Ramus and his successors. In each case, the logical discreteness of these units is stressed.

Thirdly, Hirst makes links between [1] the pursuit of knowledge in every domain, [2] the development of mind (in one place he refers to ‘the comprehensive development of the mind in acquiring knowledge’ (Hirst 1965: 261)), and [3] the good life.

[1] The Ramist tradition prizes encyclopaedic knowledge because [2] this helps to bring the learner’s mind closer to the mind of God as an omniscient being. It furthers, in Alsted’s words, the ‘instauration of the image of God in Man’. [1] and [2] are also connected with [3], the good life. For, assuming the theological framework within which Alsted and others were working, the only good life could be one’s existence as an immortal soul after one’s salvation, a life freed from the snares of the body and devoted to spiritual activity.

As I have said, Hirst would reject such a rationale. Although he was brought up in a strict evangelical faith, he early abandoned this and saw his theory of liberal education as wholly rationally, not theologically, based (Hirst 2008).

7.

Are parallels between 1960s thinking and the religious tradition merely coincidences? There is a way, which I will now explore, in which history may provide a bridge between the two.

This has to do with the development of mind. This is a key concept for Hirst, and also for Peters. Like Hirst, he links it with learning to operate within the ‘differentiated modes of thought and awareness’ of a scientific, mathematical, historical, religious, moral or aesthetic sort (Peters 1966: 50).

A predecessor to scientific psychology was pneumatics (or pneumatology). This had to do with the nature of spirits, and was divided into work on the ‘powers and faculties’ of the human mind, and work on the being of God. It was a staple subject in dissenting academies, Scottish universities, and – often in a different form – in American universities and colleges. In the nineteenth century, it became secularised as scientific psychology. (White 2006: 100-6)

It was also in the nineteenth century that intrinsic justifications of the academic curriculum begin to appear, based on psychological claims about human faculties. In New England, the 1828 Yale Report justifies its general course in terms of the mental powers that each subject specifically develops.

In laying the foundation of a thorough education, it is necessary that *all* the important mental faculties be brought into exercise..... The mind never attains its full perfection,

unless its various powers are so trained as to give them the fair proportions which nature designed.

[<http://collegiateway.org/reading/yale-report-1828/> pp.6-7]

In the UK, the Taunton Report favoured ‘the general cultivation of the intellect’ or ‘powers of the mind’. In his preface to the 1904 Secondary Regulations introducing the academic curriculum into state education, Robert Morant underlined the importance of *general* education. This

must be such as gives a reasonable degree of exercise and development to the whole of the faculties, and does not confine this development to a particular channel.... Specialisation... should only begin after the general education has been carried to a point at which the habit of exercising all these faculties has been formed.

Leaving aside problems about how faculties are identified – for Morant is not specific – why did he think it important that *all* the faculties be developed? He does not say.

Paul Hirst’s theory was in part a reaction to the justification found in the Harvard Report of 1946 on *General Education in a Free Society*. This was in the same psychological tradition. The Report argued that a general education based on the natural sciences, the humanities and social studies develops certain mental abilities: ‘to think effectively, to communicate thought, to make relevant judgments, to discriminate among values’. Although the filling is different, the form of the argument is similar to Morant’s.

Hirst defined his own position against Harvard’s, arguing that the abilities it mentions have a place only within specific forms of thought. What counts as ‘effective thinking’, for instance, is very different in history and mathematics. Even so, Hirst’s position is close to Harvard’s (and Morant’s) in the place it accords the development of mind in the rationale for a general education.

Whatever the historical links may be between Hirst’s and earlier forms of psychological justification, there is no doubt about the originality of Hirst’s ‘forms of knowledge’ argument among accounts of the academic curriculum between, say, 1800 and when he wrote in the 1960s. From the Yale Report of 1828, via Taunton, Morant, the Norwood Report, and through to the Harvard Report of 1946, these accounts have been largely brief and unsystematic. Hirst’s argument is quite different. It presents us with a tightly organised system of categories – the ‘forms’ – derived *a priori* from the nature of knowledge itself. There has been nothing like this in the history of education since Comenius and his forebears in the Ramist pedagogical tradition.

One last speculation. The latest manifestation of Harvard’s ancient attachment to general education are Howard Gardner’s eight or nine ‘multiple intelligences’. Like Hirst’s ‘forms’, they do not map exactly on to conventional school subjects, but are, even so, close to them.

Gardner's writings on the content of education favour the 'general education' tradition. He writes

Education in our time should provide the basis for enhanced understanding of our several worlds – the physical world, the biological world, the world of human beings, the world of human artifacts, and the world of the self. (1999:158)

He also thinks this understanding should be largely for intrinsic ends. 'I favor ...the pursuit of knowledge for its own sake over the obeisance to utility' (p.39).

Why is pursuing general knowledge, or – what seems close – the development of all the intelligences, intrinsically important?

There are question-marks about the *ultimate* basis of Gardner's theory, just as there are about Hirst's and about Peters'. All three favour the acquisition of comprehensive general knowledge for intrinsic reasons; and all equate this with the development of mind. But their justifications give out at this point.

The Ramist pedagogical tradition had a theological justification for developing the mind/forms of knowledge. This keystone, that once held the whole argument together, has long since crumbled away. There may be lessons here for the future of the academic curriculum, including its current embodiment in the National Curriculum [3].

Notes

[1] Here are some early examples of modern curricula. References in White (n.d.).

Melville's Glasgow University after 1574

Year 1: humanities (Greek and Latin) and Ramus' dialectic. 2: mathematics, cosmography, astronomy. 3: moral and political science. 4: natural philosophy (physics) and history.

Keckermann's Danzig *gymnasium* 1602. Year 1: logic and physics. 2: metaphysics and mathematics (including astronomy and geography as well as arithmetic and geometry). 3: practical philosophy (ethics, philosophy and economics).

King's College, Aberdeen 1641. Year 1: mainly Greek and Hebrew. 2: logic, rhetoric and mathematics. 3: ethics, politics and economics. 4: natural philosophy (including astronomy, geography, optics, music).

Doddridge's Northampton Dissenting Academy 1720s. Year 1: logic, rhetoric, geography, metaphysics, geometry, algebra. 2: trigonometry, conic sections, celestial mechanics, natural and experimental philosophy, divinity, orations. 3: natural and civil history, anatomy, Jewish antiquities, divinity, orations. 4: civil law, mythology and

hieroglyphics, English history, history of nonconformity, divinity, preaching and pastoral care

Wesley's Kingswood School 1749. Reading, writing, arithmetic, English, French, Latin, Greek, Hebrew; history, geography, chronology; rhetoric, logic, ethics, geometry, algebra, physics, music.

Scottish Universities MA in Arts course, eighteenth century. Year 1: Greek tended to be taught. 2: logic and metaphysics. 3: ethics and pneumatics. 4: natural philosophy, probably including some mathematics

University of London 1826. Years 1,2: Latin, Greek and mathematics. 3: logic and philosophy of mind, chemistry and natural philosophy. 4: jurisprudence, political economy, natural philosophy, moral and political philosophy

Grove House (Quaker) School, Tottenham 1828. Latin and Greek, principles of religious liberty and the British constitution, geography and history in relation to the Bible, advanced and applied mathematics, natural philosophy.

London Matriculation exam after 1838. A range of academic subjects close to those taught for the early London BA course – including mathematics, natural philosophy, chemistry, Greek and Latin, English language, outlines of history and geography, and (for Honours) natural history

[2] J.H.Newman (1854) was a well-known advocate of the intrinsic value of university education. Although he did not favour a general course, he did say, of the university as a whole, that

all branches of knowledge are connected together, because the subject-matter of knowledge is intimately united in itself, as being the acts and the work of the Creator.....
..... Knowledge is capable of being its own end. Such is the constitution of the human mind, that any kind of knowledge, if it be really such, is its own reward. (Discourse 5, Section 1).

[3] This paper takes much further a theme first explored in White 2005.

References

Brown, S.W. (1952) *Leighton Park: a History of the School* Leighton

Comenius, J.A. (1907) *The Great Didactic*, tr.
Keatinge, M.W. London: Adam and Charles Black

- (1658) *Orbis Sensualis Pictus*
 Republished 1896 London: Pospisila
- Doddridge, P. (1728) *Notes on an educational method* (GB 0096 MS 609) University of London Library
- Elliott, R.K. (1977) 'Education and Justification'
 Hirst and White (1998) Vol 1
- (1986) 'Richard Peters: a philosopher in the older style' Hirst and White (1998) Vol 1
- Gardner, H. (1999) *The Disciplined Mind* New York: Simon and Shuster
- Grafton, A. and Jardine, L. (1986) *From Humanism to the Humanities* London: Duckworth
- Graves, F.P. (1912) *Peter Ramus and the Educational Reformation of the Sixteenth Century* New York: Macmillan
- Hirst, P.H. (1965) 'Liberal Education and the Nature of Knowledge', Hirst and White (1998) Vol 1
- (2008) 'In pursuit of reason' in Waks, L. (ed) *Leaders in Philosophy of Education: Intellectual Self Portraits* Sense Press (USA)
- Hirst, P.H. and Peters R.S (1970) *The Logic of Education* London: Routledge and Kegan Paul
- Hirst P H and White P A (eds) (1998) *Philosophy of Education: Major Themes in the Analytic Tradition* London: Routledge
- Hotson, H. (1994) 'Philosophical Pedagogy in Reformed Central Europe between Ramus and Comenius' in Greengrass, M. (et al) (eds) *Samuel Hartlib and Universal Reformation* Cambridge

- (2005) 'the Instauration of the Image of God in Man' Pelling, M. and Mandelbrote, S. (eds) *The Practice of Reorm in Health, Medicine and Science, 1500-2000* Aldershot: Ashgate
- (2007) *Commonplace Learning: Ramism and its German manifestations 1543-1630*
- Newman, J.H. (1854) *The Idea of a University* Ker, I. (ed.) (1976) Oxford: Clarendon Press
- Peters, R.S. (1966) *Ethics and Education* London: Allen and Unwin
- (1973) 'The Justification of Education' Hirst and White (1998) Vol 1
- Phenix, P.H. (1961) *Education and the Common Good* New York: Harper
- (1964) *Realms of Meaning* New York: McGraw-Hill
- Sell, A. (2004) *Philosophy, Dissent and Nonconformity 1689-1920* Cambridge: James Clarke
- Trevor-Roper, H. (1967) 'Three foreigners: the philosophers of the puritan revolution' in his *Religion, the Reformation and social change* London: Macmillan
- Webster, C. (1975) *The great instauration: science, medicine and reform 1626-1660* London: Duckworth
- White, J. (1973) *Towards a Compulsory Curriculum* London: Routledge and Kegan Paul
- (2005) 'Reassessing 1960s philosophy of the curriculum' *London Review of Education* Vol 3 No 2
- (2006) *Intelligence, Destiny and Education: the ideological roots*

of intelligence testing London: Routledge

----- (n.d.) *The Struggle for General
Education: Ramus, the Dissenters, and the origins of the National
Curriculum*

Young, M.F.D. (ed) (1971) *Knowledge and Control*
London: Collier-Macmillan