

White, J. (2006) *Intelligence, Destiny and Education: The ideological roots of intelligence testing*. London; Routledge

### **Why gifted education should be part of overall education policy on**

[http://www.nagty.ac.uk/about/english\\_model\\_full.aspx](http://www.nagty.ac.uk/about/english_model_full.aspx)

- Today's gifted pupils are tomorrow's social, intellectual, economic and cultural leaders and their development cannot be left to chance.
- "We believe that people should be able to rise by their talents, not by their birth or advantages of privilege. (Tony Blair, 1996)

### Summary

White proposes that concepts of intelligence, as expressed in England and America, and the school curriculum are, and have been, linked at the level of policy for centuries. He contests:

*However influential the two core notions have been, if you look for sound supporting arguments behind them, you will be disappointed. There are no solid grounds for innate differences in IQ; and there are none for the traditional subject-based curriculum. p. 1*

White provides evidence to support the assertion that the two ideas have common origins which can be traced back to the radical forms of Protestantism in the sixteenth century and more recently to the men with the same cultural roots and affiliations who are responsible for the current notions of intelligence and our present school system.

*...Galton was the creator of the notion of intelligence which has been transmitted... No one before him had come up with the thought that we all possess different degrees of an ability which is intellectual, general and limited. p. 25*

and from that comes streaming, selection and criteria of school success.

The influence of the heritage of Galton, Morant and Burt can be felt within the school system and the National Gifted and Talented strategy we have today.

*In another paper (Terman 1922:657-9, quoted in Minton 1988:99), stated that: ... all the available facts that science has to offer support the Galtonian theory that mental abilities are chiefly a matter of original endowment... It is to the highest 25 percent of our population, and more especially to the top 5 percent, that we must look for the production of leaders who will advance science, art, government, education, and social welfare generally... p. 24*

and this from Professor Deborah Eyre in 2004 who headed NAGTY set up by the government for the 'most able' 5 per cent of pupils in the country.

*'today's gifted pupils are tomorrow's social, intellectual, economic and cultural leaders and their development cannot be left to chance'. She goes on: 'A major reason for a dedicated educational focus on gifted and talented pupils is their potential to play a leading role in their adult lives. If England is to be successful in a globalised world then it will need to produce leaders who can compete with the best'. p. 143*

and the translation into practice

*By the end of 2004 the path to leadership was made easier for NAGTY members by requiring sixth-formers applying to university to confirm whether or not they belonged to the Academy. 'The Academy hopes that this will enable universities to better identify the most able pupils' (TES, 3 December 2004). p. 143*

White concludes that

*"While contemporary notions of intelligence, including the educationally very popular theory of 'multiple intelligences', referred to above, yield little if any positive evidence for this, the British government's current 'Gifted and Talented' initiative has features in common with the eugenics programmes of Galton, Terman and Burt and may share, to some extent, in their ancestry." p. 5*

and

*The school curriculum is not a thing in itself. It is a vehicle to realise larger aims. ... The school curriculum is – or should be – a vehicle to enable young people not only to lead a fulfilled personal life, but also to help other people, as friends, parents, workers and as citizens, to lead as fulfilled a life as their own .p. 151*

## **Introduction**

Today, intelligence is still bound up with the school curriculum, but often differently. In England, for instance, the academic curriculum – once only for a few – is now, in the shape of the National Curriculum, the daily experience of all. IQ tests have receded, and with them the idea that intelligence is a unitary ability for abstract thinking. In their place many teachers now believe that children come hard-wired with combinations of *multiple* intelligences. These closely fit the areas of the traditional curriculum – not only at its more abstract end, but also in artistic and other subjects like physical education. Non-abstract thinkers can now be bright, too: a curriculum for all coheres with a theory of intelligence for all.

In these ways intelligence and curriculum are, and have been, linked at the level of policy. But the intellectual connexion between them goes far deeper. It is this book's purpose to explore this. p. 1

However influential the two core notions have been, if you look for sound supporting arguments behind them, you will be disappointed. There are no solid grounds for innate differences in IQ; and there are none for the traditional subject-based curriculum. p. 1

Yet if the two ideas are so wanting, how is it that they became such powerful drivers of educational policy over the last hundred years? To answer this means leaving philosophical critique behind and turning to history: where justification is lacking, we must turn to explanation.

The *leitmotif* of this book is its suggestion that the two ideas have common origins. Roots of both go back to the protestant Reformation of the sixteenth century. More specifically, they are late fruits of the more radical forms of Protestantism which formed the puritan and dissenting communities of the seventeenth century and afterwards on both sides of the Atlantic. p. 2

Some years ago it struck me – as it had struck the American journalist Walter Lippman decades before - that predestination was as much a key feature of intelligence testing as it had been of Calvinism and its puritan offshoots. In both systems, where one will end up in life – or after life – is wholly or largely fixed at birth, whether by God or by nature. There is no way a person destined for damnation can come to be saved, just as there is no way a child of very low IQ can hope to become a doctor or a lawyer. This set me to wondering how far other elements of the puritan thought-world also had eugenic counterparts. Is there any connexion between the modern notion of an educated elite and the notion of an elect of those destined for salvation? Is the puritan dichotomy between the saved and the damned in any way reflected in the tendency of most of the intelligence pioneers to focus on the gifted at one end of the spectrum and the so-called feeble-minded at the other? Does reference to the 'gifted' and 'talented' in Terman, Galton and others carry any echo of the puritan insistence that individuals are called by God to discover and put to good use the innate gifts which He has given them? Is the interest of Burt and others have shown in vocational selection residually associated with this older sense of vocation? pp. 2

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Is there any direct evidence that religion played a part in the pioneers' work? I explore these questions, too, in Chapter 3, also looking further into counter-evidence and relating the overall argument to Nicholas Pastore's fifty-year-old thesis that the hereditarian beliefs of the early intelligence psychologists (amongst other scientists) broadly correlate with the conservative political view which most of them shared. p. 3

What has Aristotelean syllogisms to do with ascetic Protestantism? The answer is: not very much. The kind of logic that meant so much to it is not Aristotelian at all, but traceable to a French sixteenth-century scholar called Pierre de las Ramee, or Ramus. p. 3

Are there any vestiges of puritan/dissenting influence on our thinking in these areas? While contemporary notions of intelligence, including the educationally very popular theory of 'multiple intelligences', referred to above, yield little if any positive evidence of this, the British government's current 'Gifted and Talented' initiative has features in common with the eugenic programmes of Galton, Terman and Burt and may share, to some extent, in their ancestry. p. 5

The subject-based school curriculum which has been mandatory in England since 1988 has faced repeated attacks on its justifiability. This is not surprising, because it was introduced without any accompanying aims to speak of: ministers seemed to take it as read that it was a good thing, without onus of further backing. ... There have been recent moves in various quarters to begin curriculum planning from broad aims, rather than subjects, the latter thus becoming just one way among many possible other ways of realising these aims.

This alternative way of thinking about the curriculum puts the spotlight on aims themselves. What would a desirable set of school aims look like? This is a big question, but there will be little disagreement that equipping pupils to lead a successful life and help others to do so should be among them. The last part of Chapter 6 explores two notions of success. In one manifestation, it is a concept deriving from our puritan heritage, in which getting on in the world and the duty of unremitting hard work are central features. I urge that we detach ourselves from this older perspective and turn to a more acceptable version of a successful life. This revolves around a very different notion of personal fulfilment, which has been hammered out in recent philosophical ethics. The chapter, and thus the book as a whole, suggest that our educational thinking, like our ethical thinking more generally, should begin with this pivotal concept. pp. 4-5

### **Chapter 1 An unexplained theory of intelligence**

The 1904 Elementary Code (Board of Education 1929:9) stated that:

It will be an important though subsidiary object of the School to discover individual children who show promise of exceptional capacity, and to develop their special gifts (so far as this can be done without sacrificing the interests of the majority of the children), so that they may be qualified to pass at the proper age into Secondary Schools, and be able to derive the maximum of benefit from the education there offered them. p. 8

Although they never worked together, Burt shared with Morant an interest in clear-cut classification and grouping of the school population in line with pupils' likely future occupation and ways of life. Part of a memorandum on 'backward children' he wrote while working as a psychologist for the London County Council in 1925 was attached as an appendix to the *Handbook of Suggestions for Teachers* (i.e. elementary school teachers), which went through many reprints until as late as 1944. In it he stated:

The ideal plan would perhaps comprise a 'treble-track' system – a series of backward classes for slow children, a series of advanced classes for quick children, both parallel to the ordinary series of standards for children of ordinary average ability (Board of Education 1929:422) p. 9

Burt's attachment to streaming sprang directly from his views on intelligence. The report of the Spens Committee on secondary education 1938 reflects his submission to it:

Intellectual development during childhood appears to progress as if it were governed by a single central factor, usually known as 'general intelligence', which may be broadly described as innate all round intellectual ability. It appears to enter into everything which the child attempts to think, to say, or to do, and seems on the whole to be the most important factor in determining his work in the classroom. Our psychological witnesses assured us that it can be measured approximately by means of intelligence tests. We were informed that, with a few exceptions, it is possible at a very early age to predict with some degree of accuracy the ultimate level of a child's intellectual powers. (quoted in Simon 1974: 249-50) p. 9

As we normally understand it, intelligent activity has to do with the flexible adaptation of means to ends... p. 14

It would appear that neither Galton nor Burt provided good evidence for their key claim. The proposition that, for all of us, there are individually differing ceilings of ability seems to be an *assumption* behind their position, rather than a conclusion based on telling grounds. p. 16

But the proposition in question is supposed to apply to all of us: we are all said to have our own mental ceiling; and for non-brain damaged people the existence of a ceiling seems impossible to demonstrate. p. 16

Rationalising the post-1904 divided educational system need three kinds of theoretical input. There had to be a way of selecting pupils for the new, *intellectually* orientated secondary schools. There had to be a way of selecting them not for their aptitude in geography or science or any other subject of the secondary curriculum, but for secondary education in *general*. p. 17

Galton's project is in what he later came to term 'eugenics'. He believed, as he went on in the same paragraph to say, that for each generation 'it is a duty we owe to humanity' to investigate the power we have 'over the natural gifts of those that follow', and 'to exercise it in a way that, without being unwise to ourselves, shall be most advantageous to future inhabitants of the earth'. p. 18

He (Burt) quotes Galton to the effect that high intelligence is not enough for success. It needs to be reinforced by 'sustained and laborious toil'. p. 22

A few years later (Terman 1923, quoted in Minton 1988: 98), Terman expressed his agreement with the view that:

... the differentiation of curricula and the classification of school children according to ability, far from being undemocratic measures, are absolutely essential if the public school is to be made a real instrument of democracy... true democracy does not rest upon equality of endowment, but upon equality of opportunity...

In another paper (Terman 1922:657-9, quoted in Minton 1988:99), stated that: ... all the available facts that science has to offer support the Galtonian theory that mental abilities are chiefly a matter of original endowment... It is to the highest 25 percent of our population, and more especially to the top 5 percent, that we must look for the production of leaders who will advance science, art, government, education, and social welfare generally... p. 24

...Galton was the creator of the notion of intelligence which has been transmitted... No one before him had come up with the thought that we all possess different degrees of an ability which is intellectual, general and limited. p. 25

## **Chapter 2 Parallels**

Overall, then, we find another parallel: between salvation and success, and between damnation and failure.

Many young people in our own societies are orientated towards 'success'. They work hard at school in order to get into good universities in order to get 'good jobs' in order to lead a successful life. Some are driven onwards by the thought of the shame and diminished life-chances in store for them should at any point they fail. p. 39

The scholarship system 'rescues' bright working-class children, providing a 'ladder' for them up which to climb to achieve successes otherwise unattainable. It is a social ideal based on 'equality of opportunity', not on equality in income, life-style or social regard. On its Galtonian assumptions, the system does not seem unfair. p. 45

## Chapter 4 Logic and mind

The Galtonian account of intelligence is built around *intellectual* ability – and intellectual ability of a *general* rather than a specific sort. This conception has so influenced common understandings of intelligence that it may not strike one how peculiar it is. Intelligent behaviour, as we saw in Chapter 1, takes innumerable forms, from coping with difficult relationships within the family to skilfully playing the stock market. Intellectual ability is only one form of intelligence. It itself is multifarious, the powers displayed in mathematical calculations being very different from those found in historical research or in law.

Why were the pioneers of intelligence testing so interested in general intellectual ability – even though such a thing probably does not exist? p. 89

What was it about Ramus and his ideas that made them so popular in radical Protestant circles? Briefly, in *Dialecticae Libri Duo* and other works he provided a systematic map of the whole range of human knowledge and detailed guidance on how the items that constitute it can be transmitted from teacher to learner. p. 92

So what was Ramus's system? It was more Platonic than Aristotelian: indeed Ramus had set up his own logical system in deliberate opposition to Aristotle's, then dominant in European universities. Plato had held that for a proper understanding of the world one has to get behind what one can see, hear, smell and touch to reach the invisible structure underlying these phenomena. This is accessible not by the senses, but by the intellect alone. It takes the form of concepts sometimes called 'ideas' or 'forms', organised with a hierarchy of concepts which becomes more general and abstract the farther on distances oneself from the world of sense-perception. At the apex of the scheme is the concept, or form, of the Good, in terms of which all the subordinate concepts and all their manifestation in the world of the senses are explained and made intelligible.

Ramus's logical system had much the same shape, except that it was simpler and more mechanical. 'Ramus' in Latin means 'branch'. The link between surname and system must, I suppose, be coincidental, but it is helpful to think of Ramus's scheme as a ramifying structure, a more and more complex branching outwards from a single source. It has two key features, the first of which is shared by Plato. Ramus's scheme begins from the most abstract and general, and terminates in the concrete, particular phenomena of the world of sense-experience. The items in Ramus's branching structure, called 'arguments', included linguistic terms, concepts and things themselves (Miller 1939:124). The other key feature, not shared by Plato, is that successive branching from the original source take place by a repeated process of *dichotomising*. p. 92

The first dichotomy is between (a) the arrangement of individual 'arguments and (b) judgements necessary for relating these arguments together. Through successive dichotomisings, both complete scheme of arguments can be generated as well as a complete account of methods of relating them. The dichotomisings end once on reaches terms or entities which are indivisible. p. 93

## Chapter 6 Contemporary perspectives

In 1999 David Blunkett as Secretary of State for Education inaugurated a National Strategy on Gifted and Talented Education. It was intended to improve the range and quality of gifted and talented education in England and has a number of strands, including special programmes for these pupils. A National Academy for Gifted and Talented Youth (NAGTY) has been set up for this at the University of Warwick for the most able 5 per cent of pupils in the country.

The government's Gifted and Talented initiative is in direct line of descent from Galton's study of eminent individuals in *Hereditary Genius*. Like Galton, Burt, Terman and others, the government is paying particular attention to people perceived as the most intellectually able... But the very fact that the government thinks that some middle-class parents can be wooed by a policy which assumes that they see their children as gifted and talented shows the persistence within the culture of a certain cast of mind – the belief that one's children are different from the ordinary run of children, that they have fits which destine them for success, or would do so, provided those gifts were recognised and appropriately catered for. The old notions of belonging to an elect and of being rescued from a life of failure are not far in the background. p. 142

... Professor Deborah Eyre (Eyre 2004) states that 'today's gifted pupils are tomorrow's social, intellectual, economic and cultural leaders and their development cannot be left to chance'. She goes on: 'A major reason for a dedicated educational focus on gifted and talented pupils is their potential to play a leading role in their adult lives. If England is to be successful in a globalised world then it will need to produce leaders who can compete with the best'. This rationale for the programme reminds us again of the Galtonian project. It shares with it the belief that future leaders must be identified early and special provision made for them. In this it is also reminiscent of Morant's project.

By the end of 2004 the path to leadership was made easier for NAGTY members by requiring sixth-formers applying to university to confirm whether or not they belonged to the Academy. 'The Academy hopes that this will enable universities to better identify the most able pupils' (TES, 3 December 2004). It is not surprising in the light of such developments that 37,000 pupils were registered by this date with the Academy. Neither is it surprising that, as Eyre says (*ibid.*), NAGTY students

see themselves as being educated in their 'home' school and also through NAGTY. 'My school friends and my NAGTY friends'. This second group comprises friends from all over England and from a variety of different backgrounds. For NAGTY students education is not only locally based it is regional, national and international and individuals become more mobile in pursuit of the specialist provision that will enable them to fulfil their potential.

How justified is what seems to be this deliberate fostering of an elite? If there is some fair and reliable way of singling out the gifted and talented, such that it can be reasonably guaranteed that they will possess the qualities we are looking for, e.g. leadership qualities, and that other pupils are unlikely to attain these, the policy looks defensible. Is there such a way?

The government definition, quoted above, goes beyond actual achievement to include potential achievement. It describes this as 'ability'. This is because current policy makes the identification of underachieving able pupils a priority. p. 143

... That is why the notion of 'potential' achievement is important for the government, like the present Labour administration, eager to identify highly able, but underachieving, children from unprivileged backgrounds. But how do you identify what a child *might* achieve? What evidence do you go by?

Only two kinds of evidence are possible: behavioural and non-behavioural. The first is evidence of what the child is doing or has done. This is problematic because we are back with actual achievements rather than potential ones. The force of this can be seen in a QCA checklist of characteristics of G and T pupils, whether achievers or underachievers ([www.nc.uk.net/gt/general/01\\_characteristics.htm](http://www.nc.uk.net/gt/general/01_characteristics.htm)). The list, which it is recommended should be used with caution, is a long one. Its first four items, which are typical, are that gifted and talented children and young people are likely to:

- think quickly and accurately
- work systematically
- generate creative working solutions
- work flexibly, processing unfamiliar information and applying knowledge, experience and insight to unfamiliar situations.

... The other kind of evidence could be non-behavioural. Here one looks not at the outside of the child, as it were, to see what actions and activities he or she engages in; one focuses on internal features like characteristics of the brain, or – if the mind is different from the brain – of the mind. We have come across many examples of this approach in this book. It is which Galton took, and which his followers - including his contemporary followers looking for the genetic basis of

intelligence – have taken. It is an approach for which MI (Multiple Intelligences) theory, with its suggestion of hard-wiring intelligences, provides a new rationale.

The snag with this non-behavioural way of trying to identify highly able children is that the evidence required is as yet lacking. There is no reliable evidence of a genetic basis for differences in general intelligence or in any of the MI intelligences. p. 144

The school curriculum is not a thing in itself. It is a vehicle to realise larger aims. When we ask what those aims should be – what schools are for – we quickly reach rock-bottom questions about what kind of society we want and what kind of life is best for the individual. The school curriculum is – or should be – a vehicle to enable young people not only to lead a fulfilled personal life, but also to help other people, as friends, parents, workers and as citizens, to lead as fulfilled a life as their own.

I imagine few would object to this. The difficulty is, we don't all see eye to eye on *what it is* to lead a fulfilled life. p. 151

The philosophy of personal fulfilment, or personal well-being, is much in its infancy. It may seem strange, but it has been only in the last two decades that Anglo-Saxon philosophers have begun assiduously to engage in it. Partly this reflects the domination of ethical philosophy by *moral* issues for most of the past four centuries... p. 155

First, living a personally flourishing life does not imply that one has this as one's *aim*. Flourishing depends on success – in intimate personal relationships, in worthwhile and absorbing activities, in family life, in self-understanding, aesthetic enjoyments and in other things – but being successful can, and as often as not does, occur *as a result* of wholeheartedly engaging in these things, regardless of whether or not one has had one's sights on success from the start. This has enormous implications for how we conceive of educating young people. What is important is not that they have life-targets in mind from an early age and strive to reach them; but that somehow they get involved, caught up, in valuable activities such as those mentioned.

The second point is also educationally significant. If you argue for personal fulfilment as an educational aim, you may be accused of wanting young people to become selfish or self-centred, to live for Number One. But this does not follow. As we have just seen, arguing for personal fulfilment as a systemic aim of schooling does not imply arguing that young people *themselves aim* at their own fulfilment. It points toward getting them absorbed in worthwhile activities and relationships. Being absorbed in this way benefits themselves, certainly, but not typically *only* themselves. Engaging in teaching, farming, parenting, making furniture, friendship is taking part in cooperative activities which serve the well-

being of a number of people... Personal fulfilment is no rival to concern for others. if we conceive it aright, they are inseparable. p. 155

The third point is that a fulfilled life need be nothing high-flown. There are degrees of fulfilment. One person may lead not quite so flourishing a life as another but still be flourishing. There maybe some temptation to think that 'real' fulfilment must be of an optimal sort, but there is no reason for going along with this. Educators, for instance, sometimes say that the aim of schooling is 'the fullest development of the individual's potentialities'. Leaving aside possible implicit assumptions here about innate abilities and about their biological unfolding, why 'fullest'? Why, more generally, should the ideal be a life in which one's experience of worthwhile activities and relationships is as rich, as perfect as possible? Why aim, like utilitarians, at the greatest happiness of the greatest number (for a recent account, see Layard 2005:ch. 8) when most of us would willingly settle for happiness which is merely great? One strand in this perfectionism goes back to Salvationist thinking. Being *nearly* saved can never be good enough: success and failure are absolute categories. In our post-salvationist world, where for most of us life is the one life we think we have, perfectionism is a hindrance. p. 156

### **Conclusion**

All this means hard philosophical and practical thinking about the components of a flourishing personal and civic life. Being a success in life rather than a failure is a central value here. It was a central value in the puritan tradition in Britain and America, at first with a predominantly Salvationist connotation, and gradually, as religion became increasingly entwined with industrial and commercial developments, in the more worldly sense in which we use the term today. Now there are reasons for moving beyond this money/status/celebrity-focussed life-ideal to a more modest and therefore more universally achievable vision of a successful life, founded on wholehearted and satisfying engagement in self-chosen activities and relationships. p. 161