



JOHN WHITE considers the roots of a fundamental psychological concept.

The religious origins of intelligence testing

TO truly understand our discipline, we need to appreciate how it has developed historically. In the story I am about to tell, we see how it has emerged from our religious past.

If membership of mainstream Christian churches in the UK continues to decline at its current rate, they will have virtually no members by mid-century. In such a godless environment, it is hard to think back to the far more devout age of the Victorians and their predecessors. Yet it was in this age that scientific psychology first appeared; and to grasp its origins, religious perspectives are essential.

The traditional notion of intelligence that goes back to Francis Galton is odd in many ways. Its basis is that we are each born with individually differing intellectual endowments ranging from genius to what used to be called 'feeble-mindedness'. Between 1865, when Galton first broached the idea, until the rise of Nazism in the 1930s, it was inseparable from the eugenic aim of encouraging the most able and discouraging what Galton called 'the refuse', and what his follower Lewis Terman described as 'democracy's ballast, not always useless but always a potential liability' (quoted in Minton, 1988, p.99).

The oddity of the notion is seen in its focus on intellectual ability, especially of an abstract sort. Why this restriction, seeing that one can display intelligence as a tennis player or craftsman as much as a mathematician or philosopher? The strangeness comes out, too, in the predeterminism of this notion – in the idea that, as Cyril Burt put it, 'the degree of intelligence with which any particular child is endowed...sets an upper limit to what he can perform' (Burt, 1959, p.281). But this belief that we each have our own pre-programmed ceiling of ability is simply an assumption, and not based on evidence.

How did this singular notion of intelligence come about? What are its historical roots?

There are grounds for thinking that the origins are religious. This may seem hard to swallow. Galton and his followers – Pearson and Burt in Britain, Goddard and Terman in the US – are typically considered to be scientists, pioneers in detaching psychology from its philosophical and theological heritage. It is well known that the inspiration for Galton's 1865 eugenic manifesto was his cousin Charles Darwin's recently published *Origin of Species*.

Yet not all psychologists impressed by Darwin's thesis have been eugenicists. Why was Galton of this persuasion? I argue that the motivation was religious. His encouragement of the most able to procreate was against the background of a living universe which he called 'a pure theism' – a cooperative system in which men and other animals 'contribute, more or less unconsciously, to the manifestation of a far higher life than our own' (Galton, 1892/1978, p.376). He wrote that 'man has already furthered evolution very considerably...but has not yet risen to the conviction that it is his religious duty to do so deliberately and systematically' (Galton, 1883/1907, p.198).

Galton's disciple, Karl Pearson, wrote approvingly of the 'new religion' that Galton sought to introduce. 'If the purpose of the Deity be manifested in the development of the universe, then the aim of man should be, with such limited powers as he may at present possess, to facilitate the divine purpose' (Pearson, 1924, p.261). Burt, too, believed – in his own words – 'in the supreme importance of consciousness in deciding the direction and furthering the progress of animal evolution' (quoted in Hearnshaw, 1979, p.225). He called this consciousness 'psychon', seeing it as a kind of group mind based on the subconscious interaction of certain living persons with the psychic powers of the dead.

If Galton, Pearson and Burt were scientists, they were scientists in the shadow of older religious ideas. Almost to

a man, these and other early pioneers of intelligence were from branches of radical Protestantism that sprang from 17th-century puritanism. Galton, although not a Quaker himself, belonged to a well-connected Quaker family.

Pearson, too, was from Quaker stock, while Burt's father's family had deep Congregationalist roots. Of the early American pioneers, James McKeen Cattell, Galton's first American follower, was from a Presbyterian family. H.H. Goddard was a practising Quaker. Lewis Terman was an unbeliever, but with what appears to be an Ulster Presbyterian pedigree. Other psychologists closely associated with these men, like G. Stanley Hall and William McDougall, were from a similar religious background, as also, in a later generation, was Philip Vernon, the son of a Baptist. The most famous person not included in this list is Charles Spearman, whose family may well have been Anglican.

There are features of the Galtonian tradition on intelligence that mesh so closely with puritan and post-puritan views on human beings and their destinations that they make mere coincidence unlikely. One is its polarising tendency. The pioneers were interested in the extremes of human ability – in nurturing an intellectual elite and containing, phasing out, isolating or excluding the most backward. The puritan tradition was also founded on polarisation – the small number of 'elect' who were to be saved, and those heading for damnation. There is a kind of salvationism in eugenics. The fate of the human race, and indeed of the larger universe of living beings of which it forms a part, depends on what provision it makes or fails to make for the intellectually gifted.

A related feature of the puritan legacy, dropped by the Quakers, but retained by other groups like Congregationalists and Presbyterians, is predestination. Whether or not one ends up among the saved or among the damned is predetermined by God.

Commentators from Walter Lippman onwards, in a famous journalistic spat with Terman in the 1920s, have pointed to the parallel here with the idea that one's intelligence, and the mental ceiling which goes with it, is fixed by innate factors. And not only one's intelligence, but in many cases one's social destination: if one's innate intelligence is low, an elite education and a professional career are out of the question. One is fated, in terms of the social ladder, to be a 'failure' rather than a 'success'. The salvationist thought-world is not far in the background.

The intelligence men were especially interested, for eugenic reasons, in the 'gifted'. The notion of 'gift' is, at root, religious. It is especially important in Puritanism, linked with its emphasis on the belief that each person has their own 'vocation'. What God calls one to do in this life, whether as farmer, or teacher, or housewife, depends on the abilities with which he has innately endowed one. Education, of key interest to all puritans, is a process by which one discovers one's innate gifts and intended vocation. The preoccupation of most of the intelligence pioneers (not least Burt, Goddard and Terman) with education and educational and vocational selection is well known.

I am not claiming that all these men were consciously following these religious paths; only, at most, that their thought appears to be influenced by their shared religious heritage. There is a further consideration which points in this direction.

Thanks to the prominence of IQ testing in our age, we have grown used to associating intelligence with abstract intellectual enquiry. Howard Gardner's work on multiple intelligences and Robert Sternberg's on practical intelligence have broadened horizons here, but many would still go along with Godfrey Thomson's comment that 'although intelligence expresses itself in different forms, in its highest aspects it is always concerned with abstractions and concepts and relationships' (Thomson, 1947, p.17). Galton, Burt, Terman and other fellow-eugenicists agreed with him. How can we explain the restrictiveness of their position? Once we know about their shared religious heritage in post-puritan thinking, an answer readily suggests itself.

The early puritans and the sects they later spawned attached huge importance to abstract thinking – for religious reasons. Logic was central to their theology. In the

early days of New England, for instance, communities were run on authoritarian lines by what Perry Miller has termed 'the wise and learned of the upper class through their mastery of logic' (Miller, 1939, p.429).

Why logic? What was its attraction? The answer takes us back to the 16th century, to a French protestant logician called Pierre de la Ramée, or Ramus. He was enormously influential in puritan circles. He held that understanding of God's universe is to be gained by beginning with the most abstract and

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general of categories, and then generating subordinate categories and sub-categories by a process of repeated dichotomisation. The more specific the dichotomies become, the closer they are to the concrete realities around us. In this way, this logical scheme is able to capture the complex heterogeneity of the divine creation. It is able to locate every part of it in its proper logical place, to show its dependence on the ultimate abstractions (Miller, 1939).

Nonsense though this may seem to us, for the early puritans on both sides of the Atlantic this system of logic seemed to offer an intelligible, and above all easily teachable, way of mastering the knowledge of God's creation they needed for their own salvation. Among other things, it provided an explanation of human thinking. God has programmed the human soul to work in a logical, dichotomising way, deriving less abstract from more abstract categories and seeing particularity in the light of the more general. Educational programmes were constructed accordingly.

Even after the system crumbled away in the course of the scientific revolution, the old attachment to logic lived on. Along with the also abstract subjects of mathematics and science, logic had become a central element in an English Dissenter's or Scottish Presbyterian's higher education. A famous example of this is found in the ultra-intellectual education given to John Stuart Mill by his ex-Presbyterian father James and described in the former's autobiography. Here, too, logic – introduced at age 12 – was the pinnacle.

Even today it still exists vestigially in the academic structures of the older Scottish universities. In 19th-century American colleges it was an indispensable feature of the compulsory Mental and Moral Philosophy course taught by religious-minded college presidents like the Congregationalist G. Stanley Hall. This course is now widely recognised as the immediate precursor of the 'new' scientific psychology that took its place. Hall, the teacher of Goddard, Terman and J. McKeen Cattell, was, as it were, a living bridge between the older theological thought-world and the new eugenic science of the mind.

Against this backdrop, the intelligence pioneers' attachment to the abstract and to the logical may make more sense. In the tradition from which so many of them had sprung, abstractness was at the heart not only of the structure of creation in general, but also of the human mind in particular. Under the Galtonians, general abstract ability comes out as one of the key features of our being.

In its essence the traditional notion of general intelligence may be a secularised version of the Puritan idea of the soul. Whether or not this is so, when Galton first introduced this notion of intelligence in 1865, it did not appear from nowhere. We know that he saw it as part of the 'new religion' that Karl Pearson ascribed to him. But as I have suggested (and see White, 2005, 2006, for more), perhaps Galtonian intelligence had its roots in a far older kind of religious thinking.

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