

The English Ovid

It is interesting to note that an international conference to commemorate the 200th anniversary of the death of Erasmus Darwin is to take place on 19–22 April at his former home in Lichfield, Staffordshire. Some details regarding this prominent polymath and philanthropist are given by Ruth Richardson in *The Lancet* for 30 March. She notes that Erasmus Darwin's grandsons Charles Darwin and Francis Galton inherited much of his genius, and under his influence made great names for themselves.

Erasmus was known in his day as "the English Ovid" and "the Titan of verse". He was a philosopher, a humanitarian, a reformer, a scientist, a chemist, a meteorologist, and inventor and entrepreneur, as well as practising as a



physician. He was level-headed, and several times refused to become physician to George III, when invited to do so. At his home in Lichfield he gathered a group of friends who called themselves the Lunar Society because they made a habit of meeting for scientific discussions on evenings when the moon was full, so that they could see their way safely home afterwards. These friends included Matthew Boulton, James Watt, Josiah Wedgwood and James Brindley.

When visiting patients at a distance, Darwin carried with him in his carriage a library of several volumes. These included his own commonplace book, in which he made notes of thoughts that occurred to him on the road, from meteorological and geological observations to ideas regarding evolution, electricity and inventions. He designed a horizontal windmill, a water-closet, a document-copying device, a propulsion engine and a carriage axle, still used, to prevent overturning during transit. His best known poem is 'The loves of the plants', describing the processes of self-propagation found in the botanical world.

From beginning to practise medicine in November 1756, Darwin built up a highly profitable income, but his benevolence prompted him to give much away to those he considered needed money. In 1792, 10 years before he died, Erasmus wrote to a correspondent: "A fool . . . is a man who never tried an experiment in his life." In that sentiment he was probably right.

Grim prospect

The 25 April issue of the *New England Journal of Medicine* makes rather a worrying collection of information, most of it concerned with the challenge the world is facing from the smallpox threat. We know that there are two remaining collections of variola virus, in the United States and in Russia, which were retained after the disease was pronounced eradicated worldwide in 1980. What gives rise to worry is that we cannot know how many more samples of the virus may be lurking in the hands of power-crazy maniacs devoid of conscience.

"There is concern," write the authors of a review article in *NEJM*, "that variola virus resides outside these laboratories, and could be used as a weapon by terrorists. Possible sources are virus in countries that claim that they destroyed their stocks but did not and virus acquired from laboratories in the former Soviet Union." And they go on to write that accidental or

deliberate release could cause a major epidemic. People born after mass vaccination was terminated in 1972 lack immunity, and immunity in those vaccinated before then is now uncertain and waning.

The vaccination process is not devoid of hazard, and therefore universal vaccination is problematic as a policy. A suggested strategy of post-exposure ring vaccination, involving isolation of suspects, who are then vaccinated and kept under surveillance with their possible contacts, is advocated. But this strategy makes the assumption that smallpox makes patients visibly sick, enabling them to be identified and quarantined within the four-day period within which vaccination is effective. The incubation period is seven to 17 days, and the abrupt headache, backache and fever of the prodromal phase lasts two to three days.

All these considerations make any single medical or political approach fraught with enormous difficulties. Meanwhile, many innocent people are worrying themselves sick, because there are so many possibilities and so few certainties.

Roots of violence

There can be no doubt that a high proportion of the violence between individuals and against property that is characteristic of our time can be attributed to our drug culture, which affects not only those individuals who consume illicit, even licit, drugs, but also the wretches who are concerned in drug trafficking. Yet another factor is the influence of violent incidents portrayed in films and on television, particularly on the young viewer.

Science for 29 March carries an article by a group of New York psychiatrists who have assessed the effect of television viewing on aggressive behaviour during adolescence and adulthood. A sample of 707 individuals was studied over a period of 17 years as the subjects matured, and the findings indicate a significant association between the amount of time spent watching programmes and aggression against others later in life.

The authors state that three to five violent acts are depicted on average during an hour of prime-time television, and 20 to 25 such incidents during an hour of children's programmes. The possibility is that a preference for watching violence may characterise aggressively inclined individuals, or alternatively that viewing may encourage the development of an aggressive psyche.

Childhood neglect, living in an unsafe neighbourhood, suffering from low family income, having poorly educated parents, and minor psychiatric disorders were all significantly associated with time spent watching television by children aged 14 and the appearance of violent behaviour later at ages 16 to 22. Extensive viewing in childhood and adolescence is likely to result in "aggressivity" later in life, although at the same time there is a tendency for children with inborn violent behavioural characteristics to spend more time watching violence.

In boys, the association between viewing at 14 and later aggressivity was significantly stronger than in girls, although at age 22 more boys tended to be involved in more fights, while girls tended to indulge in threats, robbery and use of offensive weapons nearly as often as boys.

"Yet fear I to fall"

They who hold power fear lest this be snatched from their lives, when they might lose fond fancy of being among lords of creation, above the sway of Nature's laws that bind lesser mortals to humbler tasks. — The Wise Words of William of Worplesdon (circa 1295).