

# Science's new battle lines

In the second of three essays on the 'Two Cultures', **Georgina Ferry** detects that today's division lies between optimists and pessimists rather than between scientific and literary intellectuals.

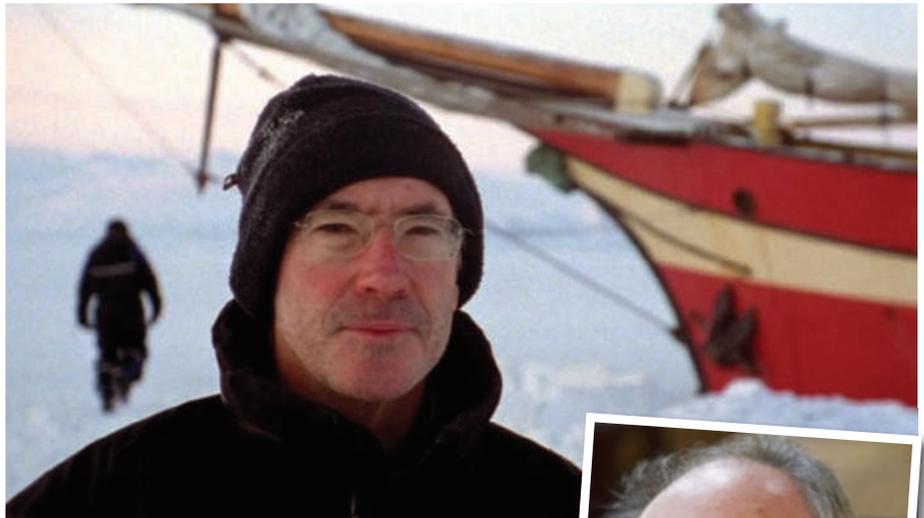
Optimism was not in vogue in literary circles in 1959, at the height of the cold war. Indeed, it had not enjoyed much currency throughout the twentieth century. With the decline of religion, the rise of Freudian psychology and the social and political consequences of industrialization, writers turned inward and found that the only remaining certainty was death.

On the charge sheet that physicist and novelist Charles Percy Snow drew up against such "literary intellectuals" in his Rede Lecture of that year at the University of Cambridge, UK, was the belief among writers that scientists are "shallowly optimistic, unaware of man's condition". Snow robustly countered that scientists were perfectly aware of the tragedy of the individual, but that as social beings they felt a compulsion to act to improve the lot of others. "There is plenty in our condition which is not fate, and against which we are less than human unless we do struggle," he said. He was an advocate of science — but also of hope.

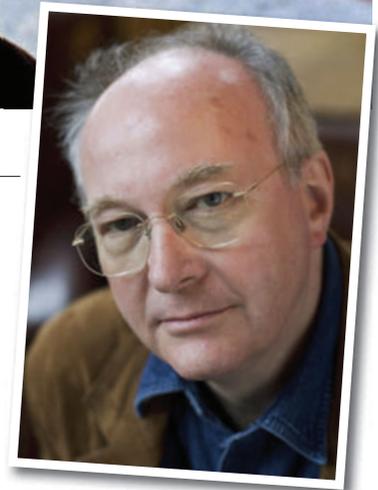
Snow believed that the cultural divide he described was a recent phenomenon. It did not exist before the mid-nineteenth century, as is obvious in Richard Holmes's brilliant panorama of the cultural impact of science in the Romantic period, *The Age of Wonder* (see *Nature* 457, 31–32; 2009). Holmes places at the centre of his narrative the personal friendship between chemist Humphry Davy and poet Samuel Taylor Coleridge. The young Davy's infectious curiosity and enthusiasm delighted the poet. For his own part, Davy saw no conflict between working as a scientist and writing verse himself. The two shared experiences such as the inhalation of nitrous oxide gas as part of Davy's medical research, and foresaw the great boon that painless surgery would represent. In a letter sent to Davy on the first day of the nineteenth century, Coleridge wrote that as science was "being necessarily performed with the passion of Hope, it was poetical".

## An unsteady alloy

Today, by contrast, some cultural commentators reserve a particular kind of literary scorn for the sciences' claim of human betterment. The influential philosopher John Gray,



Writers Ian McEwan (above) and Philip Pullman (right) are optimistic about science's capacity to solve global problems.



D. LEVENSON/GETTY; CAPE FAREWELL

**"Despair may or may not make good literature. Science, by contrast, is impossible without hope."**

formerly professor of European thought at the London School of Economics, is a prominent critic of Enlightenment thinking and takes a dourly pessimistic view of the capacity of humanity to behave in a selfless fashion. "The idea of progress is detrimental to the life of the spirit," he declares in his essay 'Agenda for Green Conservatism', reissued in his 2009 collection *Gray's Anatomy*.

Similarly, Martin Amis, author of novels including *Time's Arrow* and *The Information*, and short story collections such as *Einstein's Monsters*, has argued that far from being progressive, scientific advance has led to a steady demotion or "dis-appointment" of humanity. In a discussion on literature and science that he hosted in 2008 at the University of Manchester, UK, Amis explained how discoveries such as heliocentricity and evolution have knocked us off our Graeco-Judaean-Christian pedestal.

Expanding on the inevitability of humanity's use, or misuse, of science for baleful purposes, such as racially based eugenics, he concluded that "Human beings and science are an unsteady alloy". Asked what he meant, Amis answered: "Science means knowledge, knowledge is power, power corrupts. And that is not a metaphor — it is something the

intelligent among the political class have always understood."

Pessimists such as Gray and Amis argue that advances in knowledge and technology do nothing for human spiritual development. Most contemporary scientists would agree. The optimism of science is twofold: that its methods might reveal, one tiny pixel at a time, more of the wonder of the natural world; and that this knowledge might be applied to solve practical human problems. There is abundant evidence in both cases that this optimism is justified; but to ask that science should do more is fundamentally to misunderstand the nature of the enterprise.

As in the time of Davy and Coleridge, the fault line today lies between optimists and pessimists, rather than between science and literature. For example, astrophysicist Martin Rees, president of the UK Royal Society, has published one of the bleakest outlooks for

