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EDITORIAL

The Third Culture

A little over forty years ago, the English novelist, one-time scientist, technocrat and administrator, C. P. Snow addressed the issue of the intellectual polarization of western society into two groups; literary intellectuals and humanists on one side and scientists on the other. Snow's analysis, undoubtedly a result of years of conversation at the High Tables in Cambridge, highlighted the growing rift between the sciences and the humanities, in universities. To describe this widening schism, Snow entitled his 1959 Rede Lecture at Cambridge as 'The Two Cultures'. When he had finished, 'he had launched a phrase, perhaps even a concept on an unstoppably successful international career; he had formulated a question (or, as it turned out several questions), which any reflective observer of modern societies needs to address; and he had started a controversy which was to be remarkable for its scope, its duration, and, at least at times, its intensity' (Collini, S., in the Introduction to *The Two Cultures*, Snow, C. P., Cambridge University Press, Canto edition, 1993, p. vii). Snow by his own description was a scientist by training, a writer by vocation, fortunate to have a ringside view of the dramatic growth of science, particularly physics, in the period between the 1920s and 1950s. In setting the stage for his famous discussion, Snow emphasized the 'gulf of incomprehension' between 'literary intellectuals at one pole – at the other, and as the most representative the physical scientists'. According to Snow: 'Non-scientists tend to think of scientists as brash and boastful. They hear T. S. Eliot, who just for these illustrations we can take as an archetypal figure, saying about his attempts to revive verse drama that we can hope for very little, but that he would feel content if he and his co-workers could prepare the ground for a new Kyd or a new Greene. That is the tone, restricted and constrained, with which literary intellectuals are at home: it is the subdued voice of their culture. Then they hear a much louder voice, that of another archetypal figure, Rutherford trumpeting: "This is the heroic age of science! This is the Elizabethan age!" Many of us heard that, and a good many other statements beside which that was mild; and we weren't left in any doubt whom Rutherford was casting for the role of Shakespeare. What is hard for the literary

intellectuals to understand, imaginatively or intellectually, is that he was absolutely right.'

While Snow touched on the limited feeling that most scientists of the time had for traditional literary culture, he seemed more concerned about the 'pole of total incomprehension of science', which 'radiates its influence on all the rest'. Snow came down harshly on the traditionalists: 'The total incomprehension gives, much more pervasively than we realise, living in it, an unscientific flavour to the whole "traditional" culture, and that unscientific flavour is often, much more than we admit, on the point of turning antiscientific If the scientists have the future in their bones, then the traditional culture responds by wishing the future did not exist. It is the traditional culture, to an extent remarkably little diminished by the emergence of the scientific one, which manages the western world. This polarisation is a sheer loss to us all.' Snow then worried about the need to rethink education, the need to limit specialisation, but rather despondently concluded: 'All the lessons of our educational history suggest that we are only capable of increasing specialisation, not decreasing it.' In persuasively overstating his case, Snow characterized the literary intellectuals 'who raised doubts about the human cost of the industrial revolution' as 'natural Luddites'; a charge that was to provoke a furious counter-attack by F. R. Leavis, a University Reader in English at Cambridge and a controversial literary critic. The *Spectator*, which published Leavis' polemic criticizing Snow, also carried an editorial that took issue with Snow's apparent suggestion 'that science provided sufficient light by which to steer the world'. In annotating the reissue of Snow's essay, over thirty years after its original appearance, Stefan Collini draws attention to a *Spectator* editorial, which mischievously quoted William James: 'Of all the insufficient authorities as to the total nature of reality, give me the "scientists" Their interests are most incomplete and their professional conceit and bigotry immense. I know of no narrower sect or club, in spite of their excellent authority in the line of fact they have explored, and their splendid achievements there.'

Snow's purpose was to highlight the need to close the gap between what he perceived as two distinct cultures; to

steer a new course towards progress. Snow's vision included the tensions that he foresaw as material progress, fuelled by scientific and technological revolutions, increased the gap between the rich countries and the poorer nations and, indeed between the rich and poor, everywhere. Although Snow viewed science largely as a single 'culture', he was acutely aware that his own experience had led him to identify most closely with the physical scientists; physics, as Collini remarks, was viewed by Snow as 'a gold standard against which weaker or debased forms of science could be measured'. But, in returning to this theme in 1963, four years after his Rede lecture, to take 'a second look', Snow was to point out that 'there is subdivision after subdivision within, say, the scientific culture. Theoretical physicists tend to talk to each other, and, like so many Cabots to God. Either in scientific politics or open politics organic chemists much more often than not turn out to be conservative: the reverse is true of biochemists'. By the early 1960s Snow was prescient enough to 'put forward a branch of science which ought to be requisite in the common culture, certainly for anyone now at school. This branch of science at present goes by the name of molecular biology. This branch of science is likely to affect the way in which men think of themselves more profoundly than any scientific advance since Darwin's – and probably more so than Darwin's. That seems a sufficient reason why the next generation must learn about it. The Church recognises invincible ignorance: but here the ignorance is not, or need not be, invincible. This study could be grafted into any of our educational systems, at high school or college levels, without artificiality and without strain'. It is indeed remarkable that Snow was speaking at a time when cloned genes (and organisms) and sequenced genomes were decades into the future.

But, why have I turned to Snow? The evocative phrase, 'the two cultures', immediately provokes the question: 'Are there not more cultures?' Snow raised this point himself: 'The number 2 is a very dangerous number: that is why the dialectic is a dangerous process. Attempts to divide anything into two ought to be regarded with much suspicion'. Were Snow alive today, he might have clearly

seen the contours of a 'third culture' emerging; born out of the ferment of the information and commercial revolution that envelops us. In our academic institutions both the humanities and the sciences are in full retreat, swept away by the high tide of management, commerce and 'information technology' courses, to which students and teachers flock. Even bookshops, the last refuge of the traditional academic, are awash with books on management and computer languages, promising to turn 'invincible ignorance' into commercial success. Informatics courses have sprung up everywhere, tempting students with career prospects after minimal computer training; converting a whole generation into mindless extensions of computer hardware. The providers and organizers of 'information' have little to do with its generation or analysis. The marriage of information technology and the exploding field of genomics has given birth to 'bio-informatics'; an area whose commercial possibilities are already seducing the original information technologists, while its growth promises to wean away the diminishing number of new entrants to the vast field of experimental biology.

We live in an age dominated as never before, by commerce. The last two centuries of science have brought forth unprecedented technological progress; but in this time science has also contributed enormously to our understanding of nature and ourselves. It is indeed one of the great ironies of our times that science (and of course, the more traditional academic disciplines) has become a victim of its own success. Snow would have been appalled by the emergence of this third culture, dominated by the technologies of communication and driven solely by the mindless consumerism of the marketplace. Nowhere is the emergence of this third culture more manifest than in India, where the headlong rush of students to management, informatics and commerce courses, threatens to completely impoverish the academic life of our colleges and universities. The third culture may be more threatening to our intellectual life, than Snow's two culture schism ever was.

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