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## Two Cultures

We are living in the middle of two cultures which have scarcely any contact at all—the traditional non-scientific culture and an up-and-coming scientific one. They are startlingly different, but only in their intellectual approach, but even more so in their climate of thought and their moral attitudes. This divide exists not only in the U.S. and Great Britain but all over the Western world. I happen to have been forced to notice it because, through a set of chances, I have spent a good deal of my working life sitting with scientists in the afternoon, as it were, and talking to writers at night. Just how this happened doesn't matter except to me; but perhaps I might mention that, though I knew my vocation as a novelist before I was twenty, I was trained as a scientist and did some research at Cambridge. . . . After that I got involved in science-and-government, and through these various chances I could not very well avoid seeing more than most people of the two sides of the cultural divide. And I have become increasingly worried by what I have seen. . .

What can we do about it? There is only one answer, and it is a prosaic one: sensible education. Nearly all intelligent people can learn something about science and scientists if they are brought up against them properly. It is very stupid to attempt to make everybody into technologists; but it is essential that everybody, including the technologists themselves, should understand something of the intellectual and human meaning of what the technologists are about. I don't think that that task is beyond us, though it will need a drastic rethinking about education, both in the U.S. and Great Britain.

There is just one basic difficulty. All children have a dash of the scientist in them. Watch any bright child if you tell him about the stars or atoms or dinosaurs. He will want to find out some more. The urge to investigate, which is the scientific urge, isn't anything very special or academic. It is one of the most human things about us. In that sense, as I said, all children are scientists. But all children are not mathematicians, and that is the core of the difficulty. I don't know how many people are mathematically blind to the extent that some of us are tone deaf, but I suspect a larger proportion than the educational psychologists usually allow. Thinking of twenty acquaintances, who have all done pretty well in various sorts of intellectual life, I should say that at least five were, if not mathematically blind, at least grossly deficient in mathematical sense. That means that though, sensibly educated, they could have got a good working idea of how physical science goes about its business, they would never have reached the fundamental concepts. I suggest we have got to accept the fact that, for a lot of people of high intelligence and imagination, this is as near as they are going to come to the real stuff. It is much better than nothing, but there are limits, and it is just as well to be clear-sighted about them in advance.

Don't we know enough now of the way different kinds of intelligence work? Oughtn't we to be able to construct an education from which anyone of ability can get enough not to feel that the scientific experience is alien to him forever?—C. P. SNOW. [From the prefatory note to *The Search* by C. P. Snow, copyright 1934, 1958, by Charles Percy Snow. Reprinted with the permission of Charles Scribner's Sons.]