

EDITORIAL

Two Cultures and Alienation

With our usual sense of annoyance we recently reread *The Two Cultures and the Scientific Revolution* by C. P. Snow, later Sir Charles, later Lord Snow. We find it difficult sometimes to determine whether we are annoyed because he is wrong or because he may be right. Surely we can not disagree with his concern that rich and advanced portions of civilization are getting richer while the poor ones are staying poor. But many of the underlying premises that Lord Snow advances as roots of the evil are, we think, dangerously wrong.

One of these premises is his thought about being a scientist and a writer. "It just happened to be an unusual experience," he writes. "By training I was a scientist: by vocation I am a writer." And he makes much of the unusualness. But every man has something unusual about him; that is what makes each one unique. And many men have successfully bridged the gap between science and humanities, demonstrating both comprehension of one and appreciation of the other. Men who come quickly to mind are three Huxleys, H. G. Wells, George Bernard Shaw, Paul De Kruif, George Gamow, Isaac Asimov, Ritchie Calder and Jeremy Bernstein.

Another thought we find false is that "the intellectual life of the whole of western society is being split into two polar groups," with "literary intellectuals" at one pole, "scientists" at the other and between the two "a gulf of mutual incomprehension."

We wonder whether Lord Snow has ever attended a party where almost everyone is in "show biz." Suddenly everyone but you is part of the in group; you are on the outside. Society is completely polarized into show people and nonshow people with a gap between. The point is that any group with special interests—theatre people, economists, artists or sailors—can be an in group. Society can appear to be polarized along almost any axis you choose.

The dangerous premise is that culture is somehow divisible into science and nonscience, people into scientists and nonscientists, with a great gulf between. Lord Snow, for example, uses the words "scientist" and "nonscientist" as if the definitions were quite clear and everyone falls quite simply into one category or the other. But life isn't simple. After you have put the people who are plainly

"scientists" (people totally interested in science) in their group and "nonscientists" (those with no interest in natural phenomena) in theirs, we think you will find the gulf between these blacks and whites quite solidly filled with all the grays and pastels of people who know more and less of science and display more and less interest in it.

Culture—that mass of knowledge, custom and appreciation that separates man and beast—is too great and amorphous to be readily separated into pieces. No one knows or appreciates very much of it, and all of us come to what knowledge and appreciation we have along rather specialized paths. What one knows of Tennyson another knows of Frost. What physics has taught to one, another has learned through foreign literature or art. But polarizing culture into two parts separated by a gulf would be a new violation of probability to compare with parting the Red Sea.

The problem, we think, is not polarization but alienation. A little clump of people—say scientists or physicists—might become sufficiently self-centered to make a world of its own and live apart from the mass of society, displaying indifference to whether they contribute to the whole or gain anything from it. Such alienation we see every day—in the "literary intellectuals" who don't try to comprehend science, in scientists who don't look outside, in physics teachers who prefer to teach only physics majors, in newspapers and writers who treat physics as matter too technical for their readers even while they expect the readers to understand the technicalities of sports and finance. We see alienation in Lord Snow's feeling that writing scientists are unusual and his assumption that people can be exclusively classified as scientists and nonscientists. The two ideas offer a dangerous foundation for other persons' thinking.

In a world that is weary of alienation—between economic systems, races, haves and have-nots, youth and age—anything that separates physicists or scientists from the main stream is a threat. It is almost the antithesis of the feeling that was prominent at the end of the second world war: we have solved the difficult problems of nature; let us now handle the simpler problems of social organization. Perhaps overconfidence is now giving way to appropriate humility. We hope that physicists will turn attention to proper integration of their subject with the rest of world culture and to elimination of the threat of alienation.

—R. Hobart Ellis Jr