

HOW TO LIVE WITH THE PHILISTINES

The physicist is surrounded by outsiders, be they relatives, other scientists, humanities professors or officials. He must increase his interaction with them to survive.

HENRY E. DUCKWORTH

TO CLARIFY MY TOPIC I quote the *Concise Oxford Dictionary* definition of the word "Philistine": "one of an alien warlike people in South Palestine who harassed the Israelites; (facetiously) an enemy into whose hands one may fall, e.g. bailiff, critic, *et cetera*; (in German universities) a nonstudent; an outsider; (or, in general) an uncultured person, one whose interests are material and commonplace." I shall use the word in the sense of an outsider or, I might say, a nonphysicist. Thus, a rewording of the subject for purposes of clarification would be "How to live with nonphysicists." There are, of course, many classes of nonphysicist, but I shall



Henry E. Duckworth, academic vice-president of the University of Manitoba, served as president of the Canadian Association of Physicists and as editor of the *Canadian Journal of Physics*. Trained at Manitoba and the University of Chicago, where he received his PhD in 1942, he taught at Manitoba, Wesleyan University, Conn., and McMaster University, Hamilton, Ont.

have space to refer to only a few of the principal types.

The wife

One of the most frequently encountered cases is that of the non-physicist wife. This case is nontrivial and its crucial interaction is during the premarital or courtship period.

If a satisfactory marriage is to ensue, it is imperative at this time that the customary frivolities such as dances and movies be avoided. Instead the lucky girl should be taken to the laboratory, where she may pass many a pleasant evening watching her friend with admiration as he repairs apparatus or makes readings. A union based on such a courtship is bound to be agreeable to the physicist, provided he takes the additional precaution of including in his marriage proposal the immortal lines of Richard Lovelace (1618-1658):

Tell me not, Sweet, I am unkind
That from the nunnery
Of thy chaste breast, and quiet
mind,
To pump and 'scope I fly.

True, a new mistress now I chase,
My own on-line computer;
And with a stronger faith embrace
My solid-state transducer.

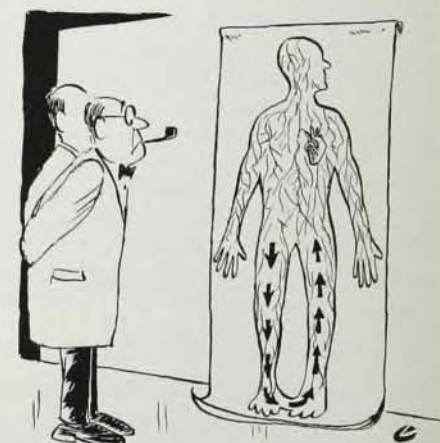
Yet this inconstancy is such,
As you too shall adore;
I could not love thee Dear so much,
Lov'd I not physics more.



I feel that there is no basic difficulty in living with this type of nonphysicist, provided one starts out on the right foot.

Other scientists

A second type of nonphysicist with whom arrangements for coexistence should be fostered is the professor or research worker in a field other than physics. As sciences such as biology, chemistry, metallurgy and geology become more sophisticated and approach their problems in an increasingly fundamental way, they draw increasingly on the concepts, techniques and instrumentation of physics. Many of the problems faced by nonphysicists could benefit from the active participation of physicists themselves. Thus it was a physicist who had specialized in the study of electric currents and a biologist who had specialized in the study of the heart who combined to discover the law for the circulation of the blood, namely that it flows down



one leg and up the other. Many other significant problems are only accessible if the approach is interdisciplinary. I have the impression that physicists are not as anxious to participate in joint projects of this sort as are the

