sity, and the man whose concern is for the impact of his work on society will tend to be found in industry.

"But this polarization has grown considerably less over the last decade. Industry has built up a real scientific tradition with which the dedicated knowledge-seeker can identify himself. For many fields, such as in solid-state, the major momentum has come from industry and the opportunity to do significant work is much greater than in the university because of the depth of interest and extent of technological support available.

"On the other hand, in the academic world there is a lot more sense of participation in the affairs of society than when I was a student. When I decided to major in physics, it was a sort of monastic decision; I was dedicating myself to science; I was very much surprised later to find out how much physics led to interaction with the world and its problems. Mine is a typical experience. Twenty years ago, many people went into science because it was an esoteric experience. Today, a different atmosphere prevails in many academic circles. You are going to consult, work on government contracts, solve problems related to social needs."

• *Is there then a merging of industry goals and purposes of the university?*

"They are moving closer but they will always be distinct. During recent years, reactions have occurred both in industry and the university. In industry, many people are concerned that they might have gone too far in supporting science without thinking too carefully of how they go from research contributions to visible industrial consequences. Industry has experienced a lot of soul searching and readjustment. Formerly there was a kind of faith, precipitated in part by discovery of the transistor, that if a company had excellent science, they would have excellent practical results. But it's not that simple. We have had to concentrate much more on selecting the fields and providing the intermediate steps that lead from research to practical goals. So we have a maturing in our attitude toward science. It is not a fundamental change in faith in research; it is rather a realization that it takes good management to reap the practical benefits of research.

"And in the academic community, there have been reactions against proceeding in too practical a direction. University people are saying to themselves, 'Maybe we are living too much on contracts and getting too many rewards out of practical contributions. Maybe that isn't the best fulfillment of our intrinsic role.' "

• *Does the somewhat deprecating feeling of the academic scientist to his industrial counterpart still exist?*

"Such a feeling was often apparent 15 years ago but it has dissipated. There is better understanding now between industrial and academic physicists. A lot of graduate students have moved into industry and then back to the campuses. There are also strong contractual relations, you meet your colleagues at society meetings, and you can't tell on any intellectual basis who comes from where. In some fields, there is a reverse phenomenon that (I must admit) is rather disturbing, that of academic people feeling jealousy over the scientific resources of industry. It just shows that the research initiative is often with industry in these fields."

• *Would you have two separate graduate curricula, one for the future industrial physicist and one for the academic physicist?*

"I would push in an almost opposite direction. I fear there may be too much responsiveness by people who try to tailor curricula to the needs of industrial research and tailor their students accordingly. The problem is that a PhD physicist is going to have a 30–35 year career. If you tailor his course works too much to the things that are exciting today, you are not aiming at the center of gravity of that career. Attempts to develop students who will be immediately recruitable by industry have been overdone. What we need are scientists, even though these scientists will have to adapt themselves to the industrial environment. But that's an experience you can't put them through in advance. The most valuable man to industry is not the one trained at the frontiers of industrial practice but the one who has the breadth and depth of understanding at the frontiers of science."

High-Energy Physicists Seek Preprint Experiment

An American Institute of Physics study has found that most high-energy physicists seek a definitive experiment to determine the value of centralized distribution for informal communications. The study, headed by Miles A. Libbey, AIP director of systems development, is based on a sample of 997 physicists who returned questionnaires. About 75% of the respondents believed an experiment should be tried and approximately 13% were opposed. The remainder were undecided. At the same time, the study indicated that many of the

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