Teaching With a Nobel-Prize Winner

March 01, 2000

I’ve had my share of rewarding classroom experiences, but the one I’ve enjoyed most has been the privilege of team-teaching a course with Nobel prize-winning physicist Ivar Giaever. The course focuses on inventions and how they can be turned into actual products. My role is to cover the cognitive bases of creativity. I enjoy this very much, but even better is the pleasure of listening to Ivar hold forth on the nature of scientific creativity and what it’s like to win the Nobel prize.

I’ve learned much from listening to and interacting with him, but perhaps the most positive aspect of the experience is what it has told me about the public “image” of psychology — how it is perceived by people outside our field.

As the first psychologist Ivar ever met, I feared he might have doubts about the value and importance of psychology. In fact, nothing could be farther from the truth! As I soon learned, he already believed that psychology was not only interesting but eminently useful too. As he put it: “People are the most important part of our lives, so we need to understand them — and ourselves.”

The only tricky part was convincing him that psychology is indeed scientific — that in its efforts to study human behavior, psychology plays by the same basic rules as other fields of science.

I’ve gained many other valuable lessons from teaching this course and from working at the interface between psychology and other fields. (Most of my current research focuses on interdisciplinary topics such as workplace aggression and the social and cognitive factors that influence entrepreneurs’ success.) This one I view as most important: Virtually everyone-Nobel-prize winning physicists included—recognizes the importance and usefulness of psychology. Persons in many different fields, from marketing and finance, to medicine and law, turn to psychology to answer questions relating to their own work. Psychology is viewed as the single most valuable and reliable source of knowledge about human behavior; in my experience, nothing else is even close.

In turn, this has led me to realize that psychologists — myself included — have often been too modest about our field. We tend to underestimate the extent to which it is valued by people outside psychology, and we tend to overlook the important ways in which our findings are used by others to solve practical problems.

Here is one dramatic example of what I mean:

Until recently, more than 3,500 people in the United States died each year during medical operations because the anesthesiologist had mistakenly inserted the breathing tube into the patient’s throat (esophagus) instead of the trachea.

Could anything be done to prevent these tragic deaths? One influential physician recognized that the
answer might be provided by psychology, so he asked human factors psychologists for their recommendations. They suggested designing anesthesiology equipment to include monitoring devices to detect carbon dioxide from the lungs. If carbon dioxide was not present at certain levels, then the physician would know immediately that the tube was misplaced. When these monitoring devices were made a requirement, the death rate among patients dropped by 95 percent, thus saving more than 3,000 lives each year.

Instances like this underscore the fact that psychology is eminently useful. As psychologists, we should take pride in this fact. Many fields turn to us for answers to problems involving human behavior, and we often provide solutions or valuable insights that lead to solutions. So while modesty is indeed a good thing, William Hazlitt had it right when he said, in 1822: “He who undervalues himself is justly undervalued by others.” As psychologists, we should guard against carrying modesty too far. Our contributions are much too impressive to devalue.