On Giving Psychology Away

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Nineteen sixty nine was an eventful year, including, among other things, the first moon landing, Woodstock, and the Manson murders. It was also the year that George A. Miller, in his APA presidential address, argued eloquently for the need to "give psychology away." (Miller was a recent recipient of the National Medal of Science; see the September, 1991, issue of the *Observer.*)

I was actually prompted to reflect back on George Miller's arguments by a reporter's question at a press conference held on September 24, 1991, to release *In the Mind's Eye: Enhancing Human Performance,* the second report of the National Research Council's Committee on Techniques for the Enhancement of Human Performance. As chair of the committee, I was joined at the press conference by three members of our 12-person committee (Gerald C. Davison, Eric Eich, and Daniel Landers) and our study director (Daniel Druckman). After we had cited evidence that typical training programs can be improved substantially, and that certain preparation techniques can enhance performance under pressure, a reporter asked if we were aware of the money that could be made by marketing such innovations. We responded that--aware or not--our goal was to give our findings away--to the Army Research Institute, which sponsored our study, and to any other individuals and organizations in need of our conclusions.

Just what is it we have, as experimental psychologists, academic and applied, to give away? From the perspective of having served on the National Research Council committee referred to above, I would say it is as much our

methods as our results. Over the last six years, in two separate phases (the first chaired by John Swets), the committee evaluated a range of techniques designed to enhance performance, including a variety of unconventional techniques claimed by their proponents to be extraordinarily effective. Each of those techniques, however useless it may have turned out to be in the committee's eventual judgment, was supported by a large number of people willing to give sincere testimonials on behalf of that technique, and by demonstration "experiments" notable for their lack of appropriate controls.

By the very nature of our subject matter, we have had to learn, as much or more than any domain of science, the need for rigorous experimentation. (One of the committee's contributions in its first phase was to specify criteria by which techniques should be evaluated.) We are experts on selection effects, confounding variables, Hawthorne effects, statistical artifacts, belief systems, and the like. In fact, historically, and in the committee's experience, the scientists most readily recruited to mystical or paranormal beliefs are not typically psychologists, but, rather, researchers in "hard" sciences who may lack experience in dealing with those types of contaminating effects.

Beyond our methodology, we do indeed have facts and generalizations to give away. Doing so, however, is not the trivial matter it may seem: We must see the practical implications of our results in the first place, and we must then convey our findings in practical and usable form to those who need and can use them. Even then we may encounter resistance; people with vested interests, who may be suspicious of psychologists to start with, are not likely to welcome our findings with open arms.

Miller concluded his presidential address by saying that he could imagine nothing "that would be more relevant to human welfare, and nothing that could pose a greater challenge to the next generation of psychologists, than to discover how best to give psychology away."..Now that 22 years have

gone by, how well did we respond to Miller's challenge? Overall, I do not believe we deserve more than a mediocre grade. Our primary shortcoming may have been a failure to communicate. For example, when psychologists have known for decades that spaced practice enhances long term performance, but training programs around the country continue to be virtually built on massed practice, something is wrong.

What *has* happened since 1969, in my opinion, is that the world has grown receptive to what we have to offer. I say that not only on the basis of my committee experience over the past six years, but also on the basis of developments in sports, education, and industry. In fact, people concerned with human performance in real world settings may have almost become *too* receptive. If we do not give them the best we have to offer, they will try the magical solutions offered by entrepreneurs In effect, the ball is now in our court.

(757 words to this point; transition to the actual opening statement, or a modified version thereof, to follow.)