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Random Samples

instein once said, "Science can progress on the basis of error as long as it is not trivial." Farraday was once asked by a colleague, "Is Professor X always wrong?" "He's not that consistent," replied Farraday. Once when Philip Handler was chairman of the National Science Board and was defending the budget of the National Science Foundation, a hostile senator said, "I hear you biochemists want to adulterate bread by adding vitamin B to it. If the good Lord had wanted vitamin B in bread he would have put it there." Handler responded, "The good Lord did put vitamin B in bread. It was man who took it out in order to make white bread. The scientists who want to put it back are doing God's work." The NSF appropriation passed.

These vignettes are not the hard stuff of new scientific experiments or theories on which major scientific progress is based, but they are vignettes illustrating the processes and illuminating the people who create it. In this issue of Science we introduce a new feature in which incidents similar to those described above will be recorded (see page 1279). It will include testimony before Congress, quotations of scientists and of nonscientists about science, philosophical observations, and historical events. It is intended, like stroboscopic flashes, to highlight the insight and amusement that become visible transiently in the onward march of science. This column will be researched and written by Gregory Byrne, who will welcome your contributions.

One particular type of contribution will satisfy two needs. Science is deluged with requests to report prizes, obituaries, and promotions. We report little in this regard, not because the items are unimportant, but because to do a good job would require pages of sleep-inducing facts. Specialty journals can do this for one discipline, but Science covers the entire range of disciplines and there are innumerable prizes. If we wish to be fair to all disciplines, we would soon be swamped. However, anecdotes from award ceremonies frequently reveal little-known facts about how important discoveries were made or how scientific careers were formed. These and other amusing insights tell a great deal about the policies and history of science. Science readers should find that reporting of such information is worthier of space than a dry recital of the awards, promotions, and deaths. Those who provide us with interesting stories will be in the happy situation of giving our readers some ideas to ponder.

We have named the page "Random Samples." The dictionary defines "random" as "without definite aim, direction, rule or method, haphazard" and "sample" as "a part of anything shown as evidence of the quality of the whole." An individual anecdote is not evidence in science, and the items on this page will be collected with no large goal or message in mind. But often facts collected with one aim in mind can turn out to be useful in an unexpected connection. Space does not allow coverage of all the awards, all the testimony before Congress, or all the incidential items that occur each week. But if we are random enough, and our samples are representative, a picture of some of the fun and humanity of science may serendipitously emerge.

To believers in fairy tales, the good guys always win and the winners are always good guys. In the real world, including science, that is not always true. Some very important discoveries have been made by individuals whom one might not want to invite to dinner. And some extremely nice people just do not end up in the winner's circle. Character, however, is not irrelevant, since individuals who are generous with advice and materials to colleagues accelerate science by helping others, sometimes at sacrifice to their own advancement. The press is great at exposing unpleasant character flaws, but the person who is willing to play by the rules instead of cutting corners frequently gets short shrift. Scientists' attitudes, however, to new opportunities for inquiry, their insights into future directions of science, their eloquence in testimony before Congress, and their memories of how certain discoveries were made can provide insight, inspiration, or warning to others who are practitioners of the art. In some cases they may affect the research effort of the scientist in the laboratory. In other cases they may provide an epigram that will be useful to those trying to communicate more effectively with the public. Felicity in language and novelty in ideas deserve recognition whenever they occur. Those who notice such events should send them to us so that others may also enjoy and profit from the experience.—

DANIEL E. KOSHLAND, JR.

3 JUNE 1988 EDITORIAL 1261