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The Squirrely Thing About Knowledge



On this gray winter day, I look out my family room window at the suet feeder I just filled. Although I set this wintertime feeder out for the birds—and even make my own suet (please contact me if you'd like the recipe)—I know that the main beneficiaries of the food are the squirrels. With that knowledge, I devise my own pitiful defenses against these clever and dexterous rodents, using twist-ties to prevent the squirrels from opening the feeder, and slathering hot-pepper-infused shortening on the line from which the feeder hangs to provide a lasting mouthful of fire. In the end, the birds and I are the losers. The squirrels always prevail.

Watching the birds and squirrels leads to thoughts about observation and experimentation. Those tools are the basis of conducting science, but non-scientists use those same skills in solving everyday problems at work and at home. A driver looks at the fuel gauge that is near empty and calculates whether she can make it to the next gas station. A shopper compares prices and features on a new refrigerator to decide which one to purchase. A vacationer checks the weather at his destination to know what clothes to pack. A cook finds substitutes for missing ingredients when preparing a recipe. A homeowner investigates the source of a leak when she sees a stain on the ceiling. And yet, the same people who solve problems every day in their work and home lives somehow reject the results of the same process of observation and experimentation when those results are generated by universities, government agencies, and other components of Big Science. Why?

One of the great challenges of our time is educating the public that they are scientists and mathematicians and engineers each and every day, and that academic and government scientists aren't strange people who possess some set of magical skills and work in secret laboratories. Along with that understanding may come less fear and more appreciation of science and less resistance to policy solutions that may involve short-term sacrifice for the sake of the long-term health of our planet. If people saw themselves as problem solvers, and saw scientists as fellow citizens who are just trying to determine, on a larger scale, whether the fuel gauge is nearing empty, we might be able to tackle pressing social and environmental issues in a more congenial manner. Perhaps we can start by together solving that knotty problem of keeping squirrels away from bird feeders, and then continue our collaborations on thornier issues.

Ellen S. Kappel

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