Pseudopsychic Demonstrations

Shared with STP's "This is How I Teach" blog by David Myers.

I warm students up to the topic by inviting them to join me "in putting ESP to the test."

First, I offer a sequence of number guessing tasks. With fake mental concentration, I "telepathically" send them a number "between 1 and 4" . . . and ask them to write down the first number that comes to their mind. I ask: "How many, despite the 25% odds, got what I sent—3?" (Most will have.)

Then I say, "I sense some skepticism, so let's make this more challenging. This time I will send you a number between 1 and 10." After they write they received number, I reveal the "sent" number—7. I say, "we might expect that half of you would have sensed a number in the upper half of the range—between 6 and 10." Indeed, an overwhelming majority will raise hands indicating they have done so. How many got within 1 (6, 7, or 8? That's inevitably most. And did more than 10% nail the 7? (About 30% will have done so.)

Now, as they are beginning to feel weirded out (by their predictable answers) I suggest one more even more extreme test. "This time I will send a number between 1 and 50. And just to make things interesting, I'll make both digits odds, but not the same odd digit. So "15" would do, but not 11, because its odd digits are the same. With these constraints (which are more confining that is immediately obvious) more than half typically guess either my sent "37" or "the 35 that briefly flitted through my mind when my concentration broke."

Given a class of 35, there will even be a few who (seemingly against all odds, though actually not) nail all three answers.

By this time the class is aroused, setting the stage for my pulling out a newspaper column, cutting it at a point specified by a randomly selected class member, and then asking the student to retrieve the cut strip from the floor. I ask them to read the top readable line and choose a word from it (not an easy word like "and" or "the" but something less likely).

When the student (who is, indeed, randomly chosen and not a confederate) chooses the word, I invite him or her to announce it to the class . . . and then declare that, "Wow, that was the precise word that—from the 400 or so in that column—I had foreknown you would choose!" Knowing that the class would doubt that declaration, I then raise a movie screen revealing that very word (or invite the student to open an envelope on the desk to discover that word inside).

The bewildered students demand an explanation, but I respond:

"It's a magic trick, which I first saw performed by magician James Randi in a mental magic show. I've performed this trick to demonstrate that something that looks and feels like ESP (it seems to have no other explanation) may actually be a mere trick. If I explain the trick, I'll destroy your sense that eerie things can have simple explanations—because if I explained how I did it you would find it mundane, and would forget the point."

It was some years after seeing Randi do this trick on my campus that I learned the explanation from a magician-student, an explanation that I will share with any teacher who writes me.