

The Gooms Effect I

Professor Gooms from the University of Florida was gambling for pennies with one of his colleagues, Professor Stark. Professor Gooms was a few pennies ahead when Professor Stark suggested a new game. He took out three identical matchboxes and six beans, three red and three black. The beans were identical except for color. Into one box he placed two black beans, into another he placed two red beans, and into the third he placed the remaining one red bean and one black bean. After doing this he said “Now Professor Gooms, if you allow me to borrow your hat, we will play a guessing game. We will place the three boxes into your hat. Then we will take turns guessing. On each turn the guesser will close his eyes, take one box from the hat, take out one bean and close the box. Then he will open his eyes, look at the bean and guess the color of the other, unseen bean still in the box. If the guesser is correct he wins a dollar, if he is wrong he loses a dollar. After checking the correctness of his guess, the guesser will replace the bean and the box, so for each guess we start with three boxes and six beans.”

Professor Gooms thought about this for a while. Then he said “OK let’s see. If I choose a box and get a red bean, then I have either the box with the two red beans or the box with the red and the black bean. Therefore the chance that the unseen bean is also red is 50-50.”

“Exactly,” said Professor Stark.

After losing several thousand dollars, Professor Gooms gave up. It turns out that Professor Gooms isn’t very smart and Professor Stark isn’t very honest.

How was Professor Stark able to win so much money?