



Puzzle provided by Kordemsky: The Moscow Puzzles (Dover)

Three puzzle competitors are blindfolded. A white piece of paper is glued to each one's forehead and they are told that not all the pieces of paper are black. The blindfolds are removed and the prize goes to the first man to deduce whether the paper on his forehead is white or black.

All three announce white at the same time. Why?



Solution:

A reasoned: “My friends have white; suppose I have black. Then ***B*** would say to himself, ‘***A***’s paper has black and ***C*** has white. If I have black ***C*** would see two pieces of black paper and immediately announce he has white. But ***C*** is silent. Therefore, I announce I have white.’ But ***B*** is silent. Therefore, I announce I have white.”

B and ***C*** reasoned the same way. But ***A*** could also have reasoned: “In a fair contest, we must all have the same problem to solve. If I see two white pieces of paper, so do they.”