

The lady and the tiger

a fun way to learn symbolic reasoning

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This quiz is based on a story given in the interesting book by Raymond Smullyan "The lady or the tiger"¹ The objective of this exercise is to explore the fundamental principles of symbolic reasoning.

The story goes like this : A king had a large number of slaves (kings always have slaves). In a fit of rage, the king decided to eliminate his slaves (kings always get fits of rage). He wanted to make it appear that the slave was responsible for his own death (this is how cunning, kings are). He wanted to kill only those slaves who were weak in logic (that's logical, isn't it ? Isn't that why we all are trying to learn logic ?). So he devised a clever plan.

He arranged to get a beautiful lady, and a ferocious, hungry, maneater-tiger. He put the lady, and the maneater, in two separate rooms (why ?) and shut the door. The slave was to choose one of the two rooms and enter it. If the slave was lucky, he would choose the room holding the lady (why ?). Of course, choosing the room with a tiger would mean certain death. The king pasted a sign on each of the doors. The prisoner was to choose the right room, based on these signs. The prisoner could ask questions about the signs (and not ask which room the tiger was in).

ROOM A : AT LEAST ONE OF THESE ROOMS CONTAINS A TIGER

ROOM B: A TIGER IS IN THE OTHER ROOM

Are the statements on these signs true ? asked the prisoner.

They are either both true, or both false said the wicked king.

Now, which room should the prisoner choose ?

Derive your answer using symbolic logic. Do not use any verbal reasoning.

¹R Smullyan, The lady or the tiger ? and other logic puzzles, Pub. Alfred A Knopf, New York

If you can't figure it out, you may ask drpartha@gmail.com for the solution.

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