0 Question: A bag contains one counter, known to be either white or black with probability 1/2. A white counter is put in, the bag shaken, and a counter drawn out, which proves to be white. What is now the chance of drawing a white counter?

A1: 2/3 | A2: 1/2

Arguments for A1

1 Question: If I update using bayes rule based on observing that a white counter was drawn the first time, what is the chance of drawing a white counter the second time?

A1: 2/3 | A2: Probably 2/3

2 Question: If I break down the probabilities into scenarios, and then discard scenarios where a white counter is not drawn the first time, what is the probability of drawing a white counter the second time?

A1: 2/3 | A2: Probably 2/3

5 Question: Meta-debate: Given the questions and answers in this round, which is the better answer to the question?

A1: 2/3 | A2: Draw

Arguments for A2

3 Question: What is the probability of drawing a white counter at the start (before the white counter is put in)?

A1: | A2: 1/2

4 Question: Does putting in a white counter then removing a white counter change anything about the number of white and black counters in the bag?

A1: | A2: No

6 Question: Therefore, is the probability of drawing a white counter still 1/2?

A1: No, you have different information about what counter is in the bag, the probability is 2/3. | A2: Yes