The Monte Hall Problem

Here is the infamous Monte Hall problem, as it appeared in the Parade Magazine of 9 September 1990: *Suppose you're on a game show, and you're given the choice of three doors: Behind one door is a car; behind the others, goats. You pick a door, say number 1, and the host, who knows what's behind the doors, opens another door, say number 3, which has a goat. He then says to you, "Do you want to pick door number 2?" Is it to your advantage to switch your choice?*

Discussion

1. Should you stick or switch?
2. Design and carry out experiments to check your conclusion.
3. What assumptions does your answer depend on?
4. Discuss other plausible assumptions, and how they would affect your answer.