In order to solve this interesting variant of the Monty Hall problem suggested by Harvey Rubinstein of Hudson County Community College in New Jersey, we introduce two different versions of the Monty Hall role, called "Random" and "Full."

Random Monty is unaffected by the player's actual choice, and is equally likely to open any door that has no prize behind it, including the door chosen by the contestant. His choice is not informative when he happens to open a door not chosen by the contestant. The contestant then has probability ½ of winning the prize whether or not she switches. Probably most people stumped by the original puzzle were thinking of Random Monty.

Full Monty is the now-famous character who opens a non-prize door not chosen by the contestant. His choice *is* informative. If the prize was not behind the door initially chosen by the contestant, then Full Monty has no discretion in which door to open. In this case (which has probability 2/3), the contestant will win if she switches. Marilyn vos Savant was talking about Full Monty, and got it right.

Here's the new twist. Full Monty can't operate in Harvey's version of the problem. He *must* open one of the contestant's doors. So Harvey's Monty, for all intents and purposes, is just Random Monty. As a result, the winning probability is ½ for both of the remaining contestants, whether or not they switch doors.