A magician shouldn't give away his secrets, but here is a proven way to win rock-paper-scissors. I designed an experiment where I played rock-paper-scissors with 31 subjects and had them answer a short questionnaire on their first choice, and whether they chose their moves randomly or tried to anticipate their opponent's moves. After tallying up my questionnaires, I found a surprising result. I expected the frequencies of rock, paper, and scissors to be evenly distributed. Instead, I found that 55% of my subjects chose scissors (P < 0.025).

My experiment tested only the first move of the game; after that, things get too complicated to make any predictions. My subjects had no idea which move I would play, so I did not influence their choices. Of the subjects that claimed they chose randomly, 2/3 chose scissors (P < 0.02); and of the subjects who claimed they anticipated or consciously made a choice, their choices were evenly distributed. The people who claimed they chose randomly did not choose randomly, while those who tried to predict my move had an even distribution of rock, paper, and scissors.

So, how do you use this information to increase your chances at winning? If your opponent is a seasoned player (someone who tries to anticipate your move), don't expect this trick to work. Since your opponent will probably play an even frequency of moves, predictions are impossible. But since these people are a minority, you're in luck. If you're playing against an amateur, play rock. You will more than double your odds when playing against them. No matter what, if you play rock, you will win at least half the time, instead of the predicted 1/3 of the time. The only problem is that if your opponent has read this article, you're out of luck.