Hot hand fallacy, gambler's fallacy, or both

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Luck to continue or to turn

- Hot hand fallacy

- "No 5 has won the last five spins, it's on the lucky streak! I should bet on it! And bet more!"

- Gambler's fallacy

- "No 5 has won the last five spins, it has got it's fair share. I should bet on another number now."

Will you bet on No 5 or not?

When I am the one winning

- Hot hand fallacy

- "I have won the last five spins, I'm on the lucky streak! I should bet more!"

- Gambler's fallacy

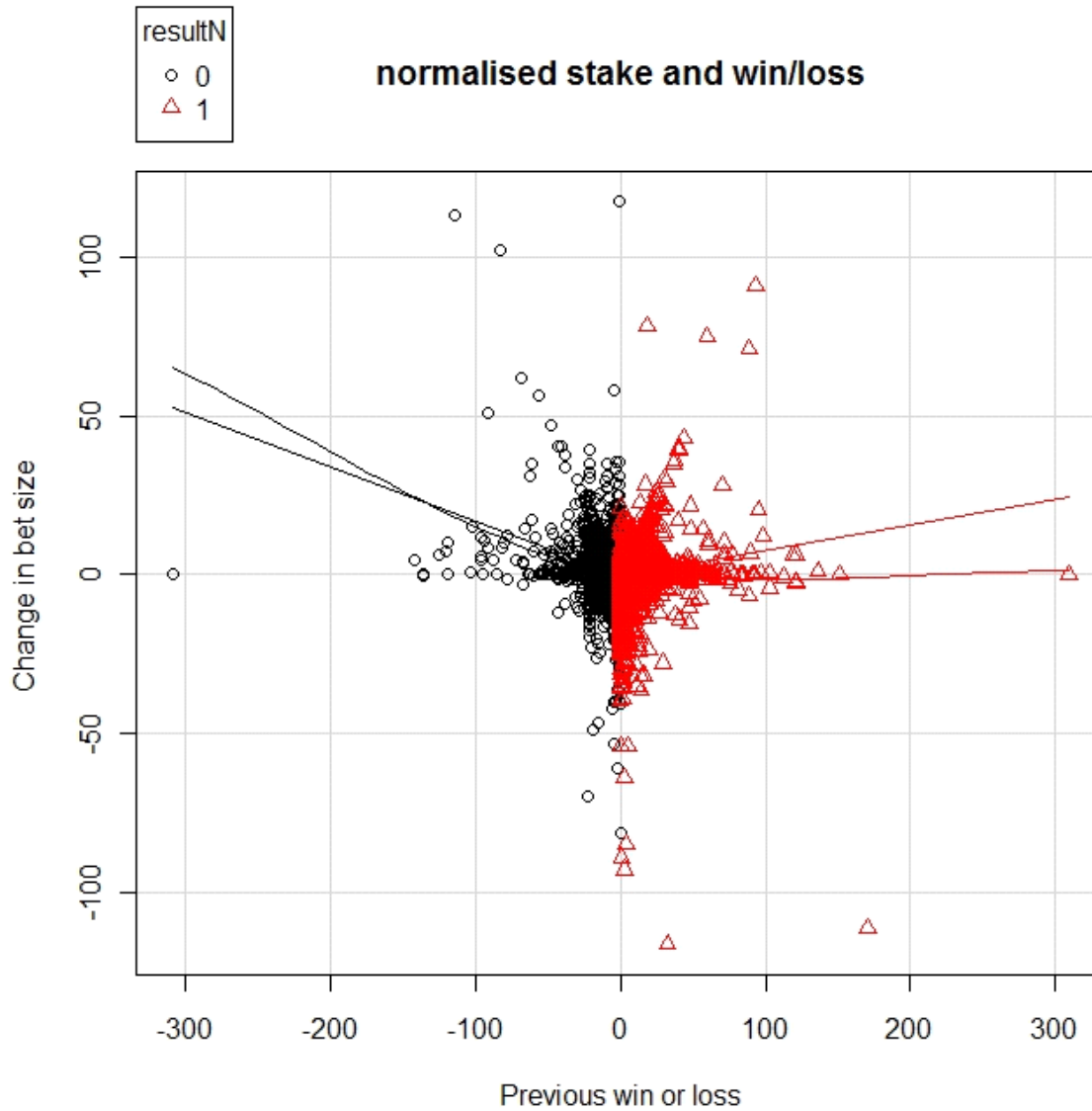- "I have won the last five spins, I have got my fair share. I should stop now."

How will you bet?

Data structure

Type	Game	Time	Bet	Bet type	Odd	Result	Amount
Horse Racing	3m1f	26/03/2010	5	Back	2.82	WON	9.1

Data structure

- All bets of over 1000 people in one year.

- 1.8m bets in total, 1.1m in GBP, .5 m in EUR.

- Among GBP users: Medium bet: £6, Mean £65.9.

- Bets placed by one user in 2010: Medium 244 times, Mean 1106 times.

- Horse racing is the most popular game.

Graph 1. Horse racing, GBP. Black circles for losses, red triangles for wins. The unit is the gambler's average bet size. Straight lines are the prediction lines, given the previous win or loss. On both winning and losing, the flatter lines are the ones including extreme data points, the steeper lines are the ones excluding extreme points.

Possible explanations

- Select the fallacy that suits you?

- Mismatch of reward and anxiety?

- ? ? ?