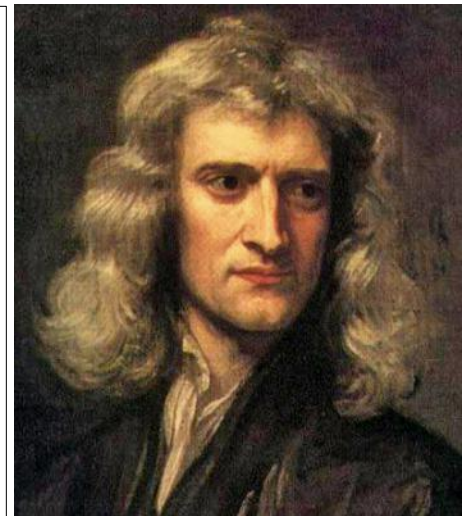
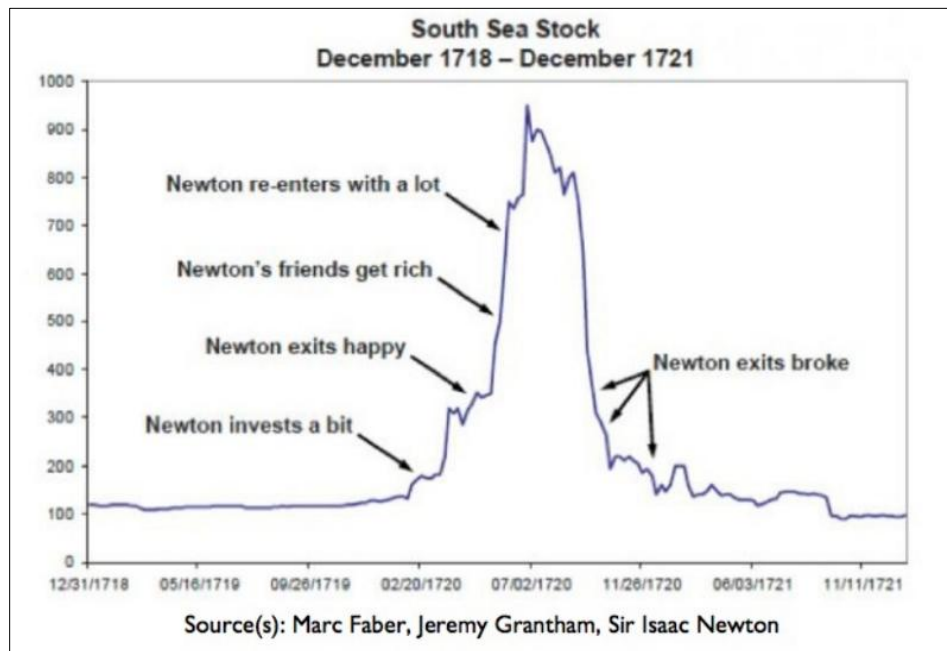


# Behavioral Finance (Be-Fi)

## Story of Isaac Newton and the South Sea Bubble



**"I can calculate the motions of the heavenly bodies, but not the madness of men."**

## Cognitive Errors & Emotional Biases

### Cognitive Errors

Bias Name	Description	Key Example
Belief Perseverance (Core)	The tendency to maintain a belief despite new evidence that firmly contradicts it.	Continuing to believe a political candidate is honest after clear evidence of corruption.
Confirmation Bias	Seeking, interpreting, or recalling information in a way that confirms pre-existing beliefs while ignoring contradictory data.	A smoker only reading studies that downplay health risks of smoking.
Conservatism Bias	Insufficiently revising beliefs in response to new evidence; sticking too closely to priors.	An investor only slightly downgrading a stock despite strong negative signals.

Representativeness Bias	Judging probability by similarity to a prototype, ignoring base rates or disconfirming evidence.	Assuming a shy person is a librarian, not a salesperson, despite base-rate odds.
Illusion of Control Bias	Overestimating one's ability to control or influence outcomes that are actually determined by chance or external factors—reinforcing belief in personal theories despite evidence of randomness.	A gambler believing they can "will" a slot machine win or that rituals improve luck, even after repeated losses.
Hindsight Bias	The tendency to see past events as having been predictable ("I knew it all along") after they occur, reinforcing overconfidence in initial beliefs and resisting revision.	After a market crash: "I always knew that bubble would burst," even though pre-crash predictions were optimistic.

## Processing Errors

Bias Name	Description	Key Example
Anchoring and Adjustment Bias	Over-relying on the first piece of information (the "anchor") when making decisions, then insufficiently adjusting from it.	Asked "Is the Mississippi River longer than 500 miles?" then estimating 600 miles; if asked "longer than 5,000 miles?", estimating 4,000 miles—even though actual length is ~2,300 miles.
Mental Accounting Bias	Treating money differently depending on its source, intended use, or mental "account," rather than its fungibility.	Refusing to use a \$100 tax refund for groceries (seen as "extra") but freely spending \$100 from salary; or keeping a "vacation fund" separate from daily expenses.
Framing Bias	Making different decisions based on how information is presented (e.g., gain vs. loss frame), even if	95% survival rate → people choose surgery; 5% mortality rate → people avoid it—even though both mean the same outcome.

	objective facts are identical.	
Availability Bias	Judging likelihood or frequency by how easily examples come to mind, rather than actual data.	After seeing news about shark attacks, overestimating the risk of swimming; or fearing plane crashes more than car accidents due to vivid media coverage.

## Behavioral Biases

Bias Name	Description	Key Example
Loss-Aversion Bias	Feeling the pain of a loss about twice as intensely as the pleasure of an equivalent gain; preferring to avoid losses over acquiring gains.	Refusing to sell a stock down \$1,000 (to avoid realizing loss) but not buying more when it's up \$1,000 (gain not motivating enough).
Disposition Effect	Selling winning investments too soon (to lock in gains) and holding losing investments too long (to avoid realizing losses).	An investor quickly sells a stock up 20% but holds one down 20% hoping it "comes back."
Overconfidence Bias	Overestimating one's own knowledge, predictive ability, or control over outcomes.	A trader believing they can beat the market consistently despite average returns; or a driver claiming "I'm above average" (statistically impossible for most).
Self-Control Bias	Prioritizing short-term gratification over long-term goals due to impulsivity or lack of discipline.	Spending a bonus on a luxury item instead of saving for retirement; or eating dessert despite a diet plan.
Status Quo Bias	Preferring things to stay the same; resisting change even when a new option is better.	Sticking with the same insurance provider or investment fund for years despite better alternatives.
Endowment Bias	Valuing something more highly simply because you	Refusing to sell a family heirloom for \$5,000 even

	own it (overvaluing the familiar).	though you wouldn't pay \$1,000 to buy it.
Regret-Aversion Bias	Avoiding decisions that might lead to regret, even if rationally optimal; fear of being wrong.	Not investing in a stock that later surges ("I'd regret missing out") or not selling one that crashes ("I'd regret selling too soon").