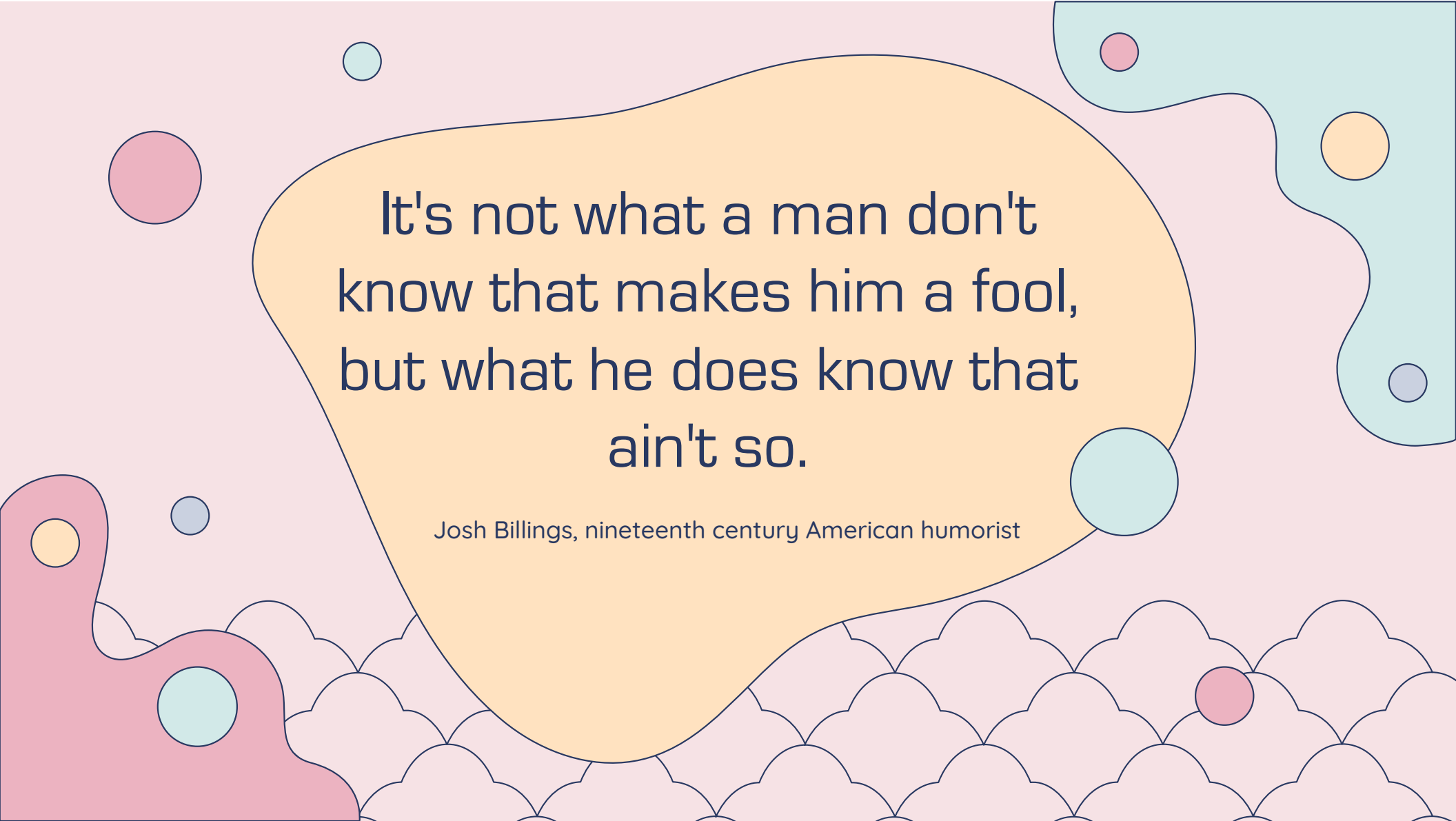


OVERCONFIDENCE



EE434 SEM1/2022
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It's not what a man don't
know that makes him a fool,
but what he does know that
ain't so.

Josh Billings, nineteenth century American humorist

What overall rate of return do you expect to get on your portfolio in the NEXT twelve months? ^{e.g.} 10%

Thinking about the stock market more generally, what overall rate of return do you think the stock market will provide investors during the coming twelve months? ^{e.g.} 5%

Overconfidence is prevalent in financial decision-making.

The Gallup Organization for UBS PaineWebber did 15 surveys, each with approximately 1,000 respondents per survey, between 1998 and 2000.

Respondents were adult investors, 18 years and older, with at least \$10,000 of investable asset.

Respondents were asked what they expected the rates of return on the stock market and on their portfolios to be in the following 12 months.

On average, respondents expected their portfolios to **outperform the market**—that is, they **were excessively optimistic**.

People who are overconfident might have the tendency to ^①trade too much, ^②underdiversify, and ^③take on too much risk.

Given a level of risk preferences, $\text{e.g. } \alpha, \lambda, \sigma$, overconfidence $\uparrow$
value $\uparrow$ & PWF willingness to take risk $\uparrow$



Overconfidence can afflict managers and entrepreneurs, making them be ¹too ²ready to ³enter markets, invest excessively, ⁴acquire other companies too readily, and take on too much debt because of excessive optimism.

OVERCONFIDENCE

- Misalignment

- Better-than-average effect

The tendency for people to overestimate their knowledge, abilities, and the precision of their information, or to be overly confidently optimistic of the future and their ability to control it.

↳ Illusion of control

: Think we can control the things that in fact cannot be controlled.

↳ Overoptimism / excessive optimistic

Confidence vs. Overconfidence

Confidence is about having a positive feeling about one's own skills, knowledge, etc.

Overconfidence is when one has an inflated sense of one's own abilities.

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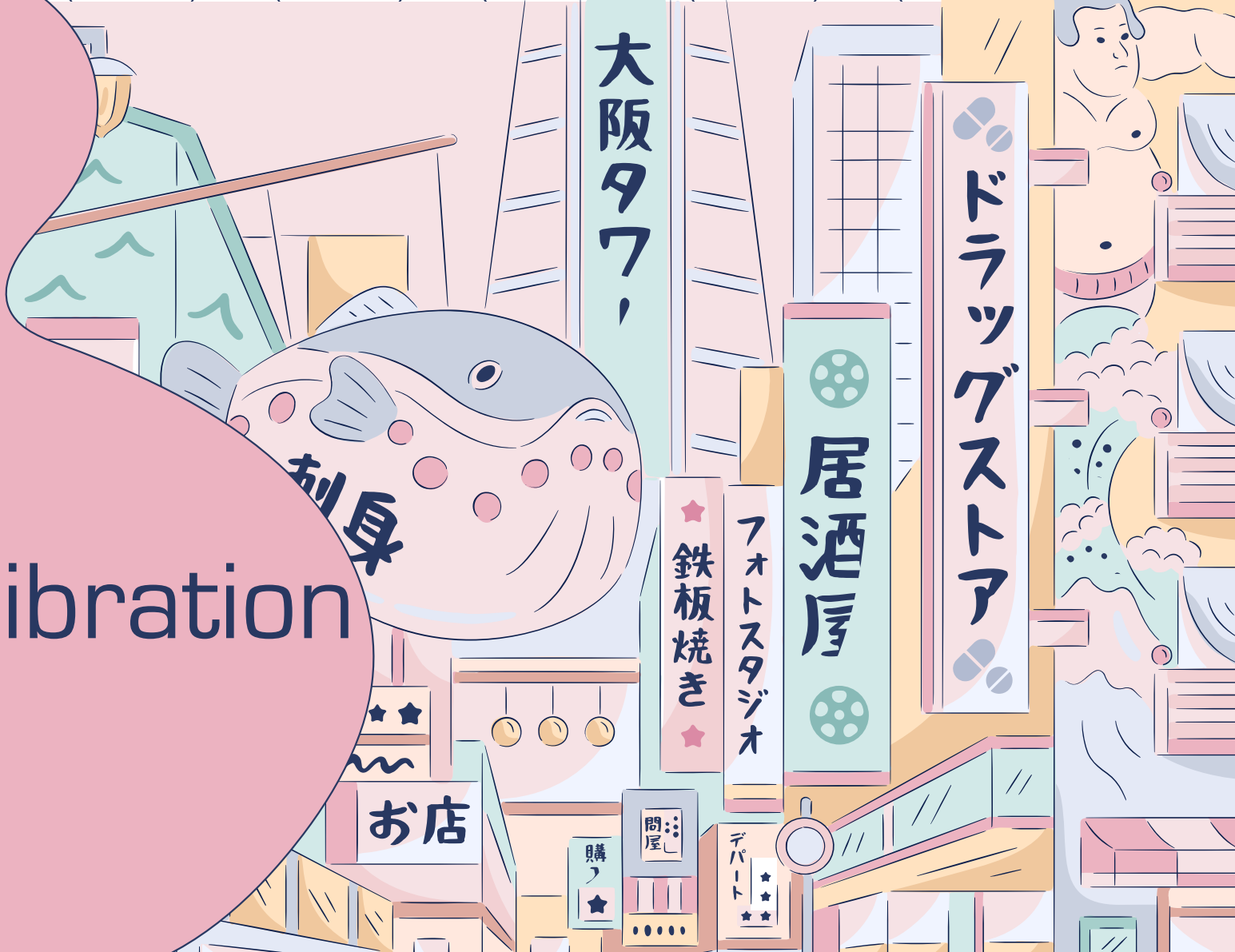
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01

Miscalibration



Miscalibration

- Miscalibration is the tendency to believe that your knowledge is more precise, that is, more accurate, than it really is.
- Calibration studies find that the confidence intervals that individuals provide are too narrow.

Calibration test

①^a Difference between objective accuracy and subjective certainty¹¹

- Ask people 50 multiple choice questions,
 - Then ask how many the answers are right,
 - If they think they got 25 right...but they only got 15 right
 - they appear to be overconfident.

Q1:

Q2:

Q5:

Q6: How many questions you think you got the right answer?

5

measure subjective
certainty

Calibration test

④ "Confidence interval approach"

- Individuals are asked to construct (say) 90% confidence intervals for currently (or soon) knowable magnitudes (such as the height of Mount Everest, or the level of the Dow in a month).
- Typically, they are found to be miscalibrated, which means their intervals are too narrow.
- If people are asked a large number of $x\%$ confidence interval questions, then proper calibration implies that about $x\%$ of their confidence intervals should contain correct answers to the questions.

02

Better-than-average effect



Better-than-average effect

Better-than-average effect says that many people feel we are smarter or more skilled than average.

But only 50% of us can really be better than average.

For example, Svenson(1981) surveyed a sample of students, reporting that 82% rated themselves in the top 30% of their group on driving safety.

Better-than-average effect

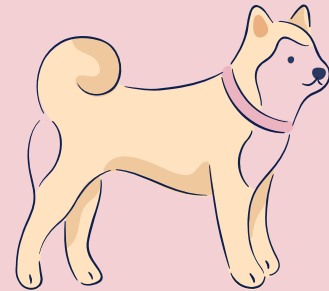
Both motivational and cognitive mechanisms are likely behind the better-than-average effect.

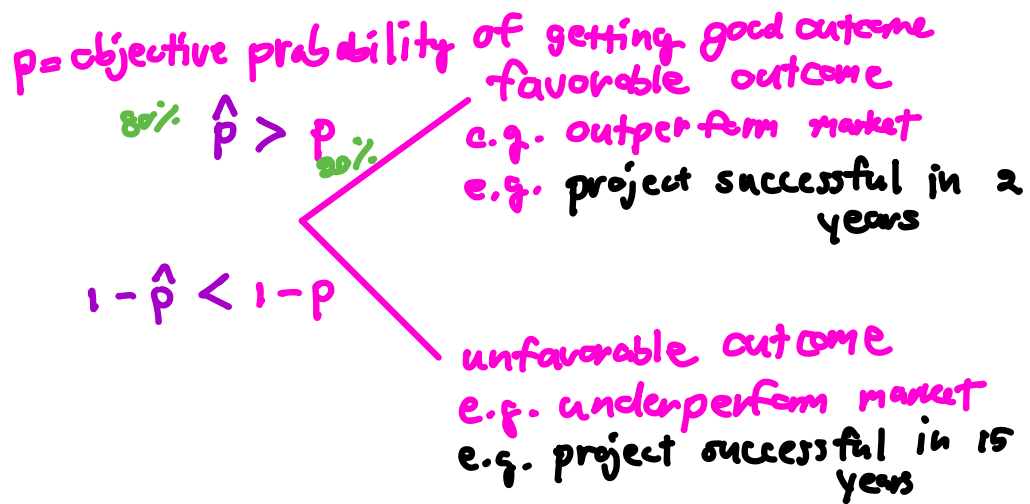
On the motivational side, thinking that we are better than average enhances self-esteem.

On the cognitive side, the performance criteria that most easily come to mind are often those that we are best at.

03

Excessive Optimism





$\hat{p}$ = subjective belief about probability of getting good outcome

planning fallacy

Excessive Optimism

Excessive optimism reflects the feeling that things will be rosier than objective analysis suggests.

Excessive optimism is present when people assign probabilities to favorable(unfavorable) outcomes that are just too high(low) given historical experience or reasoned analysis.

Excessive Optimism

For example:

Despite high divorce rates, newlyweds almost universally expect that their marriages will succeed.

Investors might expect their portfolios to outperform the market

Excessive Optimism

Excessive optimism can lead to **planning fallacy**.

Planning fallacy (Kahneman and Tversky (1979)):
people's tendency **“to underestimate the time required
to complete a project,”** even when they have
considerable experience of past failures to live up to
planned schedules.”

Excessive Optimism

Lovallo&Kahneman(2003) explained that planning fallacy is when managers make decisions based on delusional optimism rather than on a rational weighting of gains, losses, and probabilities.

Excessive Optimism

They overestimate benefits and underestimate costs.

They spin scenarios of success while overlooking the potential for mistakes and miscalculations.

04

Nature of overconfidence



Are people consistently overconfident?

People have been shown to be sometimes overconfident and sometimes underconfident.

- Measured level of confidence depends on the design of the test, i.e. type of test, wording, framing, etc.

Are people consistently overconfident?

Kirchler & Maciejovsky (2002) investigated individual overconfidence within the context of an experimental asset market.

They used two different measures of overconfidence:

(1.) Subjective confidence intervals

Subjective confidence intervals are too narrow, as they exclude observed trading prices far too often

Are people consistently overconfident?

(2.) Differences between objective accuracy and subjective certainty

Traders are overconfident with respect to the accuracy of their price predictions, as their subjective certainty of having made accurate decisions exceeds the objective accuracy.

experience $\uparrow$ $\rightarrow$ overconfidence $\uparrow$

It was found that overconfidence increased with experience and was negatively correlated with individual earnings.

earning $\uparrow$ $\leftrightarrow$ overconfidence $\downarrow$

THANKS!

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