



When Thinking Fails

And how to protect against it

What's going on today?



A group of people are sitting around a campfire at night. The fire is burning brightly in the center, with sparks rising. People are holding mugs and roasting marshmallows on sticks. In the background, there is a tent and several lanterns. The scene is illuminated by the warm glow of the fire and lanterns.

Story Time!

Our Question For The Day

How confident should intelligence actually make us in our decisions?



Let's Revisit

SAME QUESTION, SAME
SCALE

Smart People Don't Avoid This

- ▶ Intelligence \neq immunity
- ▶ Often the opposite

Let's Revisit

STORYTIME



Is it a Failure, or a Pattern?

- ▶ Confidence Comes Early
- ▶ Evidence Comes Later



Internal Prompt

- ▶ Think about a decision that felt justified and well-reasoned at the time, but later turned out to rest on assumptions you hadn't noticed yet.

Why This Gets Expensive

- ▶ Time
- ▶ Resources
- ▶ Momentum

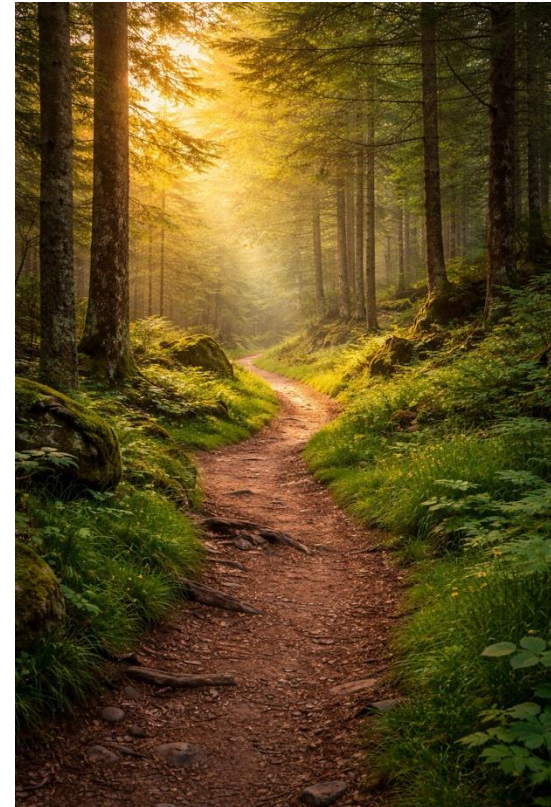
Confidence Hardens Paths

Quick Exercise – Divergent + Convergent thinking



Why AI Makes This Worse

AI reduces the cost of being confidently wrong, right up until it suddenly doesn't



Why does this happen?

Many Reasons. But let's get into 3

Reason 1 – Prediction Failure

Talk to your neighbor!

When a top-tier financial analyst with a history of success make predictions about the future, would you trust them? Why or why not?

Reason 2 – Elephants & Riders



Reason 3 – Information & Interpretation

When confident decisions go wrong, is it usually because people lacked information, or because they misread what they had?



How do we fix
it?

Falsifiability

What would need to be true in order for this to be false? How does this fail?

It's a null hypothesis

Set Falsifiable Guard rails early

- What could we rationalize away
- Unless we decide in advance what counts as failure, confidence will protect us
- Theranos

Quick And Small At The Beginning Is Cheaper

- Cheap tests
- Reversible bets

The Bigger Picture

CONFIDENCE ≠ COMMITMENT

Next Steps

You've learned about

Next Lecture

Incorrect Mental Models
(Lecture 1)

Dig deep into
understanding systems

How/Why thinking fails

Find out how to think with
systems

How to counteract those
failures

This is critical for business-
grade development,
especially agentic
workflows