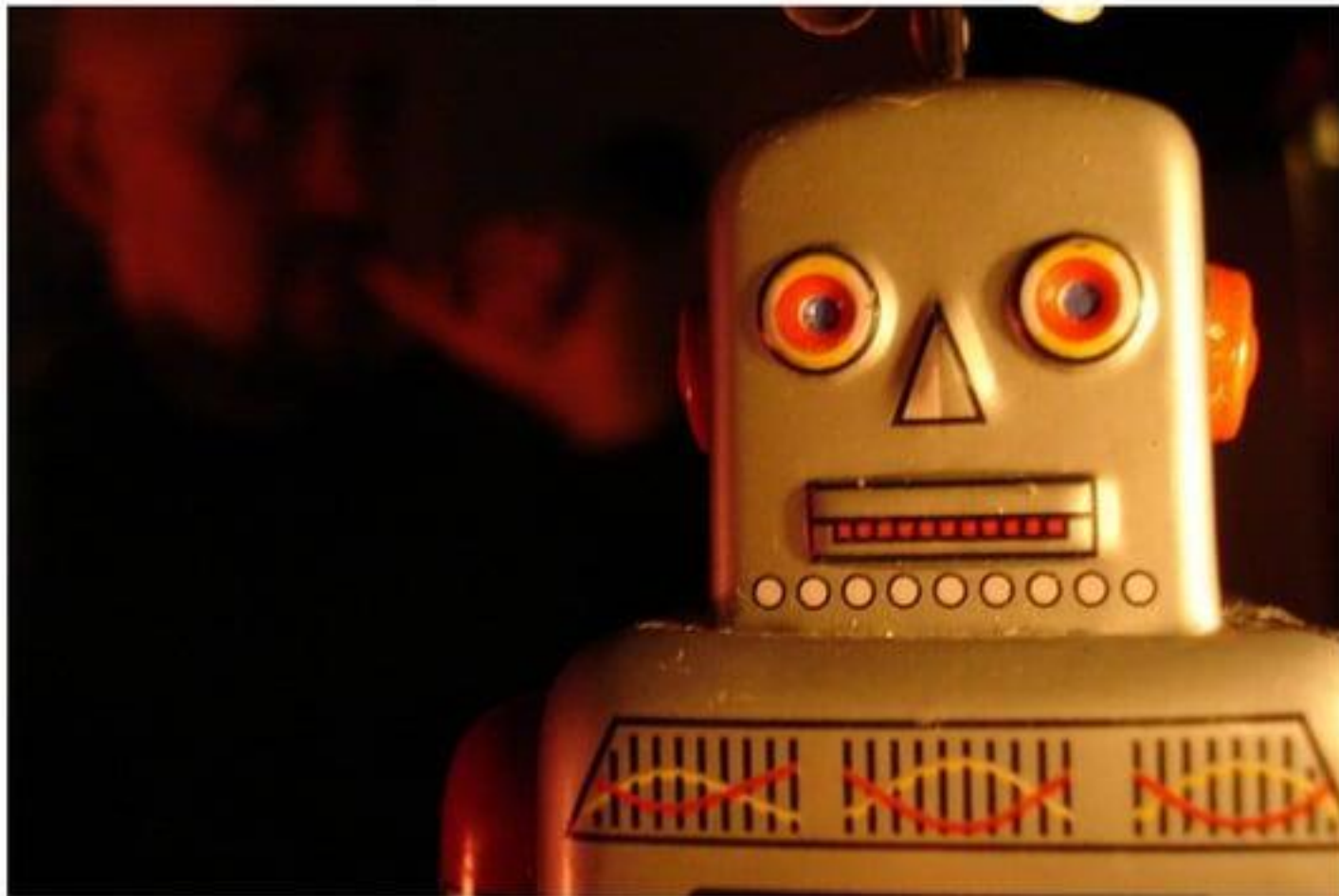# How to run a 5 Whys (With Humans, Not Robots)

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Shameful Mistakes: Humans vs Robots

You Will Totally Experience Shame (I Still Do)

F.A.E.

Big Idea: Adopt Economic, Not Moral Mindset

$, FTW

Parable: A Tale of Two Factories

Factory 1... Broken Machine

Economic Mindset = Broken Machine

- "How much is it costing us?"

- "How much does it cost to repair?"

- "Can we kludge a partial fix?"

- "What are risks if we delay a fix?"

Factory 2... One Employee Is an Axe Murderer

Moral Mindset = Axe Murderer

"Search for villains, elevation of accusers, and mobilization of authority to mete out punishment" (Pinker, The Blank Slate)

Your Challenge, As Person Running 5 Whys

Get team out of moral mindset.

Note: this is not, in fact, easy.
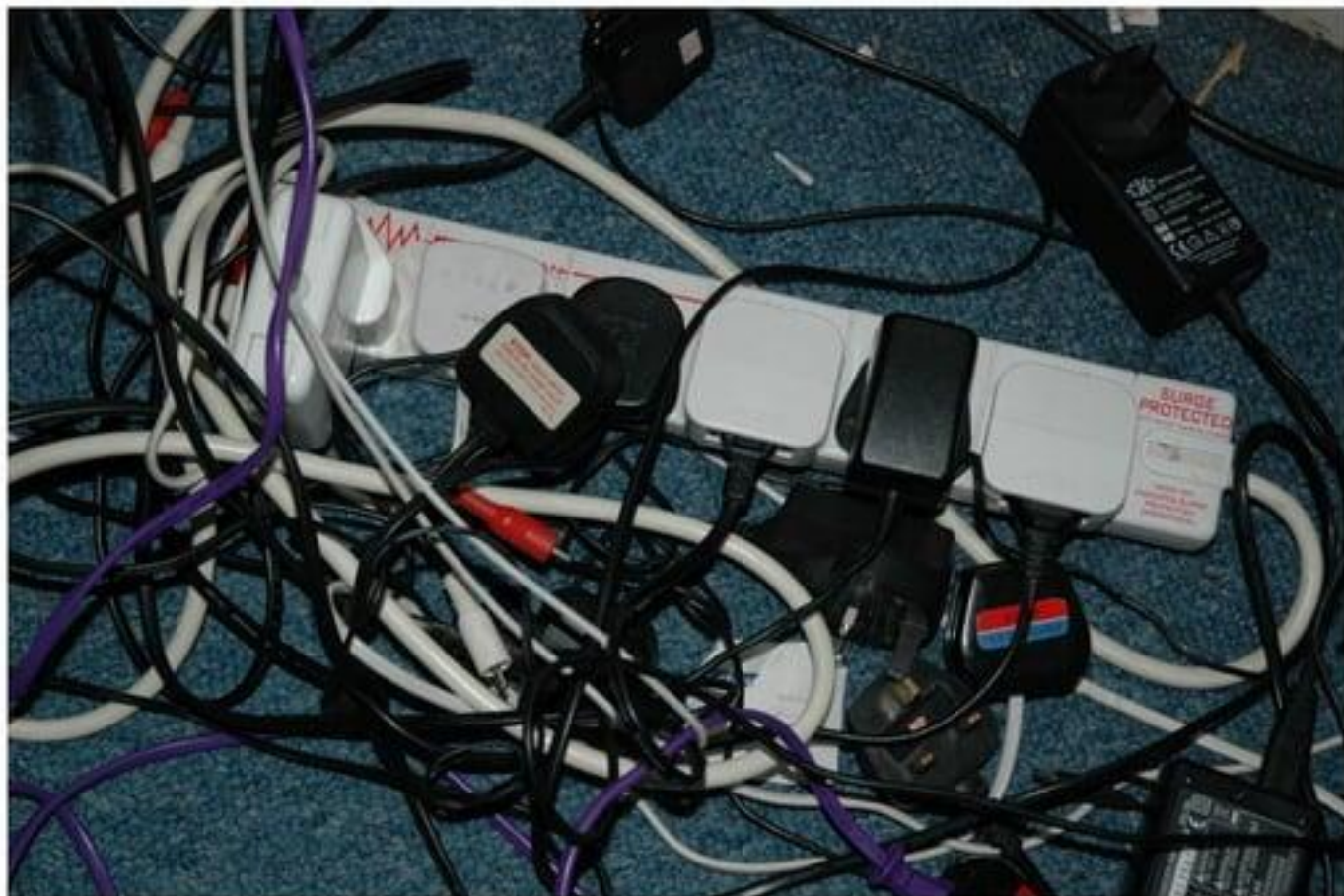
Fundamental Tool: Make 'Em Laugh

Tip 1: Always Share Worse "Bad Things"

Tip 2: Mock Hindsight Bias To Its Face

"Let's plan for a future where we're all as stupid as we are today."

Tip 3: Relish Absurdities of Your System

Tip 4: "Broadest Fixes" vs. "Root Causes"
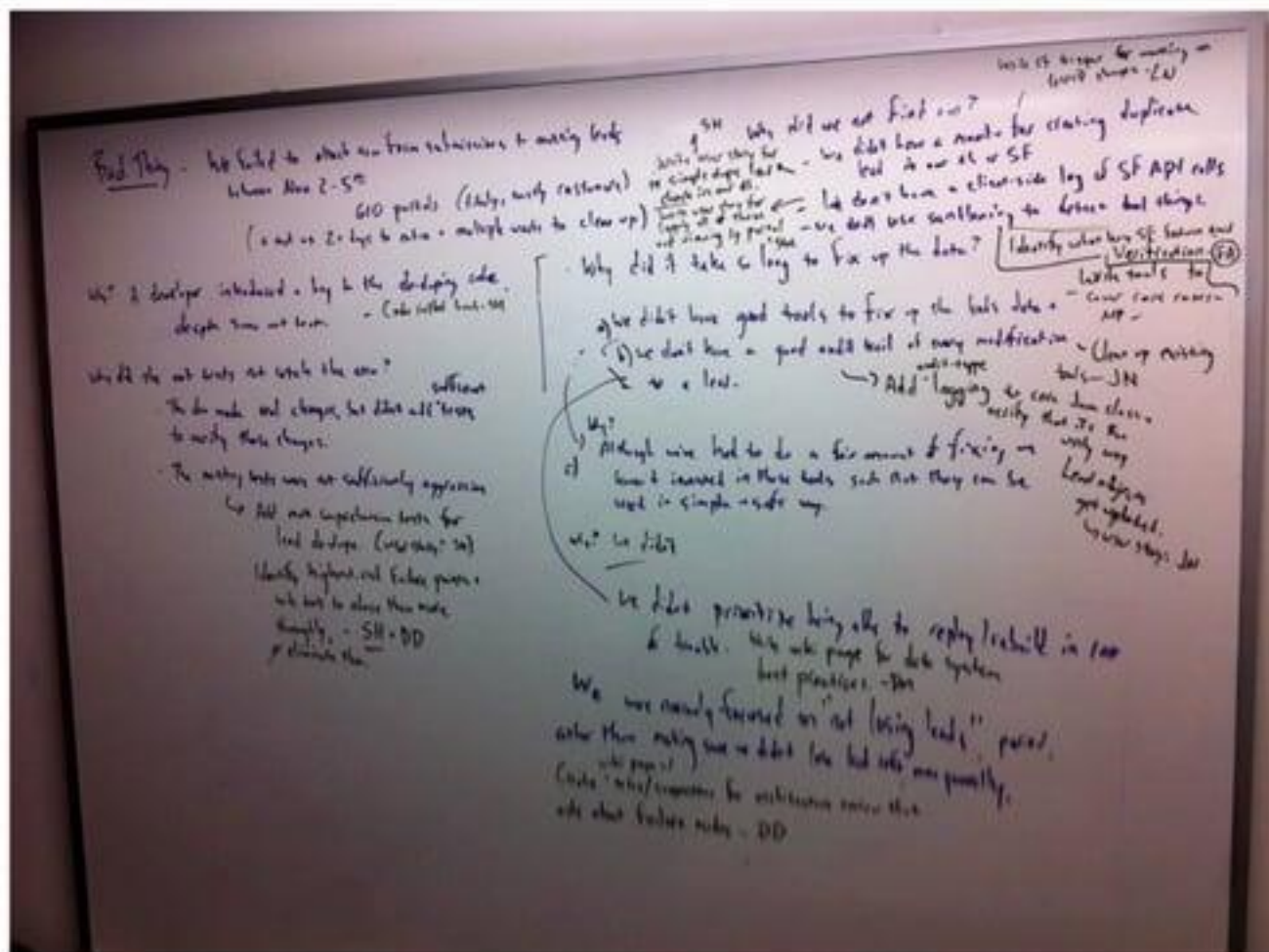
Remember, There Is No Axe Murderer (Probably)

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Thanks...

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Fundamental Tool: Make 'Em Laugh

Humor == Breaking Frames

- That's what humor actually *is* -- something that stretches or breaks the mental frame that people are using to interpret a situation

- So, you use humor to break the frame, release people from the blame/fear/ punishment of the moral mindset, and then refocus them on the economic challenges you're facing

- The humor is, IMHO, not a nice-to-have. It's absolutely central. I've seen smart, caring leaders get this one wrong, and finish their post-mortems with a room full of tense, closed-up team members (and no good ideas on the table)

- Rest of talk is specific examples of this, but this is the main point

How Hindsight Bias Shows up in a 5 Whys

- Someone says "Oh, yeah, I screwed that one up, I knew I had to run the deploy in that one order, and I just forgot. I'm really sorry, I **won't make that mistake again**, totally my bad."

- You have to utterly reject this. It's pure hindsight bias (easy to see errors after the fact, very difficult in the moment).

- I say "It's like we're saying 'I was stupid, this one time, and we'll fix that problem by never being stupid again.'"

- Hence: "planning for a future where we're as stupid as we are today"

- aka "Must create a system which is resilient to occasional bouts of really intense stupidity".

Tip 3: Relish Absurdities of Your System

Tip 4: "Broadest Fixes" vs. "Root Causes"

Handling a Fork in the Road

- Example: bad outage at Wingu: was triggered by a mistake in db access code. But we couldn't fix it for three hours, because our error reporting system was trying to send us hundreds of emails/minute, so our email provider throttled us, and we didn't get those email until hours later.

- Which is the Root Cause? DB access bug or monitoring failure?

- Answer: don't care about "root causes". They don't exist (multiple things conspire for failures to happen). Also, kind of moral/blame-ish.

- Ask instead: if we made an incremental improvement in area A or area B, which would prevent the broadest class of problems going ahead?

- Much better conversation. Answer here is clear: monitoring.

Remember, There Is No Axe Murderer (Probably)

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