# 3 Illusions in Software Delivery

*Joel Tosi*
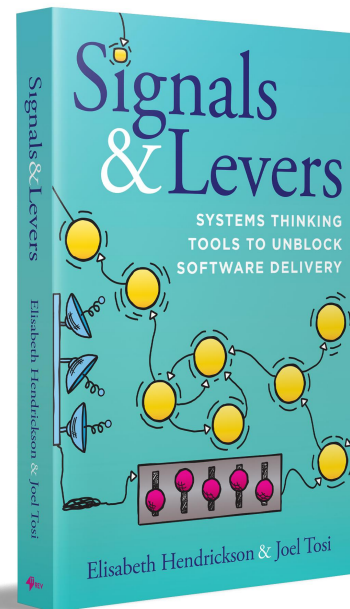   https://www.dojoandco.com/speaking

*https://signalsandlevers.com/*

# About Us



Joel Tosi



Elisabeth Hendrickson



**Signals & Levers**

SYSTEMS THINKING TOOLS TO UNBLOCK SOFTWARE DELIVERY

Elisabeth Hendrickson & Joel Tosi

*forthcoming from*
*IT Revolution, Sept 2026*

*https://signalsandlevers.com/*

# Definitions

# What is a System?

A **system** is a set of interrelated parts that does something.

1.  **A system is more than the sum of the parts**. The system's behavior and properties are emergent; they arise from the relationships between the parts and belong to the system as a whole, not the component parts.

2.  **The whole is indivisible**. Divide any system into two or more parts and none of those parts will have the same behavior or properties as the original system.

3.  **Parts are interdependent**. If the behavior or properties of one part change, that change will affect other parts (often in completely unpredictable ways).

4.  **Systems are fractal**. A part can be a subsystem composed of interrelated parts. It's systems all the way up and down.

# Signals

A signal is an observable characteristic or attribute of the system that tells you something about the way the system works.

Signals can be quantitative (lead time, cycle time, velocity, defect counts) or qualitative (quality, morale).
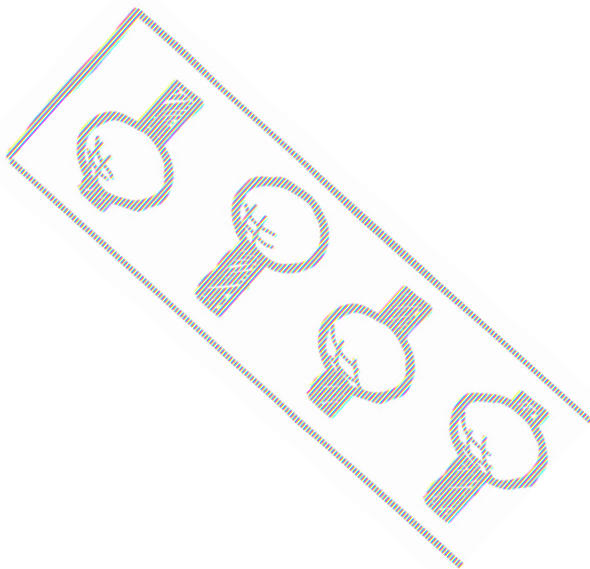
You are surrounded by signals.
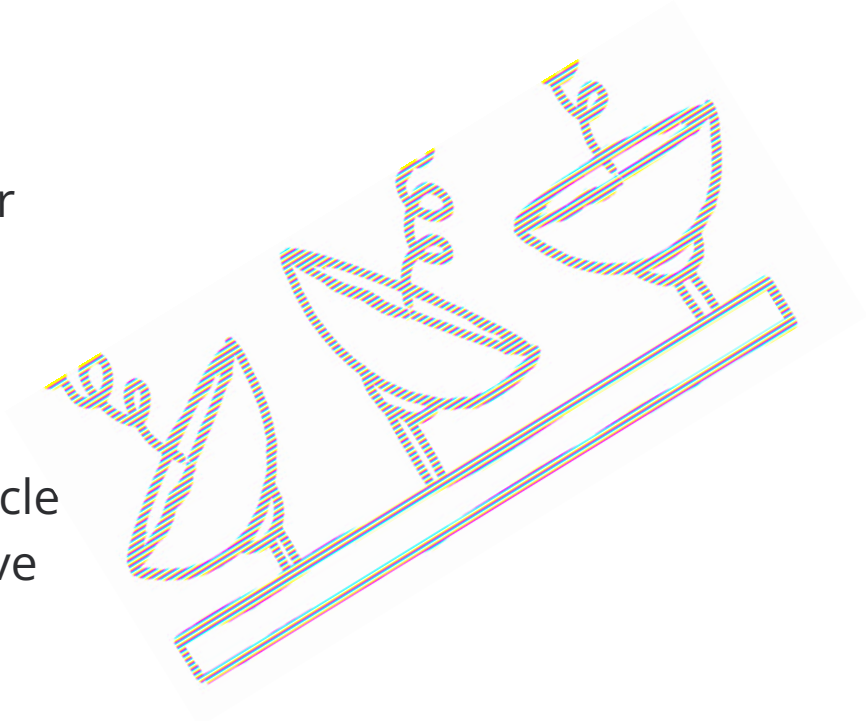
# Levers

A **lever** is a choice that causes a shift in the system.

If you do something and the system does not appear to change at all, either you're not looking at the right signals, or the choice you made wasn't actually a lever.

# A Brief Description of Buttresses

A buttress is an architectural structure built against or projecting from a wall which serves to support or reinforce the wall. Buttresses are fairly common on more ancient (typically Gothic) buildings, as a means of providing support to act against the lateral (sideways) forces arising out of inadequately braced roof structures.
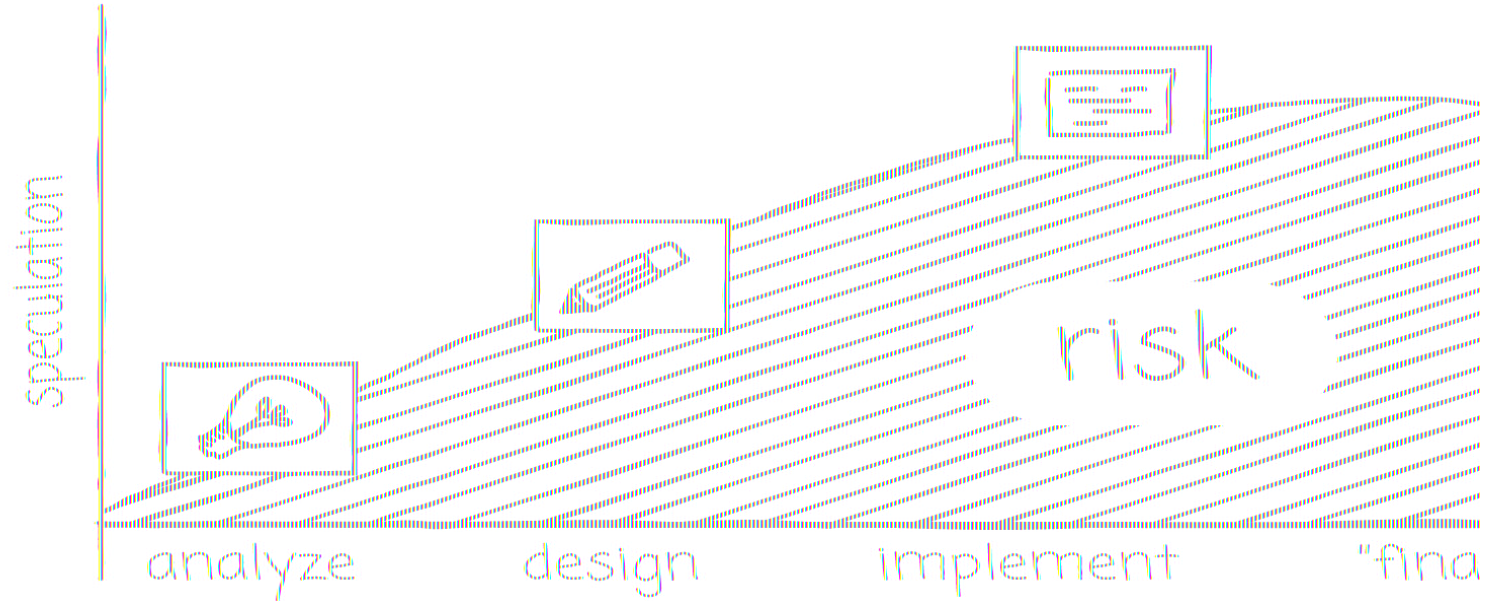
https://en.wikipedia.org/wiki/Buttress
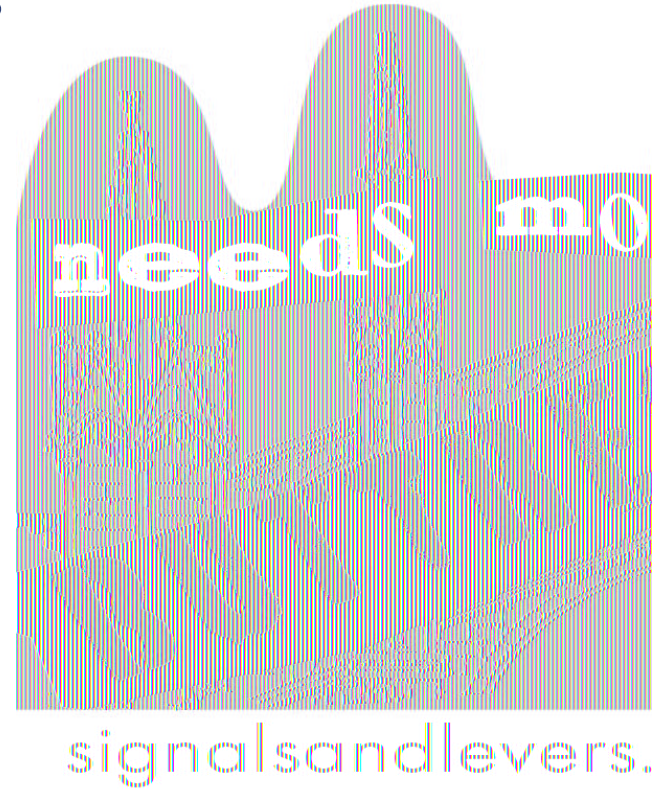
# Illusions

# Illusions of Progress

# Illusions of Progress



Main

Team

Dev A

Dev B

Dev C
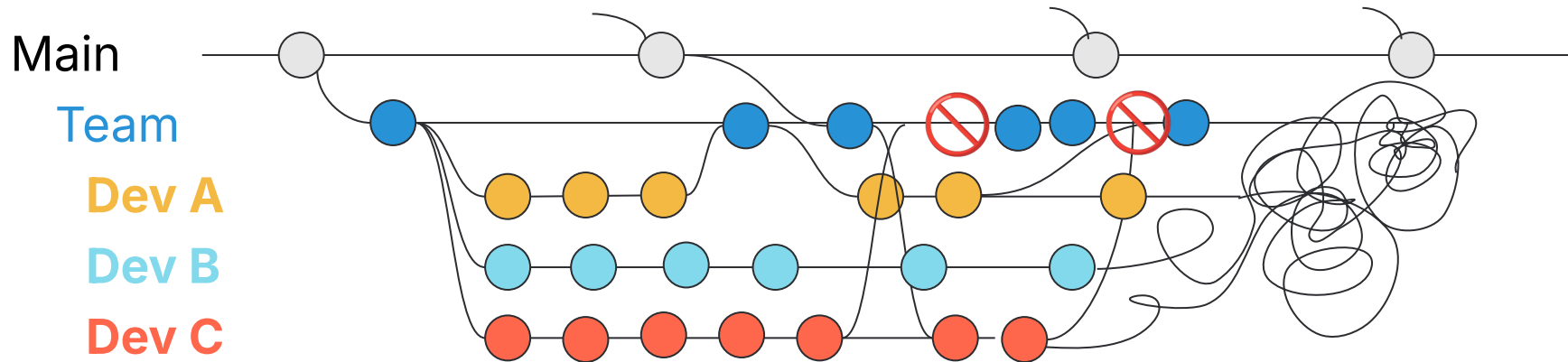
# Illusions of Progress

# See Signals

'It's done but…'
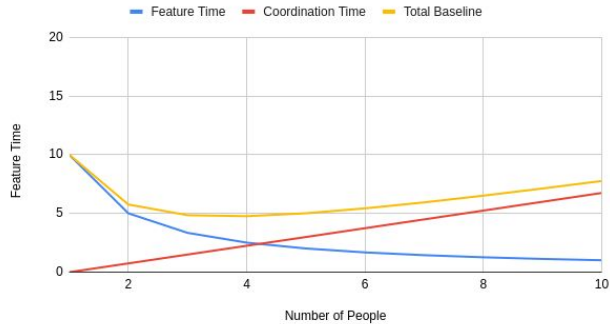
Focus on activity

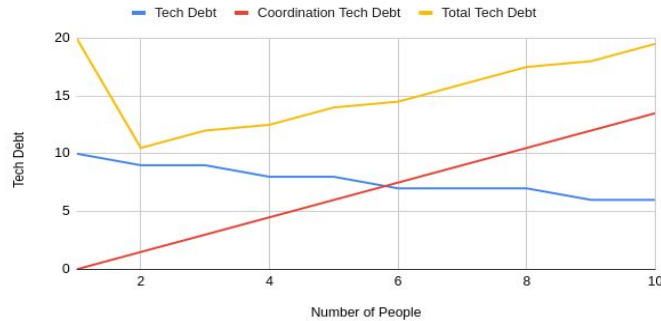'Demos' are powerpoints

Shipping vs Impacting
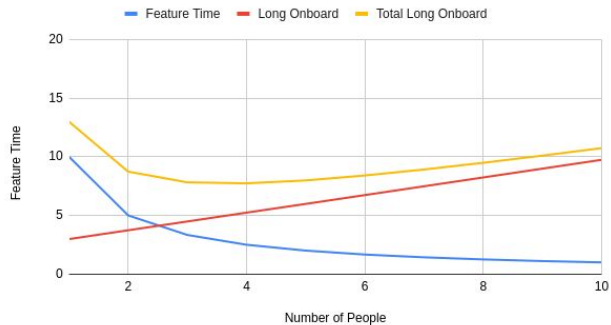
**Other Ideas?**
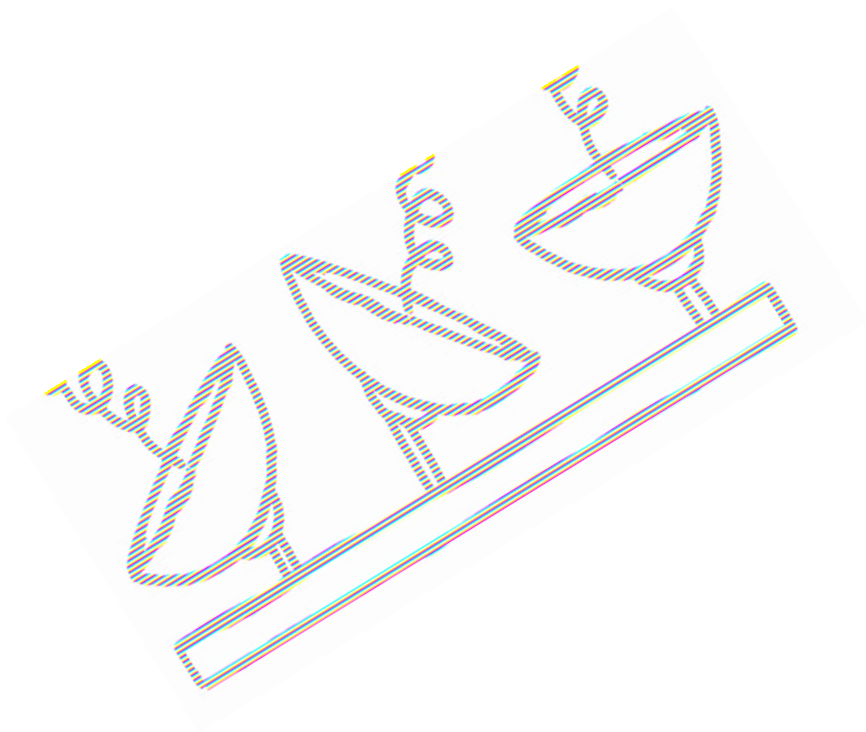
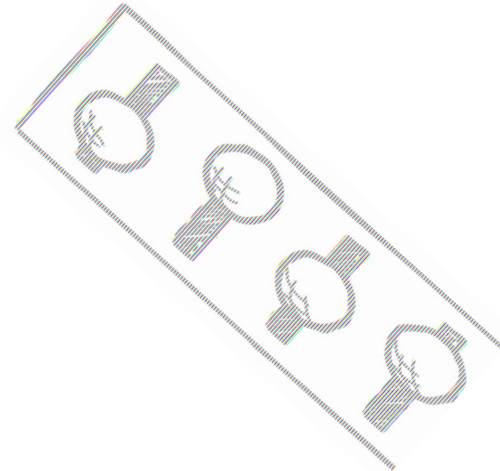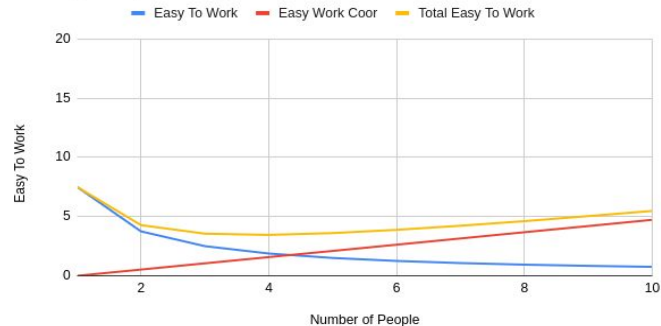# Diminish Illusions With Levers



Adding People Baseline — Feature Time, Coordination Time, Total Baseline

Adding People - Complex Code — Tech Debt, Coordination Tech Debt, Total Tech Debt

Adding People - Long Onboarding Process — Feature Time, Long Onboard, Total Long Onboard

Adding People - Easy To Work — Easy To Work, Easy Work Coor, Total Easy To Work

# Illusions of Predictability

# Illusions of Predictability
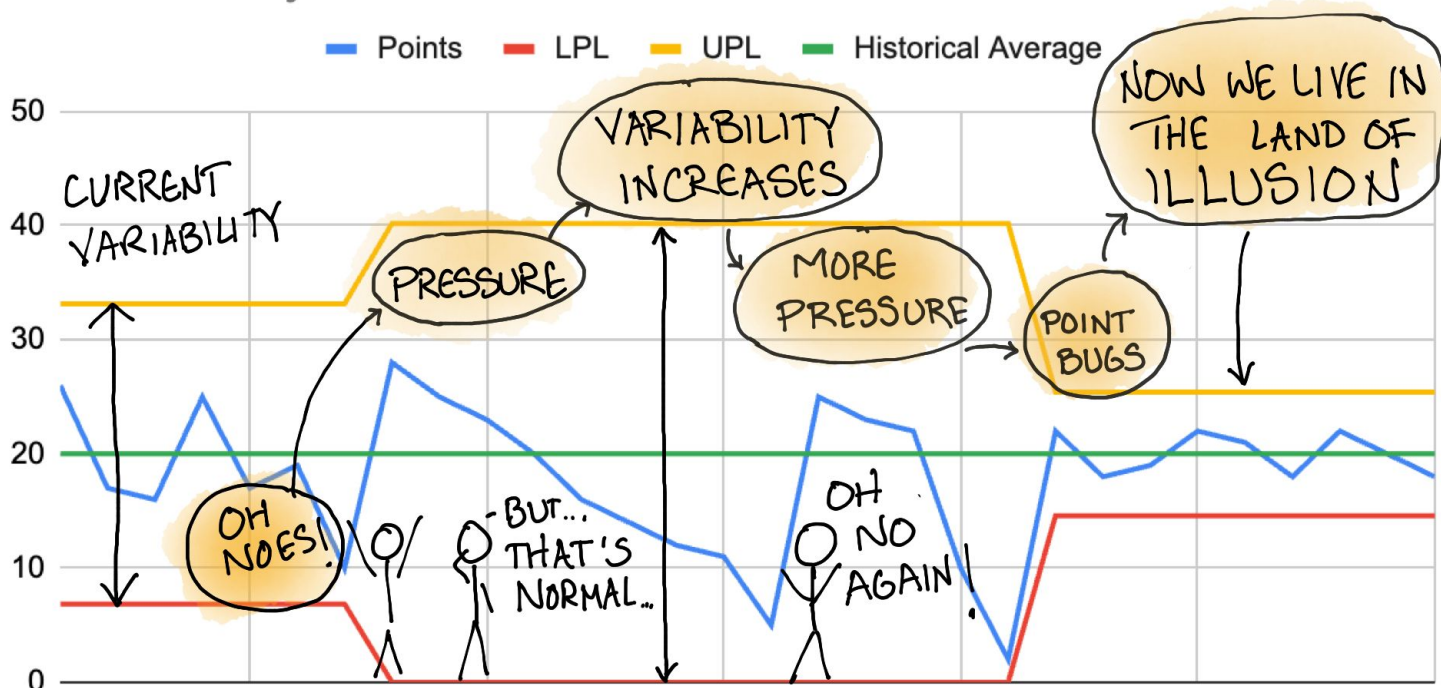


the plan
reality
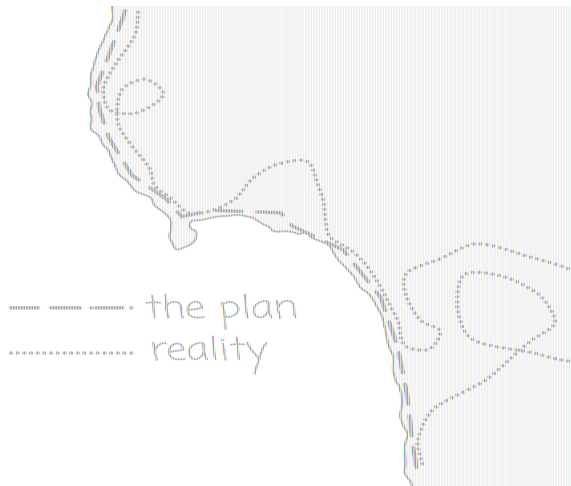
How long would it take to hike
the coast from San Francisco
to Newport Beach, California?

"It is in the doing of the
work that we discover
the work that we must
do. Doing exposes
reality."

*– Woody Zuill*

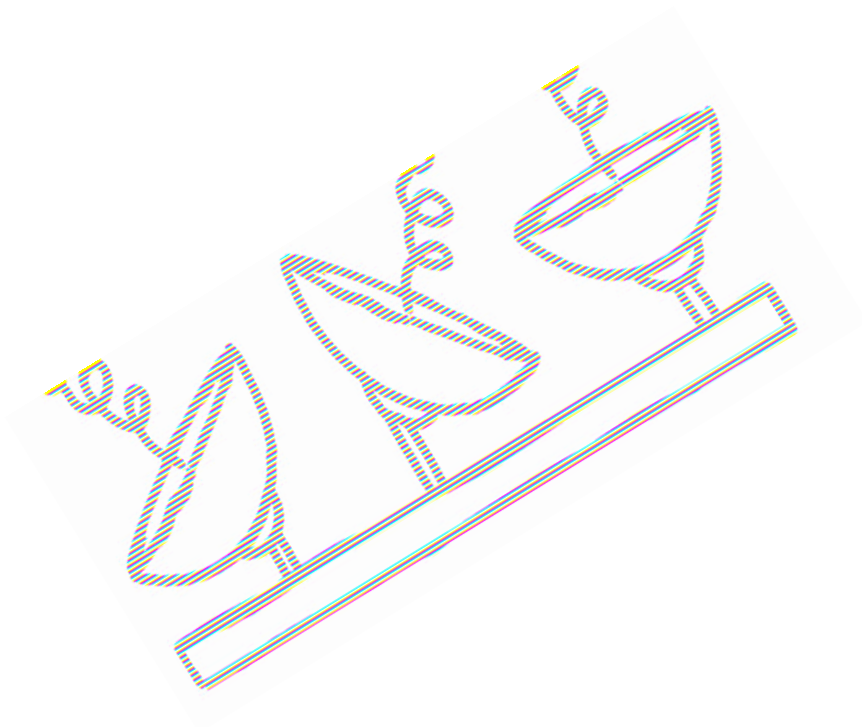# Illusions of Predictability
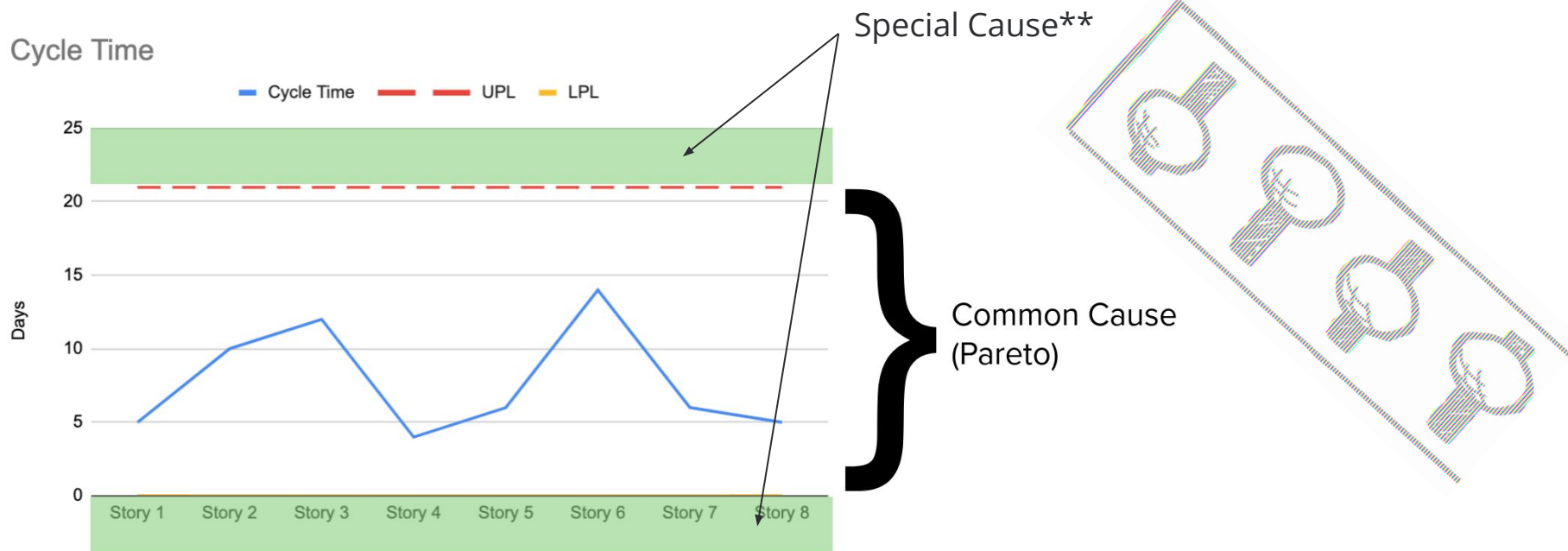
# See Signals

Trying to 'Estimate Better'

Read The Docs

Tampering

Re-defining Words / The Process

**Other Ideas?**

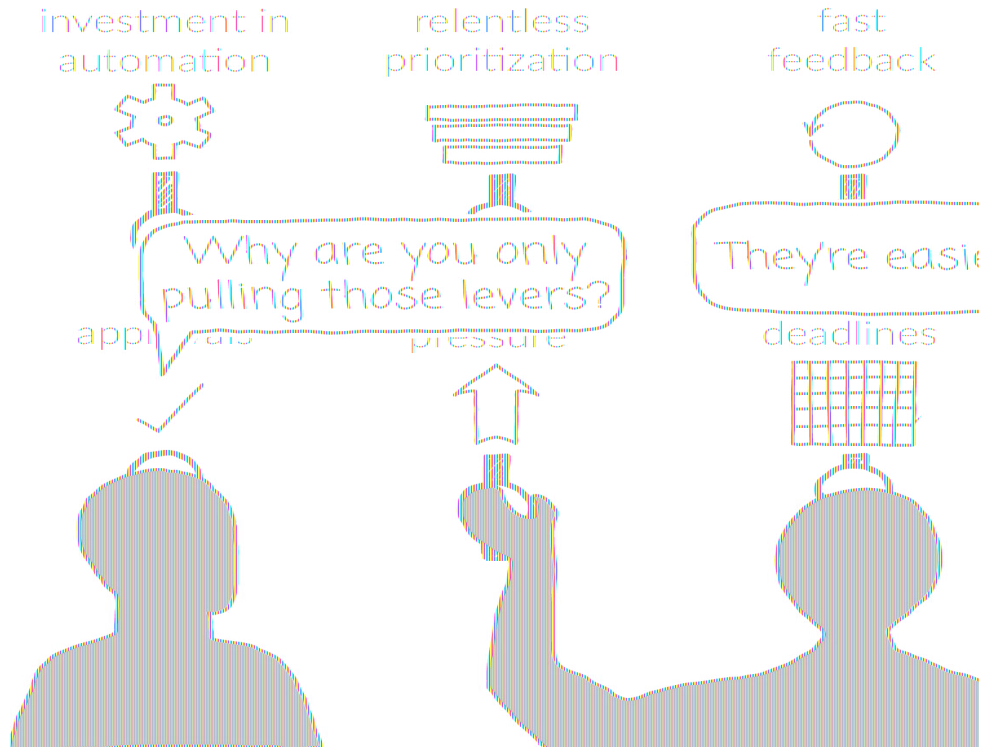# Diminish Illusions With Levers



Cycle Time

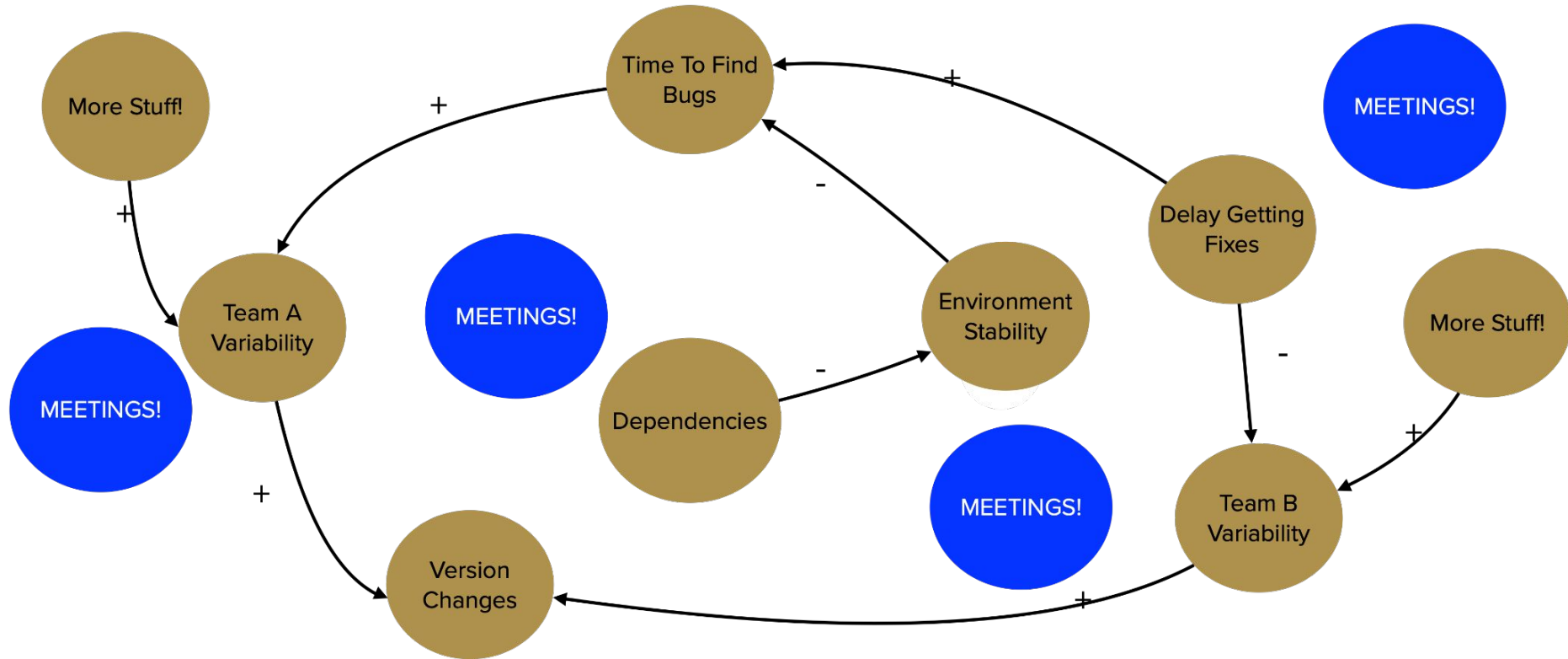Special Cause**

Common Cause
(Pareto)

# Illusions of Control

# Illusions of Control



Many of the levers that look like they'll control outcomes just shift risk around . . .or, worse, hide it.
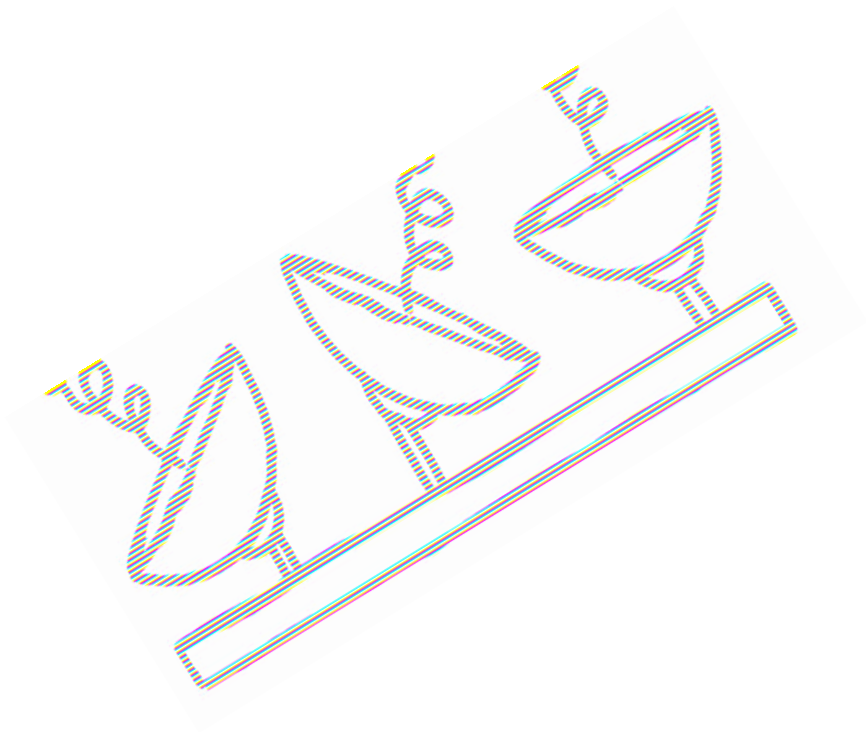
# Illusions of Control

# See Signals
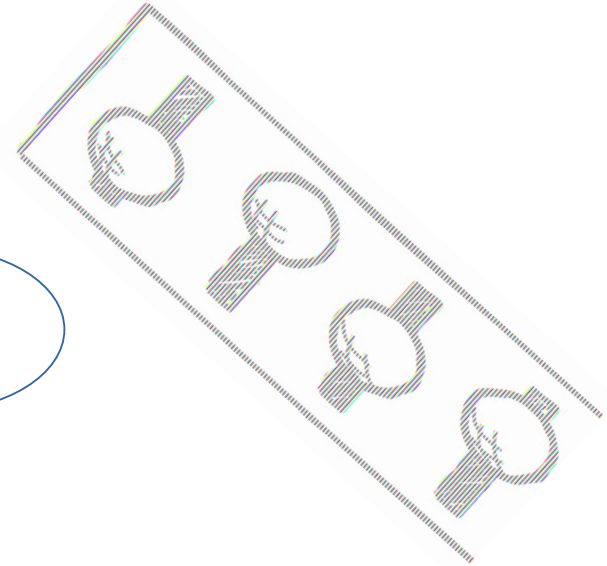
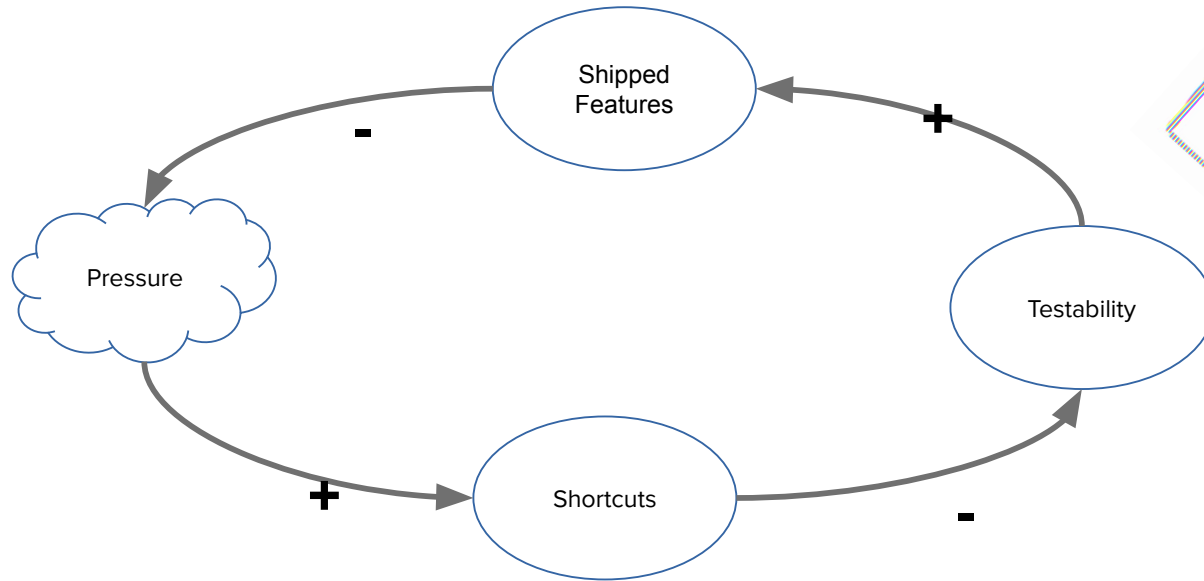More and more meetings

Review Boards (Risk, Architecture)

Freezes

Best Practices

**Other Ideas?**

# Diminish Illusions With Levers

# Disclaimer

https://signalsandlevers.com/

# The Illusions Don't Travel Alone

# What the Buttress?
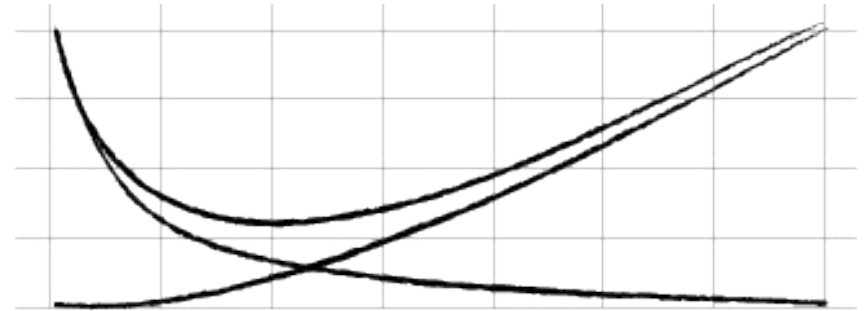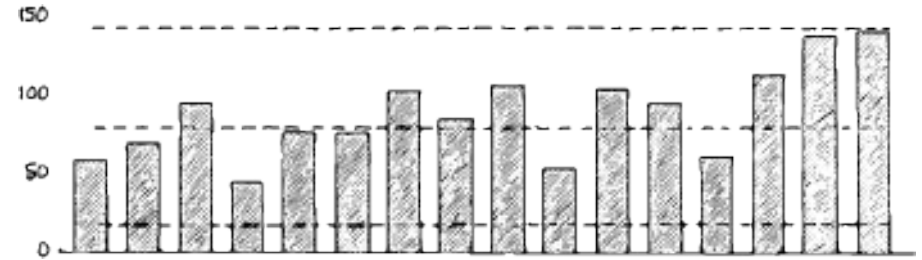
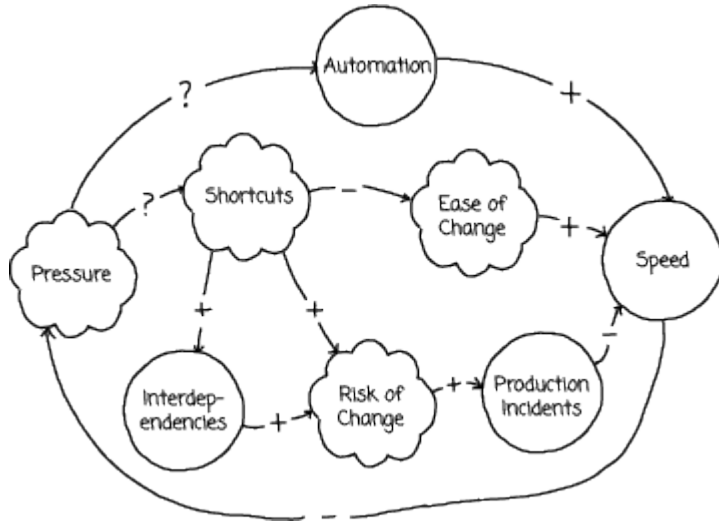The process

The meetings

The boards

The silos

The Reactivity

# Use Systems Thinking Collectively

Study The System….

Act Where Pain is Caused

Not Where It Is Observed

It may look like a crisis, but it's only the end of an illusion

*Jerry Weinberg - Secrets of Consulting*

# What Questions Do You Have?

https://signalsandlevers.com/

# 3 Illusions in Software Delivery

# Thank You!

*Joel Tosi*
https://www.dojoandco.com/speaking

*https://signalsandlevers.com/*