

Department of Management public lecture

# Seeing What Others Don't: the remarkable ways we gain insights

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Suggested hashtag for Twitter users: **#LSEinsights**

**LSE** events



# **Seeing What Others Don't: The remarkable ways we gain insights**

**Gary Klein, Ph.D.  
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**Presentation to London School of Economics**

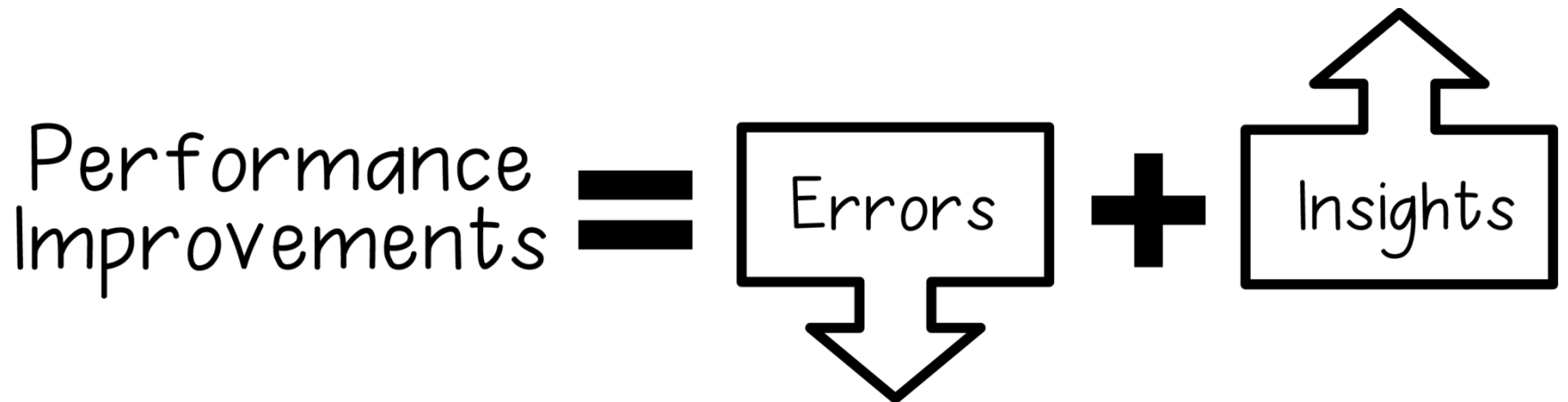
*March 26, 2015*

**MacroCognition** 

# The Naturalistic Decision Making framework



# Balancing Act



# Some beliefs about insight

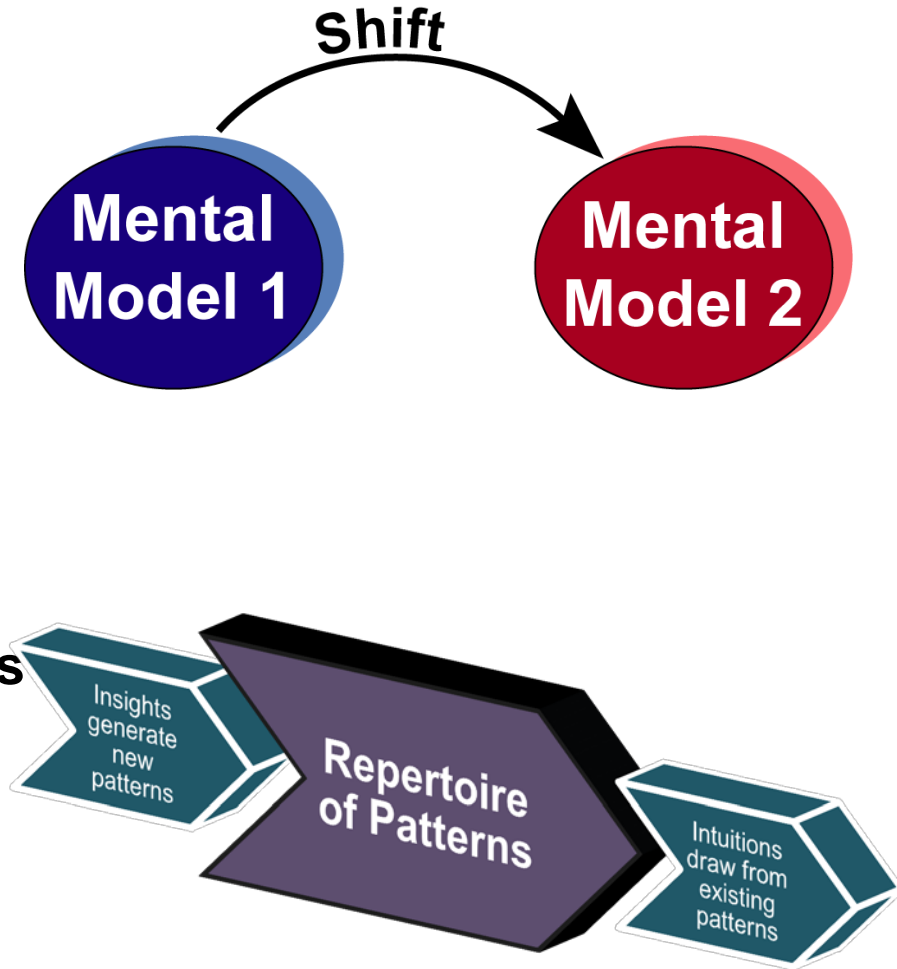
- **The way insights emerge is that we run into an impasse, struggle for awhile, then let our minds wander under suddenly there is a flash of illumination**
- **A major barrier to insights arises when we have flawed beliefs and assumptions**
- **To correct flawed assumptions we should use critical thinking methods such as listing all the important assumptions we are making, to see which might be wrong**
- **Organizations desire insights and encourage their staff members to come up with out-of-the box ideas**



**Mystery #1:**  
Where do  
insights  
come from?

# Defining Insight

- An *unexpected shift* in understanding from one story to another
  - Some initial beliefs are usually abandoned or replaced
  - The shift feels accidental
- The new beliefs – Mental Model 2 – are more accurate, more comprehensive and more useful
- Insights are different than intuitions



# Wallas' (1926) Four Stages of Insight

1

Preparation

2

Incubation

3

Illumination

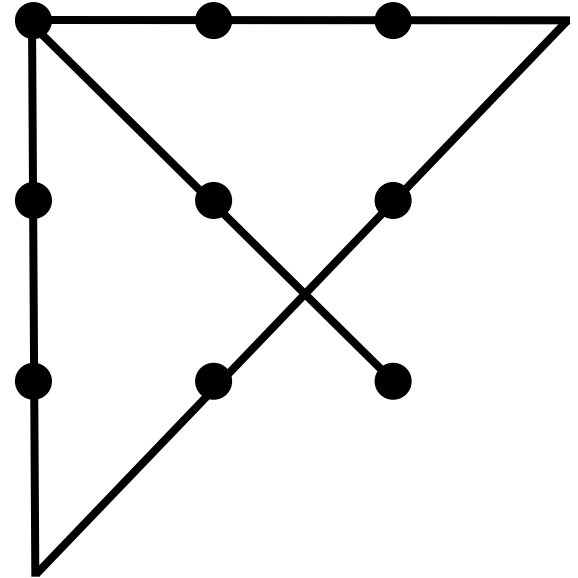
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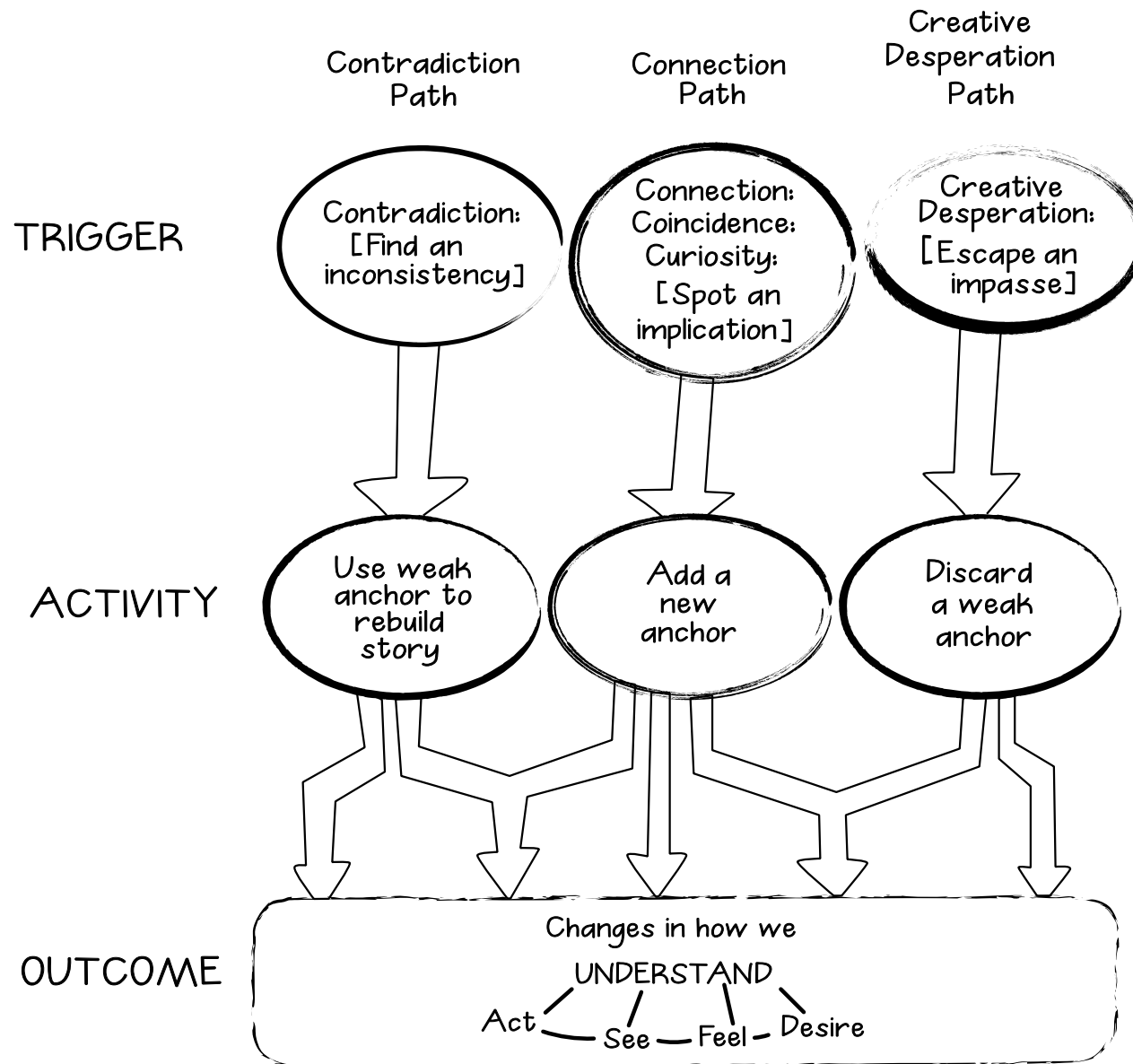
Validation



# Breaking free from flawed assumptions

- 9 dot problem





# The Xerox 914

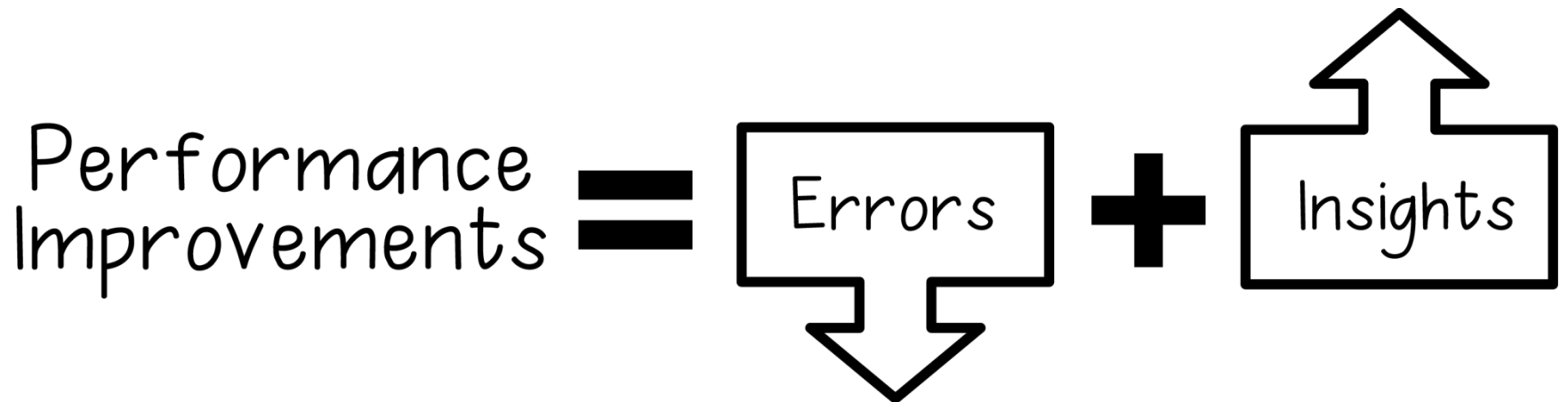
- **Goal (a):** License the technology to a larger company who could manufacture and sell the machines.
- **Goal (b):** Manufacture the machines itself (they cost over \$2,000) and lease them to customers.
- **Goal (c):** Manufacture the machines, lease them for only \$95/month (with a 15-day cancellation clause), plus 2,000 free copies/month, and only 5¢ per additional copy.
- **Realization:** Xerox would make profits, not by selling machines, but by selling copies: cheaper, faster and better copies than the competition.





**Mystery #2:**  
Why do  
organizations  
fear insights?

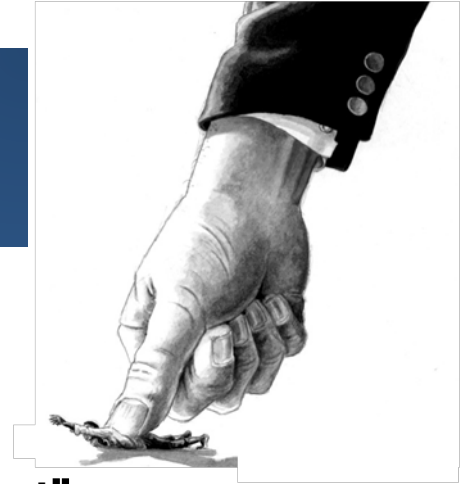
# Balancing Act



# Reducing Mistakes

- **Procedures**
- **Careful monitoring and reviewing**
- **Clear standards**
- **Critical Thinking**
  - Document all sources
  - Identify assumptions
  - Identify areas of uncertainty
  - Ensure logical conclusions and inferences
- **But over-emphasizing mistakes can interfere with insights**
  - **Anomalies:** Tracking historical trends can mask disruptions
  - **Distraction:** Effort at reducing mistakes gets in the way of seeing new patterns
  - **Passivity:** Critical thinking may lead knowledge workers to view their jobs as not making mistakes

# Why Do Organizations Fear Insights?



- **Insights are disruptive** – They are *disorganizing*
- **Distrust of creativity**. Mueller et al. (2012).
  - Risk of taking an unconventional approach
  - “The pioneers get the arrows – the settlers get the land”
- **Predictability** allows effective management
  - Insights come without warning, take unexpected forms, and open up unimagined opportunities.
- **Perfection** enables effective management
  - Managers value error reduction over making discoveries
  - Prefer accuracy over information value
- **Effort**. Insights usually require extra work to make changes
- **Goal fixation** – even when facing wicked problems
  - Sengupta et al. (2007 HBR) simulation study. Faced with changes in scope or unexpected events, managers failed to revise their goals



**Mystery #3:**  
How to  
foster more  
insights?





# ShadowBox Training Method

- **Problem:**
  - Subject Matter Experts (SMEs) and skilled facilitators are important for training, but are costly and often unavailable
  - Inefficiency of low student/SME ratio for training
- **ShadowBox Training Method:**
  - Present complex scenarios, with periodic Decision Points: Multiple-choice response options, priorities, information to track, etc.
  - Trainees rank the alternatives and record their rationale
  - Trainees compare their responses and rationale to a panel of SMEs
- **Rationale: Shadow the Subject-Matter Experts (SMEs).**
  - Enabling trainees to see the world through the eyes of the experts
  - Appreciate the mental models of experts. And no SMEs have to be present
- **Evaluation studies: 18% to 27% improvement after ½ day of training**
- **Versions: Paper/Pencil; Android tablet; Laptop/web-based.**
  - Text scenario, storyboard, video

# Leading suggestions for helping people gain insights

- **Increase swirl – exposure to ideas**
- **Foster disruptive thinking**
- **Encourage failures**
- **Increase quiet, reflective mood**

# Leading suggestions for helping people gain insights

- **Increase swirl – exposure to ideas**
  - Hits the Connections path.
  - Artifact of Backwards Thinking (superstitious behavior)
- **Foster disruptive thinking**
  - Too ritualized
- **Encourage failures**
  - Unlikely
- **Increase quiet, reflective mood**
  - My data are clear: 0/120

# NO INSIGHT

Gripped by  
Flawed Beliefs

Lack of Experience

Passive Stance

Concrete  
Reasoning

# GAINED INSIGHT

Escaped the  
Fixation on  
Flawed Beliefs

Experience

Active Stance

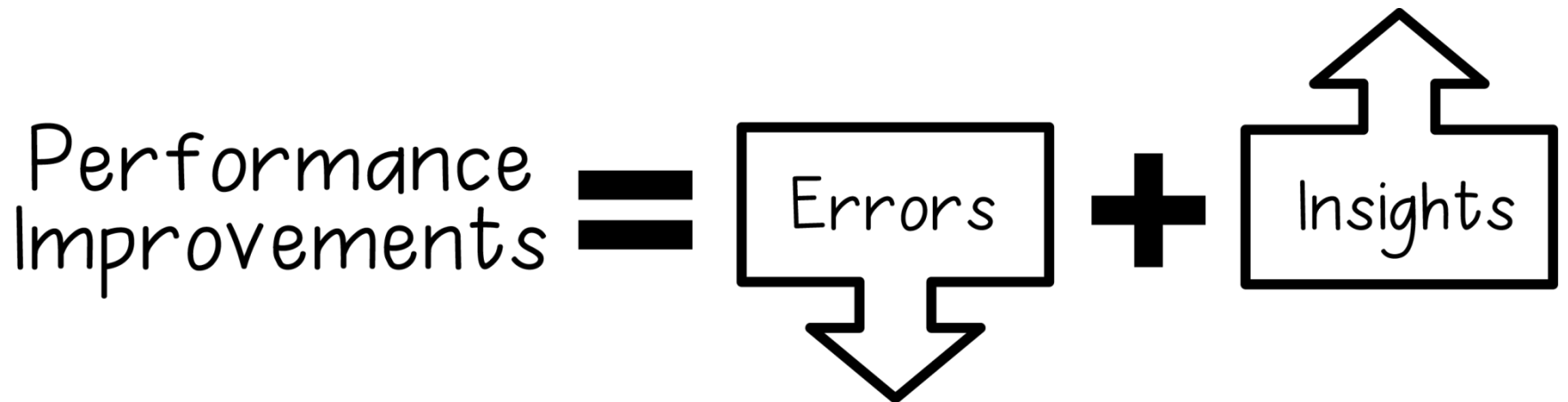
Playful  
Reasoning



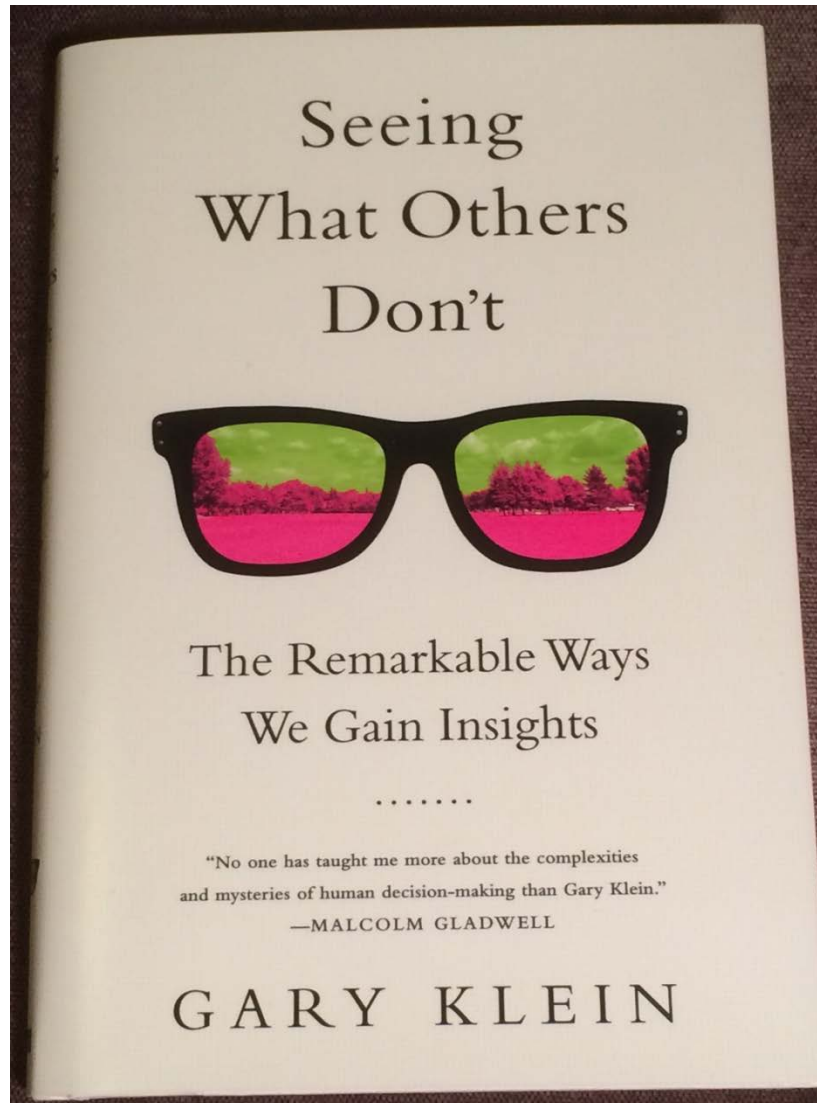
# The Insight Stance

- **Active mindset – Driven by curiosity**
  - Spotting anomalies & contradictions, seeing connections and coincidences and implications, noticing leverage points
- **These forces counter cognitive calcification – so we don't lock in to immature mental models**
  - (But avoid extremes e.g. too distractible + uncontrolled divergent thinking)
- **Some ways to strengthen an insight stance:**
  - Notice our own insights, large & small – make insight a habit
  - Track mental model changes when we take on a new task
  - Conduct progress reviews to see what managers have learned, not just whether they met the schedule
  - Seize on conflicts, confusions, and failures as openings for insights
- **We can adapt – not just our plans and behaviors, but our thinking**

# Playing to Win



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