

THOUGHT GARDEN

Plant a proposition. Make room for what could disprove it.

A working companion to the interactive Thought Garden at thoughtgarden.sahiltayal.online. Created by Sahil Tayal, October 2026.

This field guide is a structured thinking exercise. It does not certify claims or prescribe psychological interventions. It is designed to be useful with paper and a pencil, without any software.

The promise & the boundary

An idea graph makes distinct kinds of thinking visible: what you assume, what follows, how an argument might fail, and which questions remain unresolved. The drawing is an **artistic metaphor for inquiry**. Its branches are not brain cells; its links do not prove causality.

Useful rule: describe the strongest observation you can, then separate it from the interpretation you are tempted to add.

01 / A field taxonomy

Root: the starting statement. Write it so a thoughtful critic can identify what would count for or against it.

Premise: something the root depends on. For example, a claim about learning may depend on whether people have time to reflect.

Implication: a consequence that might follow *if* the root and assumptions hold. Beware jumping from possible to inevitable.

Counterexample: a credible case in which the claim fails, reverses, or needs a narrower scope. A counterexample tests the breadth of a generalisation; it does not automatically refute every qualified version.

Discipline: a different intellectual lens. Organisational behaviour may ask about norms; economics about incentives; psychology about cognition; philosophy about values.

Question: a missing comparison, observation, operational definition, or source. Good questions make inquiry possible.

Uncertainty: a boundary on what is known. Distinguish missing evidence, changing context, disagreement over values, and inherently unpredictable events.

Example root: mistakes and learning

Root: “Learning improves when mistakes are safe to discuss.”

Premise: the conversation is constructive, specific and followed by opportunities to apply lessons.

Implication: team members might surface process failures earlier.

Counterexample: an open discussion without accountability or corrective action may not improve outcomes.

Discipline: organisational behaviour, education, human factors, and ethics.

Question: compared with what alternative feedback practice, and measured how?

Uncertainty: “safe” may vary by role, culture, authority, past experience and material consequences.

02 / Three guided experiments

Experiment A — Steelman the counterexample (15 minutes)

1. Write a root statement you currently believe. 2. List two conditions under which it seems plausible. 3. Imagine a fair-minded opponent; write the strongest counterexample they could offer. 4. Narrow or revise the root to survive that counterexample. 5. Record one piece of real-world evidence you would seek next.

Reflection: Did the revision make the idea less dramatic but more useful? What would make you change your mind?

Experiment B — Cross-disciplinary translation (20 minutes)

1. Choose a workplace or educational belief. 2. Write one account in psychological terms (habits, perception, motivation). 3. Rewrite it as an organisational-design problem (incentives, rules, coordination). 4. Rewrite it as an ethical question (rights, fairness, autonomy). 5. Mark which concepts vanish in each translation.

Reflection: Which framing yields a testable question? Which framing surfaces someone whose perspective you had ignored?

Experiment C — Friction swap (10 minutes)

Use the local website sandbox, or calculate by hand: $\text{Index} = 0.45I + 0.35S + 0.20(100-F)$, rounded, where I=intention, S=support, F=friction, each from 0 to 100. Keep I=70 and S=55. Compare F=20 and F=80. The indices are 67 and 55, respectively.

Now hold friction constant and move support from 30 to 80. In the formula, the index moves by 17.5 points before rounding. That is a **property of chosen weights**, not evidence that real people behave this way.

Reflection: How can numerical presentation create an illusion of scientific calibration? What study design would be needed to estimate actual relationships?

03 / The epistemic safety checklist

Before using a graph in a meeting or public argument, ask:

- Is the root statement precise enough to be challenged?
- Which statements are observed facts and which are interpretations?
- Does any arrow imply causation without evidence?
- Is the counterexample plausible rather than a straw man?
- Have alternative explanations been considered?
- Are people affected by this decision represented fairly?
- Is uncertainty visible rather than erased?
- What additional observation would change the recommendation?

04 / Try four new seeds

Psychology: “Our attention is shaped by the environments we inhabit.” Ask how agency and situational design interact.

Entrepreneurship: “A business should optimise for trust, not only short-term sales.” Ask which trade-offs matter over different horizons.

Learning: “Mistakes become useful when feedback is timely and actionable.” Ask who defines usefulness.

Organisational behaviour: “Teams make better decisions when dissent is welcomed.” Ask when conflict helps and when it disrupts coordination.

05 / Reading paths, not endorsements

Suggested further reading (check original editions and context):

John Dewey, *How We Think* (1910; revised 1933): reflective inquiry and the discipline of examining beliefs.

Daniel Kahneman, *Thinking, Fast and Slow* (2011): heuristics and judgement, including limitations of intuition. Read with awareness that psychology findings vary in replicability.

Donald T. Campbell, “Reforms as Experiments” (1969): a classic case for treating interventions as propositions to evaluate rather than promises to assume.

Amy Edmondson, “Psychological Safety and Learning Behavior in Work Teams” (1999): a specific empirical context for discussing interpersonal risk and team learning. Do not infer that any one workplace practice guarantees outcomes.

Judea Pearl and Dana Mackenzie, *The Book of Why* (2018): why causality requires stronger tools and assumptions than visual association.

06 / A one-page reflection practice

My root proposition: _____

What I observed: _____

The most tempting interpretation: _____

An alternative explanation: _____

A credible counterexample: _____

Evidence that would change my view: _____

What I now think, provisionally: _____

Who else should be asked? _____

Keep the revisions. A good garden has compost as well as flowers.

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