

SAHIL TAYAL / SAHILVERSE

REFRACTION / PRACTICAL WORKBOOK 001



SIX LENSES FOR EVERYDAY LIFE.

Change your angle. Keep the facts.

ONE ORDINARY SHOP MOMENT. SIX DISCIPLINES. NO INVENTED CERTAINTY.

Independent educational project • 25 October 2026

01 / THE FIXED CASE

The same event, six questions

This case is deliberately invented. It models a familiar counter interaction, not a record of a particular person or a clinical observation. The experiment: keep these four observations constant while changing the questions we ask.

OBSERVATION 01

A customer asks for a particular product in a family shop.

OBSERVATION 02

The shopkeeper checks the shelf and says that product is unavailable.

OBSERVATION 03

The customer asks whether there is an alternative.

OBSERVATION 04

The scenario stops here. No purchase, emotion, motive or outcome is specified.

WHAT IS NOT IN THE RECORD

We do not know what anybody felt, whether an alternative was purchased, what the item cost, why it was absent, or how the dialogue ended.

The three-part discipline

1 / State only what was observed. 2 / Label each proposed cause as a hypothesis. 3 / Identify a new observation that could disconfirm it. “Possible” must not quietly become “proven.”

YOUR STARTING QUESTION

What would I need to observe next before assigning a motive, evaluating a decision or redesigning the shop?

01 / DISCIPLINARY LENS

Psychology

**START WITH THIS QUESTION**

What did each person notice, assume, remember, or expect?

Psychology begins with a useful distinction: what a person does is observable; why they do it usually requires inference. In the illustrative shop scene, the customer requests one product. The shopkeeper checks the shelf and says it is unavailable. The customer then asks about an alternative. None of those actions, by itself, reveals an emotional state. A visitor who immediately labels the customer “frustrated” has supplied a story that the scene did not provide.

An interpretive hypothesis is that expectations influence what comes next. A shopper expecting guaranteed stock may evaluate the answer differently from someone exploring several options. Attention matters too: the customer may care about price, function, the brand, time, or something outside the shop entirely. Research on judgment under uncertainty offers ways to think about the shortcuts people sometimes use. It does not authorize us to project a specific shortcut onto this imaginary shopper.

The psychological lens is strongest when it makes uncertainty explicit. Instead of “the customer is upset,” we can ask what reply, expression, or later choice would distinguish disappointment from simple information-gathering. We might find that no emotional explanation is needed. That is a worthwhile finding. In ordinary interaction, respectful curiosity is more informative than confident mind-reading.

WHAT THIS LENS HIDES

Internal states are not directly visible. The fact of a request does not tell us whether the customer felt annoyed, indifferent, or relieved.

DATA THAT WOULD HELP

Voluntary customer response; whether they accepted an alternative; repeated observations across comparable encounters.

A PLAUSIBLE COMPETING ACCOUNT

The request was routine and emotionally neutral; the customer expected the item might be absent.

02 / DISCIPLINARY LENS

Organisational behaviour

**START WITH THIS QUESTION**

What system made this exchange easy or difficult?

Organisational behaviour asks how people coordinate within roles, structures and routines. A small family shop is not merely a setting for individual choices; it is a working system with purchasing practices, supplier relationships, scarce shelf space, memory, trust, and often overlapping responsibilities. When an item is absent, a systems question becomes possible: where did information about demand travel, and where might it have stopped?

One hypothesis is that replenishment did not happen quickly enough. Another is that the shop deliberately chose not to stock a slow-moving item. The same visible exchange is compatible with both. Weick's work on organisational sensemaking is useful for asking how people notice signals and collectively decide what they mean. It should not be reduced to a claim that every customer request reveals a hidden organisational failure.

Good field observation would examine repeated patterns: which products are requested but unavailable, how requests are recorded, who can reorder, what happens when a substitute is offered, and how decisions change as evidence accumulates. This lens helps resist the temptation to praise or blame a person before looking at the constraints around their work. Its own danger is bureaucratic overreach: imposing elaborate process controls where a quick conversation already works well. The better intervention may be as modest as a notebook at the counter.

WHAT THIS LENS HIDES

A system diagram can conceal individual experience and the fact that a small shop may use sensible informal routines.

DATA THAT WOULD HELP

Stock logs; delivery timing; reorder practices; who makes purchase decisions; frequency and consequences of similar requests.

A PLAUSIBLE COMPETING ACCOUNT

The product was intentionally not stocked because demand is too low or shelf space too valuable.

03 / DISCIPLINARY LENS

Economics

**START WITH THIS QUESTION**

Which trade-off would make each possible decision sensible?

The economic lens asks what choices are possible when resources are limited. A small shop cannot stock every conceivable item. Shelf space, working capital, refrigeration, delivery reliability and attention have opportunity costs. The absence of one product may therefore be a rational assortment decision rather than an operational mistake. Conversely, it might be a missed opportunity if customers ask for it often enough.

Herbert Simon's work on bounded rationality is a helpful reminder that decision-makers rarely have perfect information or unlimited time. A shopkeeper choosing inventory may rely on rough demand estimates, supplier terms and local knowledge. That approach can be reasonable without being mathematically optimal. We should distinguish economic constructs from measured quantities: we do not know this product's price, profit margin, frequency of demand, or replacement cost.

The customer's request for an alternative opens a second question: what makes two products substitutes in this context? Similar packaging is insufficient if use, quality, trust or budget differs. A useful experiment might record which alternatives are accepted, with consent and without pressuring customers, then compare patterns across several weeks. Economics brings constraints into view; it becomes a poor master narrative when it treats relationships as nothing but transactions. A lost sale, a useful explanation and a preserved relationship can all belong in the analysis.

WHAT THIS LENS HIDES

A transaction model can miss fairness, dignity, trust and the emotional meaning of being helped.

DATA THAT WOULD HELP

Purchase prices, margins, shelf space, demand frequency, customer alternatives, supplier lead time.

A PLAUSIBLE COMPETING ACCOUNT

The shop would happily stock it, but temporary supply disruption prevented delivery.

04 / DISCIPLINARY LENS

Ethics

**START WITH THIS QUESTION**

What response respects everyone affected?

Ethics asks not only what works, but what ought to guide an action. When a product is unavailable, the shopkeeper could exaggerate an alternative's similarity, hide a meaningful difference, or give the customer a clear account of their choices. The observable case tells us only that an alternative was requested. It does not tell us what the shopkeeper should sell, whether anyone misled anyone, or which values are in conflict.

An ethics of honesty suggests that important product differences should not be hidden merely to close a sale. Respect for autonomy suggests that a customer should be free to refuse the replacement. Care suggests noticing time pressure or accessibility needs without using them to manipulate. These are normative considerations: arguments about what should matter, not measurements of the people in the scene. Reasonable moral frameworks can emphasize duties, consequences or character differently.

Careful ethical thinking also asks who bears the cost. A policy that always gives away a replacement may help one customer while being unsustainable for a small business. A policy that always maximizes margin may undermine long-term trust. We cannot solve that trade-off without concrete facts. The practical question is modest: can an alternative be described honestly, offered without pressure and declined without embarrassment? This lens provides a moral compass, but it should not become a courtroom for judging strangers from three lines of observation.

WHAT THIS LENS HIDES

Ethical analysis alone cannot reveal inventory feasibility or the customer's actual preferences.

DATA THAT WOULD HELP

Accuracy of stock claims; disclosed differences; customer understanding; supplier and staff constraints.

A PLAUSIBLE COMPETING ACCOUNT

No alternative is suitable, so the ethical response is simply to say so and help the customer look elsewhere.

05 / DISCIPLINARY LENS

Storytelling

**START WITH THIS QUESTION**

Which story does the observer begin telling, and what did they leave out?

Storytelling organizes events into a sequence that feels meaningful. An observer might describe the exchange as “a customer disappointed by a failing shop,” “a quick improvisation that saved the sale,” or “an ordinary question about stock.” Each phrase adds a frame. The first imports failure and disappointment; the second imports success; the third stays close to observable action. None is automatically false, but the first two require evidence the scene does not supply.

Narrative is not the opposite of truth. It can help people remember constraints, imagine alternatives and understand what an interaction means to different participants. The discipline lies in separating quoted dialogue from interpretation. Who is made the protagonist? What became the turning point? Is an outcome missing? Which details get quietly smuggled into the account by a colourful adjective?

Try rewriting the same moment from the vantage of the customer, shopkeeper and a neutral note-taker, while forbidding invented interior monologues. The exercise reveals how easily a narrative can outrun its record. A moving story is not proof of a mechanism, and a boring report is not necessarily shallow. Sometimes the responsible ending is “we do not yet know.” This lens is most useful when it makes frames visible instead of making one preferred frame invisible.

WHAT THIS LENS HIDES

A compelling plot may conceal economic or ethical constraints and distort causal explanation.

DATA THAT WOULD HELP

Verbatim dialogue; sequence of events; alternate participants’ accounts; what happened afterward.

A PLAUSIBLE COMPETING ACCOUNT

There is no story arc here: a product was absent and another option was requested.

06 / DISCIPLINARY LENS

Sensory design

**START WITH THIS QUESTION**

How did the environment help or hinder finding a next step?

Sensory design studies how environments communicate possibilities. A shop is a physical interface: shelves group objects, signs name categories, light reveals labels, distance makes some products easier to reach, and the counter creates a place for dialogue. The customer's request for an alternative invites a design question: was the next option visible, understandable and easy to compare?

Don Norman's account of everyday design emphasizes discoverability, feedback and the relationship between a person's goal and the available actions. That framework can inform a shelf label as readily as a digital control. Yet the case offers no description of shop lighting, background noise, packaging, accessibility, smell or layout. A vivid interpretation of the "sensory atmosphere" would be fiction unless identified as an imagined design variation.

We can nevertheless propose a modest field test. Mark appropriate substitutes with clearer category information; ask whether people can identify a suitable option; compare observed navigation before and after the change. Ask customers what actually matters to them rather than assigning them a universal sensory profile. Design can reduce unnecessary search, but it cannot solve every problem. It may even distract from an important ethical question if persuasive presentation pushes a poor substitute. The best environment offers clarity without coercion, including a clear way to say "no thanks."

WHAT THIS LENS HIDES

Design can remove friction but cannot manufacture stock or decide what matters ethically.

DATA THAT WOULD HELP

Layout photos with privacy respected; path observation; legibility checks; customer feedback; ease of locating alternatives.

A PLAUSIBLE COMPETING ACCOUNT

The layout was already clear, and product absence rather than interface design determined the exchange.

09 / A WORKED CLASSIFICATION

Evidence is not inference

You can enjoy a vivid interpretation and still mark it as conjecture. Every line below uses the exact same illustrative event, while making the status of a statement visible.

OBSERVATION

"The customer asked for a particular product."

Stated in the illustrative case.

OBSERVATION

"The shopkeeper reported that it was unavailable."

Stated in the illustrative case.

INFERENCE

"The customer was disappointed."

Possible; no expression or report provided.

HYPOTHESIS

"A poor reorder routine caused the stock-out."

An organisational account that needs inventory evidence.

NORMATIVE CLAIM

"Any alternative must be described honestly."

A reasoned value judgment, not a measured event.

DESIGN PROPOSAL

"Clearer shelf labels might help future choices."

A candidate intervention that needs testing.

Fast test: Is this a fact or a frame?

Underline the words that add a motive, feeling, outcome, value judgment or cause. Then rewrite the sentence using only the available observations.

10 / COPY • PRINT • USE

Two-lens comparison worksheet

Choose two perspectives that might disagree. The goal is not to average them into a vague compromise. Make each answer testable, and state how you would know which account to keep.

CASE / OBSERVED FACTS**LENS A / POSSIBLE MECHANISM****LENS B / POSSIBLE MECHANISM****WHERE THE INTERPRETATIONS DIVERGE****ONE PIECE OF MISSING EVIDENCE****LOW-RISK FIELD OBSERVATION / EXPERIMENT**

11 / FIELD QUESTIONS & ETHICS

Watch without inventing

Use these prompts to make everyday field observation better. Avoid names and other identifying details. Ask for consent when collecting people's responses; an educational thought experiment is not permission to treat strangers as subjects.

01 / FIELD PROMPT

Which precise action did I see or hear? What was the direct wording, if recorded appropriately?

02 / FIELD PROMPT

What happened before and after? What did I *not* witness?

03 / FIELD PROMPT

Which two accounts fit the same facts? How could either turn out false?

04 / FIELD PROMPT

What repeated pattern, system record or voluntary answer would help most?

05 / FIELD PROMPT

What would be a small, reversible, non-coercive change to test?

06 / FIELD PROMPT

Who might bear inconvenience or risk from this inquiry?

ETHICAL GUARDRAILS

No diagnoses. No covert profiling. No made-up consent. Never convert a single observation into an accusation about a customer or employee. Protect privacy, permit refusal, and recognize that declining to participate is a legitimate choice.

12 / ANNOTATED READING SHELF

Read further. Hold uncertainty.

The following works help explain the disciplines; none proves that our imaginary customer felt a particular way or that a real shop had a particular organisational problem. Titles and notes are educational, not endorsements.

01 / PSYCHOLOGICAL JUDGMENT

Tversky, A., & Kahneman, D. (1974). "Judgment under Uncertainty: Heuristics and Biases." *Science*, 185(4157), 1124-1131.

A classic account of useful but imperfect judgment shortcuts; not evidence about this hypothetical customer.
<https://doi.org/10.1126/science.185.4157.1124>

02 / ORGANISATIONAL SENSEMAKING

Weick, K. E. (1995). *Sensemaking in Organizations*. SAGE.

A foundation for examining how organisational participants interpret ambiguous situations.
<https://in.sagepub.com/en-in/ind/sensemaking-in-organizations/book4988>

03 / BOUNDED RATIONALITY

Simon, H. A. (1955). "A Behavioral Model of Rational Choice." *Quarterly Journal of Economics*, 69(1), 99-118.

A corrective to assumptions of unlimited information and computation in decision-making.
<https://doi.org/10.2307/1884852>

04 / EVERYDAY DESIGN

Norman, D. (2013). *The Design of Everyday Things*, revised and expanded edition. Basic Books.

Design principles for visibility, discoverability and feedback, rather than claims about this shop.
<https://www.nngroup.com/books/design-everyday-things-revised/>

05 / DUTY-BASED ETHICS

Stanford Encyclopedia of Philosophy. "Deontological Ethics" (updated 2024).

Explains duty-based approaches in contrast with consequentialist ethics; not a single moral formula for the scenario.
<https://plato.stanford.edu/entries/ethics-deontological/index.html>

06 / NARRATIVE AND FRAMING

Goffman, E. (1974). *Frame Analysis: An Essay on the Organization of Experience*. Harper & Row.

An influential account of framing; consult library editions and distinguish interpretation from observation.
https://books.google.com/books/about/Frame_analysis.html?id=XBpmAAAAIAAJ

A FINAL PRACTICE

Change your angle. Keep your facts. If a lens cannot suggest what would improve the evidence, it may be ornament rather than insight.