

Thinking, Fast and Slow

Chapter Map and Field Guide

A companion guide to Daniel Kahneman's book (2011)

SYSTEM 1



SYSTEM 2



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Thinking, Fast and Slow — Chapter Map + Field Guide

Source: Daniel Kahneman, *Thinking, Fast and Slow* (2011)

Use: Orientation map (not a substitute for the book) + a one-page operating sheet for decisions under bias.

Part I — Two Systems

Ch	Title	What it installs
1	The Characters of the Story	System 1 (fast, automatic) vs System 2 (slow, effortful). Most life is S1; S2 is the editor that often naps.
2	Attention and Effort	Mental effort is limited. Hard tasks pull attention; fatigue makes S2 weaker. <i>Note: the ego-depletion idea (self-control as a resource that runs down) has failed large multi-lab replications (Hagger et al., 2016; Vohs et al., 2021). Treat it as unproven.</i>
3	The Lazy Controller	S2 is lazy: it often endorses S1's first answer. Intelligence ≠ vigilance.
4	The Associative Machine	Ideas spread by association, and context shapes what "comes to mind" before you notice. <i>Note: many of the behavioral priming studies this chapter cites have failed large replications, and Kahneman later said he had placed too much faith in them. Treat them as unproven.</i>
5	Cognitive Ease	Easy = true/familiar/good. Fluency, repetition, and clear fonts bias belief and liking.
6	Norms, Surprises, and Causes	S1 maintains a model of "normal." Surprise triggers search for causes (often too eagerly).
7	A Machine for Jumping to Conclusions	WYSIATI — <i>What You See Is All There Is</i> . Sparse evidence feels sufficient.
8	How Judgments Happen	Basic assessments (good/bad, similarity, matching) run automatically and feed harder judgments.
9	Answering an Easier Question	Substitution: hard question ("How happy am I with life?") gets swapped for an easy one ("How do I feel right now?").

Part I takeaway: You don't "choose" most judgments. You inherit them from S1 unless S2 is forced to intervene.

Part II — Heuristics and Biases

Ch	Title	What it installs
10	The Law of Small Numbers	Small samples look more informative than they are. Pattern-seeking invents stories from noise.
11	Anchors	Arbitrary starting numbers pull estimates. Anchoring works even when you know it's junk.
12	The Science of Availability	Ease of recall ≈ estimated frequency/probability. Memory accessibility masquerades as reality.
13	Availability, Emotion, and Risk	Affect + vividness drive risk perception (media, dread) more than base rates.

Ch	Title	What it installs
14	Tom W's Specialty	Representativeness: stereotypes beat base rates when predicting category membership.
15	Linda: Less Is More	Conjunction fallacy — a detailed story feels more probable than a simpler, more likely one.
16	Causes Trump Statistics	Causal stories dominate statistical ones. People neglect base rates unless causality is forced.
17	Regression to the Mean	Extreme performance tends toward average. We invent causal myths for statistical bounce-back.
18	Taming Intuitive Predictions	Extreme predictions from weak evidence are usually wrong. Regress predictions toward the mean.

Part II takeaway: Intuition substitutes *plausible stories* for *probability*. Force base rates, sample size, and regression into the room.

Part III — Overconfidence

Ch	Title	What it installs
19	The Illusion of Understanding	Hindsight makes the past look inevitable. Narrative coherence ≠ foresight.
20	The Illusion of Validity	Confident expertise can be built on noisy, non-predictive cues (e.g., interview theater).
21	Intuitions vs. Formulas	Simple algorithms often beat clinical judgment when validity is low and noise is high.
22	Expert Intuition: When Can We Trust It?	Trust intuition when the environment is regular and you got lots of timely feedback (firefighters, chess—not politics or long-horizon markets).
23	The Outside View	Reference class forecasting: ask “what usually happens to cases like this?” before the inside story.
24	The Engine of Capitalism	Optimistic bias fuels entrepreneurship and competition—useful for society, dangerous for the individual decision maker.

Part III takeaway: Confidence is a feeling, not a validity meter. Prefer the outside view and simple models when feedback is sparse.

Part IV — Choices

Ch	Title	What it installs
25	Bernoulli's Errors	Classical utility misses <i>reference points</i> —people care about gains/losses relative to a baseline.
26	Prospect Theory	Value is S-shaped: concave for gains, convex for losses; loss aversion (~2:1). Probability weighting warps rare and sure events.
27	The Endowment Effect	Owning raises selling price. Willingness to pay ≠ willingness to accept.
28	Bad Events	Losses and threats loom larger; goals framed as avoiding loss intensify commitment (for better or worse).

Ch	Title	What it installs
29	The Fourfold Pattern	Risk attitudes flip by gain/loss × high/low probability (e.g., risk-seeking to avoid a sure loss; overpay for tiny-probability jackpots).
30	Rare Events	Overweighting of vivid rare risks / hopes; underweighting of dull high probabilities.
31	Risk Policies	Adopt broad policies (risk budgets, rules) instead of deciding each bet in isolation.
32	Keeping Score	Mental accounting: separate pots, sunk costs, and narrow framing distort optimal choice.
33	Reversals	Preference reversals when options are evaluated jointly vs separately (pricing vs choice).
34	Frames and Reality	Identical outcomes, different frames → different choices. Framing is part of the decision, not decoration.

Part IV takeaway: You don't maximize "wealth." You react to framed gains and losses. Change the frame or the policy—not just the pep talk.

Part V — Two Selves

Ch	Title	What it installs
35	Two Selves	Experiencing self (moment-to-moment) vs remembering self (story after the fact).
36	Life as a Story	Memories overweight peaks and endings; duration often neglected (peak-end rule).
37	Experienced Well-Being	Measuring life <i>as lived</i> (time-use, affect) differs from life <i>as evaluated</i> .
38	Thinking About Life	Life satisfaction is reconstructed; focusing illusion ("nothing else matters when I think about X") warps it.

Conclusions / appendices (in the book): Judgment and choice under uncertainty summarized; prospect theory and heuristics listed as reference tools.

Part V takeaway: Optimize for both selves deliberately—or admit you're optimizing the story, not the hours.

One-Page Field Guide — Decisions Under a Biased Brain

Print this. Use it before irreversible bets, forecasts, hires, launches, and "sure thing" narratives.

1. Name the mode (10 seconds)

Signal	Likely mode	Move
Instant certainty, vivid story, strong feeling	System 1 driving	Delay; force System 2 checklist below
Effort, doubt, slow calculation	System 2 online	Good—don't abandon it under social pressure
Fatigue, hurry, ego threat	Lazy controller	Postpone or use a pre-committed rule

2. Kill WYSIATI (what you see is *not* all there is)

Ask, write answers:

1. **What information is missing?** (base rate, sample size, disconfirming cases)
2. **What would change my mind?**
3. **What's the reference class?** ("Projects like this usually...") — *outside view first*
4. **Am I answering a substitute question?** (mood, likability, story fit instead of the real criterion)

3. Probability checks

- **Sample size:** Is this n = anecdotes?
- **Regression:** Was the last result extreme? Expect bounce toward average.
- **Anchors:** Ignore the first number; regenerate from zero or from the outside view.
- **Availability/affect:** Is vividness doing the estimating?
- **Conjunction:** Is a detailed story making an outcome feel *more* likely? (It shouldn't.)

4. Choice checks (prospect theory)

- State the **reference point** explicitly (status quo, plan, peer, last quarter).
- Reframe once: look at the same options as **final wealth / total portfolio**, not isolated gains/losses.
- Check **loss framing**: Am I taking a bad risk to avoid a sure loss?
- Check **rare-event overweighting**: lottery hope or terror premium?
- Prefer a **risk policy** ("we never bet more than X without Y evidence") over one-off heroics.
- Ignore **sunk costs**; reopen mental accounts if they're forcing a bad continue.

5. Confidence audit

Environment	Feedback	Trust intuition?
Regular, repeated, fast feedback	High	Often yes (with humility)
Unique, political, long lag, adversarial	Low	No — formulas, checklists, outside view
Interview / narrative coherence	Seductive	Distrust; structure the evaluation

Ask: *Would a simple scorecard beat my gut here?* If yes, use the scorecard.

6. Two-selves check (for personal / customer decisions)

- Am I optimizing the **memory** (peak/end) or the **experience** (duration, daily affect)?
- Will future-me thank present-me for duration, or only for the story?

7. Minimum viable System 2 ritual (2–5 minutes)

1. Outside view number first (base rate / reference class).
2. Inside view second (our special reasons)—then **regress** the forecast toward the outside view.
3. Pre-mortem: "It's a year later and this failed. Why?"
4. Name one **frame** you're using; force one alternate frame.
5. Decide with a rule you could defend to a skeptical peer who only sees the base rates.

Pocket refrain

Stories are cheap. Samples, base rates, and frames are the work.

Field guide distilled for operators from Kahneman (2011). Not a license to skip the book—Parts III–IV repay a full read.