Zen + the Art of Motorcycle Maintenance
Robert Pirsig

The Limits to Growth
Donella (Dana) Meadows
→ Beyond the Limits

Thinking In Systems - Intro

by Donella H. Meadows, 2008 (originally written 1993)

"Systems thinking transcends disciplines + cultures and, when it is done right, it overarches history as well."

* using language of system dynamics + only the core of systems theory, interested in how analysis can solve real problems
* the goal of this book is to ↑ interest, it's biased + incomplete

"Systems, big or small, can behave in similar ways..."

Introduction: The System Lens

"The hands that manipulate [the Slinky] suppress or release some behavior that is latent w/in the structure of the spring"

↑ central insight of systems theory, the relationship b/w structure + behavior

System is a set of things that are interconnected in such a way that they produce their own pattern of behavior over time

↳ outside forces may influence the system but the response is characteristic of the system itself

ex "Drug addiction is not the failing of an individual and no one person, no matter how tough... laws, can cure a drug addict — not even the addict. It is only through understanding addiction as part of a larger set of influences + societal issues that one can begin to address it."

* statements like these make people uncomfortable because we are taught to analyze (cause + effect) + to establish that drugs are the problem.
  ↳ however, we as humans have learned systems far before we learned how to analyze them + gain a practical understanding.
* it's possible to tie systems jargon to traditional wisdom

"A diverse system w/ multiple pathways + redundancies is more stable + ↓ vulnerable to external shock than a uniform system w/ ↓ diversity"

↳ - - - → "Don't put all your eggs in one ₿ basket."

* it is appealing to blame something "out there"

"[System messes] will yield only as we reclaim our intuition, stop casting blame, see the system as the source of its own problems + find the courage + wisdom to restructure it."

* diagrams + time graphs are useful b.c. words come one at a time but systems happen all at once + connected in many directions at once
* systems + reductionist thinking is complementary

"The behavior of a system cannot be known just by knowing the elements of ~~thing~~ which the system is made."