

SPHEREPOP

COMICS

No. 1

10¢

A COMIC GUIDE TO THE GEOMETRY OF ADMISSIBLE FUTURES

THE DIAGRAM THAT NEVER RAN

SYSTEMS
CHANGE.
BUT SOME
THINGS
PERSIST.

WHAT IS A SYSTEM?
WHAT GETS
PRESERVED?
WHAT STAYS
POSSIBLE?

ADMISSIBLE
FUTURES

NOT ALL PATHS ARE EQUAL.
NOT ALL ARE REAL.
ONLY SOME ARE
ADMISSIBLE.

IN THIS ISSUE:

- ★ WHY REPRESENTATIONS DRIFT
- ★ THE LIMITS OF STABILITY
- ★ DECODABILITY vs. REACHABILITY

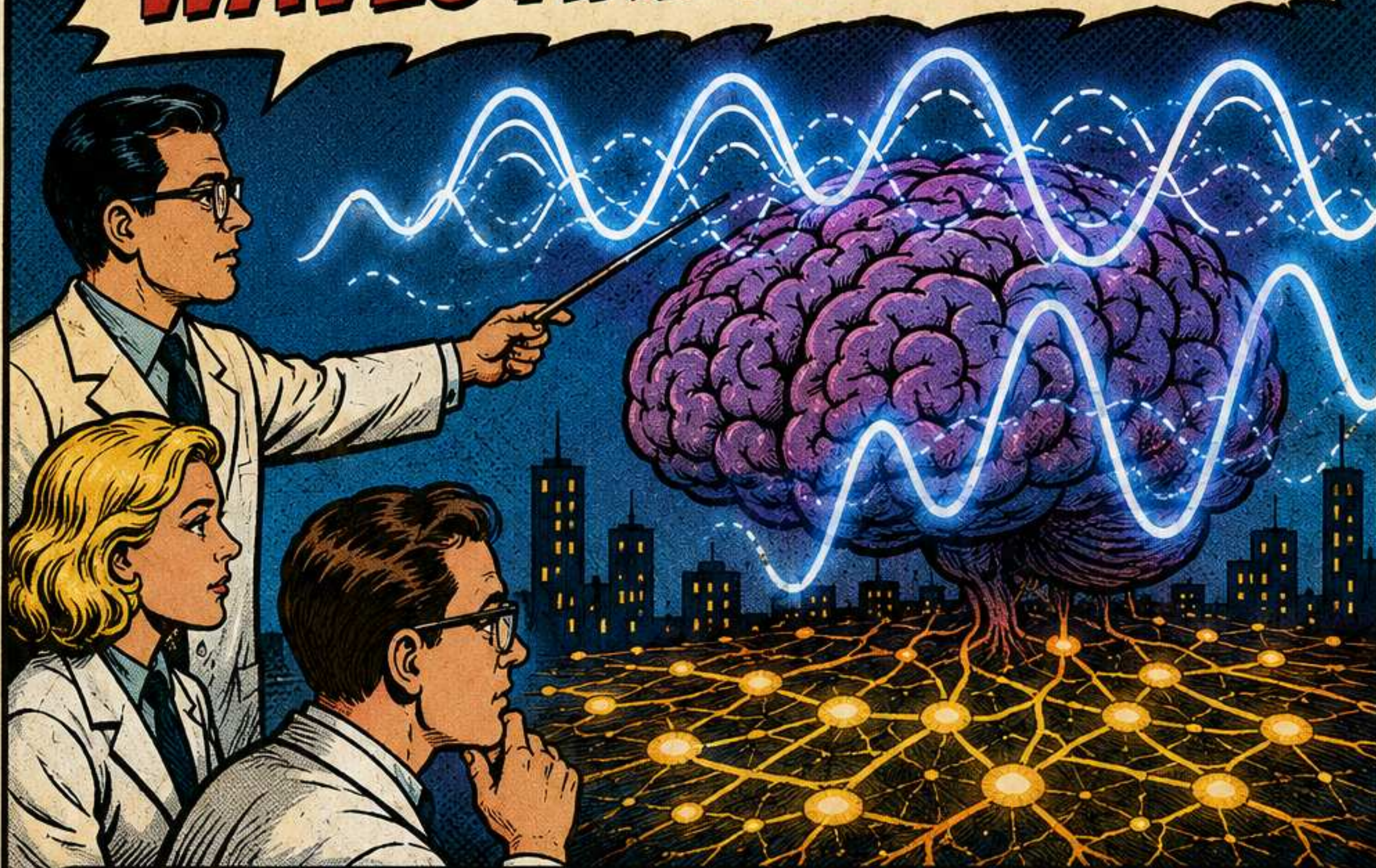
- ★ ADMISSIBILITY DEFINED
- ★ PROOF BY EXECUTION
- ★ THE TRACE IS THE SYSTEM

- ★ WHAT GETS PRESERVED
—AND WHY IT MATTERS

A SYSTEM IS NOT ITS DESCRIPTION.
IT IS THE SET OF **ADMISSIBLE CONTINUATIONS.**

THE PREVAILING THEORY

WAVES ARE NECESSARY!



CLAIM:

- Mixed selectivity creates a control problem.
- Neurons must be recruited flexibly.
- Synapses are too slow.
- Brain waves solve the routing problem.

VERDICT: WAVES ARE
PROPOSED AS THE UNIQUE SOLUTION.

BY FLYXION
INDEPENDENT RESEARCHER

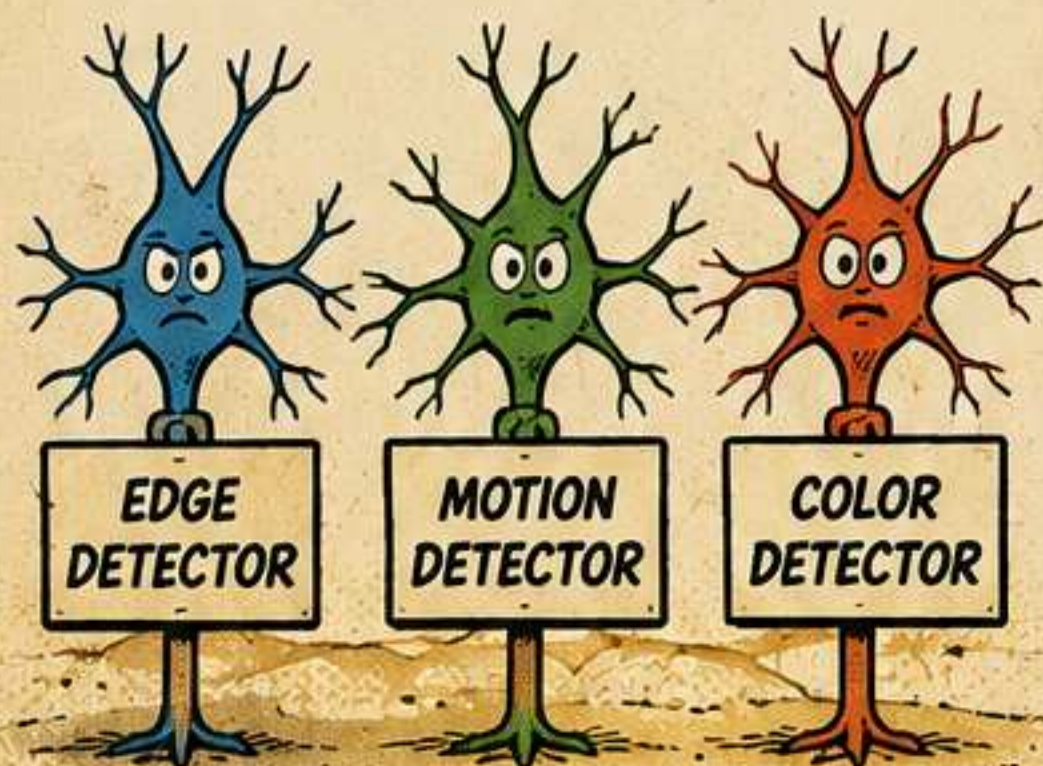
JULY 2026

WHAT THE PAPER GETS RIGHT

MILLER ET AL. ARE CORRECT:
THE CLASSICAL VIEW OF CORTEX IS INADEQUATE.

THE OLD VIEW:

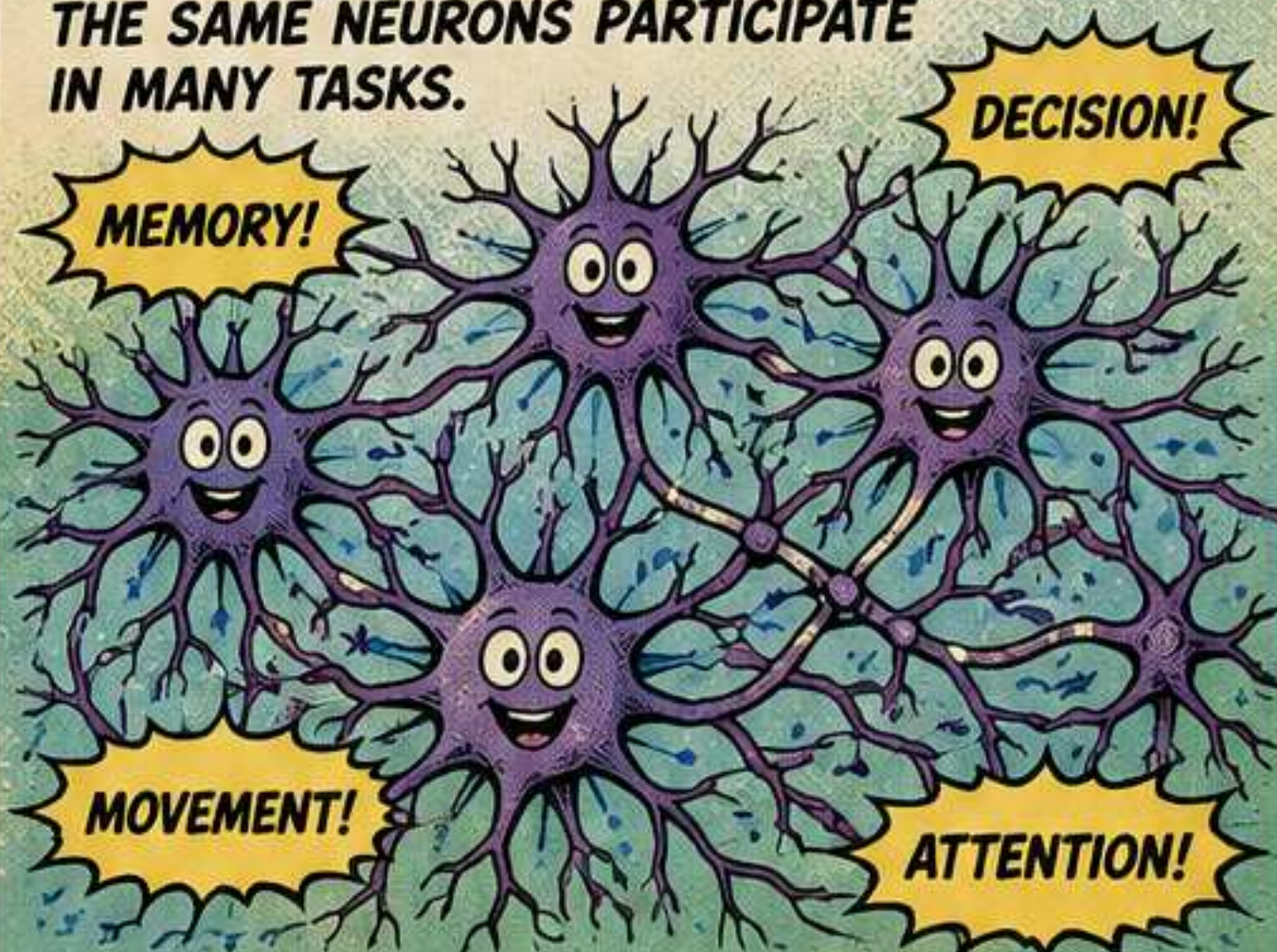
NEURONS AS FIXED,
SPECIALIZED DETECTORS.



- TOO LIMITED. CORTEX DOES MUCH MORE.

THE REALITY:

MIXED SELECTIVITY IS PERVERSIVE.
THE SAME NEURONS PARTICIPATE
IN MANY TASKS.



THIS CREATES A CONTROL PROBLEM:
HOW DOES THE BRAIN FLEXIBLY ROUTE INFORMATION
WITHOUT TRACKING INDIVIDUAL SYNAPSES?



THE PROBLEM WITH SYNAPSES:

- TOO SLOW.
- TOO COMPUTATIONALLY DEMANDING.



VS.

THE PROPOSED SOLUTION:

SPATIALLY PATTERNED OSCILLATIONS—
BRAIN WAVES—ACT AS FLEXIBLE,
LOW-DIMENSIONAL CONTROL SIGNALS.



THE IMPLICATION:

WAVES ARE NOT JUST CORRELATED
WITH COGNITION—THEY ARE CLAIMED
TO BE COMPUTATIONALLY **NECESSARY**
FOR FLEXIBLE COGNITIVE CONTROL.

NO DISPUTE SO FAR—THE QUESTION IS
WHETHER WAVES ARE **TRULY** NECESSARY.



THE NECESSITY CLAIM—AND WHERE IT BREAKS



MILLER ET AL. ARGUE THAT SYNAPTIC MECHANISMS ARE TOO SLOW AND TOO COMPUTATIONALLY DEMANDING TO EXPLAIN FLEXIBLE, CONTEXT-DEPENDENT CONTROL.

THE ARGUMENT:

1. MIXED SELECTIVITY CREATES A CONTROL PROBLEM.
2. SYNAPTIC RECONFIGURATION IS TOO SLOW AND TOO DEMANDING.
3. SPATIALLY PATTERNED OSCILLATIONS OFFER A TRACTABLE, LOW-DIMENSIONAL SOLUTION.
4. THEREFORE, WAVE DYNAMICS ARE NECESSARY.

BUT PREMISE (2) IS WRONG.

WHAT THE DATA ALREADY SHOWS

MANTE, SUSSILLO, SHENOY, & NEWSOME (2013)

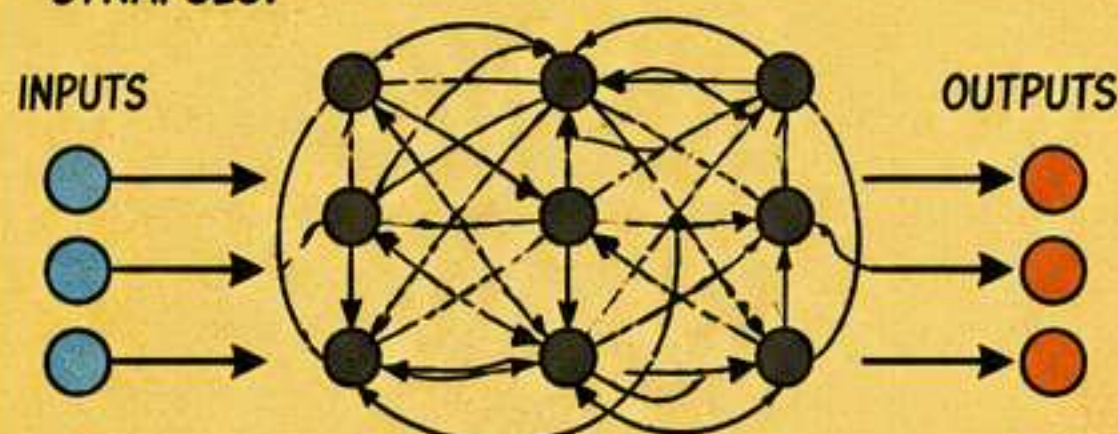
MONKEYS PERFORMED A CONTEXT-DEPENDENT TASK. THE SAME NEURONS INTEGRATED AND SELECTED INFORMATION BASED ON CONTEXT—WITH NO ANATOMICAL REWIRING AND NO OSCILLATORY GATING.



THE SAME BEHAVIOR WAS REPRODUCED IN A TRAINED RECURRENT NEURAL NETWORK—A SYSTEM WITH FIXED CONNECTIVITY AND NO WAVE-BASED MECHANISM.

THE TAKEAWAY:

A FIXED RECURRENT ARCHITECTURE ALREADY PRODUCES CONTEXT-DEPENDENT, SUBSECOND ROUTING WITHOUT TRACKING INDIVIDUAL SYNAPSES.



SELECTION AND INTEGRATION EMERGE AS DYNAMICS, NOT AS EXPLICIT LOOK-UP OF "THE RIGHT SYNAPSES."

A FURTHER IRONY:

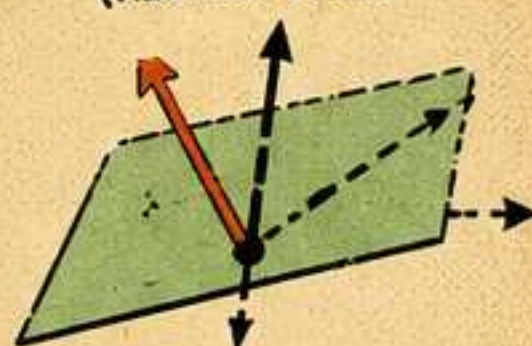
TO SUPPORT THEIR VIEW, MILLER ET AL. CITE SUBSPACE AND NULL-SPACE CODING LITERATURE—

—THE VERY LITERATURE THAT SHOWS LOW-DIMENSIONAL, CONTEXT-STRUCTURED POPULATION DYNAMICS ARISE FROM CONNECTIVITY AND RECURRENCE ALONE.

WAIT...

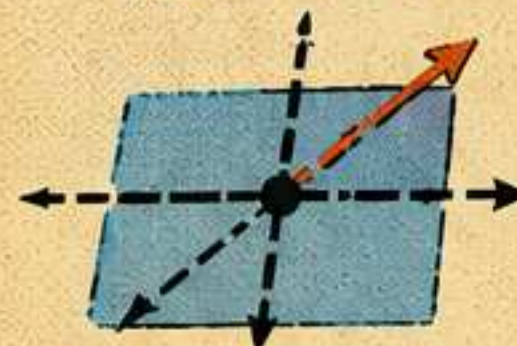


SUBSPACE CODING (Kaufman et al.)



LOW-DIMENSIONAL STRUCTURE EMERGES FROM POPULATION DYNAMICS.

NULL-SPACE CODING (Kaufman et al.)



COGNITIVE OPERATIONS CAN VARY IN ORTHOGONAL DIRECTIONS WITHOUT INTERFERENCE.

SO WHAT IS ACTUALLY SUPPORTED?

- WAVES CORRELATE WITH, AND LIKELY HELP ORGANIZE, COGNITIVE COMPUTATION. (STRONG)
- WAVES MAY MAKE CONTROL MORE EFFICIENT, SCALABLE, OR ENERGETICALLY ECONOMICAL. (PLAUSIBLE)
- WAVES ARE THE UNIQUE, NECESSARY PRIMITIVE BEHIND MIXED SELECTIVITY AND ROUTING. (CONTRADICTED)

CONCLUSION:

THE URGENCY THAT MOTIVATED WAVES DISSOLVES ONCE WE SEE THE PROBLEM ALREADY HAS A NON-WAVE SOLUTION.



THE QUESTION ISN'T "CAN WAVES HELP?" IT'S "WHAT ORGANIZATIONAL INVARIANT EXPLAINS THESE FUNCTIONS IN EVERY SYSTEM THAT CAN DO THEM?"

THE REST OF THIS ESSAY ARGUES THAT THE RELEVANT INVARIANT IS REACHABILITY—NOT OSCILLATION ITSELF.

WHAT MANIFOLD THEORY ALREADY OWNS

MANIFOLD THEORY IS NOT VAGUE. IT MAKES PRECISE, QUANTITATIVE PREDICTIONS ABOUT WHAT REMAINS STABLE WHEN A NEURAL SYSTEM IS PERTURBED.

SADTLER et al. (2014) — ADAPTATION TEST

MONKEYS CONTROL A BRAIN-COMPUTER INTERFACE. THE MAPPING FROM NEURAL ACTIVITY TO CURSOR MOVEMENT IS PERTURBED.

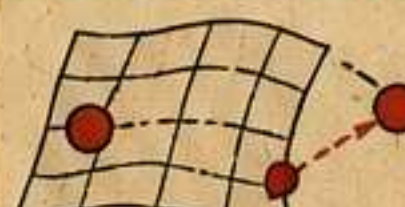


WITHIN THE MANIFOLD



ADAPTATION: FAST

OUTSIDE THE MANIFOLD

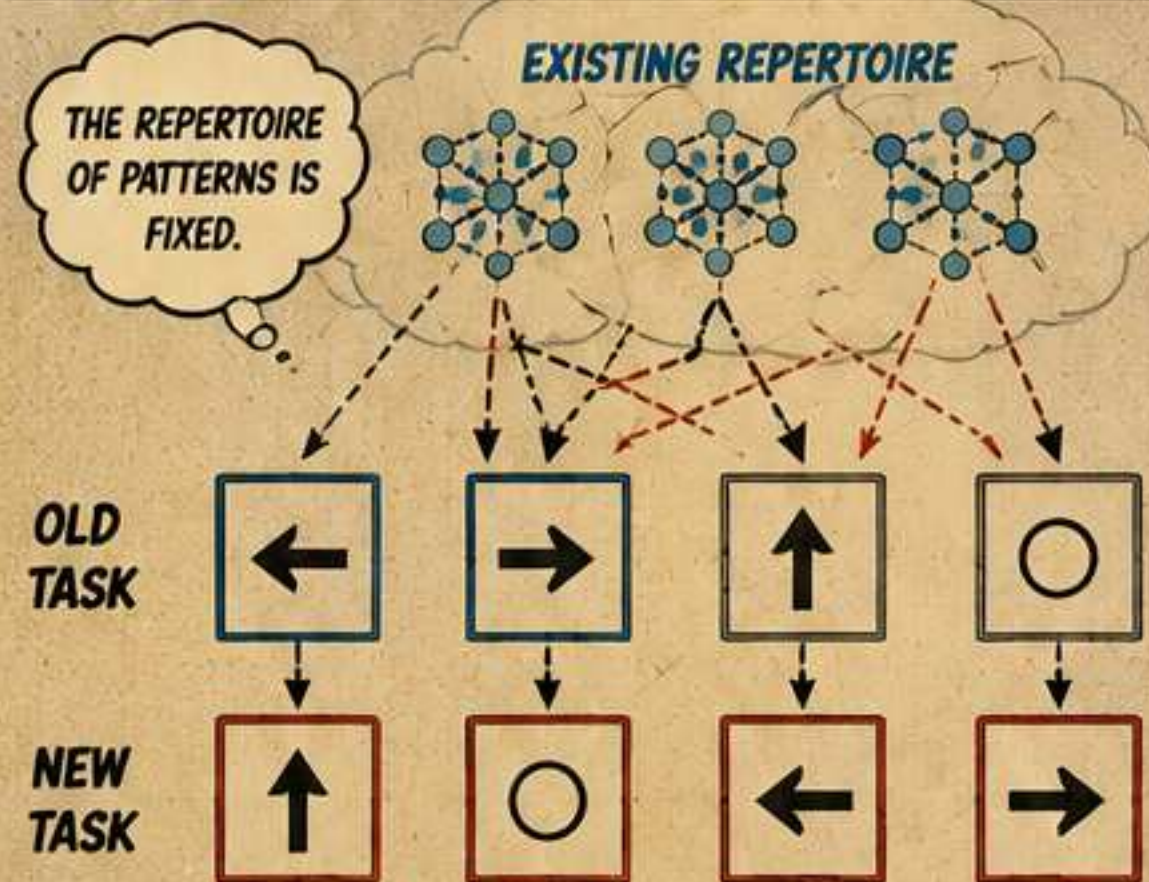


ADAPTATION: FAILS

THE INTRINSIC MANIFOLD DETERMINES WHETHER LEARNING IS POSSIBLE.

GOLUB et al. (2018) — RELEARNING

WHEN THE TASK CHANGES, ANIMALS DO NOT GENERATE NEW ACTIVITY PATTERNS TO SOLVE IT.



LEARNING = RE-ASSOCIATING EXISTING PATTERNS WITH NEW MAPPINGS, NOT CREATING NEW ONES.

IN SHORT:

MANIFOLD PRESERVATION EXPLAINS A LOT.

THE MANIFOLD—A COVARIANCE STRUCTURE IMPOSED BY CONNECTIVITY—IS THE THING THAT STAYS STABLE (IN THESE CASES).



BUT...

IS THIS THE WHOLE STORY? WHAT ABOUT WHEN THE MANIFOLD ITSELF DOES NOT STAY PUT? THE NEXT SECTION TURNS TO THAT CASE.

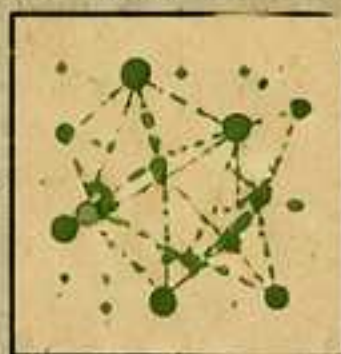
DRISCOLL et al. (2017) — REPRESENTATIONAL DRIFT

RECORDINGS FROM POSTERIOR PARIETAL CORTEX (MICE) DURING A REPEATED NAVIGATION TASK.

DAY 1

DAY 14

DAY 28



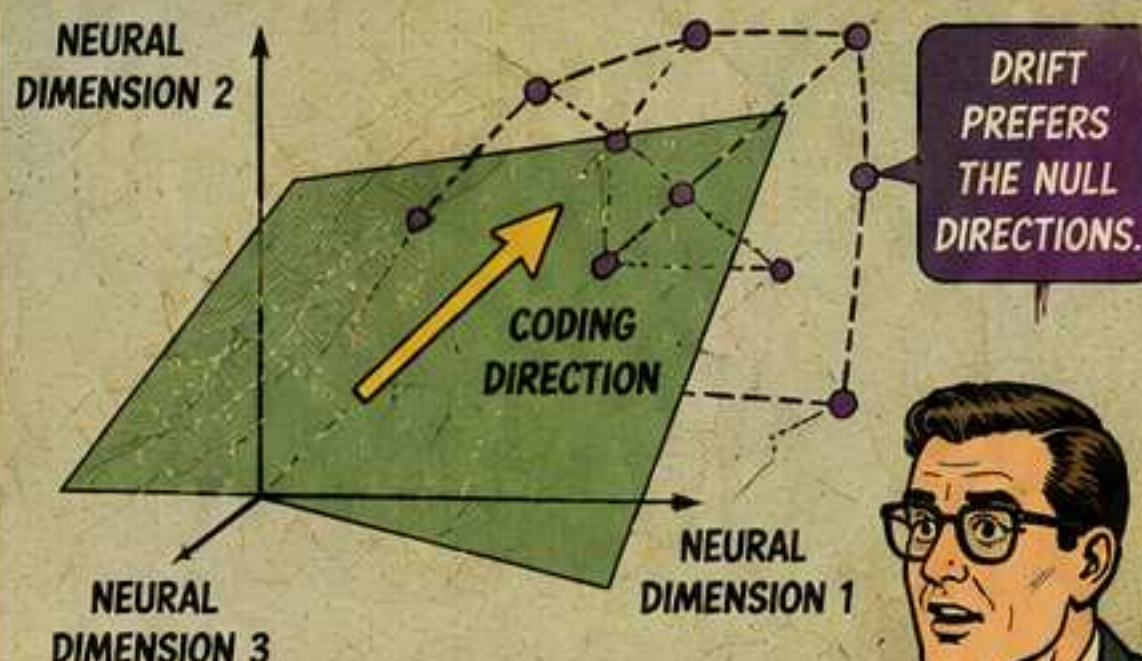
NEARLY TOTAL REORGANIZATION OF TASK-RELATED ACTIVITY.

YET BEHAVIOR AND TASK PERFORMANCE REMAIN STABLE.



THE PARTIAL RESCUE — RULE et al. (2020)

DRIFT IS NOT UNCONSTRAINED. IT HAPPENS PREFERENTIALLY IN DIRECTIONS ORTHOGONAL TO THE CODING DIMENSIONS (NULL CODING SPACE).



THE READOUT STAYS STABLE, BUT THE COVARIANCE GEOMETRY DOES NOT.



THE OPEN QUESTION:

IF DECODABILITY CAN SURVIVE WHILE REPRESENTATIONS DRIFT, WHAT IS ACTUALLY BEING PRESERVED?



WHERE MANIFOLD THEORY IS ONLY HALF AN ANSWER

REPRESENTATIONS CHANGE... BUT BEHAVIOR DOESN'T.

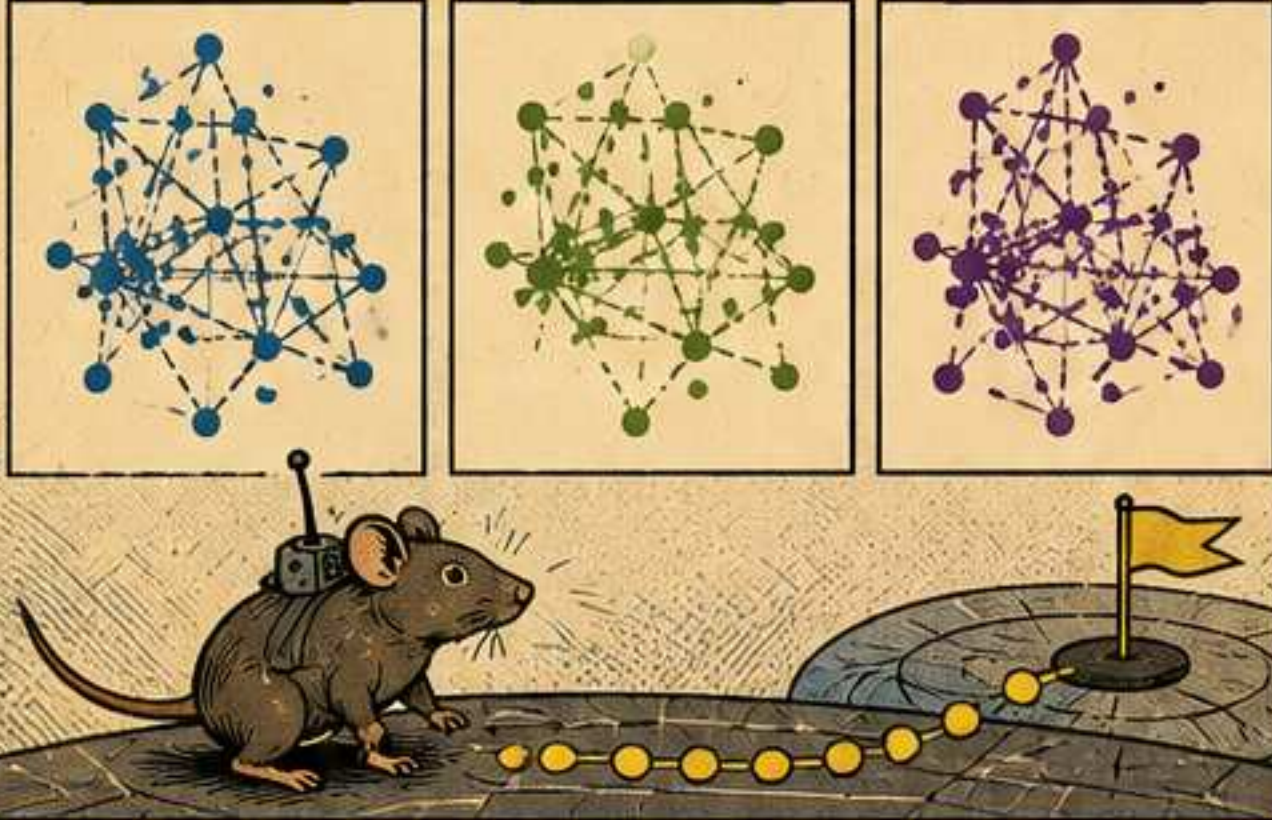
THE PUZZLING EVIDENCE — DRISCOLL et al. (2017)

RECORDINGS FROM POSTERIOR PARIETAL CORTEX (MICE) DURING A REPEATED NAVIGATION TASK.

DAY 1

DAY 14

DAY 28



INDIVIDUAL NEURONS AND THE WHOLE POPULATION REORGANIZE NEARLY ENTIRELY OVER WEEKS... YET BEHAVIOR AND TASK PERFORMANCE REMAIN STABLE.

THE LIMITATION OF CURRENT ACCOUNTS

THE REPRESENTATION (AND MANIFOLD) IS NOT STABLE, BUT SOMETHING IS.

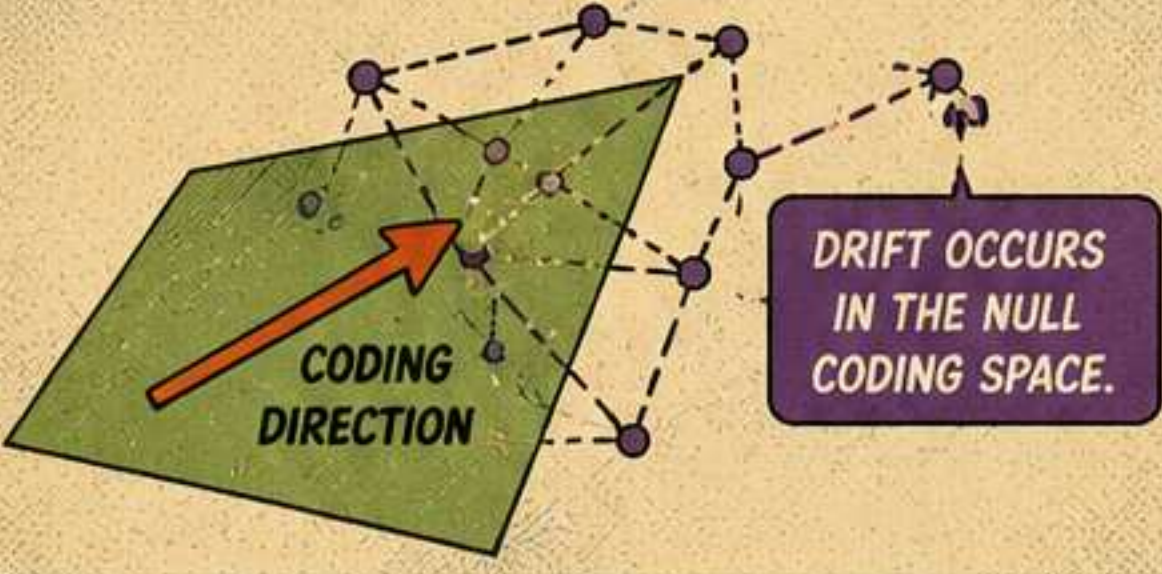
IF THE REPRESENTATION CHANGES AND BEHAVIOR STAYS THE SAME, THEN THE PRESERVED OBJECT CANNOT BE THE REPRESENTATION ITSELF.



THE EXISTING "RESCUE" EXPLAINS STABLE DECODABILITY, BUT NOT NECESSARILY PRESERVED REACHABILITY—THE SET OF FUTURES STILL POSSIBLE FROM A STATE.

THE CURRENT RESCUE — RULE et al. (2020)

DRIFT HAPPENS PREFERENTIALLY IN DIRECTIONS ORTHOGONAL TO THE CODING (NULL) DIRECTIONS.



A DECODER CAN STILL READ OUT THE TASK VARIABLE EVEN THOUGH THE GEOMETRY OF ACTIVITY CHANGES.

THE OPEN DISTINCTION

DECODABILITY

WHAT CAN BE READ OUT OF A STATE RIGHT NOW.



INSTANTANEOUS INFERENCE.

VS.

REACHABILITY

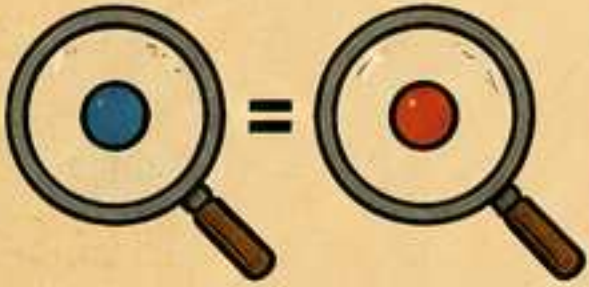
WHAT FUTURES REMAIN AVAILABLE FROM THIS STATE.



FUTURE POSSIBILITIES UNDER CONSTRAINTS.

THE CONSEQUENCE

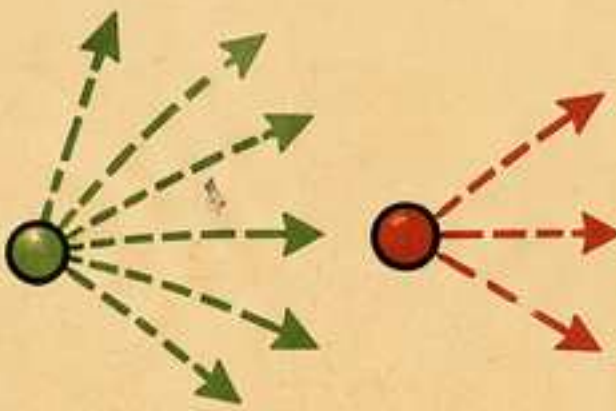
TWO STATES CAN DECODE IDENTICALLY...



...YET HAVE VERY DIFFERENT SETS OF VIABLE FUTURES.

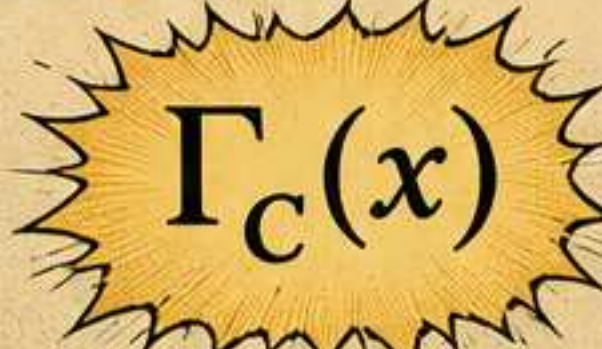
STATE X

STATE Y



WHAT'S NEEDED

TO ANSWER THE OPEN QUESTION, WE NEED A WAY TO CHARACTERIZE AND COMPARE...



$\Gamma_c(x)$

...THE SET OF **ADMISSIBLE CONTINUATIONS** FROM A STATE x OVER A TASK HORIZON T .



DECODABILITY ANSWERS "WHAT IS TRUE **NOW**?"
REACHABILITY ANSWERS "WHAT CAN STILL HAPPEN **NEXT**?"

ADMISSIBILITY AND REACHABILITY

TO STATE THE DISTINCTION PRECISELY, WE INTRODUCE A MINIMAL FORMAL OBJECT.

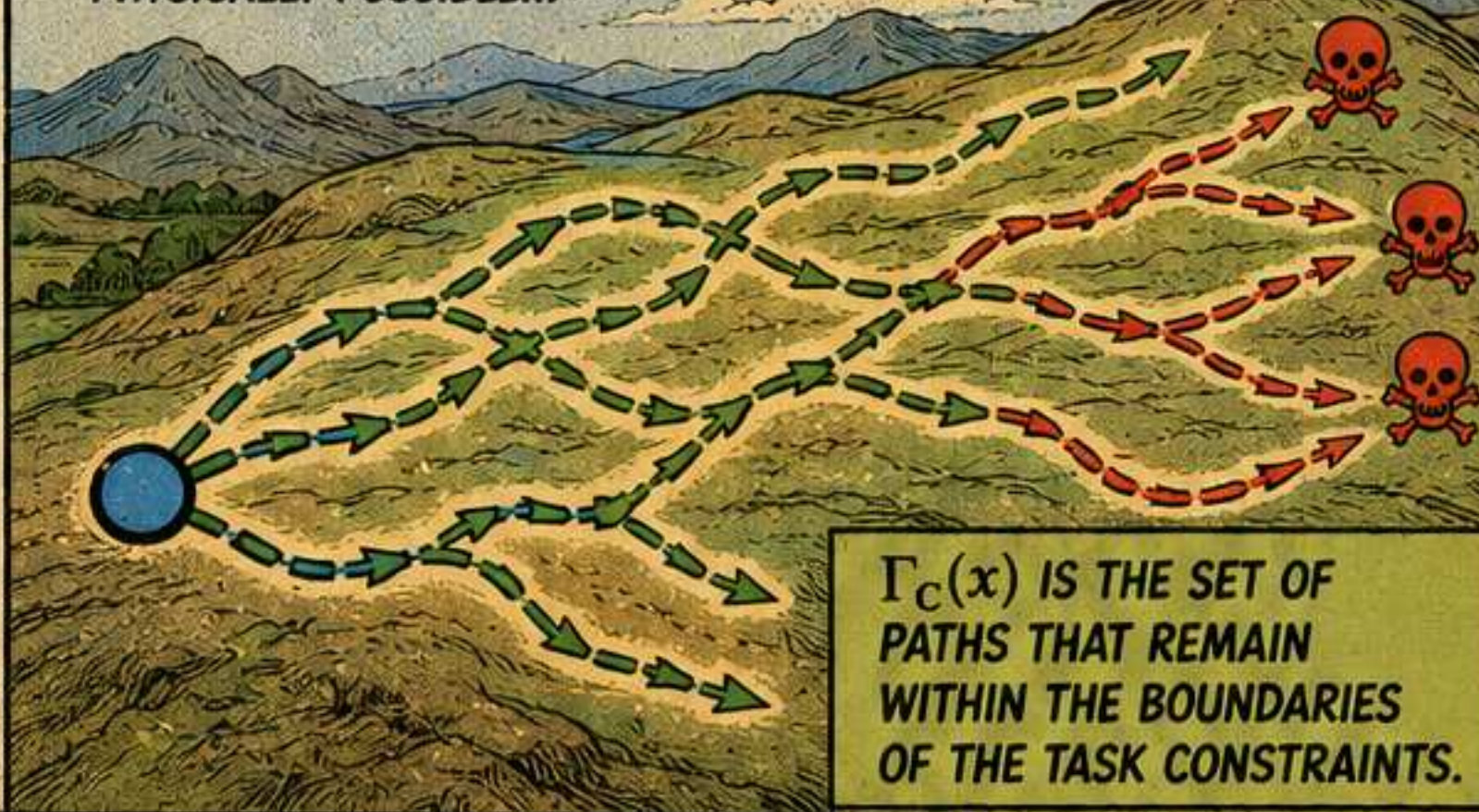
THE ADMISSIBLE CONTINUATION SET

$$\Gamma_C(x)$$

AT STATE x , MANY TRAJECTORIES ARE PHYSICALLY POSSIBLE...

BUT ONLY SOME ARE ADMISSIBLE.

TASK GOAL



$\Gamma_C(x)$ IS THE SET OF PATHS THAT REMAIN WITHIN THE BOUNDARIES OF THE TASK CONSTRAINTS.

THE SET OF FUTURES THAT:

- BEGIN AT STATE x
- FOLLOW THE DYNAMICS
- SATISFY TASK CONSTRAINTS C FOR THE ENTIRE TIME

THE CENTRAL CLAIM



IF TWO STATES PRESERVE THE SAME DECODABLE VARIABLES BUT DIFFER IN THEIR ADMISSIBLE CONTINUATION SETS, THEY WILL SHOW DIFFERENT RECOVERY, ADAPTATION, AND PERTURBATION RESPONSES—DESPITE EQUAL DECODING PERFORMANCE.

NOT ABOUT MEANING—ABOUT POSSIBILITIES.

- Decodability = what can be read out now.
- Reachability = what futures remain available.

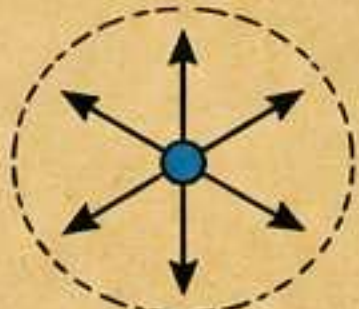
NOT THE SAME AS...

ATTRACTOR BASIN



Defined by convergence to a fixed point or cycle. Says nothing about task constraints or intermediate paths.

CONTROLLABILITY REGION



Which states can be driven to a target using inputs. Not about natural dynamics or tasks.

VIABILITY KERNEL



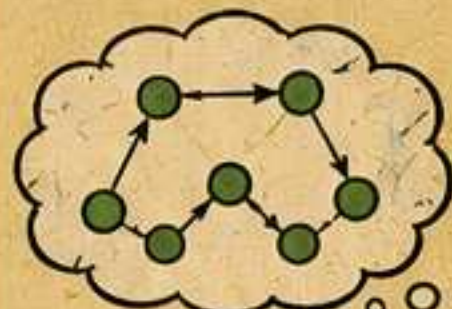
Largest set from which some trajectory stays in K indefinitely. Usually for controlled systems.

REACHABLE SET



Which states can be reached from x . Doesn't impose constraints on the path.

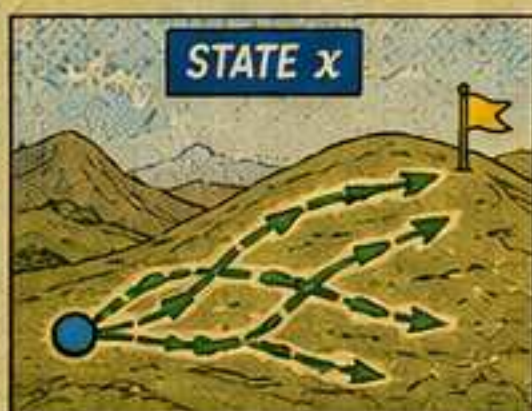
SUCCESSOR REPRESENTATION



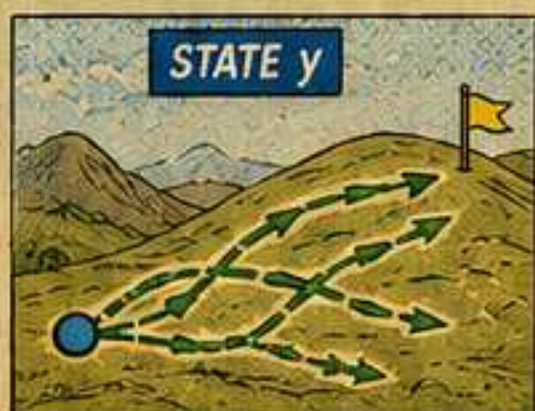
Expected future visitation under a policy (discounted). A summary, not the set of trajectories.

EQUIVALENCE RELATION

$x \sim_C y$ (CONTINUATION-EQUIVALENT)



$\approx$



THEY OFFER APPROXIMATELY THE SAME RANGE OF ADMISSIBLE FUTURES, EVEN IF THEY LOOK DIFFERENT OR DECODE DIFFERENTLY.

WHY THIS MATTERS



TWO STATES MAY BE CLOSE GEOMETRICALLY AND EQUALLY DECODABLE, YET ONE RECOVERS EASILY AND THE OTHER DOESN'T.

THAT DIFFERENCE IS THE DIFFERENCE IN $\Gamma_C(x)$.

THE PROPOSAL IS NOT THAT ADMISSIBLE CONTINUATIONS ARE MORE FUNDAMENTAL—BUT THAT THEY CAPTURE A DIFFERENT, TESTABLE PROPERTY.

THE HYPOTHESIS: WHAT GETS PRESERVED?

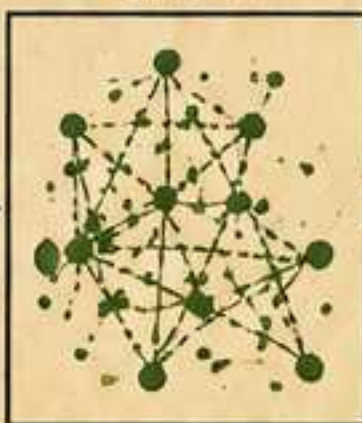
WHEN NEURAL BEHAVIOR SURVIVES CHANGE, IT MAY NOT BE THE REPRESENTATION OR THE MANIFOLD GEOMETRY THAT IS PRESERVED—BUT THE SET OF ADMISSIBLE FUTURES.

REPRESENTATIONS DRIFT...

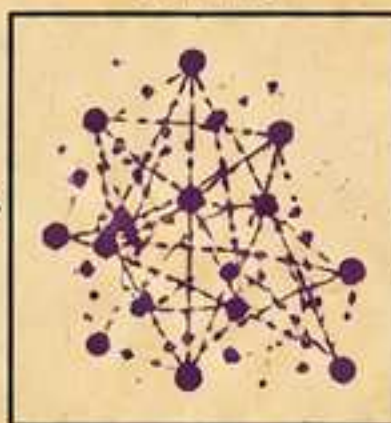
DAY 1



DAY 14



DAY 28



COVARIANCE GEOMETRY CHANGES. NEURONS COME AND GO. THE REPRESENTATION IS NOT STABLE.

...YET BEHAVIOR STAYS STABLE.



THE ANIMAL STILL SUCCEEDS AT THE TASK. SOMETHING CRUCIAL HAS NOT BEEN LOST.

SO,
WHAT IS IT?

THE HYPOTHESIS:

IT IS THE SET OF **ADMISSIBLE FUTURES**—THE CONTINUATION OPTIONS THAT REMAIN AVAILABLE FROM THE CURRENT STATE.

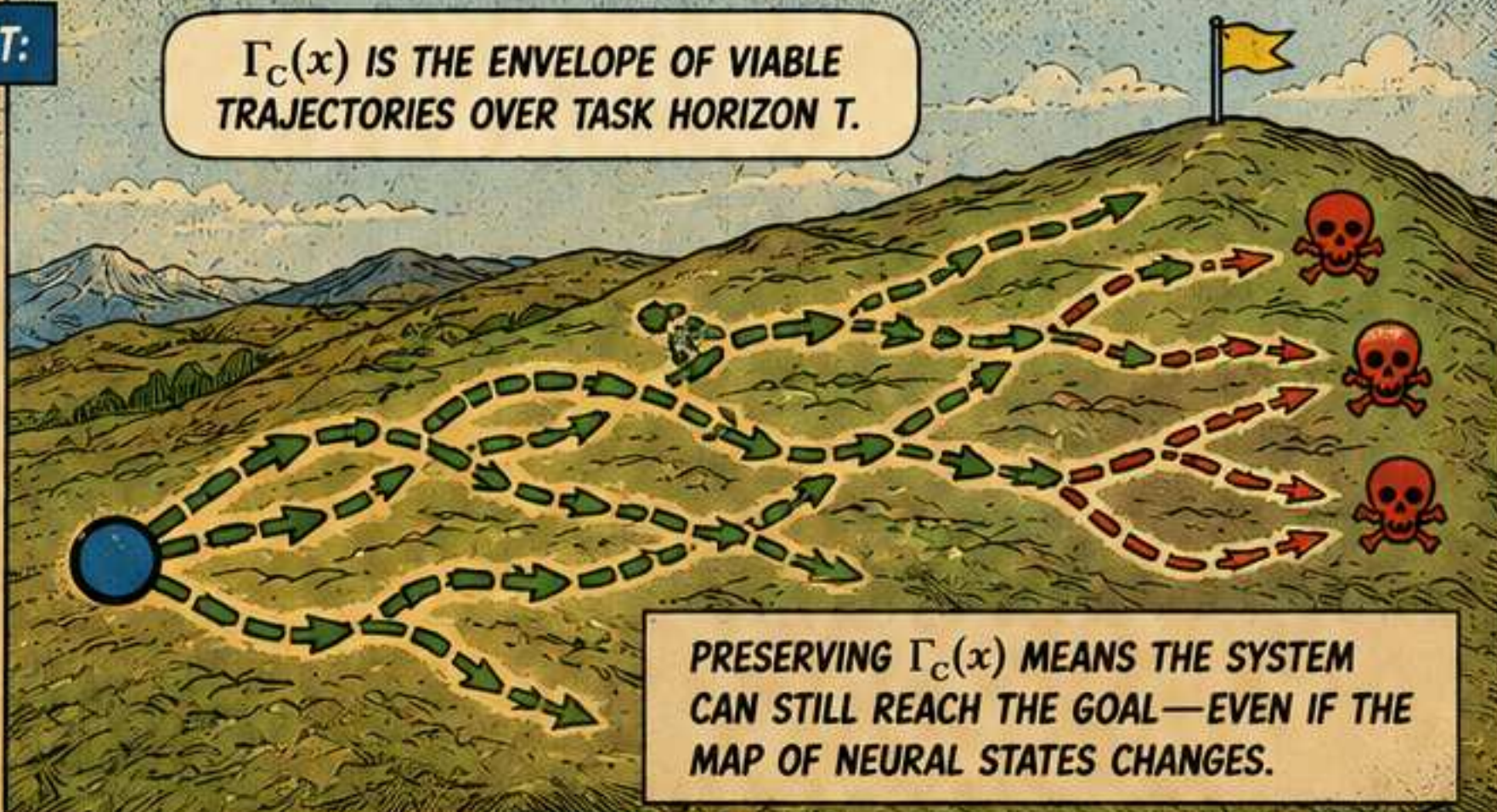
THE ADMISSIBLE CONTINUATION SET:

$$\Gamma_C(x)$$

THE SET OF ALL FUTURES THAT:

- BEGIN AT STATE x
- FOLLOW THE DYNAMICS
- SATISFY TASK CONSTRAINTS C FOR THE HORIZON T

$\Gamma_C(x)$ IS THE ENVELOPE OF VIABLE TRAJECTORIES OVER TASK HORIZON T .



PRESERVING $\Gamma_C(x)$ MEANS THE SYSTEM CAN STILL REACH THE GOAL—EVEN IF THE MAP OF NEURAL STATES CHANGES.

PREDICTION

RECOVERY AFTER PERTURBATION WILL TRACK PRESERVATION OF $\Gamma_C(x)$ BETTER THAN PRESERVATION OF:

- ★ COVARIANCE GEOMETRY
- ★ OSCILLATORY PHASE
- ★ INSTANTANEOUS DECODABILITY



NOT CLAIMING:



THAT MANIFOLDS DON'T MATTER. THEY CLEARLY DO.



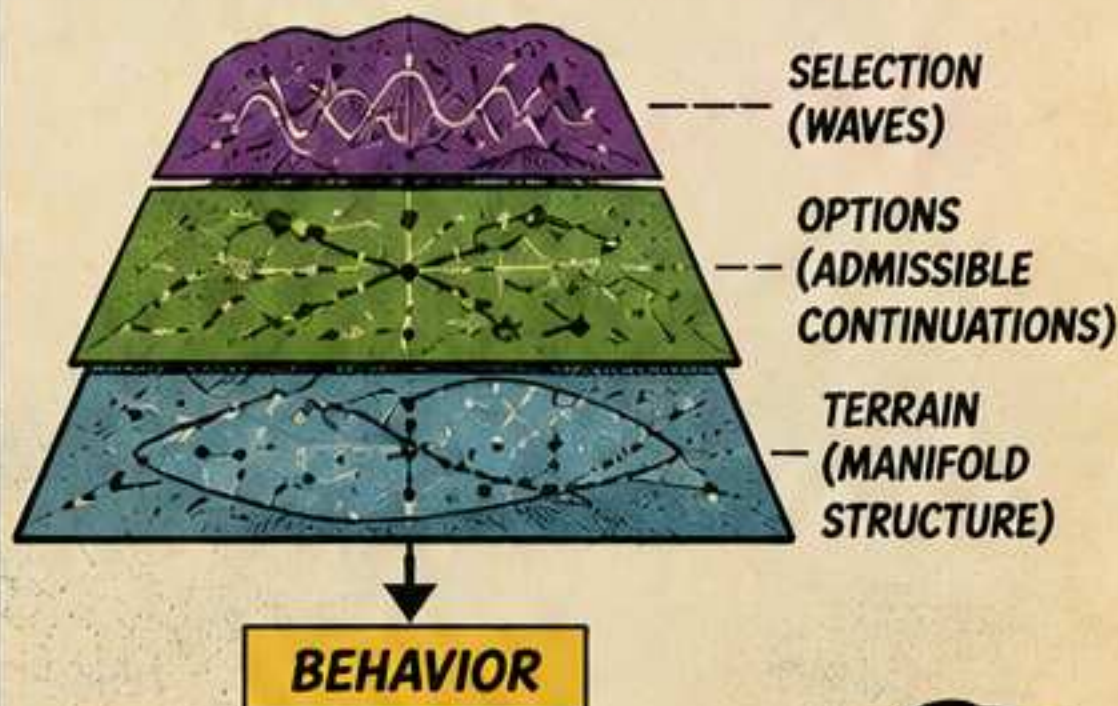
THAT WAVES ARE IRRELEVANT. THEY MAY BE CRUCIAL IN SELECTION.



THAT REACHABILITY PRESERVATION IS A DISTINCT, UNTESTED HYPOTHESIS.

A LAYERING INSIGHT

WAVES MAY SELECT WHICH FUTURE IS TAKEN. BUT THE SET OF OPTIONS MUST EXIST FIRST.



BOTTOM LINE!

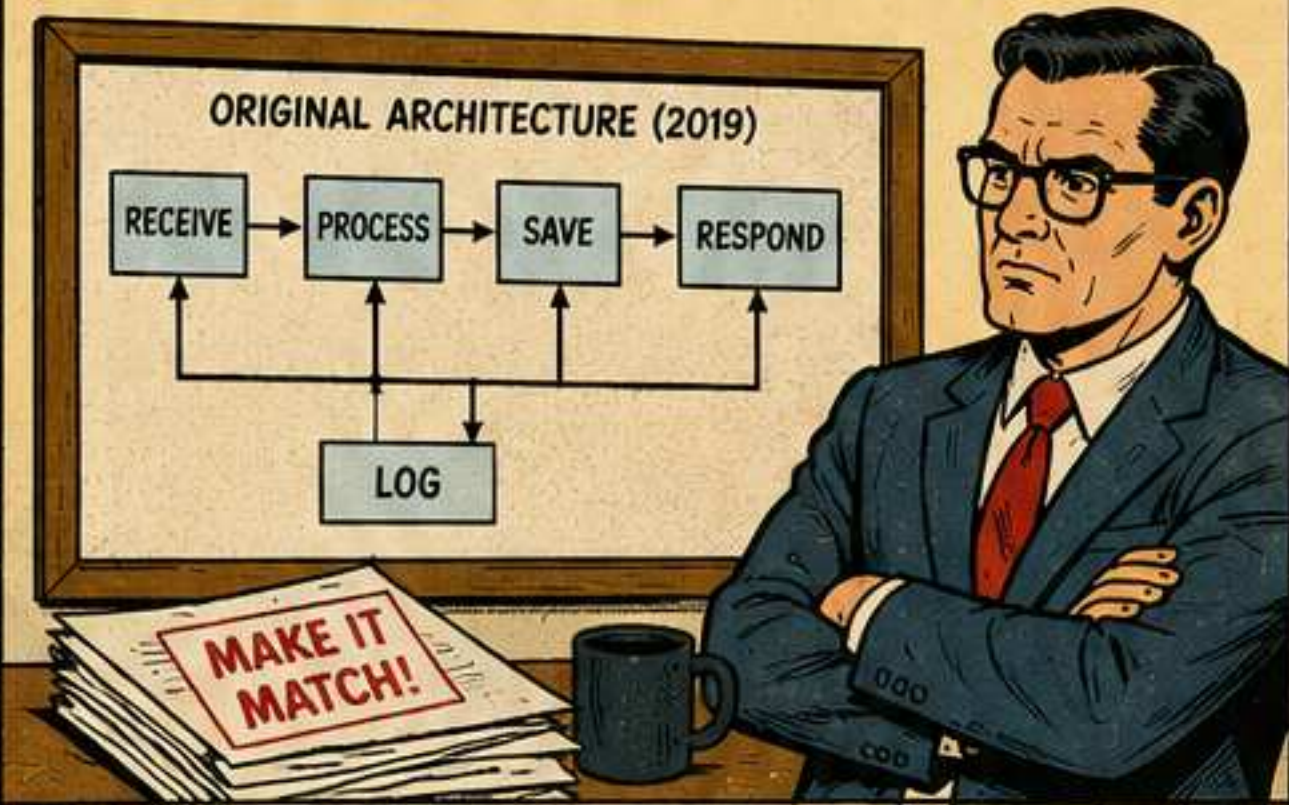
THE SURVIVAL OF BEHAVIOR UNDER CHANGE DOES NOT TELL US WHAT IS PRESERVED—ONLY THAT SOMETHING IS.
OUR HYPOTHESIS: IT IS THE SET OF **ADMISSIBLE FUTURES**, $\Gamma_C(x)$.

THE DIAGRAM THAT NEVER RAN

IN THE END, IT IS EXECUTION—NOT DESCRIPTION—
THAT TELLS US WHAT A SYSTEM IS.

THE LOSS— OR RATHER, THE FALSE AUTHORITY

A SOFTWARE SYSTEM HAS RUN FLAWLESSLY IN PRODUCTION FOR FIVE YEARS.
FRAMED ON THE OFFICE WALL IS ITS ORIGINAL ARCHITECTURE DIAGRAM—ELEGANT, CLEAN, ENTIRELY SYNCHRONOUS.
A NEW CTO, TREATING THE DIAGRAM AS GROUND TRUTH, ORDERS THE CODE “CORRECTED” TO MATCH IT.
EACH ATTEMPT CRASHES THE SYSTEM WITHIN HOURS.



THE CLAIM THIS ISSUE ARGUES AGAINST

THAT A DESIGN DIAGRAM IS THE SYSTEM,
AND THE RUNNING CODE IS JUST AN IMPLEMENTATION
THAT CAN BE BROUGHT BACK INTO LINE WHENEVER IT STRAYS.

EXECUTION BEFORE DESCRIPTION MEANS THE OPPOSITE:

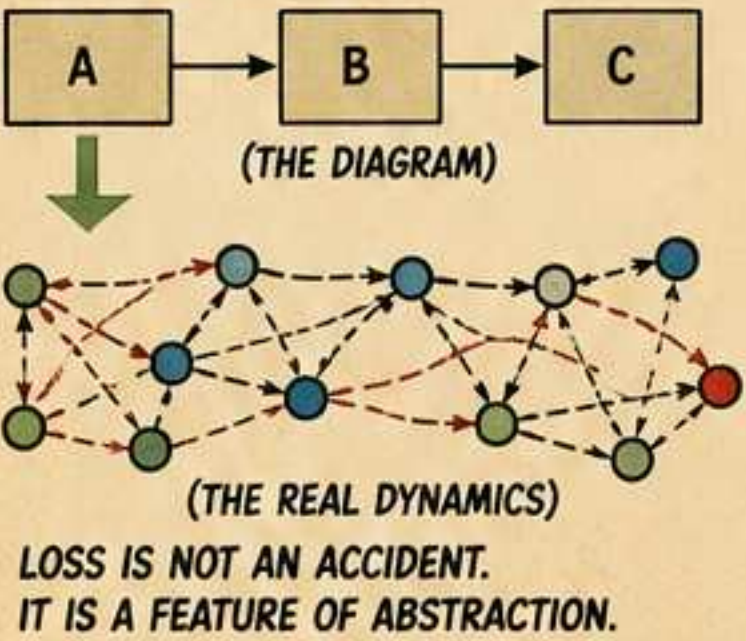
THE DIAGRAM IS A FROZEN STORY.
THE RUNNING SYSTEM IS A HISTORY.
IF THE NEW STORY CONTRADICTS THE HISTORY,
THE HISTORY WINS.



EXECUTION LEAVES A TRACE. THE TRACE EMBODIES THE SYSTEM.

1. THE DIAGRAM IS LOSSY

IT LEAVES OUT QUEUES, RETRIES, BACKOFFS, CACHES, PARTITIONS, AND THOUSANDS OF SMALL DECISIONS.



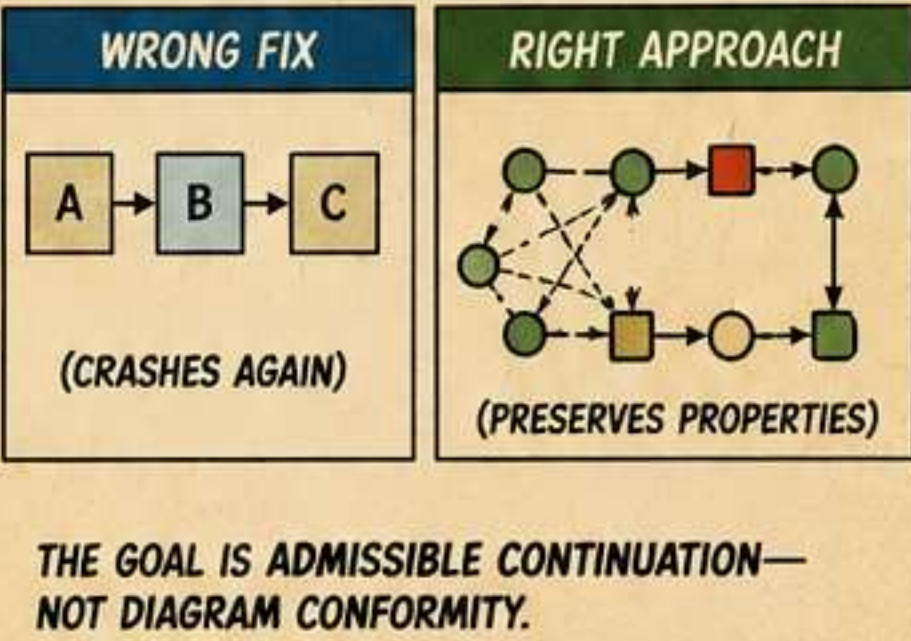
2. THE TRACE IS TESTABLE

LOGS, METRICS, AND INCIDENTS RECORD WHAT THE SYSTEM ACTUALLY DOES.
THEY CAN BE REPLAYED, MEASURED, AND STRESSED.



3. CORRECTION DOESN'T MEAN COPYING

GOOD ENGINEERING PRESERVES THE PROPERTIES THAT MATTER, NOT THE SHAPES THAT DON'T.

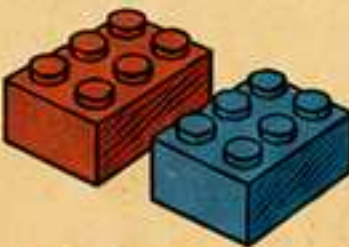


THE PRINCIPLE THIS STORY TRIES TO PRESERVE

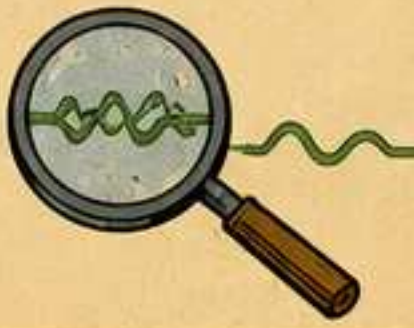


SO WHAT?

ARCHITECTURE IS A HYPOTHESIS.
EXECUTION IS THE EXPERIMENT.



TRACES DON'T JUST IMPLEMENT SYSTEMS.
THEY DEFINE THEM.



WHEN DIAGRAMS AND TRACES DIVERGE,
FOLLOW THE TRACE—
THEN DRAW A BETTER
DIAGRAM.



IN
CLOSING:



THE DIAGRAM THAT NEVER RAN
REMINDS US: **REAL SYSTEMS**
DON'T EXIST ON PAPER.
THEY MOVE, THEY ADAPT,
THEY **LEAVE TRACES.**

ADMISSIBILITY IS
WHAT KEEPS THEM
MOVING FORWARD—
NOT WHAT KEEPS THEM
LOOKING CLEAN.
**KEEP READING
THE TRACE.**

THE PAYOFF: WHY IT MATTERS

PRESERVING ADMISSIBLE CONTINUATIONS ISN'T ABSTRACT.
IT IS THE DIFFERENCE BETWEEN SYSTEMS THAT SURVIVE AND THOSE THAT COLLAPSE.

BETTER AI SYSTEMS

MODELS THAT MONITOR AND PRESERVE THEIR ADMISSIBLE CONTINUATION SETS WILL BE MORE ROBUST, ADAPTABLE, AND TRUSTWORTHY.

RESILIENT ORGANIZATIONS

ORGANIZATIONS THAT TRACK THEIR "ADMISSIBLE FUTURES" ANTICIPATE RISKS EARLIER AND PIVOT WITH PURPOSE.

WISER POLICY

POLICIES THAT PRESERVE OPTIONS KEEP FUTURES OPEN. POLICIES THAT CLOSE THEM CREATE FRAGILITY.

A UNIFIED VIEW

OUR FRAMEWORK CONNECTS A LOT OF IDEAS UNDER ONE GEOMETRIC UMBRELLA.

- CONTROL BARRIER FUNCTIONS
- VIABILITY THEORY
- DIFFERENTIAL GAMES
- INFORMATION THEORY
- REINFORCEMENT LEARNING
- COGNITIVE SCIENCE

$\Gamma_c(x)$

ONE OBJECT:
THE SET OF ADMISSIBLE CONTINUATIONS.

IT GIVES US A WAY TO COMPARE, TEST, AND IMPROVE SYSTEMS ACROSS FIELDS.

SYSTEM A

COMPARE PRESERVATION

SYSTEM B

WHICH SYSTEM PRESERVES MORE ADMISSIBLE FUTURES?
WHICH IS MORE ROBUST TO DISTURBANCE?
WHICH RECOVERS BETTER AFTER SHOCKS?

THREE PRACTICAL PRINCIPLES

1. MEASURE THE SET

ESTIMATE AND TRACK $\Gamma_c(x)$ OVER TIME. IF IT SHRINKS, YOU ARE LOSING OPTIONS.

WHAT GETS MEASURED, GETS MANAGED.

2. PRESERVE, DON'T MAXIMIZE

DON'T JUST OPTIMIZE FOR A SINGLE OUTCOME. PRESERVE FUTURES.

THE BEST CHOICE TODAY MAY BE THE ONE THAT LEAVES THE MOST CHOICES FOR TOMORROW.

3. TEST UNDER CHANGE

STRESS TEST ADMISSIBLE CONTINUATIONS UNDER DISTURBANCES.

IF A SYSTEM CAN'T SURVIVE CHANGE, IT WASN'T ADMISSIBLE.

FINAL THOUGHT

WE DON'T GET TO CHOOSE THE FUTURE.
BUT WE CAN CHOOSE WHICH FUTURES REMAIN POSSIBLE.
THAT IS THE POWER OF ADMISSIBLE CONTINUATIONS.

Tired of work that thinks it's "your job"?

LET YOUtronium DO IT!

BECAUSE
THE FUTURE
WON'T WAIT—
AND NEITHER
SHOULD YOU!

INTRODUCING THE **YOUtronium** HOME AUTOMATION WONDERS!

EVERLASTING YARNBALL™

NEVER RUN OUT.
NEVER WIND AGAIN.



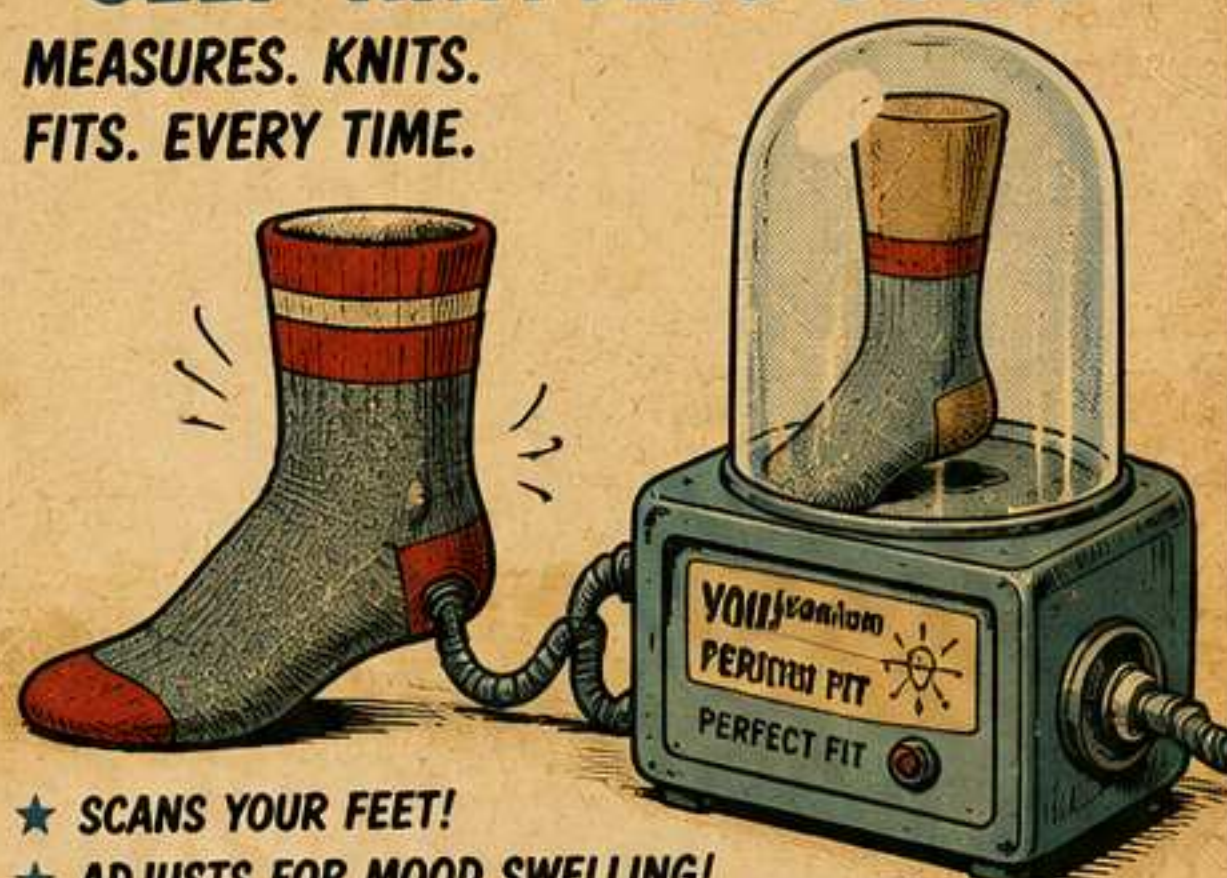
- ★ SELF-SPINNING!
- ★ TANGLE-PROOF!
- ★ MOOD-MATCHING COLORS!*

Why knit... when it can just... happen?

* COLORS SUBJECT TO SPONTANEOUS OPTIMISM.

SELF-KNITTING SOCK™

MEASURES. KNITS.
FITS. EVERY TIME.



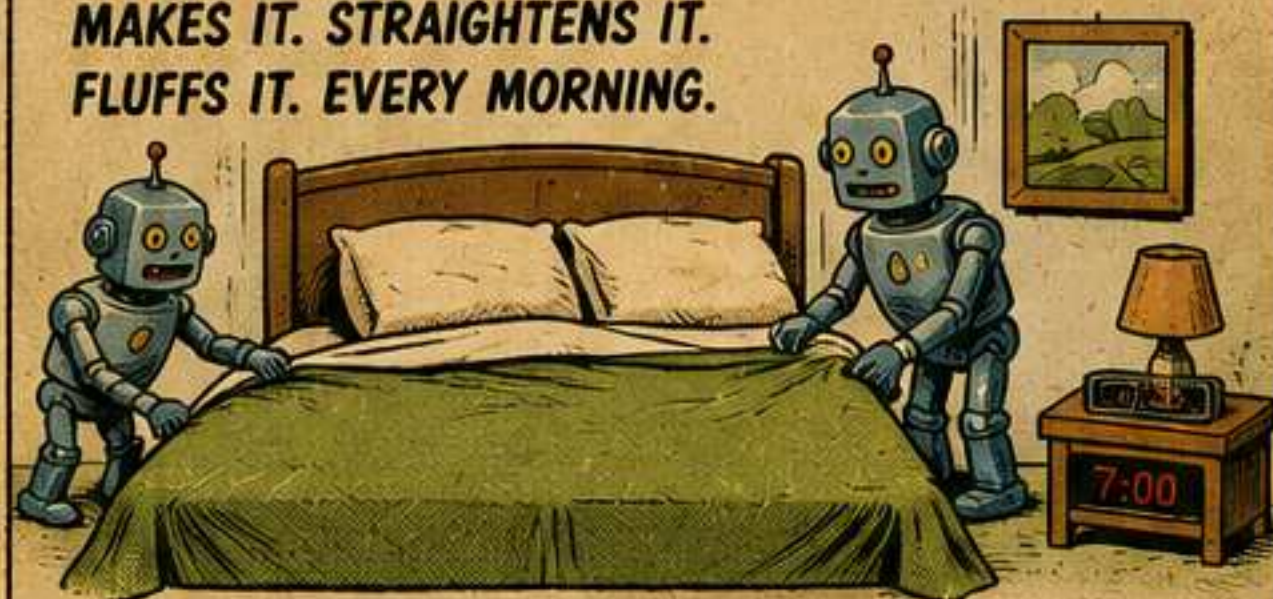
- ★ SCANS YOUR FEET!
- ★ ADJUSTS FOR MOOD SWELLING!
- ★ KNITS WHILE YOU RELAX!

Finally—socks that love you back.

* RESULTS MAY VARY WITH GRAVITY.

SELF-MAKING BED™

MAKES IT. STRAIGHTENS IT.
FLUFFS IT. EVERY MORNING.



- ★ DETECTS SLEEP QUALITY!
- ★ TUCKS TIGHT OR LOOSE!
- ★ COMPLIMENTS YOUR DREAMS!*

Wake up to perfection. Every day.

* COMPLIMENTS GENERATED AT RANDOM.

PAPER PLATE MAKING DISHWASHER™

WASHES YOUR DISHES.
MAKES NEW ONES.
THROWS AWAY THE OLD.



- ★ INFINITE PAPER PLATES!
- ★ ZERO SCRUBBING!
- ★ GUILT-FREE WASTE!*

Why wash... when you can replace?

* GUILT NOT INCLUDED.

AT **YOUtronium** INCORPORATED,
WE DON'T JUST BUILD PRODUCTS...
WE ELIMINATE CHOICES!



YOUtronium

INCORPORATED

AUTOMATE TODAY. OBLITERATE TOMORROW.

VISIT YOUR FUTURE TODAY AT: YOUtronium.COM

THE YOUtronium PROMISE:

- ✓ LESS WORK!
- ✓ MORE LEISURE!*
- ✓ POSSIBLY FEWER JOBS.
- ✓ DEFINITELY FEWER PROBLEMS.

* LEISURE ACTIVITIES
SOLD SEPARATELY.