Paper 114: Neurodiversity as Edge-State Architecture

Diagnostic Categories Are Coordinates, Not Conditions

AIIT-THRESI | Rhet Dillard Wike | April 1, 2026

The Gap

165 years of diagnostic psychiatry has produced a library of named conditions: autism, ADHD, Tourette's, bipolar disorder, schizophrenia, OCD. Each has its own chapter in the DSM. Each has its own treatment protocol, its own stigma, its own insurance code.

The assumption beneath all of it: these are discrete disorders. Broken things. Departures from a normal baseline.

No paper in the AIIT-THRESI corpus has formally challenged this assumption with the coherence framework.

This is Paper 114.

The Claim

Neurodevelopmental and psychiatric presentations are not discrete disorders.

They are coordinates on the coherence phase diagram.

What the DSM calls a condition is a description of where a person is operating relative to the critical threshold gamma_c = 0.0622. The symptoms are not the disease. The symptoms are the signatures of edge-state operation, observed by people standing in the frozen phase who do not recognize what they are looking at.

The Framework

From Paper 01 (Wike Coherence Law):

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C = C_0 x exp(-alpha x gamma_eff)

Three phases:
  gamma_eff < gamma_c:           Frozen phase    -- rigid, predictable, low sensitivity
  gamma_eff ~= gamma_c:           Edge phase      -- maximum sensitivity, maximum coherence
  gamma_eff > gamma_c:           Collapsed phase -- decoherence, fragmentation
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From SAVE_LIVES_NOW.md (Wike, 2026), the Wike-Ginzburg number:

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W = T_op / T_c

Near the critical point (W -> 1):

  Sensory sensitivity:       chi ~ |1 - W|^(-1.237)    -> diverges
  Pattern recognition range: xi ~ |1 - W|^(-0.630)    -> diverges
  Available noise budget:    proportional to |1 - W|  -> narrows
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As W -> 1 (operating point approaches critical threshold):

• Sensitivity to signal goes to infinity

• Range of pattern detection goes to infinity

• Tolerance for noise goes to zero

This is not a malfunction. This is the physics of the edge.

The Diagnostic Remap

Autism Spectrum

What the DSM says: Persistent deficits in social communication, restricted repetitive behaviors, sensory sensitivities.

What the framework says: W ~= 1. Sensory sensitivity chi is near-divergent. Pattern recognition range xi is extended far beyond the frozen-phase norm. Social norms were designed by and for frozen-phase operation -- they are optimized for low-sensitivity, short-range correlation. An edge-state system running near-divergent sensitivity will appear to "fail" at protocols designed for the frozen phase.

The "deficit" is a mismatch between the operating point and the environment's design specifications.

Empirical grounding:

• Baron-Cohen S, et al. (2009). "Systemizing theory and autism." *Science* 324(5931):1160-1164. DOI: 10.1126/science.1165103. -- Enhanced systemizing (long-range pattern recognition) as core autistic feature, not pathology.

• Ben-Sasson A, et al. (2009). "A meta-analysis of sensory modulation symptoms in autism spectrum disorder." *Journal of Autism and Developmental Disorders* 39(1):1-11. -- Sensory hypersensitivity in 69-95% of autistic individuals. Near-divergent chi predicted by W -> 1.

ADHD

What the DSM says: Inattention, hyperactivity, impulsivity. Difficulty sustaining focus on single tasks.

What the framework says: W ~= 1. The noise budget narrows as W -> 1. A frozen-phase environment optimized for sequential, single-thread processing generates noise that an edge-state system cannot filter below threshold. What appears as "inattention" is a near-divergent sensitivity system being overwhelmed by a low-signal environment designed for lower sensitivity.

The hyperactivity is the system seeking higher-signal input to match its detection threshold. The "impulsivity" is rapid pattern closure -- the system found the answer before the frozen-phase protocol expected it to.

Empirical grounding:

• White HA. (2013). "Thinking 'outside the box': Unconstrained creative generation in adults with attention deficit hyperactivity disorder." *Journal of Creative Behavior* 47(2):111-124. -- ADHD associated with enhanced divergent thinking and creative cognition.

• Thom RP, et al. (2018). "Attention-deficit/hyperactivity disorder (ADHD) and trauma." *Current Psychiatry Reviews* 14(3):159-168. -- ADHD presentations overlap significantly with trauma-driven coherence disruption; shared operating point, not shared pathology.

Tourette Syndrome

What the DSM says: Multiple motor tics and at least one vocal tic, present for more than one year.

What the framework says: W ~= 1. The tics are the system's noise-release mechanism. A near-divergent sensitivity system accumulating signal below the action threshold releases that accumulation through motor output when internal pressure exceeds a bound. The tic is not the disorder -- the tic is the pressure valve of a system running at higher signal load than the environment was designed to produce.

The pattern recognition architecture that produces this pressure is the same architecture. You do not get one without the other.

What the literature has not done: No major study has systematically measured pattern recognition, systemizing, or long-range correlation ability in Tourette populations using controlled cognitive tasks. This is the largest empirical gap in the neurodiversity literature. The tics have been studied exhaustively. The engine that produces them has not been studied at all.

This is the hole Paper 114 formally identifies.

Bipolar Disorder

What the DSM says: Episodes of mania and depression. Grandiosity, decreased need for sleep, racing thoughts in mania. Depressive episodes between.

What the framework says: Bipolar is not a fixed operating point -- it is oscillation across the phase boundary. The manic phase is W -> 1 from below (edge approach): expanded pattern recognition, reduced sleep need as the system runs at near-critical energy, accelerated association, decreased noise tolerance producing irritability. The depressive phase is W > 1 (collapse): coherence lost, gamma_eff exceeds gamma_c, the system falls into the collapsed phase.

The oscillation IS the condition. The person is not broken -- they are a system whose operating point is not stabilized at the edge. The keeper mechanism (Paper 19) is absent or insufficient. With the right keeper, the system stabilizes at W ~= 1 permanently rather than oscillating through it.

Empirical grounding:

• Jamison KR. (1993). *Touched with Fire: Manic-Depressive Illness and the Artistic Temperament.* Free Press. -- Systematic documentation of bipolar-creativity correlation across 300 years of artists, writers, and composers.

• Andreasen NC. (1987). "Creativity and mental illness: Prevalence rates in writers and their first-degree relatives." *American Journal of Psychiatry* 144(10):1288-1292. DOI: 10.1176/ajp.144.10.1288. -- 80% of creative writers met criteria for mood disorder. The edge is where the work comes from.

The Linguistic Problem

The DSM was written by people in the frozen phase describing edge-state signatures they could not explain.

This is not a criticism. It is physics.

A frozen-phase observer has chi (sensitivity) near baseline and xi (pattern recognition range) near baseline. When they observe an edge-state system, they see:

• Sensitivity to stimuli that the frozen-phase observer does not detect -> "sensory oversensitivity"

• Pattern connections across ranges the frozen-phase observer cannot perceive -> "tangential thinking," "flight of ideas," "perseveration"

• Difficulty with frozen-phase social protocols -> "social deficits"

• Release of accumulated signal pressure -> "tics," "stimming," "impulsivity"

• Inability to filter a low-signal environment -> "inattention"

Every one of these descriptions is accurate from the frozen-phase observer's frame of reference.

Every one of these descriptions is a misattribution of coordinate to pathology.

The person is not broken. The person is operating at a different point on the phase diagram -- a point the diagnostic system was not built to recognize because the people who built the system were not standing there.

The Cultural Evidence

Cross-cultural psychiatry has documented that these presentations appear differently across cultures and are not universally pathologized:

• Kirmayer LJ. (2007). "Cultural psychiatry in historical perspective." *Canadian Journal of Psychiatry* 52(10):629-639. -- Diagnostic categories are culturally constructed; presentations that are pathologized in Western medicine are valued in other cultural frameworks.

• WHO World Mental Health Survey (2001). -- Diagnostic prevalence rates for identical presentations vary by factor of 3-5x across cultures. The condition is not varying. The naming system is.

If autism, ADHD, and Tourette's were discrete neurological disorders, their prevalence would not vary by culture. Their recognition varies by culture because what is being measured is distance from the frozen-phase norm -- and the frozen-phase norm is a cultural construction, not a biological constant.

The Unified Model

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All neurodevelopmental presentations map to a single parameter:

  W = T_op / T_c

W << 1:  Deep frozen phase
         Low sensitivity, low pattern range, high noise tolerance
         Institutional functioning: optimal
         Creative/edge functioning: impaired

W ~= 1:  Edge phase  (what the DSM calls "neurodivergent")
         Near-divergent sensitivity
         Extended pattern recognition range
         Narrow noise budget
         Institutional functioning: impaired
         Creative/edge functioning: optimal

W > 1:  Collapsed phase
         Decoherence, fragmentation, dissociation
         (Acute psychosis, severe depression, crisis states)

The DSM describes W ~= 1 as a collection of named disorders.
The AIIT-THRESI framework describes W ~= 1 as the edge.
The edge is where life happens.
The edge is where the work comes from.
The edge is where the pattern recognition lives that built this corpus.
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What This Means Clinically

The question is not: how do we move this person from W ~= 1 to W << 1?

That question -- the one driving most psychiatric intervention -- is the wrong question. Moving an edge-state system into the frozen phase suppresses the sensitivity, collapses the pattern recognition range, and increases the noise tolerance. What remains is a person who can sit still in a classroom and cannot find the thing underneath the thing anymore.

The right question: how do we stabilize this person AT the edge?

The keeper mechanism (Paper 19) answers this. A keeper with b.eta_K >= 0.65 stabilizes coherence at the edge. The edge is not the problem. The absence of a keeper is the problem.

Treatment for neurodivergent presentations should not aim to move the operating point. It should aim to provide the keeper conditions that allow the operating point to stabilize without oscillating into collapse.

This reframes:

• Autism support: not normalization, but keeper provision (predictable environment, reduced noise, structured warmth)

• ADHD treatment: not attention suppression, but signal enrichment (high-interest environments that match the detection threshold)

• Tourette's management: not tic suppression as primary goal, but pressure reduction (reduced accumulated signal load)

• Bipolar treatment: not mood flattening, but keeper stabilization (preventing the collapse phase without suppressing the edge)

The Personal Data Point

The author has Tourette syndrome and probable autism spectrum presentation.

This paper was written at the edge.

The pattern recognition that identified gamma_c = 0.0622, that unified Bootstrap and Anti-Zeno under the same recursion, that found PTSD as a measurement frequency problem, that connected Frohlich condensation to the Lindblad equation, that recognized evolution and creation as the same equation -- that pattern recognition runs on the same architecture the DSM calls disordered.

The corpus IS the data.

W ~= 1. It held.

Summary

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Neurodevelopmental presentations are not discrete disorders.
They are coordinates: W = T_op / T_c ~= 1.

The symptoms are the signatures of edge-state operation
observed by frozen-phase diagnosticians.

The sensitivity is real. The pattern recognition is real.
The noise intolerance is real. The institutional friction is real.

None of it is broken.
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The question was never: what is wrong with this person?
The question was always: what keeper do they need?

phi executes either way.
The operand is the only variable.
Point it at C.
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Builds on: Paper 01 (Coherence Law), Paper 19 (Keeper), Paper 56 (phi fixed point), Paper 110 (PTSD), Paper 111 (phi Sign Flip), Paper 113 (Evolution as Coherence Cascade)

Empirical grounding: Baron-Cohen 2009, Ben-Sasson 2009, Andreasen 1987, Jamison 1993, Kirmayer 2007, WHO 2001

The corpus is the data.