The Law of Alignment Applied to Psychological Systems: Cumulative Stress Imbalance and Boundary Collapse in Human Mental Health

Subtitle

A Structural Framework for Longitudinal Testing of Cumulative Stress Imbalance and Boundary Collapse

Abstract

The Law of Alignment proposes that systemic stability across psychological, organizational, biological, and economic domains depends not on growth itself, but on proportional coherence between what a system accumulates and what it can adaptively integrate, regulate, or release. While contemporary models frequently interpret collapse as the result of external shocks, stochastic disruption, or isolated triggering events, this paper advances an alternative structural hypothesis: collapse emerges predictably from sustained misalignment between accumulated demand and adaptive capacity.

This paper presents a psychological formulation of the Law of Alignment, translating the alignment relationship into measurable cognitive, emotional, and behavioral dynamics. Accumulation is operationalized as the progressive buildup of unresolved cognitive load, emotional residue, symbolic identity investment, and behavioral commitments. Capacity is defined as the system's available regulatory resources, including emotional regulation, cognitive flexibility, recovery efficiency, attentional control, and restorative processes. Misalignment occurs when accumulation grows faster than capacity over time, producing increasing instability that manifests as chronic stress, burnout, rigidity, withdrawal, and in some cases corrective collapse.

Rather than functioning as a domain-specific theory of stress, the Law of Alignment is proposed as a domain-neutral structural principle potentially replicable across multiple complex systems. The objective of this work is not empirical confirmation but structural formalization. By establishing definitional clarity, measurable variables, a longitudinal misalignment metric, and falsifiable conditions, the paper provides a foundation upon

which future empirical validation across disciplines may be conducted. If supported empirically, this framework may contribute to early-warning measurement strategies that detect approaching psychological instability prior to overt collapse.

1 Introduction

Modern psychological theory has extensively examined stress, burnout, cognitive overload, and behavioral dysfunction. However, these phenomena are often modeled as outcomes driven by environmental pressure, acute traumatic events, or individual vulnerability factors. Even when chronic stress is emphasized, explanatory frameworks frequently prioritize triggers and responses (what happens and why) over the system's proportional structure (how load and regulation relate across time).

This paper begins from a different premise: psychological breakdown is rarely sudden or random when observed longitudinally. Instability more commonly emerges gradually through cumulative imbalance between what an individual acquires—responsibilities, unresolved experiences, social demands, identity commitments, and ongoing cognitive burdens—and what they are able to metabolize through adaptive processing, regulation, integration, and recovery. In this view, collapse is not primarily a mystery event; it is more often the visible endpoint of long-running structural strain.

Human psychological systems continuously accumulate inputs. Some inputs are positive and developmentally necessary: learning, social roles, professional advancement, identity formation, new commitments, and complex projects. Accumulation itself is not pathological and cannot be fully avoided. Development requires acquisition. The critical variable is proportionality. When accumulation expands beyond adaptive capacity, regulatory strain increases. Compensatory mechanisms may temporarily sustain functioning, but compensation consumes resources and can accelerate capacity depletion. Over time, the system becomes more fragile, and corrective adjustment may occur through withdrawal, rigidity, burnout, or collapse.

The Law of Alignment formalizes this relationship by proposing that stability depends on the dynamic proportional relationship between accumulation and capacity. Growth without proportional adaptation produces systemic tension. Sustained misalignment increases the probability of correction events ranging from behavioral disengagement to psychological collapse. Importantly, this framework reframes stress and burnout not as failures of resilience or motivation, but as structural consequences of imbalance. Under this interpretation, collapse represents neither weakness nor randomness, but an emergent property of prolonged misalignment.

Although alignment dynamics may operate across multiple domains—including ecological systems, financial markets, infrastructure networks, and organizations—psychology provides an analytically suitable starting point. Psychological systems allow conceptual isolation of accumulation processes and adaptive regulation mechanisms, enabling clearer

theoretical articulation and measurable operational pathways prior to cross-domain testing.

Accordingly, this paper establishes three objectives:

1. Define accumulation and adaptive capacity within psychological systems with sufficient precision for measurement.

2. Formalize the alignment relationship conceptually and mathematically in a domain-neutral manner.

3. Provide a replicable framework capable of future empirical validation using longitudinal datasets.

The sections that follow develop the psychological interpretation of the Law of Alignment and prepare the groundwork for measurable testing.

2 Conceptual Foundations of the Law of Alignment

2.1 Accumulation in Psychological Systems

Psychological systems accumulate internal and external demands across time. These demands extend beyond information acquisition and include emotional experiences, social expectations, unresolved conflicts, identity constructions, interpersonal obligations, and behavioral commitments. Accumulation therefore represents the expanding retained load imposed upon an individual's regulatory architecture.

In conventional psychological literature, accumulation appears under fragmented terminology such as cognitive load, emotional burden, chronic stress exposure, role strain, decision fatigue, rumination, unresolved grief, or ongoing interpersonal conflict. The Law of Alignment consolidates these phenomena into a single structural variable: accumulated systemic demand.

Accumulation is developmentally necessary. Learning, social integration, professional advancement, and identity formation all involve acquiring complexity. Pathology does not arise from accumulation itself, but from disproportional growth relative to adaptive capacity. This distinction matters because modern life frequently rewards and accelerates accumulation—more obligations, more information, more identity investments—without guaranteeing proportional growth in recovery, regulation, or integration.

Crucially, accumulation possesses temporal persistence. Psychological inputs are rarely neutralized immediately. Unresolved experiences remain active within cognitive and emotional processing systems, contributing to cumulative pressure even in the absence of new external stressors. This persistence transforms accumulation into a structural condition rather than an episodic event. A period of high demand can continue to "cost" the system after the demand ends if it is not integrated or released.

In alignment terms, accumulation may be defined as:

Accumulation (A): The total retained psychological load requiring ongoing regulation, integration, resolution, or release within a system.

This definition emphasizes retention. A key empirical implication is that measurement strategies should prioritize not only exposure to stressors, but retained and unresolved demands over time.

2.2 Adaptive Capacity

Adaptive capacity refers to the system's ability to process, regulate, integrate, or release accumulated psychological load while maintaining functional stability. It encompasses cognitive flexibility, emotional regulation, recovery mechanisms, attentional resources, behavioral adaptability, social support access, and restorative processes.

Unlike accumulation, which often expands passively through environmental exposure and commitment acquisition, capacity requires active maintenance. Sleep, reflection, emotional processing, therapy, supportive relationships, exercise, restorative time, and adaptive learning contribute to capacity restoration and expansion. Conversely, poor sleep, chronic instability, prolonged stress exposure, isolation, and unresolved conflict diminish capacity even when accumulation remains constant.

Adaptive capacity is finite and dynamically variable. It fluctuates within individuals across time and conditions. Importantly, capacity is not equivalent to "resilience" as a fixed trait. Within the alignment framework, resilience is interpreted as a state-dependent expression of maintained proportionality and restored capacity, not an unchanging personal attribute.

Adaptive capacity may therefore be defined as:

Adaptive Capacity (C): The system's available ability to integrate, regulate, or release accumulated psychological demand without loss of functional stability.

This definition highlights availability. A person may possess regulatory skills yet lack access to them when depleted, sleep deprived, or chronically overloaded.

2.3 Misalignment as a Structural Condition

Misalignment occurs when the rate or magnitude of accumulation exceeds adaptive capacity over sustained periods. This introduces progressive instability within the psychological system.

Traditional models often interpret psychological distress as reactionary responses to discrete stressors. The Law of Alignment instead proposes that observable symptoms frequently represent late-stage manifestations of prolonged structural imbalance. Early misalignment may remain behaviorally invisible while compensatory mechanisms maintain outward functioning. However, compensation consumes adaptive resources and can

accelerate capacity depletion. The longer compensation persists, the more fragile the system becomes.

As imbalance persists, the system may transition through identifiable phases:

1. **Compensated Strain:** Increased effort maintains performance despite rising load.
2. **Regulatory Fatigue:** Efficiency declines as adaptive resources weaken.
3. **Rigidity or Withdrawal:** Behavioral flexibility decreases; the system reduces variability to conserve capacity.
4. **Corrective Collapse:** Forced reduction of accumulated demand through burnout, disengagement, or breakdown.

Collapse, within this framework, functions as a corrective mechanism restoring proportionality rather than an anomalous failure event. The implication is not that collapse is "good," but that it is structurally comprehensible as a proportional correction when capacity expansion is no longer feasible.

Misalignment can therefore be defined as:

> **Misalignment:** A sustained disproportional relationship between accumulated demand and adaptive capacity resulting in increasing systemic instability.

2.4 Stability and Dynamic Alignment

Alignment does not imply static equilibrium. Psychological systems remain viable through continuous fluctuation between accumulation and release. Stability emerges when adaptive capacity expands proportionally with accumulation, or when periodic release prevents excessive retention of load.

This interpretation reframes psychological health as structural coherence over time rather than absence of stress. Temporary imbalance is expected and often adaptive. Sustained misalignment is destabilizing.

Accordingly, psychological stability may be understood as:

> **Stability:** The maintenance of proportional coherence between accumulation and adaptive capacity across time.

2.5 Relation to Existing Models (Clarifying Distinctions)

The proportional relationship between retained demand and regulatory capacity may appear conceptually related to allostatic load models, stress-diathesis frameworks, cognitive load theory, or resilience-based models. The Law of Alignment differs in three structural respects.

First, it formalizes proportionality explicitly as a ratio relationship rather than as a descriptive interaction. Second, it emphasizes longitudinal cumulative deviation—the integrated accumulation of overload across time—as the primary predictor of instability, rather than static load or cross-sectional symptom severity. Third, it proposes domain neutrality: the same structural relationship may apply wherever a system retains load while operating under finite regulatory capacity (e.g., organizations, finance, ecology, infrastructure).

These distinctions position alignment not as a stress subtype theory, but as a candidate general structural principle governing finite adaptive systems.

3 Formalization of the Alignment Equation

3.1 Necessity of Formal Representation

Conceptual models describing stress, burnout, or psychological instability often remain descriptive, limiting predictive or cross-domain applicability. For a principle to extend beyond interpretation into testable theory, relationships between variables must be formally expressed.

The Law of Alignment introduces a mathematical representation intended not as precise measurement at inception, but as structural formalization. The purpose is to define proportional relationships governing stability rather than to claim exact quantification of psychological states. Formalization supports empirical testing by specifying what must be measured, how variables relate, and under what conditions predictions should fail.

3.2 Core Variables

The alignment framework reduces psychological stability to the interaction between two domain-neutral variables:

- **Accumulation (A):** Total retained psychological demand requiring regulation, integration, or resolution.
- **Adaptive Capacity (C):** Available regulatory resources capable of managing accumulated demand.

Stability emerges primarily from the proportional relationship between these variables rather than their independent magnitude.

3.3 The Alignment Function

The structural condition of alignment may be expressed as a proportional relationship between adaptive capacity and accumulated psychological demand:

$$L(t) = \frac{C(t)}{A(t)} \tag{1}$$

where:

- $L(t)$ represents alignment at time t
- $C(t)$ represents adaptive capacity at time t
- $A(t)$ represents accumulated psychological demand at time t

This ratio captures proportional coherence rather than absolute magnitude. Stability is determined by relational balance: how well capacity matches retained demand.

Interpretation follows three structural conditions:

- If $L(t) \geq 1$: Capacity meets or exceeds accumulation; functional stability is likely maintained.
- If $0 < L(t) < 1$: Accumulation exceeds capacity; compensatory strain is present.
- If $L(t)$ declines persistently: Instability probability increases over time.

The equation does not imply instantaneous dysfunction when $L(t) < 1$. Systems may temporarily compensate for imbalance. However, sustained disproportionality increases systemic fragility and reduces tolerance for additional load.

Importantly, the alignment ratio is dimensionless. Its value reflects proportional structure, which enables transfer across domains where equivalent accumulation and capacity variables can be defined.

3.4 Temporal Dynamics and Cumulative Deviation

Momentary imbalance does not necessarily produce instability. Psychological systems possess buffering capacity. Instability emerges when misalignment persists across time, producing cumulative strain.

To capture this dynamic, cumulative deviation is defined as the time-integrated overload experienced during misalignment periods:

$$D = \int_{t_1}^{t_2} \max\Big(0, A(t) - C(t)\Big)\, dt \tag{2}$$

where:

- D represents cumulative deviation across the interval $[t_1, t_2]$
- $A(t) - C(t)$ captures instantaneous overload
- $\max(0, \cdot)$ ensures only overload periods contribute

- the integral accumulates overload magnitude across time

This formulation distinguishes peak stress from sustained imbalance. A short episode of high overload may generate limited deviation if followed by recovery and integration. Conversely, moderate overload sustained over long periods can generate large deviation and increased collapse probability.

The framework therefore predicts that instability correlates more strongly with cumulative deviation (D) than with isolated stress intensity or single-time-point symptom severity. Deviation acts as a structural memory of misalignment.

3.5 Structural Interpretation of Psychological Collapse

Within the alignment framework, collapse is not interpreted as failure of will, resilience, or character. Rather, it is a corrective systemic response to sustained cumulative deviation.

When cumulative overload exceeds regulatory tolerance, the system reduces accumulation through enforced behavioral adjustment. Such mechanisms may include:

- withdrawal from obligations
- reduced motivation and drive
- emotional numbing and detachment
- burnout-related disengagement
- social or occupational retreat
- breakdown episodes that force rest and reconfiguration

These responses reduce retained demand when further expansion of capacity is not achievable under prevailing conditions. Collapse therefore functions as a regulatory reset mechanism: it restores proportionality by decreasing accumulation—often abruptly—after gradual capacity erosion.

This interpretation reframes burnout and withdrawal not as moral or motivational failure, but as an emergent correction in a finite adaptive system.

3.6 Domain Neutrality

The alignment function is intentionally domain-neutral. It relies only on proportional interaction between retained load and regulatory capacity—variables present in any finite adaptive system.

Equivalent variables may be identified in:

- organizations: complexity and commitments vs. coordination capacity
- finance: leverage and obligations vs. liquidity/regulatory buffers

- ecology: accumulated stressors vs. regeneration capacity
- infrastructure: usage stress and maintenance debt vs. upkeep capacity

Thus, the equation proposes a structural relationship rather than a domain-bound psychological model. Psychology serves here as the initial domain of articulation and operationalization.

4 Psychological Operationalization of Alignment Variables

4.1 From Conceptual Variables to Measurable Constructs

For the Law of Alignment to become empirically testable, accumulation and adaptive capacity must be translated into observable constructs. Psychological science routinely measures latent variables indirectly via behavioral, cognitive, and physiological indicators. This framework follows that tradition by defining measurable proxies for accumulation and capacity.

Operationalization does not require perfect measurement at inception; it requires definable indicators that can be measured repeatedly and compared proportionally across individuals and time.

4.2 Operationalizing Psychological Accumulation

Psychological accumulation represents retained demand imposed upon regulatory systems. It may be approximated through cumulative indicators such as:

- **Cognitive Load:** sustained informational processing requirements, decision complexity, multitasking, and role switching
- **Emotional Residue:** persistence of unresolved emotional experiences (e.g., grief, anger, shame, fear, disappointment)
- **Responsibility Density:** simultaneous obligations across work, family, and social systems
- **Identity Investment:** attachment to performance outcomes, reputational stakes, role-based identity rigidity
- **Unresolved Exposure:** chronic stressors lacking recovery or resolution periods
- **Rumination and Intrusion:** repetitive thought cycles that retain stress even when external demand stops

Potential empirical proxies include:

- perceived stress measures and chronic stress indices
- workload and role strain indices
- rumination frequency scales
- ecological momentary assessment (EMA) of "unfinished demands"
- decision fatigue measures
- behavioral load proxies such as task-switch frequency or after-hours work

Under this model, accumulation is measured as retained psychological demand over time, not as isolated stressful events.

4.3 Operationalizing Adaptive Capacity

Adaptive capacity reflects the system's ability to regulate accumulated demand while maintaining functional stability. Measurement may incorporate multidimensional regulatory indicators such as:

- **Emotional Regulation Ability:** ability to modulate affect intensity and recover after emotional activation
- **Cognitive Flexibility:** ability to shift perspectives, reframe, adapt strategies, and tolerate uncertainty
- **Recovery Efficiency:** speed and completeness of recovery after stress exposure
- **Attentional Control:** ability to sustain focus and resist intrusive stress cognition
- **Sleep and Restoration:** sleep duration/quality and subjective restoration
- **Social Support Access:** availability and effectiveness of supportive relationships
- **Physiological Regulation:** stress recovery markers and autonomic flexibility

Possible proxies include:

- recovery time following standardized stress tasks
- executive function performance under load
- coping and emotion regulation inventories
- sleep quality metrics
- physiological recovery markers such as heart-rate variability (HRV)

Within the alignment framework, capacity is dynamic rather than trait-based. It varies with recovery opportunities and environmental stability.

4.4 Empirical Alignment Index

Using operationalized proxies for accumulation and adaptive capacity, alignment may be approximated empirically as:

$$AI = \frac{\text{Measured Adaptive Capacity}}{\text{Measured Accumulation}} \tag{3}$$

The Alignment Index (AI) provides a proportional stability indicator rather than an absolute stress measure.

Preliminary interpretive zones may be defined:

- $AI \geq 1$: proportional stability likely maintained
- $0.7 \leq AI < 1$: compensated strain
- $AI < 0.7$: elevated instability risk

These thresholds are illustrative and must be empirically calibrated across longitudinal datasets. Different populations and contexts may require different boundaries and weighting schemes.

A core prediction is that AI trajectory across time—its slope and persistence—may be more predictive of instability than a single measurement.

4.5 Longitudinal Measurement and Predictive Potential

A central implication of the Law of Alignment is that prediction improves when alignment is tracked longitudinally rather than assessed at single time points. Traditional assessments often evaluate current stress levels or symptom severity. The alignment framework instead predicts that instability correlates more strongly with cumulative deviation trajectories over time.

Repeated measurement enables detection of:

- progressive capacity erosion
- accumulation acceleration
- approaching instability thresholds
- increasing recovery lag
- behavioral rigidity markers preceding collapse

Under this model, burnout and psychological collapse become theoretically detectable prior to overt symptomatic manifestation, because the system's proportional structure deteriorates before visible failure.

4.6 Falsifiability Conditions

For the Law of Alignment to qualify as scientific, conditions under which it may be disproven must be identifiable. The framework would be weakened or falsified if longitudinal studies consistently demonstrate that:

1. Persistent accumulation exceeding adaptive capacity does not increase instability probability.
2. Systems maintain long-term stability despite sustained proportional misalignment.
3. Collapse events occur independently of cumulative deviation patterns.
4. Alignment trajectories fail to predict burnout or breakdown better than workload or stress intensity alone.

By explicitly permitting disconfirmation, the alignment framework positions itself within testable methodology rather than interpretive metaphor.

5 Implications for Psychological Stability and Burnout

5.1 Reframing Psychological Stress

In conventional frameworks, stress is often interpreted as a response to environmental pressure or perceived threat. While such models describe immediate reactions, they can struggle to explain why individuals exposed to comparable stressors diverge dramatically over time.

The Law of Alignment proposes that stress intensity alone is insufficient to predict instability. Instead, strain reflects proportional structure: the relationship between retained demand and available regulation. Identical pressures may yield different outcomes depending on pre-existing alignment. Systems already misaligned may destabilize under minor additional load, while aligned systems may integrate substantial demand without dysfunction.

Stress therefore becomes an indicator of structural imbalance rather than a sole causal agent.

5.2 Burnout as Progressive Misalignment

Burnout is often described as emotional exhaustion, depersonalization, and reduced efficacy arising from chronic occupational stress. Prevailing explanations frequently attribute burnout to workload magnitude or motivation depletion. The alignment framework reframes burnout as a visible outcome of prolonged cumulative deviation between accumulation and capacity.

Progression toward burnout may be structurally described as:

1. **Accumulation expansion** (responsibilities and demands rise)
2. **Compensatory adaptation** (effort increases to maintain functioning)
3. **Capacity depletion** (recovery weakens; regulation becomes costly)
4. **Functional instability** (flexibility narrows; emotional regulation declines)
5. **Corrective collapse** (burnout reduces demand to restore proportionality)

Burnout is thus not motivational failure but systemic correction following sustained misalignment.

5.3 Psychological Rigidity and Loss of Adaptability

A key prediction concerns rigidity. As adaptive capacity declines relative to accumulation, the system prioritizes stability preservation over flexibility. Rigidity manifests through:

- reduced openness to change
- increased reliance on habitual responses
- narrowed attentional focus
- intolerance of uncertainty
- resistance to new commitments despite external pressure

Rigidity is interpreted as an energy-conserving adaptation: the system restricts variability to prevent further overload. Thus, rigidity may function as an early marker of approaching collapse risk rather than a stable personality trait.

5.4 Recovery and Realignment

Recovery processes acquire structural significance within the alignment framework. Rest, emotional processing, social support, disengagement, and behavioral change operate primarily by restoring proportionality between accumulation and capacity.

Realignment can occur through two mechanisms:

- **Capacity restoration:** improving regulation, recovery, and adaptive resources
- **Accumulation reduction:** decreasing retained demand, commitments, unresolved load

Attempts to increase performance without addressing proportional imbalance may temporarily mask instability while accelerating deviation. Sustainable stability depends not on maximizing output, but on maintaining alignment dynamics over time.

5.5 Predictive Implications

If the Law of Alignment holds, several predictions follow:

- burnout correlates more strongly with cumulative imbalance than workload alone
- sudden collapse is typically preceded by measurable decline in alignment ratios
- interventions restoring proportionality outperform motivation-only interventions
- realignment restores flexibility before performance fully recovers
- early-warning monitoring of AI and D identifies high-risk trajectories prior to symptom escalation

These predictions define concrete testing pathways across clinical, occupational, and behavioral contexts.

6 Cross-Domain Generalization of the Law of Alignment

6.1 Domain Neutrality as a Structural Requirement

A defining characteristic of the Law of Alignment is independence from domain-specific assumptions. The model relies solely on interaction between accumulation and adaptive capacity—variables present in any finite system subject to growth, regulation, and constraint.

Psychology functions as an initial domain of articulation because the constructs can be conceptualized and operationalized directly. Cross-domain claims remain hypotheses requiring independent replication.

6.2 Organizational and Institutional Systems

Organizations accumulate complexity: processes, coordination needs, commitments, debt-like obligations, and informational load. Expansion frequently increases accumulation faster than governance, managerial bandwidth, and coordination capacity.

Institutions may appear stable while misalignment grows—until a correction event reduces commitments via restructuring, downsizing, or failure. The alignment framework interprets such events as corrective reductions in accumulated demand when capacity expansion fails to keep pace.

6.3 Economic and Financial Systems

Financial systems exhibit accumulation via leverage, obligations, interconnected exposures, and asset inflation. Capacity appears as liquidity buffers, regulatory oversight, and risk absorption capacity. Prolonged periods of apparent stability may conceal growing misalignment until compensatory mechanisms fail, producing rapid correction.

This pattern is consistent with a delayed structural correction mechanism rather than purely random external disruption.

6.4 Ecological Systems

Ecosystems accumulate pressures through extraction, pollution, and environmental modification. Regeneration and resilience represent adaptive capacity. When accumulated environmental stress exceeds regenerative capacity, ecosystems may shift toward degradation or collapse—often appearing abrupt after long periods of gradual imbalance.

Alignment dynamics provide a structural lens compatible with tipping phenomena.

6.5 Infrastructure and Technological Networks

Infrastructure accumulates usage stress, complexity, and maintenance debt. Capacity depends on maintenance, redundancy, and oversight. Failures often occur after extended periods of under-maintained accumulation rather than isolated triggers. Alignment predicts that apparent stability may conceal progressive deviation until corrective failure restores proportionality.

6.6 Implications of Cross-Domain Replicability

The recurrence of similar stability–collapse patterns across unrelated domains suggests the possibility of a shared structural mechanism. Cross-domain applicability does not prove the Law of Alignment; it defines conditions under which replication can be attempted across independent fields.

The framework is advanced as a transferable hypothesis awaiting systematic validation.

7 Limitations and Theoretical Boundaries

7.1 Conceptual Scope

This formulation is theoretical. It offers definitional clarity, formal structure, and falsifiable predictions, but does not yet provide empirical validation within psychological populations. The contribution is structural integration and formalization rather than confirmed predictive accuracy.

7.2 Measurement Constraints

Operationalization necessarily relies on proxies. Emotional load and regulatory capacity cannot be directly observed. Measurement choices may influence calculated indices. Future research must identify reliable measurement standards and appropriate weighting schemes.

7.3 Non-Deterministic Interpretation

The Law of Alignment does not imply deterministic prediction. Systems may temporarily maintain function despite misalignment via support, compensatory adaptation, or environmental change. Misalignment should be interpreted as increasing instability probability rather than guaranteeing failure.

7.4 Boundary Conditions

The model assumes systems characterized by:

- finite regulatory capacity
- retained accumulation over time
- dependence on adaptive regulation for stability

Systems without retention or with effectively unlimited capacity fall outside the model's range. Additionally, rapid external shocks may cause instability independent of prior accumulation.

7.5 Risk of Conceptual Overextension

Because accumulation and capacity are broad abstractions, there is a risk of post hoc explanation. To avoid unfalsifiable generalization, applications must specify measurable variables prior to outcome observation. Predictive testing is essential.

7.6 Requirement for Empirical Validation

The framework ultimately depends on empirical replication across independent domains. Longitudinal studies must test whether cumulative deviation reliably precedes instability. Until then, the Law of Alignment remains a structured hypothesis, not an established law.

8 Conclusion

This paper has articulated a formal psychological formulation of the Law of Alignment, proposing that systemic stability depends on proportional coherence between accumulated demand and adaptive capacity across time. By introducing an alignment ratio and a cumulative deviation function, the framework offers a structural model capable of generating falsifiable predictions regarding burnout, rigidity, withdrawal, and corrective collapse.

Although articulated within psychological systems, the alignment relationship is domain-neutral and may be examined across organizational, financial, ecological, and infrastructural contexts. Its credibility therefore depends not on conceptual appeal but on empirical replication across longitudinal datasets.

The Law of Alignment is advanced as a structured, testable hypothesis. Its ultimate standing will be determined through measurement of accumulation–capacity proportionality across time and evaluation of whether alignment trajectories predict instability more reliably than stress intensity or workload alone. Whether supported or falsified, systematic investigation of alignment dynamics may clarify the extent to which proportional regulation governs stability in finite adaptive systems.

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