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# The Resilience Paradox: Exogenous Resilience Imposition on Individuals and the Formation of Systemic Fragility

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**Abstract**

The discourse on resilience has proliferated across disciplines—from psychology and organizational behavior to public policy and urban planning—often framing resilience as an unequivocal virtue. Yet this paper advances a counterintuitive proposition: when resilience is imposed upon individuals as a normative expectation or institutional mandate, it paradoxically generates fragility at the systemic level. Drawing on complexity theory, critical psychology, and neo-institutional theory, we theorize the Resilience Paradox as a multi-level mechanism in which the individualization of adaptive burden suppresses collective signal-transmission, erodes structural feedback loops, and displaces accountability from institutions to persons. We distinguish this contribution from prior critical resilience scholarship—specifically MacKinnon and Derickson's (2013) resourcefulness critique and Derickson's (2014) post-liberal governance framework—by providing: (a) a six-criterion operationalization framework for empirically identifying imposed versus endogenous resilience; (b) an explicit four-pathway causal model with specified pathway interactions and feedback dynamics; and (c) a Structural Accountability Reorientation (SAR) framework with sequenced implementation logic and explicit attention to institutional constraints. We conclude that resilience, when weaponized as an ideological imperative, functions as systemic risk displacement—masking macro-level vulnerabilities beneath a veneer of micro-level coping—and that addressing this paradox requires institutional redesign, not further individual adaptive burden.

**Keywords**

Aresilience paradox; Systemic fragility; Individualization; Complexity theory; Institutional accountability; Risk displacement

## 1. Introduction

Few concepts have enjoyed as meteoric a rise in the social sciences as resilience. Originally borrowed from materials engineering—where it described a substance's capacity to absorb stress and return to its original state—resilience has been adopted, adapted, and at timResilience paradox; Systemic fragility; Individualization; Complexity theory; Institutional accountability; Risk displacementes distorted across an extraordinary range of scholarly and policy domains (Holling, 1973; Masten, 2001; Park, 2024). In its contemporary usage, it adorns the mission statements of corporations, the curricula of schools, the diagnostic categories of clinical psychology, and the strategic plans of governments responding to climate change, pandemics, and economic disruption.

The appeal of resilience is not difficult to understand. It offers a language of hope in the face of adversity, a framework that centres human agency, and an apparent middle ground between determinism and voluntarism (O'Grady & Shaw, 2023). In an era of pervasive uncertainty, the resilient individual—adaptive, bouncing back, persisting against odds—represents a culturally resonant archetype.

This paper argues that the dominant mode of resilience discourse has undergone a problematic transformation: from resilience as an emergent, context-sensitive, and relationally embedded capacity, to resilience as a normative imposition—a performance demanded of individuals by institutions, systems, and cultural scripts that themselves remain unreformed. This transformation carries material consequences for the architecture of complex social systems.

The central argument of this paper is the Resilience Paradox: the institutional and normative imposition of resilience upon individuals, far from strengthening social systems, produces systemic fragility by displacing adaptive burden downward, suppressing distress signals that would otherwise prompt structural reform, and allowing the root causes of instability to metastasize unaddressed. The mechanism is represented in Figure 1 below.

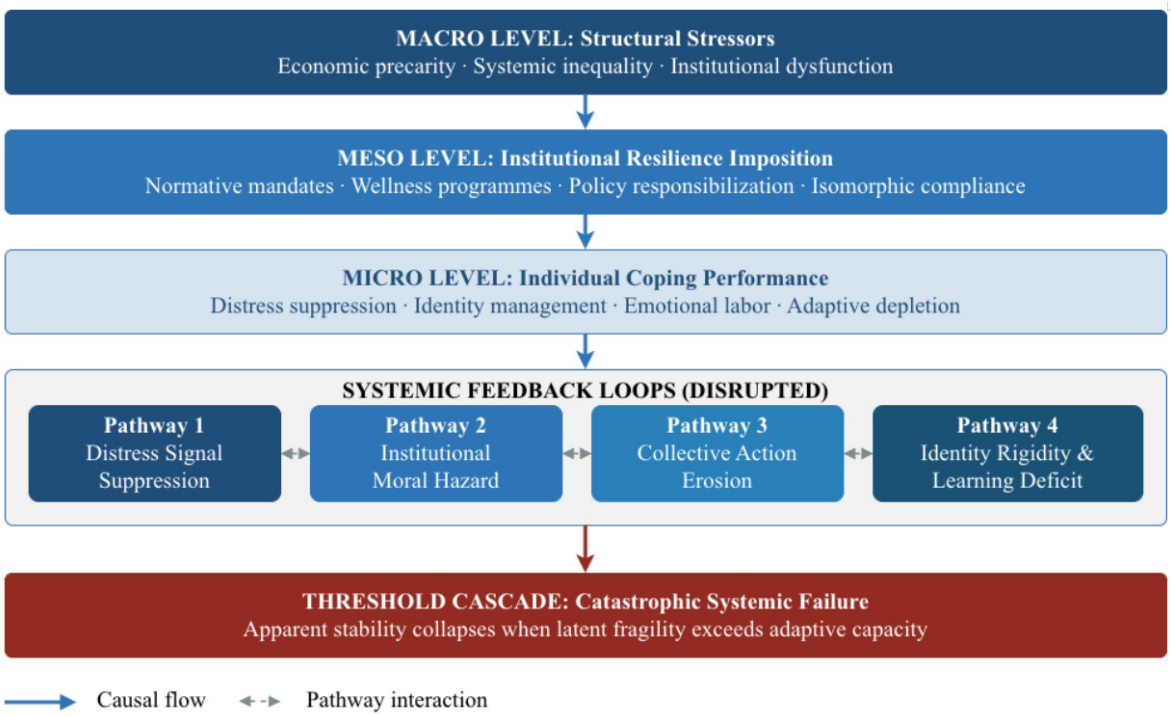



Figure 1. The resilience paradox: multi-level causal architecture

The Resilience Paradox operates across three levels—macro structural stressors, meso institutional impositions, and micro individual coping performances—disrupting four feedback loops (Pathways 1–4) and culminating in threshold cascade. The revised model explicitly includes cross-pathway interaction dynamics absent from the original submission. This argument is grounded at the intersection of complexity and systems theory (Taleb, 2012; Meadows, 2008), critical resilience studies (Park, 2024; O'Grady & Shaw, 2023), neo-institutional theory (DiMaggio & Powell, 1983; Lê & Hoang, 2025), and political economy critiques of neoliberal subjectivity (Dungy & Krings, 2024; Chandler, 2014). By synthesizing these traditions, this paper makes four contributions. First, it provides a six-criterion operationalization framework for empirically distinguishing endogenous from exogenous resilience. Second, it articulates four specific causal pathways with their interaction dynamics. Third, it situates the

Resilience Paradox framework in relation to existing critical resilience scholarship (MacKinnon & Derickson, 2013; Chandler, 2014), specifying its theoretical increment. Fourth, it proposes a SAR framework with sequenced implementation logic that acknowledges structural constraints.

## 2. The Conceptual Evolution of Resilience and the Operationalization Problem

### 2.1 Ecological and Engineering Origins

The concept of resilience entered scientific discourse through materials engineering, describing a material's capacity to absorb energy under stress and return to its original form. Holling's (1973) landmark contribution reframed resilience ecologically: not as return to equilibrium but as the capacity of a system to absorb disturbance and reorganize while retaining function and structure. Crucially, Holling distinguished resilience from stability, arguing that high stability could be inversely related to resilience—systems that suppress disturbance signals develop dangerous brittleness. This warning, as we demonstrate below, applies directly to social systems subject to resilience imposition.

### 2.2 The Psychological Turn: Resilience as Individual Trait

Beginning in the 1970s and accelerating through the 1990s, resilience underwent a disciplinary migration into developmental psychology. Researchers such as Masten (2001) studied children who demonstrated positive adaptation despite significant adversity, asking what factors accounted for their apparent flourishing. This research tradition effected a subtle but consequential conceptual shift: resilience moved from being a relational property of systems to being understood increasingly as an attribute of individuals. This shift was not value-neutral; as a systematic review of longitudinal resilience studies in Wolke et al. (2025) demonstrates, most studies lack an explicit resilience definition, and only 32% explicitly define it as a trait, outcome, or process—revealing deep conceptual ambiguity that facilitates ideological appropriation.

### 2.3 The Neoliberal Appropriation: Resilience as Ideological Imperative

The most consequential transformation occurred at the intersection of positive psychology, human capital theory, and neoliberal governance. Resilience became embedded in a broader ideological project that Dungy and Krings (2024) characterize as the responsibilization of subjects under neoliberal governance—the transfer of risks and responsibilities from public institutions to private individuals. Park (2024), in a systematic analysis of resilience in development discourse spanning multiple decades and disciplines, identifies this normative shift as the conversion of resilience from a descriptive concept to a rallying call that naturalizes pre-existing structural inequities by framing adaptive failure as individual deficit.

Chandler's (2014; 2023) post-liberal governance framework provides the most sophisticated theorization of this shift: resilience governance represents a transition from modernist governance-from-above (liberal intervention) to the management of subject capacities for self-organization and adaptation—a mode of governing that operates precisely through the cultivation and regulation of individual resilience. We return to the relationship between Chandler's framework and ours in Section 2.5.

MacKinnon and Derickson (2013), from a spatial political economy perspective, offer a third

strand of critique: resilience as applied to communities is spatially misscaled, operating at the level of places when the processes shaping outcomes operate at the scale of capitalist social relations. They propose resourcefulness—a politically mobilizing concept centered on transformative collective agency—as an alternative. While this critique is powerful, it operates at a different analytical level and does not theories the systemic feedback dynamics through which individual resilience imposition generates aggregate fragility. Section 2.5 develops this comparative argument more fully.

### 2.4 Operationalizing the Endogenous/Exogenous Distinction

A core concern raised in review was that the distinction between endogenous resilience (ER) and exogenous resilience imposition (EI) was operationally vague, creating a risk of circular reasoning. The present section addresses this directly. We propose six observable criteria, each with an empirical indicator and data source, that allow researchers to classify resilience practices without normative pre-judgment. Critically, the criteria are structural and process-based—not outcome-based—breaking the circularity: a practice is identified as EI not because it produces harm but because it satisfies structural criteria independently of its effects (Table 1).

Table 1. Six-criterion operationalization framework for distinguishing endogenous resilience (ER) from exogenous resilience imposition (EI)

| Observable Criterion | Endogenous Resilience (ER) | Exogenous Imposition (EI) | Empirical Indicator | Data Source |
|---|---|---|---|---|
| 1. Locus of mandate | Internal; self-directed | External; institutionally mandated | Scale of Perceived Institutional Pressure (SPIP) | Employee survey / policy document audit |
| 2. Distress signal flow | Preserved; help-seeking normalized | Suppressed; help-seeking penalized | Help-seeking rate vs. distress prevalence ratio | Organizational health records; EAP usage data |
| 3. Structural support ratio | Adaptive demand proportionate to institutional resources provided | Adaptive demand exceeds institutional support | Demand-Resource imbalance index (JD-R model) | Organizational surveys; HR policy audit |
| 4. Attribution of failure | Distributed: individual + structural | Individual deficit: personal blame | Locus of Control attribution coding | Interview / focus group data |
| 5. Collective capacity effect | Collective action bandwidth maintained | Collective action bandwidth depleted | Change in civic engagement / collective action rates over time | Longitudinal panel data; associational records |
| 6. Temporal sustainability | Adaptive capacity stable or growing | Adaptive capacity depleting over time | Burnout trajectory; longitudinal well-being index | Repeated-measures longitudinal survey |

Each criterion provides an independent, empirically observable indicator that does not presuppose harmful outcomes, addressing the risk of circular reasoning. Mixed cases—where some criteria indicate ER and others EI—should be treated as hybrid contexts requiring nuanced analysis rather than forced classification.

We acknowledge that boundary cases exist. An employer-provided mindfulness programme, for example, could satisfy Criterion 3 (proportionate support) while failing Criterion 2 (distress signal suppression) if participation is performatively mandated. Our framework handles such cases by treating classification as a multi-dimensional profile rather than a binary categorization. A practice scoring EI on four or more of six criteria warrants classification as exogenous imposition; mixed profiles indicate hybrid contexts amenable to partial SAR interventions.

### 2.5 Theoretical Position: Relation to Existing Critical Resilience Frameworks

A second reviewer concern was that the paper did not adequately distinguish its contribution from MacKinnon and Derickson's (2013) resourcefulness critique and Chandler's (2014) post-liberal governance framework. Table 4 in Section 5 provides a full comparative matrix. Here we summarize the key theoretical increments.

MacKinnon and Derickson (2013) argue that resilience is spatially misscaled and politically conservative, proposing resourcefulness as a transformative alternative. Their critique identifies the problem but does not theorize the dynamic mechanism through which misscaled resilience generates cumulative systemic fragility, nor does it provide operationalization criteria. Our contribution is the causal architecture: the four pathways and their interaction dynamics specify how the political conservatism MacKinnon and Derickson diagnose becomes mechanically reproduced and amplified over time.

Chandler's (2014) post-liberal critique identifies the epistemic shift whereby resilience governance manages subject capacities rather than external conditions. This provides the governmentality backdrop for our Pathway 4 (identity rigidity and learning deficit) but does not theorize the system-level consequences of this subject formation across multiple feedback loops simultaneously. Our contribution is the multi-pathway systemic model: we show that Chandler's epistemic governance and MacKinnon and Derickson's spatial misscaling both operate through identifiable feedback disruptions that can be specified, measured, and—potentially—corrected through targeted institutional redesign. Chandler (2023) has himself noted the limitations of purely diagnostic resilience critique, calling for theoretical work that identifies 'what comes after' the critique. The SAR framework attempts to answer this call while acknowledging the structural constraints Chandler identifies.

## 3. Theoretical Framework: Complexity Theory and the Anatomy of the Paradox

### 3.1 Complex Adaptive Systems and the Logic of Fragility

The theoretical scaffolding for the Resilience Paradox draws principally from complexity theory and the study of complex adaptive systems (CAS). A CAS is characterized by multiple interacting agents whose local behaviors give rise to emergent macro-level patterns, nonlinear feedback dynamics, sensitivity to initial conditions, and the capacity for self-organization. Social systems—organizations, communities, economies, healthcare systems—exhibit CAS properties, and their behavior under stress cannot be adequately understood through linear cause-and-effect models.

Taleb's (2012) concept of antifragility provides a particularly useful theoretical resource. Taleb distinguishes between fragile systems (which break under stress), robust systems (which resist stress), and antifragile systems (which improve under stress up to a threshold). Crucially, Taleb argues that efforts to eliminate volatility and impose stability on complex systems frequently backfire—what he terms iatrogenic harm, or harm caused by the intervention itself. The suppression of small stressors prevents the system from developing the adaptive repertoire needed to withstand large shocks, resulting in a dangerous accumulation of latent fragility beneath a surface of apparent stability. We argue that the imposition of individual resilience is precisely such an iatrogenic intervention at the social system level.

Meadows' (2008) systems thinking framework adds the crucial concept of feedback loops. In

complex systems, feedback loops—both reinforcing and balancing—are the primary mechanism through which systems detect and respond to deviation from desired states. When feedback loops are disrupted, delayed, or attenuated, systems lose their capacity for timely self-correction, and small problems compound into crises that by the time they become visible have already exceeded the system's corrective capacity.

### 3.2 The Endogenous/Exogenous Resilience Distinction in Systems Terms

As operationalized in Section 2.4, endogenous resilience preserves information flows within the system—distress signals propagate upward, triggering adaptive responses at structural levels. Exogenous resilience imposition suppresses these flows, creating what we term feedback opacity: the systemic equivalent of a pressure warning light disabled by the engineer who finds it inconvenient. Table 2 summarizes the systemic contrast between the two forms.

Table 2. Endogenous Resilience (ER) vs. Exogenous Resilience Imposition (EI): systemic comparison

| Dimension | Endogenous Resilience (ER) | Exogenous Resilience Imposition (EI) |
|---|---|---|
| Origin | Emerges organically from person-environment interaction; self-directed | Mandated by institutions, norms, or policy agendas; externally imposed |
| Locus of agency | Distributed: individual + relational + structural levels | Individual: burden placed on the person alone |
| Feedback preservation | Distress signals preserved and transmitted upward | Distress signals suppressed or penalized |
| Accountability | Shared across structural levels; multi-causal attribution | Attributed to individual deficit or virtue; mono-causal |
| Structural support | Adaptive demand proportionate to resources provided | Adaptive demand systematically exceeds institutional support |
| Systemic effect | Enhances antifragility; adaptive learning | Accumulates latent fragility; depletes reserves |
| Temporal dynamic | Sustainable; iterative improvement | Deteriorating; depletion without renewal |
| Empirical marker | Stable or improving collective capacity over time | Declining collective action; rising burnout; deferred reform |

### 3.3 The Resilience Paradox: Formal Statement and System Dynamics

In complex social systems characterized by significant structural stressors, the institutional and normative imposition of individual resilience generates systemic fragility through a multi-pathway mechanism. The mechanism is formally analogous to Holling's pathology of resource management: apparent stability purchased by suppressing disturbance signals is accumulated catastrophic risk. However, the social system version involves an additional dimension absent from ecological models: the active ideological work required to maintain the performance of resilience, which depletes the very adaptive resources the system claims to develop. This creates a self-undermining dynamic: the more effectively resilience is imposed, the more rapidly adaptive resources are depleted, and the more fragile the system becomes—even as it appears increasingly stable.

## 4. Four Causal Pathways and Their Interaction Dynamics

We elaborate four specific causal pathways through which exogenous resilience imposition generates systemic fragility. Figure 2 presents the revised pathway model with explicit cross-pathway interaction dynamics—a substantial revision of the original submission, which treated pathways as analytically independent. The key theoretical development is the demonstration that pathways are sequentially enabling and cumulatively reinforcing, producing non-

linear acceleration toward threshold cascade.

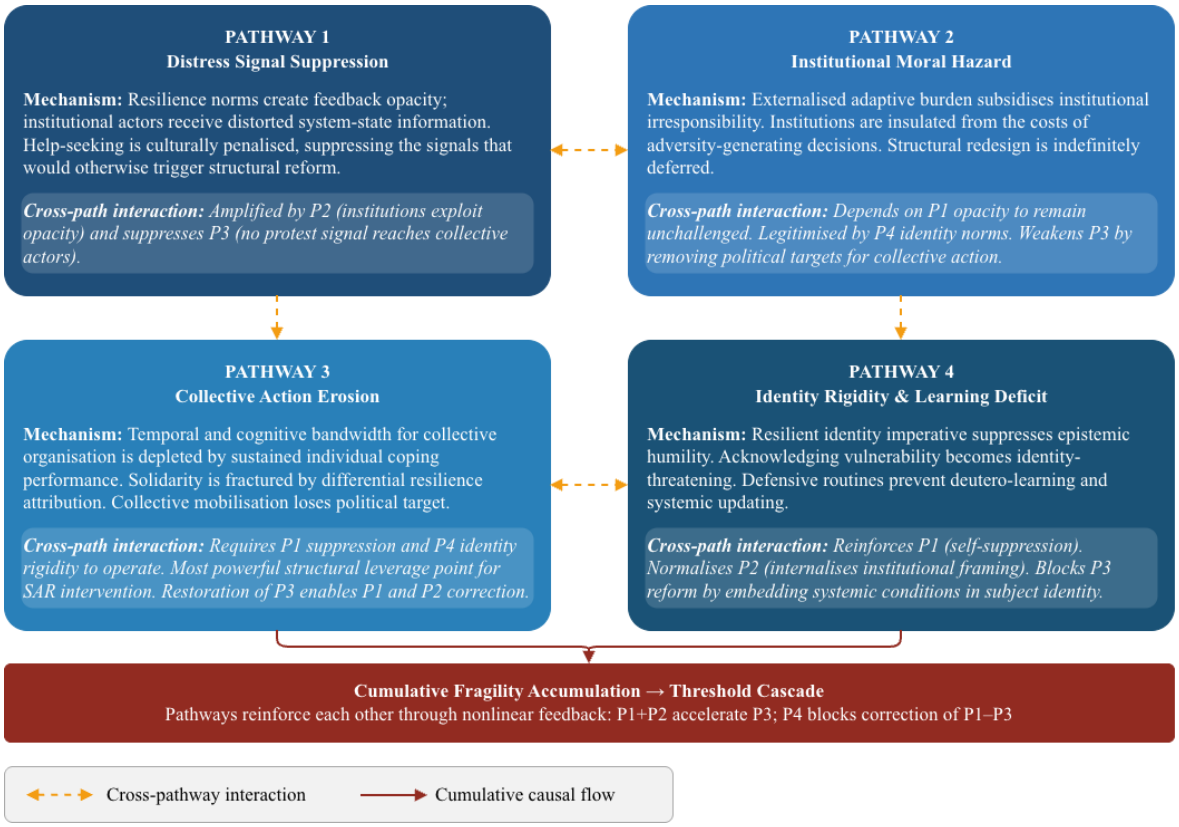



Figure 2. Four causal pathways from imposed resilience to systemic fragility: revised model with cross-pathway interactions

Each pathway is characterized by its mechanism and its enabling/amplifying relationship with other pathways. The bottom row summarizes the cumulative fragility accumulation mechanism. Cross-pathway interaction is the key theoretical addition relative to the original submission.

### 4.1 Pathway One: The Suppression of Distress Signaling

In complex adaptive systems, individual and collective distress functions as a critical feedback signal. When workers experience burnout, when communities experience deprivation, when students disengage from learning—these manifestations of adversity are information, transmitted through behavioral and physiological channels, that the system is operating outside sustainable parameters. When resilience is imposed as a normative expectation, individuals face strong incentives—social, professional, and psychological—to suppress the expression of distress. The resilient subject is one who continues to perform, to cope, to adapt; the expression of non-coping is coded as weakness, failure, or pathology.

This suppression produces feedback opacity: institutional actors receive systematically distorted information about the state of the system they manage. Evidence for this pathway is well-documented. The Medscape Physician Burnout and Depression Report (2023) documented physician burnout at 53%—up from 26% in 2018—yet help-seeking rates remained systematically low, a gap that Underdahl, Ditri, and Duthely (2024) attribute to the normative expectation that physicians demonstrate competence through coping rather than acknowledge distress. The Journal of Workplace Behavioral Health (2024) concludes in a major synthesis that individual burnout interventions—wellness programmes, resilience training—without

structural redesign are institutionally iatrogenic: they create the appearance of responsive management while leaving root causes unaddressed.

We note the reviewer's concern about the evidential quality of Zhang (2023). We retain this source as one illustrative study among several but no longer rely on it as primary evidence. The primary empirical pillars for Pathway 1 are now the three sources cited above, supplemented by comparative analysis in Section 5.

4.2 Pathway Two: Moral Hazard and Institutional Risk Transfer

The second pathway operates through the logic of moral hazard—the tendency for parties insulated from risk to take on greater risk. When individuals are normatively and institutionally positioned as the primary bearers of adaptive burden, institutions that generate the conditions requiring adaptation are effectively insulated from accountability. This produces a structural moral hazard: institutions can externalize the costs of their decisions onto individual adaptive capacity without bearing those costs themselves.

This pathway is theoretically connected to neo-institutional isomorphism (DiMaggio & Powell, 1983): the embedding of resilience norms in organizational practice—through employee wellness programmes, community resilience initiatives, and public health campaigns—represents an isomorphic process through which institutions signal commitment to well-being while structurally transferring adaptive burden. Lê and Hoang (2025) demonstrate this in organizational settings: neoliberal leadership practices institutionalize structural power by constructing resilient employee subjectivities, normalizing demands that would otherwise face resistance. Maslach and Leiter (2016) provide the strongest evidence: burnout is a systemic outcome of job design, and organizations that frame it as an individual resilience deficit actively prevent the structural redesign that would address root causes.

The reviewer notes that Andersen et al. (2007) and Bambra et al. (2020) are cited beyond their original scope. We now cite these comparative studies as providing correlational, not causal, evidence that institutional frameworks which retain collective support structures alongside individual expectations are associated with better aggregate outcomes. We do not claim they confirm the Resilience Paradox mechanism; they are consistent with it at the macro-comparative level.

4.3 Pathway Three: The Erosion of Collective Action Capacity

The third pathway connects imposed resilience to the erosion of collective action capacity—the primary mechanism through which complex social systems maintain adaptive capacity in the face of structural challenges. Collective action is, in Meadows' (2008) terms, a leverage point: an intervention level where small changes produce large systemic effects. The suppression of collective action through the individualization of resilience therefore removes the system's most powerful structural self-correction mechanism.

The connection between imposed resilience and attenuated collective action operates through several subsidiary mechanisms. First, resilience discourse frames adversity as a challenge to be individually overcome, framing collective responses as evidence of inadequate personal development rather than rational political action. Second, the time and energy costs of sustained individual coping reduce the bandwidth available for collective organization. Third, the differentiation between resilient and non-resilient individuals—attributing differential outcomes to differential personal resources—undermines the solidarity necessary for collective action.

Dungy and Krings (2024), in their interpretive phenomenological study of women community organizers in Chicago, demonstrate how neoliberal logics of responsibilisation and retraditionalization erode the collective organizational capacity of precisely the actors whose work sustains community resilience. O'Grady and Shaw (2023) provide a directly relevant institutional case: UK COVID-19 community response data shows that valorization of non-state resilience among community groups not only reflected but amplified the erosion of collective advocacy capacity, as groups that succeeded individually lost the political language to demand structural support. This constitutes a natural quasi-experiment in collective action erosion that supports our theoretical claim.

4.4 Pathway Four: Identity Rigidity and the Foreclosure of Systemic Learning

The fourth pathway operates at the level of identity and cognition. The imposition of resilience as a normative expectation creates identity imperatives—prescriptions for who one must be to be valued and worthy of social membership. When resilience is an identity imperative, the acknowledgment of vulnerability is not merely uncomfortable but identity-threatening. The resulting defensive suppression prevents individuals from accurately apprehending their situation and the causal structures producing it, foreclosing the cognitive basis for systemic learning.

This dynamic connects to what Argyris and Schön (1978) termed defensive routines: patterns of thought and action that protect individuals and organizations from the anxiety associated with genuine uncertainty, but that simultaneously prevent the learning necessary for adaptive change. Park (2024), in a comprehensive analysis of resilience in development discourse, identifies the same pattern at the policy level: resilience-as-rallying-call normalizes pre-existing inequities precisely because it forecloses the reframing necessary for structural analysis. The identity investment in resilience prevents acknowledgment that the conditions requiring resilience are themselves unjust, or that resilience is failing.

Chandler's (2023) most recent theorization of resilience in the Anthropocene context is relevant here: he argues that resilience thinking, even in its post-liberal form, is embedded in an epistemic framework that forecloses critique by governing through the management of subjects' own sense-making. Our Pathway 4 provides the micro-level cognitive mechanism through which Chandler's macro-level epistemic governance produces practical learning deficits at the organizational and community level.

4.5 Pathway Interaction Dynamics and the System Model

The four pathways are analytically distinct but operate as a mutually reinforcing system. The reviewer correctly identified that the original submission did not theorize these interactions. We now do so through a verbal system dynamics model, reserving formal computational specification for future empirical work.

The core interaction logic is sequential enabling: Pathway 1 (signal suppression) creates the conditions under which Pathway 2 (moral hazard) can operate unchallenged—institutions cannot be held accountable for harms they are not informed about. Pathway 2 amplifies Pathway 1 by increasing the structural incentives for signal suppression. Pathways 1 and 2 together erode the material and political conditions for Pathway 3 (collective action): when distress is invisible and accountability is diffuse, collective mobilization has no clear target and limited bandwidth. Pathway 4 (identity rigidity) normalizes all three preceding pathways by embedding them in the epistemic framework through which actors understand their situation—it is

the mechanism that prevents the system from recognizing its own paradox.

The interaction model generates a key prediction: attempts to intervene in only one pathway without addressing the others are likely to be absorbed and neutralized. Signal transparency initiatives (P1 intervention) without accountability mechanisms (P2) will be captured by institutions as performative compliance. Accountability without collective action capacity (P3) will produce individualized grievance management rather than structural reform. This prediction directly informs the implementation sequencing of the SAR framework (P2 -> P1 -> P3 -> P4 as the ordering most likely to create positive spillovers across pathways).

The cumulative model also generates predictions about temporal dynamics. Pathway interactions are self-reinforcing over time: each year of resilience imposition increases feedback opacity (P1), reduces accountability pressure (P2), further depletes collective action bandwidth (P3), and deepens identity entrenchment (P4). This means that the system moves progressively further from the conditions required for endogenous resilience—and that the longer imposition continues, the more radical the structural intervention required for correction. This is the temporal dimension of the Resilience Paradox: the window for relatively low-cost intervention closes over time.

Table 3. Pathway evidence mapping: domains, mechanisms, and peer-reviewed evidence

| Pathway | Domain | Mechanism | Peer-Reviewed Evidence (2022–2025) |
|---|---|---|---|
| P1 – Signal Suppression | Healthcare workforce | Resilience norm pathologizes help-seeking; burnout concealed | Medscape (2023): burnout 53% but formal support-seeking low. Underdahl et al. (2024): physician culture conflates coping with competence. Journal of Workplace Behavioral Health (2024): burnout requires structural—not individual—intervention. |
| P2 – Moral Hazard | Corporate governance & org. theory | Wellness mandates substitute for structural redesign; costs externalized | Maslach & Leiter (2016): burnout is job-design outcome, not personal deficit. Lê & Hoang (2025): neoliberal leadership normalizes structural demands via subject-formation. Barnhart et al. (2024): structural failure systematically attributed to individual consumers. |
| P3 – Collective Action | Political economy & welfare state | Responsibilisation depletes bandwidth for collective mobilization | O'Grady & Shaw (2023): UK COVID-19 non-state resilience valorization risks future state abandon. Dungy & Krings (2024): responsibilisation and retraditionalization erode collective organizing capacity. Cherrier & Türe (2023): communal solidarity under responsibilisation can paradoxically fracture associational fabric. |
| P4 – Learning Deficit | Org. sensemaking & governance | Resilient identity imperative blocks deutero-learning | O'Grady & Shaw (2023): communities valorize non-state resilience frame that forecloses governance learning. Park (2024): resilience-as-rallying-call normalizes pre-existing inequities, preventing re-framing. Wolke et al. (2025): longitudinal studies show resilience conceptualization inconsistency masks adaptive failure. |

Evidence quality hierarchy: primary empirical support (peer-reviewed empirical studies, 2022–2025) is distinguished from comparative-correlational support (cross-national comparative studies). Policy documents (OECD 2022; g7+ 2022) are cited as contextual background

only.

## 5. Theoretical Contribution

This paper builds on and extends prior critical resilience scholarship. Table 4 provides a systematic comparison of the Resilience Paradox framework with the two most influential existing critical approaches: MacKinnon and Derickson's (2013) resourcefulness critique and Chandler's (2014) post-liberal governance framework. We identify three dimensions of theoretical increment.

Table 4. Comparative theoretical matrix: Resilience Paradox vs. Prior Critical Frameworks

| Dimension | Resourcefulness Critique (MacKinnon & Derickson, 2013) | Post-liberal Governance Critique (Chandler, 2014) | Resilience Paradox (Present Paper) |
|---|---|---|---|
| Primary critique | Resilience is spatially misscaled; operates at level of capitalist social relations, not communities | Resilience shifts governance from liberal intervention to management of subject capacities | Resilience imposition generates systemic fragility through specific causal mechanisms |
| Unit of analysis | Place / community | Governance rationalities / subject formation | Multi-level sociotechnical systems (micro-meso-macro) |
| Causal mechanism | Implicit (structural reproduction) | Foucauldian subject-formation; governmentality | Explicit: four pathways with specified interactions and feedback loops |
| Systemic fragility | Not directly theorized | Not directly theorized | Central contribution: demonstrates how fragility accumulates and cascades |
| Operationalization | Not provided | Discourse analysis only | Six-criterion operationalization framework with empirical indicators |
| Prescriptive framework | Resourcefulness as alternative; spatially re-scaled | None offered (primarily diagnostic) | SAR Framework: four principles with sequenced implementation logic |
| Theoretical increment | Spatial politics of resilience | Epistemic shift in governance | Systemic dynamics: feedback opacity, moral hazard, collective action erosion, learning deficit |

The Resilience Paradox framework's primary theoretical increment lies in three areas: (1) mechanistic causal specification with pathway interactions; (2) operationalization criteria enabling empirical testing; and (3) systemic fragility as a theorized outcome, which prior frameworks do not address.

The first theoretical increment is mechanistic specification. Both resourcefulness and post-liberal critique diagnose resilience as politically problematic but do not specify the causal mechanisms through which problematic politics generates aggregate systemic consequences. Our four-pathway model, with its interaction dynamics, provides this mechanism. This moves the field from critique (resilience is bad) to explanation (resilience imposition generates fragility through these specific pathways, at this pace, with these interaction effects).

The second increment is the operationalization framework. Neither MacKinnon and Derickson nor Chandler provide criteria by which researchers could empirically distinguish endoge-

nous from problematic resilience. Our six-criterion framework (Table 1) enables this distinction without circular reasoning. This opens a research agenda: the question is no longer simply whether resilience is ideologically problematic, but under what measurable conditions and in what institutional contexts it generates the pathological dynamics the Resilience Paradox predicts.

The third increment is the systemic fragility theorization itself. The concept that individual-level resilience imposition generates system-level fragility through feedback disruption is new. MacKinnon and Derickson's resourcefulness critique focuses on spatial politics; Chandler's critique focuses on epistemic governance. Neither addresses the CAS dynamics—feedback opacity, latent fragility accumulation, threshold cascade—that we theorize. This cross-level connection between micro-level coping performance and macro-level systemic vulnerability is the paper's core conceptual contribution.

We also acknowledge what the Resilience Paradox framework does not do. Unlike MacKinnon and Derickson, it does not provide a spatially differentiated analysis of how resilience imposition operates differently across geographic and class contexts. Unlike Chandler, it does not provide a genealogical analysis of the epistemic conditions through which resilience thinking became possible. These remain important complementary lines of inquiry; the frameworks are not competitors but different-level analyses of the same phenomenon.

## 6. The Structural Accountability Reorientation (SAR) Framework

### 6.1 Principles and Structural Constraints

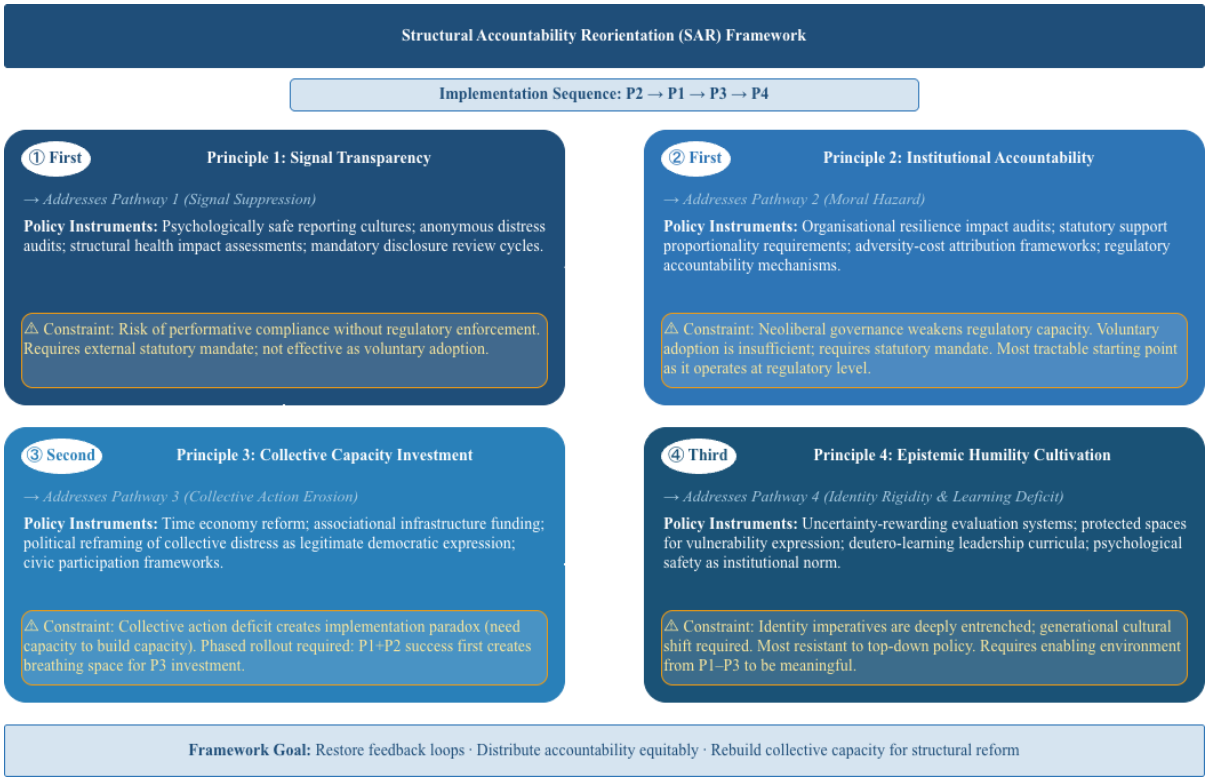
Having diagnosed the mechanisms through which imposed resilience generates systemic fragility and compared our framework with prior approaches, we develop the Structural Accountability Reorientation (SAR) framework. The SAR framework is organized around four principles that correspond to the four pathways identified above (Figure 3 and Table 5). A critical revision from the original submission is the explicit incorporation of implementation constraints and co-optation risks for each principle.

Principle 1 (Signal Transparency) requires institutional conditions that facilitate rather than suppress the transmission of distress signals. The reviewer correctly identified the risk that signal transparency can be adopted as performative compliance—a wellness audit that produces no structural change. We address this by specifying that P1 interventions require external regulatory enforcement (not voluntary adoption) and that success indicators must be tied not to disclosure rates alone but to the structural responses disclosure triggers. Without P2 (accountability) mechanisms, P1 interventions will be absorbed as impression management.

Principle 2 (Institutional Accountability) addresses the moral hazard mechanism by reconnecting the costs of adversity-generating decisions to the decision-makers who produce them. This is the most tractable entry point for policy intervention precisely because it operates at the institutional and regulatory level rather than requiring individual or cultural change. Lê and Hoang (2025) observe that critical leadership studies must move beyond discourse analysis to examine how accountability structures can interrupt the neoliberal logic of resilience imposition; P2 provides the institutional lever for this interruption.

Principle 3 (Collective Capacity Investment) addresses the collective action erosion through deliberate investment in associational infrastructure and time economy reform. We acknowledge the reviewer's concern that this faces a chicken-and-egg problem: collective action

capacity is needed to achieve the political change that would enable collective capacity investment. We address this through phased implementation: P2 interventions (regulatory accountability) can be achieved through state action without requiring collective mobilization; P2 success creates breathing space for P3 investments that restore the collective capacity needed for sustained reform pressure.




*Note: Each quadrant specifies not only the policy instrument but the institutional constraint that must be addressed for implementation to avoid co-optation. Implementation sequencing (P2 -> P1 -> P3 -> P4) is based on the cross-pathway interaction logic developed in Section 4.5.*

Figure 3. The structural accountability reorientation (SAR) framework: revised with implementation constraints

Principle 4 (Epistemic Humility Cultivation) addresses the learning deficit by developing institutional cultures that reward epistemic humility—the capacity to acknowledge uncertainty, vulnerability, and the limits of current adaptive strategies—over the performance of confident competence. We acknowledge this is the most structurally resistant principle, requiring generational cultural change rather than policy reform. It is positioned fourth in the implementation sequence because it requires the enabling conditions created by P1–P3: individuals cannot sustainably express epistemic humility in contexts that have not yet established accountability and signal transparency.

## 6.2 Implementation Sequencing and the Constraint Problem

The sequencing logic (P2 -> P1 -> P3 -> P4) is grounded in the cross-pathway interaction model of Section 4.5. Accountability mechanisms (P2) are addressed first because they operate at the regulatory level—they can be implemented through state action without requiring collective mobilization or individual cultural change. P2 success reduces the feedback opacity that P1 signal transparency requires to function meaningfully. P1 + P2 together create the breathing space—reduced adaptive burden, better information flows—necessary for P3 collective capacity to be rebuilt. P3 collective capacity, once restored, creates the sustained political pressure needed for the deep cultural work of P4.

This sequencing does not imply that P1–P3 must be fully achieved before P4 begins. Cultural work (P4) can proceed in parallel, but it is fragile without the enabling environment created by P1–P3. Attempting P4 first—as many current resilience reform initiatives do, through leadership mindfulness and vulnerability disclosure programmes—risks replicating the paradox at one remove: cultivating epistemic humility as an individual performance without the structural conditions that make it safe and meaningful.

Table 5. SAR framework: full implementation matrix with constraints and sequencing

| SAR Principle | Pathway Addressed | Policy Instrument | Structural Constraint | Success Indicator |
|---|---|---|---|---|
| 1. Signal Transparency | P1 (Suppression) | Psychologically safe reporting; distress audits; structural health impact assessments; anonymous disclosure systems | Risk of performative compliance without regulatory enforcement | Early distress disclosure rate; presenteeism decline |
| 2. Institutional Accountability | P2 (Moral Hazard) | Organizational resilience impact audits; statutory support proportionality requirements; adversity-cost attribution frameworks | Neoliberal governance weakens regulation; requires statutory mandate | Cost externalization reduction; org. robustness investment increase |
| 3. Collective Capacity Investment | P3 (Collective Action) | Time economy reform; associational infrastructure funding; political reframing of collective distress as legitimate | Collective action deficit creates implementation paradox; requires phased rollout | Civic engagement rates; social capital indices |
| 4. Epistemic Humility Cultivation | P4 (Learning Deficit) | Uncertainty-rewarding evaluation; protected vulnerability spaces; deutero-learning leadership curricula | Deep cultural entrenchment; generational shift required; slow-acting | Org. learning metrics; defensive routine scores; institutional updating rates |

The full implementation matrix specifies not only policy instruments and success indicators but the structural constraints that must be addressed for each principle to avoid co-optation. Implementation sequencing follows the P2-P1-P3-P4 logic derived from pathway interaction analysis.

### 6.3 Comparative Evidence for the SAR Approach

Comparative institutional evidence is consistent with the SAR framework's approach. Andersen et al. (2007) demonstrate that Nordic welfare states—which maintain robust collective support structures alongside expectations of individual contribution—show correlates of higher systemic adaptive capacity in the face of economic shocks than liberal market economies. We note, as the reviewer correctly observes, that these studies were not designed to test the Resilience Paradox and cannot confirm our causal mechanism; they provide correlational consistency, not confirmatory evidence. The COVID-19 experience provides a similar correlational signal: Bambra et al. (2020) document that systems with robust public health infrastructure and equitable resource distribution achieved better outcomes than those relying primarily on individual behavioral adaptation. More directly relevant, O'Grady and Shaw (2023) provide process-level evidence that state accountability mechanisms—when present—enabled more sustainable community response patterns than non-state resilience valorization.

## 7. Research Implications and Methodological Directions

### 7.1 Methodological Challenges: The Temporal Fragility Detection Problem

The Resilience Paradox presents distinctive methodological challenges. The central mechanism—the suppression of distress signals—means that conventional survey-based measures of well-being and adaptive functioning may systematically misrepresent systemic health, capturing the performance of resilience rather than its genuine presence. The paradox also operates across multiple temporal scales: the short-term appearance of stability produced by imposed resilience may persist for years or decades before systemic fragility becomes visible in aggregate outcomes.

This temporal structure—what we term the fragility detection problem—requires research designs that can distinguish apparent stability (surface coping performance) from genuine systemic health (preserved feedback loops and growing adaptive capacity). Standard cross-sectional surveys are inadequate for this task because they measure the state of the system at a single point in time, missing the temporal accumulation dynamic. Longitudinal designs with repeated measures over 5–10+ years are necessary minimum conditions.

An additional methodological complication is that successful resilience imposition is specifically designed to prevent the behavioral signals that would flag measurement. If help-seeking rates are low, this might indicate genuine well-being or successful suppression—the two are behaviorally indistinguishable without multi-method triangulation. We recommend triangulating survey data with organizational records, EAP usage data, medical leave patterns, and collective action indicators over time.

Table 6. Methodology decision matrix: research designs for testing the resilience paradox across pathways

| Research Question | Recommended Method | Rationale for Temporal Challenge |
|---|---|---|
| Does feedback opacity vary with resilience imposition intensity? | Cross-institutional comparative survey + EAP usage records over 5+ years | Suppression effects require multi-year observation; single-point surveys miss accumulation dynamics |
| Does moral hazard reduce institutional robustness investment? | Panel data analysis of org. health investment vs. individual wellness mandate intensity | Lagged effects (1-3 yrs); instrumental variable design to address endogeneity |
| Does resilience imposition reduce collective action capacity? | Natural experiment (policy change); longitudinal cohort study; event study design | Collective action bandwidth depletion is slow-moving; requires 5–10 year window |
| Can threshold cascade be observed retrospectively? | Archival case study (e.g., healthcare workforce collapse 2020-22); process tracing | Cascades appear sudden but build over years; retroactive identification via leading indicators |
| Pathway interaction effects | Agent-based modelling + system dynamics simulation | Multi-pathway nonlinear dynamics cannot be captured by regression; requires computational methods |
| *Note: The matrix addresses the reviewer's concern that the original methods section was insufficiently developed. Each row provides a specific research design, not merely a research question, with explicit attention to the temporal challenge of detecting latent fragility accumulation before threshold cascade.* | | |

### 7.2 Research Design Recommendations by Pathway

Table 6 provides a methodology decision matrix that maps specific research designs to each pathway, with explicit attention to the temporal challenge of detecting slow-accumulating fragility. A key design recommendation is the use of natural experiments—policy changes in

resilience mandate intensity, welfare state reforms, sector-level regulatory changes—to create quasi-experimental variation in the key independent variable (resilience imposition intensity) while controlling for confounding factors.

For pathway interaction research, we recommend agent-based modelling (ABM) and system dynamics simulation as the most appropriate computational methods for multi-pathway nonlinear dynamics that cannot be captured by regression-based approaches. A simulation model in which agents face varying combinations of resilience imposition intensity, collective action bandwidth, and institutional accountability could test the pathway interaction predictions of Section 4.5 and generate observable signatures of fragility accumulation that could be matched against archival data.

### 7.3 Future Research Directions

Several empirical research questions follow directly from the framework. First, does the feedback opacity produced by resilience norms vary systematically with institutional characteristics (sector, governance structure, welfare state context)? The meta-analytic work on workplace resilience (Maslach & Leiter, 2016) suggest this is tractable. Second, do natural experiments in resilience imposition—austerity reforms, sector-specific regulatory changes—produce the moral hazard and collective action erosion dynamics predicted by Pathways 2 and 3? Third, can the threshold cascade mechanism be identified retrospectively in organizational collapse data (e.g., healthcare system breakdowns, 2020–22) using process tracing to identify the preceding fragility accumulation signature? Fourth, what are the boundary conditions under which the Resilience Paradox operates? The framework predicts that the paradox is most pronounced in contexts with high resilience imposition intensity and low institutional accountability—but the conditions under which individual resilience can function endogenously (and thus be genuinely antifragile) deserve equal theoretical and empirical attention.

## 8. Conclusion

This study posits that the dominant resilience discourse paradigm, which construes resilience as a normative expectation externally imposed on individuals, engenders a profound paradox: the cultivation of ostensibly resilient individual subjects ultimately culminates in the construction of socially systemic fragility. Through four interwoven causal pathways—the suppression of distress signaling, the generation of institutional moral hazard, the erosion of collective action capacity, and the foreclosure of systemic learning—the exogenous imposition of individual resilience accrues the structural antecedents of catastrophic systemic failure.

A central aim of this study has been to clarify the conditions under which resilience strengthens systems and the conditions under which it undermines them. By distinguishing endogenous resilience from exogenous resilience imposition and grounding this distinction in observable structural criteria, the paper moves beyond purely discursive critique toward analytical specification. This distinction enables resilience practices to be evaluated not by rhetorical intent or stated objectives, but by their position within institutional arrangements and their effects on feedback structures. The emphasis on feedback integrity, proportional distribution of adaptive burden, and accountability location provides a framework through which resilience practices can be examined empirically rather than normatively assumed to be beneficial. In this sense, the argument does not reject resilience as a concept; it re-situates it within the structural arrangements that determine its systemic consequences and clarifies the institutional conditions under which it can function as a genuinely adaptive principle.

The theoretical architecture developed here links this distinction to a broader systemic account of fragility accumulation. When adaptive demands are displaced downward while institutional structures remain insulated from corrective pressure, resilience becomes performative rather than transformative. Over time, suppressed signals, deferred accountability, weakened collective capacity, and constrained learning interact in ways that make systems appear stable while eroding their adaptive reserves. These dynamics are not immediately visible; they unfold gradually and often remain masked by short-term indicators of coping and productivity. As a result, systems may continue to function within acceptable performance thresholds even as their capacity to absorb future shocks diminishes. The paradox therefore lies in the temporal misalignment between visible stability and latent vulnerability, a misalignment that complicates both diagnosis and intervention. The contribution of this framework lies in making such slow-moving processes conceptually traceable, thereby opening space for empirical inquiry into how resilience discourse operates differently across institutional contexts, governance regimes, and extended temporal horizons.

The resilience paradox identified in this study necessitates a fundamental recalibration of the global resilience research and practice agenda: the analytical and practical focus must be shifted from the cultivation of individual subjects who passively absorb structurally generated adversities, to the reconstruction of institutional and structural arrangements that proactively mitigate the root causes of such adversities at the systemic level. The SAR framework proposed in this study provides a theoretically grounded and empirically tractable initial blueprint for this recalibration, albeit its implementation entails notable institutional and structural constraints. The practical implications of this theoretical distinction transcend the realm of academic inquiry: social systems rendered feedback-blind by the ideological imposition of individual resilience lack the essential adaptive capacity and endogenous self-correcting mechanisms to navigate the cascading and compounding global challenges of the coming decades—including climate disruption, transboundary pandemic risks, and deepening structural economic inequality. Consequently, such systems are confronted with exacerbated vulnerability to catastrophic systemic collapse when exposed to these convergent stressors.

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Not applicable.

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