

An Ontological Reconceptualization of Teacher Burnout: Beyond the Psychological Paradigm in the Age of Generative AI

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Abstract: For half a century, teacher burnout has been predominantly conceptualized as an individual's psychological failure to adapt to chronic stressors within the work environment. However, confronted with the profound ecological upheaval precipitated by disruptive technologies such as Generative Artificial Intelligence (GenAI), the traditional psychological explanatory framework appears increasingly inadequate in addressing the deepening crisis of meaning among educators. This paper attempts to transcend the psychological paradigm by theoretically reconstructing teacher burnout from a cognitive ontological perspective. Drawing upon Zhang Xusheng's [15] theory of Cognitive Stabilization Scaffolding and Wang Dongyue's [11] Progressive Weakening-Compensation Principle, we posit that the essence of teacher burnout is not merely emotional exhaustion, but a structural disequilibrium between cognitive thresholds and compensatory costs. By introducing a three-layer cognitive structure of "Soma-Emotion-Meaning," this study analyzes how technological alienation leads to embodied disequilibrium at the somatic layer, alienation of emotional labor at the emotional layer, and existential hollowing at the meaning layer. We argue that to genuinely alleviate teacher burnout, interventions must move beyond individualized psychological coping strategies and pivot toward rebuilding "cognitive stabilization scaffolding" within the educational system, thereby restoring the ontological dignity of teachers as the subjects of educational practice.

Keywords: Teacher burnout; Cognitive ontology; Progressive Weakening-Compensation Principle; Three-layer cognitive structure; Existential crisis; Artificial Intelligence

1 Introduction: The Paradigmatic Crisis and Historical Evolution of Teacher Burnout Research

Since Freudenberg [5] first introduced the concept of "burnout," the teaching profession has consistently been identified as a high-risk population for this phenomenon. Over the past half-century, research on teacher burnout has accumulated a massive volume of literature, gradually forming a dominant, psychology-driven research paradigm [13]. This paradigm was largely established by the seminal work of Maslach, who defined burnout as a syndrome comprising emotional exhaustion, depersonalization, and reduced personal accomplishment. Building upon this theoretical foundation, the Job Demands-Resources (JD-R) model and the Conservation of Resources (COR) theory have evolved into the two mainstream theoretical instruments for explaining teacher burnout [6]. The core assumption underlying these theories is that when demands in the work environment (such as high-intensity workloads, complex student behavioral issues, and

stringent administrative evaluations) exceed the physical, psychological, social, or organizational resources available to the teacher, it leads to a continuous depletion of individual psychological energy, ultimately triggering burnout.

However, the march of history is exposing the limitations of this paradigm. As disruptive technologies, particularly Generative Artificial Intelligence (GenAI), intervene in the educational ecology with unprecedented depth and breadth, the challenges faced by teachers are undergoing a qualitative transformation. Recent empirical studies reveal that even in "ideal" educational environments where resources are adequately allocated and workloads are effectively managed, many teachers still experience profound professional nihilism and a loss of meaning [12]. This phenomenon suggests that the current crisis facing teachers may have transcended the realms of uneven resource distribution and psychological pressure overload, touching upon the ontological foundations of educational existence. As existential phenomenologists IJzerman and Halsema [8] profoundly point out, burnout should not merely be viewed as an internal psychological adaptation issue, but understood as a "breakdown of one's existence in the world."

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Faced with this deep-seated crisis, traditional psychological interventions (such as stress management workshops, mindfulness training, and cognitive behavioral therapy) often appear to treat the symptoms rather than the disease. This is because these interventions implicitly harbor an individualistic attribution logic: they translate systemic alienation issues into individual responsibilities for adaptation, requiring teachers to endure unbearable structural pressures by enhancing their own "psychological resilience." Recent critical studies have even pointed out that the widely used Maslach Burnout Inventory (MBI) possesses fundamental flaws in measuring the essence of burnout, as it forcibly pieces together three independent constructs, failing to genuinely grasp the core of burnout as a deep existential state [1].

The urgency of this paradigmatic reconsideration is underscored by the scale and severity of the current teacher burnout crisis. Yao and Abdullah's [13] comprehensive bibliometric analysis of five decades of teacher burnout research reveals not only the exponential growth of the research literature but also a troubling pattern: despite the accumulation of extensive knowledge about the causes and correlates of teacher burnout, rates of teacher attrition and professional dissatisfaction have continued to rise across most developed educational systems. This suggests that the dominant research paradigm, for all its sophistication, may be generating knowledge that is structurally incapable of addressing the root causes of the problem it seeks to understand. The problem is not merely empirical (we need more data) but epistemological (we need a different way of framing the question).

Moreover, the specific character of the burnout crisis in the GenAI era is qualitatively different from earlier manifestations of teacher burnout. Previous waves of educational reform — the introduction of standardized testing, the implementation of performance management systems, the expansion of administrative responsibilities — increased the demands placed on teachers and reduced their professional autonomy, but they did not fundamentally challenge the ontological foundations of the teaching role. Teachers remained the primary sources of knowledge, the primary mediators of the curriculum, and the primary architects of the learning environment. The advent of GenAI, however, threatens to displace teachers from these foundational roles, creating a form of professional existential crisis that is genuinely unprecedented in the history of the teaching profession. Understanding and responding to this crisis requires theoretical resources that go beyond the psychological paradigm, reaching into the philosophical traditions of ontology, phenomenology, and critical theory.

To break through this paradigmatic bottleneck, this paper attempts a theoretical perspective shift, reconceptualizing teacher burnout from the elevated vantage point of cognitive ontology. By introducing Zhang Xusheng's [15] theoretical framework from Knowing and Speaking and integrating Wang Dongyue's [11] "Progressive Weakening-Compensation Principle," this paper proposes a novel theoretical proposition:

the essence of teacher burnout is a structural disequilibrium between cognitive thresholds and compensatory costs, a systemic destruction of the human "Soma-Emotion-Meaning" three-layer cognitive structure by technological rationality. The structure of this paper is organized as follows: Section 2 will deeply analyze the blind spots of the mainstream psychological paradigm and articulate the necessity of an ontological turn; Section 3 will detail the core theories of the cognitive ontological reconstruction, particularly the disequilibrium mechanisms of the Progressive Weakening-Compensation Principle and the three-layer cognitive structure; Section 4 will explore the ontological crisis of teacher identity in the AI era; Section 5 will propose systemic solutions that transcend psychological interventions, namely, the reconstruction of "cognitive stabilization scaffolding"; finally, the conclusion section will summarize the theoretical contributions of the entire paper.

2 The Limitations of the Psychological Paradigm and the Necessity of an Ontological Turn

2.1 The Inherent Blind Spots of the Mainstream Psychological Explanatory Framework and Scale Critique

As previously discussed, current research on teacher burnout relies primarily on two mature theoretical models: the Job Demands-Resources (JD-R) model and the Conservation of Resources (COR) theory. The former views burnout as the direct consequence of the combined effects of high job demands and low job resources, emphasizing the structural characteristics of the work environment; the latter focuses more on the management of resources at the individual psychological level, arguing that individuals experience a depletion of psychological energy when faced with the threat of resource loss or when resource investment fails to yield expected returns [6].

Undeniably, these two models possess strong explanatory power when addressing explicit burnout caused by excessive workloads, excessive administrative intervention, and unfair compensation, providing a theoretical basis for many policies aimed at improving teachers' work environments. However, they share an implicit reductionist assumption: reducing the professional life of a teacher to a zero-sum game between quantifiable "resources" and "demands." This mechanistic view of energy conservation ignores the uniqueness of education as a spiritual endeavor. Education is not merely the transmission of knowledge, but the generation of meaning; teachers are not just consumers of resources, but constructors of meaning.

A more profound crisis lies in the fact that the measurement tools supporting this paradigm are themselves facing severe theoretical challenges. For a long time, the Maslach Burnout Inventory (MBI) has been regarded as the "gold standard" for measuring burnout, and its three dimensions (emotional exhaustion, depersonalization, and reduced personal accomplishment) constitute the cornerstone of burnout research. However, recent critical studies, such as the in-depth

analysis by Bianchi et al. [1], point out fundamental flaws in the conceptual construction and measurement validity of the MBI. The developers of the MBI explicitly stipulate that the scores of these three dimensions cannot be added to produce a total "burnout score" because they lack sufficiently high correlations. This leads to a logical paradox: if burnout is a "syndrome" composed of three parts, but its components cannot be merged into a holistic concept, then the MBI is actually measuring three independent psychological constructs, not burnout itself [1]. This inherent contradiction in the measurement tool fundamentally shakes the traditional psychological paradigm's understanding of the essence of burnout.

When Generative AI begins to assume a large amount of knowledge transmission, grading, and instructional design work, teachers' "job demands" at the physical level may indeed decrease, but their ontological status as epistemic authorities is fundamentally threatened [10]. This deep-seated burnout, triggered by the loss of "epistemic agency," is completely inexplicable by traditional resource depletion models. It is a fatigue rooted in the absence of meaning rather than physical exhaustion, an existential anxiety arising from teachers no longer being able to be certain of the unique value of their work.

2.2 The Introduction of the Critical Pedagogy Perspective: Systemic Alienation and Subjectivity Deprivation

To more comprehensively understand the deep-seated causes of teacher burnout, we need to introduce the perspective of Critical Pedagogy. Critical pedagogues, represented by Paulo Freire, have long pointed out that the traditional "banking concept" of education treats students as passive receptacles for knowledge and alienates teachers into tools for transmitting standardized information. In today's highly metricized and technologically mediated modern school systems, this alienation has not diminished; rather, it has been reinforced in a more covert and efficient manner.

The dominance of technological rationality has dismantled the educational process into a series of measurable and optimizable micro-segments. Teachers' professional judgment is forced to give way to algorithmic recommendations, and their emotional labor is disciplined into "surface acting" that meets systemic requirements [12]. In this context, burnout is no longer an individual's failure to cope with stress, but a sense of powerlessness when facing a massive machine that systematically deprives them of their subjectivity. As Ambady and Thomas K. V [7] point out, in the AI era, the professional core of teachers is at risk of erosion, as they are being forced to transition from "pedagogical leaders" to "data custodians." This role shift deprives teachers of their autonomy and competence, leading to a profound crisis of professional identity.

2.3 Insights from Existential Phenomenology: The Rupture of Being-in-the-World

To compensate for the shortcomings of the psychological paradigm, some scholars have turned to existential and phe-

nomenological perspectives, attempting to grasp the essence of burnout at a deeper philosophical level. Drawing on Maurice Merleau-Ponty's phenomenology of the body, IJzerman and Halsema [8] propose that burnout is a rupture in the relationship between human beings and the world (a breakdown of one's existence in the world). From this perspective, burnout is not an individual's inability to cope with external demands, but a profound dislocation between the individual and the work environment, resulting in work losing its meaning as a "world-building" activity.

When teachers can no longer project their intentions, emotions, and values onto the external world through teaching practices, and can no longer confirm their own existence in interactions with students, they experience a profound "world-alienation." The introduction of this existential perspective opens a new window for understanding teacher burnout. However, existing existential analyses mostly remain at the level of philosophical description, lacking a meso-level theoretical framework capable of linking macro ontological crises with micro cognitive processes. This is precisely the core reason for introducing Zhang Xusheng's [15] cognitive theory and Wang Dongyue's [11] Progressive Weakening-Compensation Principle in this paper. We need a more explanatory framework to dissect how this existential crisis operates in the underlying structure of human cognition.

2.4 The Inadequacy of Resilience Discourse: From Individual Pathologization to Structural Critique

A particularly insidious dimension of the psychological paradigm's dominance is the proliferation of "resilience" discourse in teacher professional development literature. Resilience, broadly defined as the capacity to recover from adversity and maintain professional commitment in the face of challenging circumstances, has become the dominant prescriptive response to teacher burnout in both policy documents and professional development programs. Governments and school administrators across the globe have invested heavily in resilience-building workshops, mindfulness programs, and well-being initiatives, all premised on the assumption that the problem of teacher burnout is fundamentally an individual psychological deficit that can be remedied through targeted skill development.

This resilience discourse, however, performs a subtle but profound act of ideological mystification. By locating the source of the problem within the individual teacher's psychological constitution, it deflects critical attention away from the structural conditions that generate burnout in the first place. As Ghasemi [6] demonstrates in his bioecological systems review, the stressors that drive teacher burnout are deeply embedded in macro-level policy environments, institutional cultures, and socioeconomic contexts that are entirely beyond the control of individual teachers. Asking a teacher to become more "resilient" in the face of chronic underfunding, excessive administrative burdens, and the existential threat of technological displacement is akin to asking a drowning person to improve their swimming technique rather than ad-

addressing the structural conditions that caused them to fall into the water.

Furthermore, the resilience framework is premised on a fundamentally conservative ontological assumption: that the current structure of schooling is essentially sound, and that the problem lies in individual teachers' failure to adapt to it. This assumption forecloses the possibility of more radical structural critique and systemic transformation. It naturalizes the alienating conditions of contemporary teaching and transforms what is fundamentally a political and philosophical problem into a technical and psychological one. The cognitive ontological framework proposed in this paper represents a direct challenge to this individualistic and depoliticizing logic, insisting that genuine solutions to teacher burnout must address the structural conditions that systematically undermine teachers' cognitive stability and ontological dignity.

3 The Cognitive Ontological Reconstruction of Teacher Burnout

3.1 The Philosophical Origins of the Progressive Weakening-Compensation Principle and Compensatory Costs

To break through the reductionist tendencies of the traditional psychological paradigm, this paper introduces the "Progressive Weakening-Compensation Principle" proposed by Wang Dongyue [11] in *The Theory of Universal Evolution* as a core theoretical tool. This principle states that the general trend of cosmic evolution is a decrease in the degree of existence (weakening) accompanied by an increase in the degree of compensation (compensation). Zhang Xusheng [15] introduces this grand natural philosophy principle into the field of cognitive science, pointing out that the evolution of human cognition also follows this law: every leap in cognitive ability (such as the jump from intuitive thinking to logical reasoning) is accompanied by an increase in the vulnerability of cognitive structures and a sharp rise in the compensatory costs required to maintain stability.

Applying this principle to the professional development of teachers, we can clearly see: as the educational system becomes increasingly complex and technologized, in order to maintain their professional "degree of existence" (i.e., professional identity, teaching efficacy, and social status), teachers must pay increasingly higher "compensatory costs." In traditional agricultural or early industrial societies, a teacher's authority was built upon the relative scarcity and monopoly of knowledge, and the compensatory cost of maintaining this authority was relatively low. A teacher only needed to master core textbooks to maintain a stable professional status throughout a lifelong teaching career.

However, in the GenAI era, the acquisition of knowledge has become extremely cheap and ubiquitous. Teachers are no longer the sole source of information, nor even the optimal interpreters of knowledge. To cope with this loss of epistemic hegemony, teachers must continuously engage in technological empowerment, lifelong learning, and role reconstruction,

just to barely prove their existence value in the educational ecology [9]. This continuous "compensation" process vastly depletes teachers' cognitive resources.

Therefore, from a cognitive ontological perspective, teacher burnout is not simply "fatigue," but a structural collapse triggered when compensatory costs exceed an individual's cognitive threshold. When a teacher discovers that no matter how much effort they put into learning new tools and adapting to new platforms (compensation), they cannot establish a solid and respected professional identity (degree of existence) within the technological system, a profound ontological exhaustion is generated. This exhaustion is not a physical depletion that can be alleviated by rest, but a fundamental doubt about the rationality of one's own existence.

This analysis reveals a critical distinction between what we might call "first-order burnout" and "second-order burnout." First-order burnout, which is the primary focus of the JD-R and COR models, refers to the depletion of specific cognitive and emotional resources in response to identifiable work demands. It is, in principle, remediable through resource replenishment and demand reduction. Second-order burnout, by contrast, is the collapse of the very cognitive scaffolding that makes resource replenishment possible in the first place. It is a crisis not of resource depletion but of ontological destabilization, in which the teacher's fundamental sense of professional purpose, competence, and relational connection has been so thoroughly eroded that no amount of resource injection can restore the structural integrity of their cognitive existence. The Progressive Weakening-Compensation Principle provides the theoretical vocabulary for understanding why this second-order burnout is not merely more severe than first-order burnout, but qualitatively different in nature, requiring qualitatively different forms of intervention.

3.2 The Disequilibrium Mechanism of the "Soma-Emotion-Meaning" Three-Layer Cognitive Structure

To more precisely dissect how this structural collapse occurs at the micro-cognitive level, we introduce the "Soma-Emotion-Meaning" three-layer cognitive structure theory proposed by Zhang et al. [14], based on embodied cognition and the Progressive Weakening-Compensation Principle. This theory posits that human cognition is not purely symbolic computation, but is deeply rooted in somatic states and emotional experiences. These three layers are interdependent and constitute the foundation for maintaining human cognitive stability.

This theory has solid support in neuroscience. Antonio Damasio's "Somatic Marker Hypothesis" points out that emotions and somatic states play a crucial role in decision-making and cognitive processes [3]. Somatic states (such as increased heart rate, muscle tension) serve as "markers" influencing our expectations of future outcomes, thereby guiding complex social cognition and moral judgments. Crucially, Damasio's research demonstrates that damage to the somatic marker system does not merely impair emotional processing; it fundamentally disrupts rational decision-making and social cognition. This finding has profound implications for understanding

teacher burnout: when the somatic layer of a teacher's cognitive structure is chronically destabilized, the consequences cascade upward through the emotional and meaning layers, producing a comprehensive collapse of professional cognitive functioning.

The three-layer structure also resonates with recent developments in embodied cognition research, which has increasingly challenged the Cartesian assumption that cognition is a purely mental, brain-bound process. As Faella et al. [4] demonstrate in their systematic review of embodied learning in digital environments, the body is not merely a vehicle for the mind but an active participant in cognitive processes, with bodily states, gestures, and physical interactions playing a constitutive role in knowledge construction and meaning-making. When the embodied dimensions of teaching are systematically stripped away by digitalization and virtualization, it is not merely a matter of losing a preferred pedagogical style; it is a fundamental disruption of the cognitive architecture through which teachers construct professional knowledge and meaning.

In the current educational ecology, these three layers of teachers' cognitive structures are suffering systemic destruction by technological rationality:

The First Layer: Embodied Disequilibrium at the Somatic Level

Education is inherently an embodied practice. Teachers perceive students' learning states and instantly adjust teaching strategies through physical presence, eye contact, vocal inflection, and spatial interaction [4]. This intuitive teaching feedback relies on a complex somatic perception network. However, with the normalization of online teaching, the popularization of AI-assisted teaching systems, and the mandatory use of various digital management platforms, teachers' bodies are gradually being abstracted from real teaching sites, transformed into symbolic operators and data entry clerks in front of screens.

This "disembodiment" severs the channels through which teachers acquire rich somatic feedback. When facing cold data charts on a screen rather than vibrant student faces, a teacher's somatic marker system loses its function, leading to disequilibrium and fatigue at the somatic level. This fatigue is not merely the physiological strain of sitting in front of a screen for long periods, but a result of losing the cognitive anchors brought about by embodied interaction, making teaching activities feel illusory and unreal.

The Second Layer: Alienation of Emotional Labor at the Emotional Level

Emotion regulation is a core component of a teacher's professional competence and the foundation for establishing good teacher-student relationships [12]. In traditional teacher-student interactions, while emotional labor consumes energy, it is often emotionally compensated through students' positive feedback, emotional resonance, and the joy of growth. This two-way emotional flow is key to maintaining a teacher's professional enthusiasm.

However, in highly metricized and technologically mediated modern school systems, teachers' emotional expressions are increasingly disciplined by instrumental rationality. Teachers are forced to exhibit "positive display rules" required by the system, such as feigning enthusiasm in various assessments and public lessons, while suppressing their own genuine professional fatigue and frustration. This long-term "surface acting" leads to deep alienation at the emotional level, blocking the natural flow of genuine emotion and accelerating the process of emotional exhaustion. When a teacher's emotions are no longer a bridge connecting teachers and students, but have become a tool to satisfy systemic assessments, the alienation of emotional labor reaches its peak.

The Third Layer: Existential Hollowing at the Meaning Level

This is the deepest and most destructive crisis. As previously mentioned, when Generative AI can generate more perfect lesson plans than a teacher, provide more timely feedback, and even exhibit stronger "empathy" capabilities in some aspects, a teacher's "epistemic agency" is substantively stripped away [2]. Teaching is degraded from a meaning-making activity full of creativity, uncertainty, and moral responsibility into the auditing, supervision, and execution of AI-outputted results.

This state of a "hollowed mind" causes teachers to lose their ontological certainty regarding the essence of education. When the meaning of education is reduced to data optimization and algorithmic matching, the teacher's identity as a "meaning-maker" ceases to exist, plunging them into an existential crisis of meaning. As Ambady and Thomas K. V [7] warn, teachers face the danger of becoming "data custodians," and this role demotion is a fundamental denial of the dignity of the teaching profession.

4 The Ontological Crisis of Teacher Identity and Labor Alienation in the AI Era

Having delved into the disequilibrium mechanism of the three-layer cognitive structure, we need to further examine the teacher identity crisis triggered by this disequilibrium at the macro-sociological level. Teacher identity is not a static label, but a dynamic process constructed through continuous interaction with students, colleagues, institutions, and technologies. In traditional educational ecologies, the core of teacher identity is the "pedagogical leader" and "epistemic authority."

However, the comprehensive intervention of Generative AI is reconstructing the underlying logic of this identity. The latest research by Ambady and Thomas K. V [7] points out that AI systems, by taking over core teaching processes such as course planning, automatic grading, and learner performance monitoring, are quietly transforming teachers' daily work into the control, coordination, and compliance of data streams. In this process, teachers are downgraded from "authors" of educational practice to "custodians" of algorithmic systems. This role shift is not merely an adjustment of work content, but a

fundamental deprivation of teachers' professional autonomy and competence.

When a teacher discovers that their meticulously designed lesson plans are less popular with students than AI-generated schemes, and their emotionally invested comments are less comprehensive and detailed than AI-generated feedback, their professional efficacy inevitably suffers a heavy blow. More seriously, this technological substitution weakens the genuine connection (relatedness) between teachers and students. In classrooms highly dependent on AI tutoring systems, teacher-student interaction is often downgraded to instrumental communication surrounding technical glitches or data metrics, lacking deep ideological collision and emotional resonance.

This technology-driven labor alienation causes teachers to experience not only physical fatigue when facing heavy data management tasks, but also a profound "self-alienation." They are no longer the leaders of the educational process, but have been integrated into a massive, efficient, yet cold digital education machine, becoming biological plug-ins that maintain its operation. This ontological identity crisis is precisely the most hidden but also the most fatal root cause of contemporary teacher burnout.

It is worth noting that this ontological identity crisis is not simply a matter of teachers feeling undervalued or disrespected, although these subjective experiences are real and important. At a deeper level, it represents a crisis in what the philosopher Charles Taylor has called the "moral ontology" of the teaching profession — the implicit understanding of what it means to be a good teacher, what constitutes genuine educational achievement, and what makes the work of teaching intrinsically worthwhile. When this moral ontology is disrupted by the colonization of teaching by technological rationality, teachers lose not merely their sense of professional satisfaction but their very capacity to orient themselves meaningfully within their professional world. They become, in Heidegger's terms, "unheimlich" — unhomey, unable to dwell authentically in their professional existence.

The phenomenological concept of "professional dwelling" is particularly illuminating here. For a teacher to dwell professionally is not merely to perform a set of technical functions but to inhabit a meaningful professional world in which their actions, relationships, and commitments are woven together into a coherent narrative of professional identity and purpose. The systematic disruption of this dwelling by technological alienation does not merely make teaching more difficult; it renders the very concept of professional meaning-making incoherent. This is why the burnout experienced by teachers in the AI era often has a quality of existential bewilderment that goes beyond mere fatigue or frustration — it is the bewilderment of a person who has lost their sense of what they are doing and why it matters.

5 Beyond Psychological Interventions: Rebuilding Cognitive Stabilization Scaffolding

Faced with the ontological crisis of teachers driven by the Progressive Weakening-Compensation Principle and erupting comprehensively within the three-layer cognitive structure, traditional psychological interventions (such as asking teachers to improve their stress resistance or practice mindfulness meditation) are clearly ineffective, and even harmful, because they shift systemic structural problems onto fragile individuals. To genuinely alleviate teacher burnout, we must rebuild "Cognitive Stabilization Scaffolding" for teachers at the institutional design level of the educational system [15].

5.1 Physical Reconstruction of Embodied Space

First, we must guarantee teachers' "embodied presence" at the educational site on physical and institutional levels. This requires educational administrators to re-examine the boundaries of online teaching and digital management, resolutely resisting the tendency to overly virtualize and datafy all teaching processes. Schools should create more informal, de-technologized spaces for teacher-student interaction (such as face-to-face mentoring, screen-free discussion seminars), allowing teachers' Somatic Marker Systems to function again in genuine physical contact, restoring the balance of embodied cognition.

The reconstruction of embodied space also requires a critical examination of the spatial politics of educational architecture. The design of school buildings, classrooms, and learning environments embeds particular assumptions about the nature of teaching and learning. The proliferation of open-plan learning spaces, hot-desking arrangements for teachers, and the replacement of dedicated classroom spaces with flexible, technology-mediated learning environments reflects an implicit ideology of educational flexibility and efficiency that systematically undermines the conditions for teachers' embodied professional dwelling. Rebuilding cognitive stabilization scaffolding at the somatic level therefore requires not only changes in pedagogical practice but also in the physical design of educational environments, creating spaces that support the kind of sustained, embodied, relational engagement that is constitutive of genuine teaching.

Furthermore, the temporal dimensions of embodied teaching deserve attention. The compression of teaching time through the introduction of AI-mediated learning activities, the fragmentation of teacher-student contact time into brief, algorithmically scheduled interactions, and the colonization of teachers' embodied presence by the demands of digital platform management all contribute to what we might call "temporal disembodiment" — the experience of being physically present in an educational space but cognitively and emotionally absent, absorbed in the management of digital systems rather than engaged in genuine human encounter. Policies that protect extended, uninterrupted periods of embodied teacher-student interaction are therefore essential components of any

serious attempt to rebuild cognitive stabilization scaffolding at the somatic level.

5.2 Institutional Deregulation of Emotional Ecology

Second, we must break the excessive discipline of instrumental rationality over teachers' emotional labor. This requires a thorough reform of teacher evaluation systems dominated by standardized testing and quantitative metrics, empowering teachers with the right to express genuine emotions and reveal educational perplexities in the classroom. The educational system should encourage the establishment of communities of practice based on trust rather than surveillance, allowing teachers to obtain genuine emotional support and professional resonance among peers, thereby repairing the alienated emotional ecology and preventing further deterioration of emotional exhaustion.

The deregulation of emotional ecology also requires a fundamental rethinking of the concept of teacher professionalism. Dominant discourses of teacher professionalism have historically emphasized emotional neutrality, rational detachment, and the suppression of personal emotional responses in the service of objective professional judgment. This emotional stoicism, while perhaps appropriate in certain professional contexts, is fundamentally at odds with the relational and affective dimensions of teaching as a caring profession. A more adequate conception of teacher professionalism would recognize emotional attunement, empathic responsiveness, and genuine emotional investment in students' well-being as core professional competencies rather than unprofessional lapses. This reconceptualization of professionalism would create institutional permission for teachers to bring their full emotional selves to their work, rather than performing a sanitized version of professional affect that is experienced as deeply alienating.

The development of what Xu et al. [12] call "emotion regulation competence" — the capacity to navigate the complex emotional demands of teaching in ways that are authentic, sustainable, and professionally appropriate — should be a central focus of teacher professional development. But this development cannot be reduced to the acquisition of individual coping skills; it requires the cultivation of institutional cultures that value emotional authenticity, provide genuine support for teachers' emotional well-being, and create the conditions for the kind of deep relational engagement that makes teaching emotionally sustainable over the long term.

5.3 Ontological Empowerment of Epistemic Agency

Crucially, we must re-establish the ontological status of teachers as "meaning-makers" in the new human-machine collaborative educational ecology. This does not mean rejecting the use of AI, but requires that when introducing any educational technology, the "Teacher-in-the-Loop" design principle must be followed [7]. Technology should be positioned as a tool to expand teachers' cognitive abilities, not as a subject to replace teachers' professional judgment. Schools should empower teachers to participate in the design, selection, and

evaluation processes of educational AI systems, ensuring that technology serves the human purposes of education, thereby fundamentally defending teachers' epistemic agency and resisting existential hollowing.

5.4 Toward a Philosophy of Technology in Education: Principles for Human-Centered AI Integration

The three-dimensional framework of cognitive stabilization scaffolding outlined above has important implications for how we think about the philosophy of technology in education more broadly. The dominant discourse surrounding educational technology tends to oscillate between uncritical techno-utopianism (in which AI is celebrated as the solution to all educational problems) and reactive techno-pessimism (in which AI is condemned as an existential threat to the teaching profession). Both of these positions, however, fail to engage seriously with the fundamental philosophical question: what kind of human-technology relationship do we want to cultivate in educational contexts, and what values should guide the design and deployment of educational AI systems?

The cognitive ontological framework proposed in this paper suggests a third position, which we might call "ontological humanism in educational technology." This position does not oppose the use of AI in education, but insists that the integration of AI must be guided by a clear and explicit commitment to preserving and enhancing teachers' ontological dignity as meaning-making subjects. This means, concretely, that educational AI systems should be designed to augment rather than replace teachers' professional judgment; to expand rather than constrain teachers' epistemic agency; and to enrich rather than impoverish the embodied, relational dimensions of the teaching-learning encounter.

The "Teacher-in-the-Loop" design principle advocated by Ambady and Thomas K. V [7] represents one practical instantiation of this ontological humanism. But it needs to be complemented by a deeper philosophical commitment to what we might call "pedagogical irreducibility" — the recognition that there are dimensions of the educational encounter (the transmission of passion, the modeling of intellectual humility, the cultivation of moral sensitivity) that are inherently resistant to algorithmic mediation and that must be protected as the sacred core of the teaching profession. This philosophical commitment needs to be institutionalized not only in the design of individual AI tools, but in the governance structures, professional standards, and policy frameworks that shape the overall ecology of educational technology.

6 Conclusion: Toward an Awakening of Educational Ontology

For half a century, research on teacher burnout has achieved fruitful results within the framework of the psychological paradigm, but has also fallen into a theoretical blind spot that individualizes and psychologizes systemic crises. Faced with the profound ecological upheaval precipitated by disruptive technologies such as Generative Artificial Intelligence, this paper attempts to transcend the reductionism of psychology

and reconceptualize teacher burnout from the elevated vantage point of cognitive ontology.

Based on the Progressive Weakening-Compensation Principle and the "Soma-Emotion-Meaning" three-layer cognitive structure, this study reveals the essence of teacher burnout: it is not merely emotional exhaustion in coping with work stress, but a systemic destruction of the underlying structure of human cognition by technological rationality. It is an ontological crisis that erupts when teachers face a severe disequilibrium between cognitive thresholds and compensatory costs. Labor alienation in the AI era is downgrading teachers from "pedagogical leaders" to "data custodians," triggering a profound identity crisis.

Therefore, the fundamental way out of teacher burnout lies not in enhancing individual psychological resilience, but in structural changes to the educational system. We must rebuild "Cognitive Stabilization Scaffolding" for teachers across three dimensions: embodied space, emotional ecology, and epistemic agency. This is not only a defense of the dignity of the teaching profession, but a steadfast adherence to the essence of education. In a future of human-machine symbiosis, the highest value of education will still lie in the awakening of one soul by another, a process that can never be replaced by algorithms. Future research needs to further explore how to implement this awakening of educational ontology in specific educational policies and technological designs.

Before concluding, it is important to acknowledge the theoretical limitations of the framework proposed in this paper. As a conceptual analysis grounded in philosophical reasoning rather than empirical investigation, the cognitive ontological framework advanced here has not yet been subjected to systematic empirical testing. The three-layer cognitive structure and the mechanisms of its disequilibrium, while theoretically coherent and supported by existing empirical literature in adjacent fields, require dedicated empirical investigation to validate their specific applicability to teacher burnout. Future research might productively employ phenomenological interview methods to explore how teachers themselves experience and narrate the disequilibrium of their somatic, emotional, and meaning-making cognitive layers. Longitudinal studies tracking the relationship between technological intensification in schools and teachers' ontological well-being would also be valuable. Additionally, the framework's applicability across different cultural and institutional contexts requires careful examination, as the relationship between teachers, technology, and professional identity is shaped by deeply context-specific historical, political, and cultural factors that a universal theoretical framework cannot fully capture.

Nevertheless, the theoretical contribution of this paper lies precisely in its capacity to reframe the problem of teacher burnout in a way that opens up new possibilities for both research and practice. By shifting the analytical lens from individual psychological deficits to structural ontological conditions, the cognitive ontological framework invites us to ask fundamentally different questions about teacher well-being:

not "how can we help teachers cope better?" but "what kind of educational system do we need to build in order to preserve the conditions for teachers' flourishing as meaning-making human beings?" These are ultimately philosophical and political questions that cannot be answered by psychology alone, and that require the kind of sustained philosophical reflection that the *Journal of Philosophy of Education* is uniquely positioned to foster.

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