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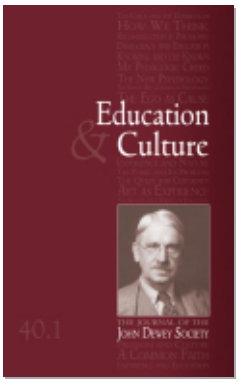
Aaron Stoller, Chris Schacht



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ARTICLE

Composition Naturalized

Aaron Stoller and Chris Schacht

Abstract The emergence of Large Language Models has exposed composition studies' long-standing commitment to Cartesian assumptions that position writing as a nonmaterial, distinctly human activity. This paper develops a naturalized theory of composition grounded in Deweyan pragmatic naturalism that dissolves the nature/culture dualism embedded in contemporary theory and practice. We advance an eco-ontological account that understands compositional activity as emerging from within the matrix of animal behavior and introduce "compositional viability" to theorize how writing functions as a biosemiotic tool for environmental reconstruction. This framework yields three pedagogical implications: attending to somaesthetics, cultivating writerly habits, and orienting composition toward viable action.

Keywords composition studies, composition theory, somaesthetics, writing pedagogy, Deweyan pragmatism, biosemiotics

The emergence of large language models (LLMs) like ChatGPT has precipitated a crisis in the field of composition studies. These AI-driven tools can generate human-like text at an unprecedented scale and quality, challenging fundamental assumptions about the nature of writing, authorship, and the core methods of composition pedagogy. This recent practical problem has exposed a more fundamental theoretical one, which is the field's long-standing commitment to the Cartesian notion that writing is a nonmaterial, distinctly human activity.

The Cartesian assumption has deep roots in the mainstream humanistic traditions that influenced the development of the field of rhetoric and composition, such as the semiotic theories developed by Ferdinand de Saussure, Claude Lévi-Strauss, Roland Barthes, and especially Kenneth Burke.[1] Burke, for instance, called humans the "symbol-using, symbol-making, and symbol-misusing animal."[2] Although this quote implies Burke assumed a connection between human language and animal life, it is clear that Burke viewed language as exclusively a human enterprise. Trevor

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Melia notes that, "according to Burke, man [sic] is differentiated— *is apart from*" nature and natural systems.[3] Burke's humanistic semiotic assumptions underpin the Burkean "parlor" metaphor, which continues to influence the way we think about and teach composition today.[4]

Such human-centric frameworks, while historically influential, have left composition studies ill-equipped to understand how technologies like LLMs emerge from and even extend human symbolic capacities. A more responsive approach requires that we dissolve Cartesianism altogether by using naturalized theories to tie *what writing is*, as a biologically embedded organismal activity, to its processes of production and ecological impacts. In doing so, composition can be reconfigured as part of the natural world, giving us a better sense of what writing does for us, as well as what our writing does to the world. The aim of this article is to outline some basic principles and impacts of such a naturalized theory of composition and call for its continued discussion in the discourse.

To develop this theory, we turn to John Dewey's naturalism. Strangely, while composition studies references Dewey as a major influence on writing pedagogy,[5] his thought has only played a limited role in the field of composition studies and is missing entirely from materialist and ecological composition theories. This gap is striking, given the fact that Dewey is widely considered to be the first philosopher to take seriously the complexities and implications of Darwinian naturalism for human life and humanistic inquiry.[6] Jerome Popp goes so far as to describe Dewey as evolution's first philosopher.[7] We note that contemporary pragmatists like Nathan Crick,[8] Scott Stroud,[9] Steve Fishman,[10] and Jeremiah Dyehouse[11] have made important contributions in bringing Deweyan concepts into composition studies. However, to our knowledge, a fully developed naturalized theory of composition has never been developed.

Dewey's pragmatic naturalism offers composition studies a way to theorize how language, communication, and discourse constitute the "natural bridge" that connects our embodied experiences as biologically rooted species-beings to our lives as cultural animals.[12] Such a naturalized theory would address several gaps in composition theory and pedagogy.

Theoretically, rather than trying to "reconnect" humans with nature, Deweyan naturalism understands human symbolic activities as continuous with other biological processes. It can explain how compositional practices emerged as functional solutions to problems faced by organisms in their environments. It treats the development of writing systems and compositional practices as natural extensions of evolved human capacities for tool use and symbolic communication. It would also address how LLMs, like all technologies, are part of the continuous evolution of human meaning-making practices. Lastly, it situates composition within the broader ecology of organism-environment transactions.

Pedagogically, a naturalized theory of composition reframes writing in terms of the organism-environment relationship, treating writing as an extension of natural problem-solving capacities. It focuses on the development of students' natural capacities for inquiry and community rather than teaching writing as conformity to a priori forms or structures. It views writing as a process of embodied habit formation and it attends to the experiential and aesthetic dimensions of these habitual processes. It understands digital technologies and tools (for example, LLMs) as new environmental conditions to which humans are adapting their evolved capacities for communication and meaning-making. It also ties evaluation and assessment to how effectively compositional activity addresses concrete situations.

Our argument will develop in three parts. First, we outline some of the limits of contemporary "postcomposition" theories which attempt to address the material and ecological dimensions of writing, but which retain problematic Cartesian assumptions that separate human life from nature. Second, we develop what we call an *eco-ontological* account of the writer, showing how human activity is structurally coupled with (but not reducible to) environmental contexts and processes. In doing so, we will draw on pragmatic theories of mind, language, and meaning to show how compositional activity emerges without breach in continuity from within the matrix of animal behavior. Third, we argue that compositional theory should be rooted in a concept we call *compositional viability* as the aim of compositional practice and pedagogy. Compositional viability describes the ways in which compositional practices and objects transform environmental conditions to bring about desirable ends and, at the same, motivate further ecological complexity. Compositional viability is a framework for compositional practice that does not rely on a priori categories but understands compositional activity in terms of its emergence from and impacts within a dynamic ecology.

THE LIMITS OF POSTCOMPOSITION

"Postcomposition" describes a set of theoretical approaches that challenge traditional humanistic assumptions about writing by emphasizing the role of nonhuman actors, material forces, and object relations in compositional processes. As we will demonstrate, while these approaches provide important insights into the relationship between composition and the natural world, none fully dispatch the Cartesian binary.

Contemporary postcomposition theorists have approached the challenge of eliminating Cartesianism in three main ways. Posthumanist approaches have sought to radically decenter the human subject by conceptualizing writing as emerging from "complex assemblages" of human and nonhuman actors.[13] This perspective rejects

the notion that writing originates from a discrete human consciousness and instead views it as arising from networks of biological, technological, and social forces.

New materialism has similarly reframed writing as a material practice, rather than an abstract cognitive process. New materialists argue that meaning doesn't preexist in the mind waiting to be expressed, but rather emerges through material-discursive practices—the physical act of typing or writing by hand, the spatial arrangement of writing environments, the temporal rhythms of composition, and the affective intensities that arise through engagement with writing technologies. This approach treats writing as what Karen Barad calls an "intra-action" where meaning emerges through the entanglement of human and nonhuman forces rather than through the interaction of preexisting separate entities.[14]

Lastly, object-oriented ontology (OOO) theorists argue that writing should be understood as an object that exists independently of human intention or interpretation.[15] This perspective suggests that written texts have their own autonomous agency that exceeds both authors' intentions and readers' interpretations. From an OOO perspective, the meaning of a text is neither contained in the mind of the writer or reader but emerges through object agency.[16] This radically nonanthropocentric view suggests that writing operates through object-object relations that can never be fully reduced to human consciousness or intention.

While these approaches offer valuable insights into composition's relationship with the natural world, they ultimately retain subtle Cartesian assumptions that separate inner from outer, human from nature, and organism from environment.

While posthumanism emphasizes human-nonhuman assemblages and tries to decenter the human subject, it paradoxically lacks a thorough account of how humans evolved as biological organisms. The very attempt to "decenter" the human assumes a preexisting centered human that needs decentering, rather than understanding human capacities (including writing) as naturally evolved features of organism-environment relationships. Without an evolutionary framework, posthumanism's attempt to "redistribute agency" across human-nonhuman networks remains theoretically ungrounded.

Similarly, new materialism's emphasis on materiality and embodiment, while valuable, often lacks a historical understanding of how material practices evolved from biological necessities. Its focus on present-day material-discursive practices ignores the evolutionary history that made such practices possible.

Lastly, OOO's treatment of texts as autonomous objects fails to account for how the capacity to create and interpret texts evolved as a biological function. By treating texts as withdrawn objects with their own agency, OOO inadvertently separates textual production from its evolutionary origins in human problem-solving and communication needs. This results in a theory that, while attempting to be

nonanthropocentric, actually fails to explain how texts function within the broader evolution of human cognitive and communicative capabilities.

The fundamental limitation across all three frameworks lies in their failure to ground their theories in an understanding of humans as biological organisms and language as a biosemiotic process. Rather than explaining how compositional activities emerge from and remain continuous with biological processes, they paradoxically attempt to "return" or "reconnect" human activity to nature—implying a separation that a truly naturalized theory would reject from the start.

TOWARD AN ECO-ONTOLOGY OF THE WRITER

Like postcomposition scholars, Dewey was concerned with dissolving the Cartesian binary in order to engage in direct "conversations about nature/culture."[17] However, unlike postcompositionists, Dewey grounds his antidualist metaphysics in Darwinian evolutionary naturalism rather than postmodern critiques of human exceptionalism.

Dewey's metaphysics begins by affirming the biological reality that humans evolved as organisms within and through their environments. He refers to his metaphysics as *transactional*, which attempts to express the idea that human life and culture is continuous with nature and natural environments.[18] As Dewey suggests, "traditional theories have separated life from nature, mind from organic life, and thereby created mysteries. Restoring the connection of how a mind can know an external world or even that there is such a thing, is like the problem of how an animal eats things external to itself."[19] It is simply a biological reality that all things—from the food we eat to the air we breathe, and continuing to the ideas we hold—are neither "inside" us nor "outside" in the world, but are dynamically interwoven as part of our processes of living. This also means that human language, as a biosemiotic system, is an emergent property of our material environment and evolutionary heritage.

Lacking the biological rootedness of Dewey's naturalized metaphysics, composition scholars have struggled to adequately theorize both the relationship between compositional practice and the material environment,[20] and also the agency of individuals in the context of dynamic ecological systems.[21]

We suggest a remedy to these twin problems via what we call an eco-ontological account of the writer. The notion of eco-ontology was coined by Thomas M. Alexander as a way of conceptualizing "nature in terms of interactive systems, natural histories, diversity, process, change, and transformation."[22] While Alexander developed this concept to theorize a dynamic ontology of the environment, we employ the term more specifically to conceptualize how human life and experience are simultaneously

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ecologically interdependent and capable of exercising dynamic agency within environmental systems.

MIND AS ECOLOGICALLY INTEGRATED

In tracing the modern history of composition studies, Kristopher Lotier argues that all contemporary composition theories are grounded in underlying theories of mind.[23] The 1980s witnessed the rise of "process-based" theories, which are built on internalist models of mind and understand the mind and mental processes as ontologically distinct from other minds and from the world in which those minds exist.[24] In the late 1990s, the movement toward postprocess composition theories was driven by a turn to externalist theories of mind, as such as those advanced by David Clark and Andy Chalmers. Externalist theories argue, in brief, that "mind" depends on involvement in the world, such as reliance on the contribution of human or nonhuman others, including languages and various technological artifacts.

The fundamental problem is that, like Burkean theories of composition, both internalist and externalist theories unwittingly retain the dualism between "inner" and "outer." Both internalism and externalism start with the Cartesian assumption that the mind is a container.[25] In this view, the mind is a stable, localizable entity that both contains thoughts and is distinct from external factors such as the body and material environment. This creates the problem of finding a way to describe how the "internal" mind interacts with the "external" material of the body and the material and social world.[26] For example, when we ask a writer "What do you *really* mean?" we are implying that "meaning" is internal to the mind and exists outside of the material conditions of production and expression.[27] The Cartesian assumption is that meaning already exists in the mind and that our job is to help students transfer this preexisting meaning *into* a material form.

A naturalist theory of composition avoids this problem by rejecting the container model entirely. Instead, it follows second-generation cognitive science, which suggests that the mind is not inside of us or a thing we possess, but rather is an *activity* arising from our interaction with the material world, including our bodies and our environments. [28] To "have a mind" is to sustain complex functions that involve thinking, deciding, feeling, and communicating with others. The mind is a "dynamic core," where various clusters of neural activity are integrated and stabilized within a window of time.[29]

Deweyan pragmatic naturalism advances a nondualistic, integrated theory of mind that understands mentation as a process that actively incorporates and integrates the organism and environment inside situational activity.[30] Such a theory of

mind serves as the basis of an eco-ontological account of the writer, in which writerly agency exists as an interdependent aspect of a dynamic system. As Dewey argues, an individual experience is never exclusively personal: "it [is] nature's, localized in a body as that body happened to exist by nature."[31]

For Dewey, the mind is both embodied (for example, cognitive activity emerges from bodily structures and processes) and environmentally integrated (that cognitive activity operates in transaction with the environment). Dewey's concept of mind leaps beyond externalist theories to advance a theory of mind closer to what Richard Menary identifies as cognitive integration.[32] Here, mental processes are understood as hybrid and emergent. A naturalist theory of mind integrates intuition, emotion, and felt sense with cognitive process and embodied manipulation of the environment within the context of dynamic organismal activity.

Rather than standing outside natural, biological activities, for Dewey, the mind is an emergent plain of embodied transactional activity. This also means that the human mind is always structurally coupled to the world because human attitudes, dispositions, and habits are always relational and should never be taken as separate existences. They are always of, from, and toward situations and things.[33] This is why Dewey claims that "mind is primarily a verb. It denotes all the ways in which we deal consciously and expressly with the situations in which we find ourselves."[34] The mind is an active process of orienting and organizing experience.

COMPOSITION AS ECOLOGICALLY EMERGENT

In addition to understanding the mind as environmentally integrated, Dewey argues that there is a direct continuity between linguistic—and therefore compositional—activities of our species and those of other social, intimately connected, and highly communicative nonlinguistic animals.[35] Dewey writes, for example, that "every thought and meaning has its substratum in some organic act of absorption or elimination . . . of destroying or caring for, of signaling or responding."[36] For Dewey, language and composition emerge without a breach in continuity from within the matrix of animal behavior.

Linguistic capacity begins in what Dewey's close collaborator G. H. Mead calls a "conversation of gestures" which lies below the acquisition of language and permeates all behavior.[37] The conversation of gestures is a reciprocal shifting of behaviors based on conjoined action. Dewey argues that "gestures and cries are not primarily expressive and communicative. They are modes of organic behavior as much as are locomotion, seizing and crunching [yet] the story of language is the story of the use made of these occurrences."[38] The mechanism for the emergence of social linguistic

meaning is present even in protosocial acts because the "adjustive response of the second organism gives to the gesture of the first organism the meaning it has."[39] In other words, reciprocal gesturing taking place between animals begins to become meaningful when it becomes a sign indicating behavioral possibilities and therefore possesses the capacity to coordinate activity between and within actors. We take on meaningful behavior when we begin to develop the capacity to react not simply to the movement of others, but to the gesture as indicating a possible array of meanings.

Dewey and Mead's theory of linguistic emergence has been validated by the field of biosemiotics, which has demonstrated that semiotic activity permeates all living systems that communicate and interact with their environment through the exchange and interpretation of signs.[40] For instance, ecologist Amandine Ramos's research on bison shows that individuals in a herd engage in embodied semiotic activities by "voting" on collective decisions, such as whether to graze in a field or move toward a watering hole.[41] Similar protolinguistic semiotic behavior has been found in bees,[42] whales,[43] and prairie dogs,[44] among others. These semiotic processes take various forms, such as biochemical signals, behaviors, or symbolic systems like human language.

However, only human beings have developed the capacity for social linguistic activity.[45] To have a mind in this human sense means that one can respond to meaning rather than simply reacting to or interacting with stimuli.[46] Dewey writes that "'mind' is an added property assumed by a feeling creature, when it reaches that organized interaction with other living creatures which is language. . . . This state of things in which qualitatively different feelings are not just had but are significant of objective differences, is mind. Feelings are no longer just felt. They have and they make sense."[47] Mind is what allows us to linguistically abstract and participate in shared meaning-relationships to creatively reconstruct experience. It is the mind, birthed through language, that allows for the emergence of imaginative possibilities and meaningful behavior.[48] For Dewey, language and composition is, therefore, a scaled evolutionary capacity that orients, guides, and transforms our species-specific behaviors.

COMPOSITION AS MATERIALLY INTERACTIVE

A fully naturalized theory of composition views writing as the outcome of a dynamic interaction between mind, body, and the material environment. This means that compositional activity is not strictly "mental," but is cultivated out of the interaction between minds, bodies, and material environments. An example is helpful here.

Throughout the history of philosophy, there has been significant debate about the nature of color concepts. For example, is color "in" our minds, or "in" the

environment? From a naturalist perspective, most of this debate boils down to a Cartesian misunderstanding of the way our concepts of color emerge from the dynamic interactivity of mind, body, and material environment. Second-generation cognitive science has repeatedly shown that our ideas about color emerge as a direct consequence of the *interactions between* lighting conditions, wavelengths of electromagnetic radiation, color cones, and neural processing, as well as individual and cultural experience. Our abstract concepts of color do not exist without neural interaction with concrete material conditions. Colors are not objectively "out" in the environment: there is no greenness in the grass or blueness in the sky that exists independently of retinas, color cones, neural circuitry, and brains. Nor are colors subjectively "in" our minds: they are neither a figment of our imaginations nor the spontaneous creations of our brains. Instead, color concepts emerge from the *dynamic structural coupling* of material, environmental conditions, embodied neurological systems, and cultural influences with no break in continuity between the two.[49]

The naturalist principle of material interactivity holds that cognitive processes are evolutionarily scaled traits that developed from and are dynamically integrated with bodily processes and material affordances. Just as colors cannot exist without the interaction of environment and body, neither can composition. When a buck scrapes its antlers against a tree, it is satisfying a physical need (to scrape the soft velvet, exposing the hard surface underneath) while also signaling its sexual maturity to females and territorial presence to other males. This form of biosemiotic activity evolved with the deer and its environment—the forests where it could produce the signs. The scrape depends on the buck's bodily development and the physical environment, and the interaction thus creates meaning in the environment.

The same is true of human writers. When a college student texts a friend, they are not transmitting a thought from the mind through written words to another mind. They are engaging in a complex organism-environment transaction that integrates multiple evolved and culturally developed capacities. Their thumbs move across a screen in patterns shaped by years of embodied habit formation with digital devices. These movements themselves reflect both biological adaptation (opposable thumbs that can manipulate tools) and technological design (interfaces optimized for human hand anatomy). The thought being expressed emerges through the material constraints and affordances of the medium. The character limit pushes toward brevity, the ability to add emojis enables emotional expression, and autocorrect shapes word choice. The student's neural pathways, trained through years of social media use, have developed shortcuts and patterns for this specific type of communication. This activity also draws on deep wells of shared cultural meaning, from the basic alphabetic system to the intricate social codes of texting etiquette (response timing, tone markers like "lol," appropriate use of punctuation). The student's linguistic

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choices are shaped by their understanding of their friend's interpretive framework, the context of their relationship, and the informal conventions of digital communication. Stated directly: the material and bodily aspects of writing don't *support* the writing process; they *constitute* it.

From the principle of interactivity, we can conclude that composition simply does not and cannot take place "in" our mind. Composition is, instead, an organismal activity structurally and materially coupled to the world and codetermined by the environmental situations we inhabit. Composition is literally the process of thinking *through* material to generate and respond to semiotic meaning.

WRITERLY AGENCY

Lastly, an eco-ontology of the writer dissolves the crisis of writerly agency that has plagued composition studies since the late 1980s. This crisis emerges from two competing antinaturalist theoretical frameworks. Process theory locates agency within individual writers, viewing writing as the product of internal cognitive processes. This creates the problem of explaining how "autonomous" writers meaningfully interact with their environments.[50] Postprocess and postcompositional theories, in contrast, locate agency in environmental and systemic forces, creating the opposite problem of explaining how writers can exercise any meaningful agency at all within these determining systems.[51]

From the perspective of pragmatic naturalism, these theoretical frameworks are two sides of a Cartesian coin that begins with the assumption that the human organism and its environment are ontologically discrete. In doing so, they inadvertently forward a conception of humans and human activity as separate from nature, when in fact human life emerges from and remains a part of nature. An eco-ontological account of the writer, in contrast, suggests that agency is an outcome of ecological interactivity.

Drawing on Dewey's transactional metaphysics, we can understand writerly agency not as a property contained within either the individual or the environment, but as emerging through their dynamic integration. Just as mind is "primarily a verb" for Dewey, agency is better understood as an active process rather than a fixed possession. Writers exercise agency not by standing apart from their environment but through their capacity to engage in meaningful reconstruction of experience through material-semiotic activity. This agency is neither purely individual nor purely environmental but exists in the dynamic space of transaction between organism and environment.

This reconceptualization of the notion of agency as neither "external" nor "internal" helps explain how writers can be simultaneously shaped by and shapers of

their environment. The writer's agency emerges from their evolved capacity to participate in and transform the web of meanings that constitute their ecological situation. Through compositional activity, writers don't simply respond to their environment but actively reconstruct it, creating new possibilities for meaning and action. This creative capacity isn't separate from natural processes but represents a scaled evolutionary development of the biosemiotic activities we observe throughout nature.

COMPOSITIONAL VIABILITY

From a naturalized perspective, composition is a critical biological tool contributing to the viability of *Homo sapiens*, who has developed a unique, species-specific capacity to deliberately harness transactional potentials through abstract conceptualization vis-à-vis linguistic activity. Here, viability is understood as an organismal or species-level capability for success within a fluctuating ecosystem.

The relationship between composition and evolutionary viability is rooted in the simple reality that all biological organisms, as self-sustaining entities, seek out points of stability from within the disharmonious rhythms and situations they find themselves in.[52] All biological organisms engage in ongoing, transactional behaviors that attempt to transform aspects of themselves or their environment to support their viability. Viability occurs whenever and wherever species affect transformations that yield stability or flourishing.

However, because their adaptations fundamentally alter the environment itself, all acts of organismal stabilization are simultaneously acts of ecological destabilization. In other words, an organism adapts to an environment only temporarily because that adaptation consequently changes the dynamic makeup of the environment in which the organism is situated.

From a naturalized perspective, compositional activity is therefore understood as a biosemiotic tool of inquiry: an activity that enables humans to develop and deploy meanings in the service of environmental reconstruction and organismal flourishing. Like all tools, composition is transactional—it actively and simultaneously shapes us *and* our environments, including our cognitive processing and modes of social relation.[53] At the same time, it gives us a unique capacity for shaping our evolving species-specific needs and wants.[54]

The aim of composition pedagogy is to foster what we will call *compositional viability*—an agential capacity to reconstruct our environment through the creation and deployment of meaningful signs and symbols. This capacity represents a

uniquely human evolutionary achievement—one that allows us not just to adapt to our environment, but to actively participate in its ongoing transformation through sophisticated symbolic means. Compositional viability as a construct suggests that the value of composition lies in its capacity to bring about desired and desirable ends on an organismal and ecological level.

Dewey argues that all processes of inquiry are aimed at some kind of practical transformation and, therefore, the fruits of inquiry have no intrinsic value or special status outside of their ability to cause practical effects in a system.[55] This process occurs in one of two ways, which Dewey defines as an overarching process of "adjustment": either organisms adapt themselves to the environment (adaptation), or they alter the environment to adapt to them (alteration). Larry Hickman argues, for example, that "some animals . . . such as rabbits, adapt passively to perceived danger by freezing in their tracks or hiding [adaption]. Other animals are more active; they alter their environing situation. An alarmed squid, for example, alters the visibility of the water in its vicinity [alteration]."[56] Adjustments are the various ways in which biological species affect transformations within ecological wholes to create environmental stability and affect their own viability.

Compositional activities similarly function as modes of adaptation and alteration within experience: they allow us to adapt to situations (for example, "making sense" of situations), or to alter our environment (for example, developing arguments that change how people behave). George Kennedy similarly theorized that "rhetoric acts as a mechanism for survival by facilitating successful adaptation of an organism to environmental change."[57] More recently, Kimberly Moekle discussed how "adaptation" and "accommodation" (as defined by environmental pragmatist S. Morris Eames) serve as useful pedagogical concepts for designing assignments and assessments.[58]

Compositional viability as a principle not only links writing practices to larger ecosystemic relationships and fluctuations but also provides a more stringent standard for the evaluation of composition than traditional metrics like logical consistency, rhetorical sophistication, or peer agreement.[59] What makes a composition viable is its capacity for motivating meaningful organismal or ecosystemic change: its transactional potential.

Importantly, human viability is sought not only biologically or behaviorally, but also on the plain of value, implying that the struggle to compose is not only aimed at functionally improving our capacity to inhabit the environment, but also deepening and enriching experience. Compositional viability is, therefore, how composition carries meaningful reconstructive power and enhances habits of living. It views teaching composition as the process of shaping embodied habits for viable behavior.

NATURALIZED COMPOSITION PEDAGOGY

Although there are undoubtedly others, we can identify at least three central pedagogical implications for a naturalized theory of composition: attending to the somaesthetics of writing; cultivating writerly habits; and writing for viable action.

Attending to the Somaesthetics of Writing

A naturalized approach to composition pedagogy recognizes writing as an embodied practice rather than a mental exercise, the teaching of which should focus on helping students attend to their embodied and emotional experiences—how it feels to write, how our bodies interact with writing environments, and how to reflectively engage with these experiences.

This perspective builds on Richard Shusterman's concept of somaesthetics, which emphasizes the centrality of bodily awareness, felt sense, and sensory experience in human activity.[60] Applied to composition, somaesthetics suggests that bodily awareness and somatic practices are not supplemental to writing but are instead integral to how writers engage with and understand their compositional processes.

A somaesthetic orientation challenges the Cartesian assumption that would position emotions as physical supplements to the rational, mental actions of the writer. Instead, emotions emerge as core components of how we "think" through writing, arising from the direct, embodied connection between biosemiotic intention and the real or perceived behavioral consequences of semiotic activity.[61] As Colombetti and Thompson argue, emotions are not merely reactive but agential—they are not simply phenomena that happen to us but are biosocial responses that we enact in specific situations.[62] For writers, this means that emotional responses during composition serve as critical indicators of their ability to gear into complex writing situations. We need to teach students to recognize their emotions during the writing process, understand the meanings of those emotions, and act through them.

Somaesthetics suggests that by cultivating bodily awareness and integrating somatic practices into the teaching of writing, we can help students develop a more holistic and embodied understanding of themselves as writers. This approach recognizes that the rhythms of breathing, the posture of the body, and the tactile sensations of the writing tools all contribute to the writer's engagement with and experience of the writing process.

In classroom practice, a somaesthetic approach requires attending to the full range of bodily experiences during writing, from physical awareness during composition to emotional attunement with the writing process. It further requires conscious engagement with the material conditions of writing, understanding how different environments and tools shape the embodied experience of composition. Lastly, it demands

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integration of full sensory experience into our understanding of how writers develop and deploy meaning.

Teachers of writing should find ways to provide structured attention to a student's ongoing somatic experience of writing. This might include maintaining detailed process journals that track physical and emotional states during writing sessions; systematic experimentation with different writing environments, writing postures, and writing tools (for example, paper and pen vs. word processing); and regular reflection on the embodied dimensions of different writing tasks. Rather than approaching reflective writing purely through the logic of instructor feedback and revision decisions, a somaesthetic perspective encourages writers to attend to and understand the bodily sensations and feelings associated with different aspects of composition—how it *feels* to remove an unnecessary paragraph, or the bodily experience of driving a point home at the end of a paper.

Somaesthetics suggests writers are not just trying to create an end product they can feel proud of; while in the act of writing, they are attempting to understand the embodied feelings associated with good writing.

Cultivating Writerly Habits

A naturalized theory of composition further understands writing expertise not as accumulated knowledge of the "rules" of compositional genres or structures, but as tacit know-how held within the body-mind. Rather than trying to "reconnect" the body to compositional activity (the Cartesian assumption), a naturalist theory of composition claims that composition is already a bodily practice that requires body pedagogies to hone the ability to develop and deploy meanings in service of environmental viability.[63] Naturalized pedagogies therefore emphasize learning the embodied techniques of composition as they interact with the material conditions of writing, or what Hans Joas calls "body schemas."[64]

Here we turn to examples from athletics which provide valuable models for thinking about systematic habit formation for expert practice. Expert soccer players talk of not needing to look to see where the ball is in relation to their feet and legs; racing drivers describe how they enter a state of secondary consciousness; skiers detail how they "read" the slopes.[65] Athletes in all these situations can materially and directly gear into complex, emerging situations because they have cultivated a body schema capable of directly assimilating into the material and technological aspects of the game they are playing. They intuitively feel and see what is going on in a manner totally different from a beginner.

The goal of naturalized composition pedagogies is similarly to acquire requisite habits for engaging in complex compositional situations and, in so doing, bringing about viable change (both adaptations and alterations). Writers acquire requisite

habits through sustained practice and attention to craft, just as athletes or musicians develop their embodied expertise. This process involves not just the accumulation of technical knowledge but also the development of tacit understanding through repetitive practice and heightened bodily awareness.

To develop such expert bodily knowledge in writing, we need systematic approaches to habit formation and practice. Athletic training has evolved sophisticated approaches to developing bodily expertise—approaches that attend carefully to technique development, environmental conditions, feedback cycles, and the integration of mind-body awareness. These training principles offer productive frameworks for composition pedagogy as we think about developing the writer's body.

Technique drills and repetition form a foundational element of athletic training (or artistic and musical training) that translates productively to writing instruction. Just as athletes perform targeted drills to develop specific motor patterns, writers benefit from focused practice with fundamental compositional moves. This might involve sentence-level practice where students write and rewrite the same content using different syntactical structures to develop a felt sense of rhythm and power. Students can engage in paragraph rewriting exercises that experiment with different organizational patterns, or focused practice with transitional moves between ideas. Regular "warmup" writing exercises at the start of each session help establish flow and prepare the body-mind for more complex compositional tasks.

Athletic training also emphasizes careful study of expert performance. Just as athletes study game film and break down technical elements, writers need structured engagement with model texts. This involves collective decoding model texts to understand how they achieve their effects, analysis of sentence-level choices and their impact on readers, and examination of how different genres employ distinct compositional moves. Studying the revision histories of texts can help writers understand how compositions evolve and develop over time, much like athletes study how plays develop across a game.

The role of coached practice sessions proves equally vital in both domains. Athletic development requires regular feedback from coaches who can identify technical issues and suggest adjustments. In writing instruction, this translates to regular writer's meetings with the instructor/coach, where specific compositional elements can be identified and refined. These sessions might involve real-time coaching during writing sessions or review of written work with attention to both technical execution and the writer's felt experience of different compositional moves.

Ritual development proves essential in both athletic and writing practice. Just as athletes develop pregame rituals and training routines, writers need to cultivate sustainable practices that prepare them for composition. This includes helping students identify and refine their optimal writing conditions, developing prewriting routines

that prepare the body-mind for composition, and establishing consistent practice schedules that become embodied habits.

Through these various training modalities and regimens, writers develop the body schemas necessary for expert compositional practice.

Writing for Viable Action

A naturalized theory of composition understands composition as a biosemiotic tool that our species has constructed and deployed to enable effective environmental inhabitation. Rather than viewing writing as purely mental exercise, this approach recognizes composition as a behavioral tool that allows us to actively shape both our environments and ourselves.

Compositional viability aligns with Dewey's theory of inquiry, which views all meaningful learning as emerging from concrete situations of organism-environment transaction. Just as Dewey understood inquiry as beginning with an indeterminate situation and moving through experimental action toward resolution, composition serves as a tool for transforming uncertain or problematic situations into determinate ones, reconstructing both the ecological whole and the social self.[66] The fundamental aim of writing is viability—not just in biological terms, but also in terms of values and meaning-making. Writers strive not only to improve their functional capacity to inhabit their environment but also to deepen and enrich their experience within it.

Traditional composition pedagogy has long emphasized "academic literacy," focusing on students' ability to understand and replicate disciplinary genre conventions. While this approach has merit, much of the work in this area focuses on how disciplinary writers make sense of their writing tasks, considering concepts such as purpose, goals, audience, and resulting form in the production of disciplinary writing.[67] From a naturalized perspective, genre-driven approaches can become overly reductive when they disconnect writing from its real-world impacts and operations. This disconnection runs counter to Dewey's understanding of inquiry as necessarily situated within concrete experience. For instance, students are often taught to mimic disciplinary writing patterns or are evaluated based on how closely they resemble imagined expert writers. This emphasis on writing in proximity to disciplinary standards often overshadows the more crucial understanding of how writing functions as a catalyst for real-world change.

Further, traditional composition teachers typically treat classroom writing as preparation for future "live" writing situations. This approach creates a problematic disconnect: students rarely experience, reflect on, or learn about the interactive relationship between their writing practices and real-world effects. A naturalized theory of composition argues instead that pedagogy should teach students to develop

and deploy composition as a tool for redirecting behaviors and transforming their world. What makes writing viable is its capacity to motivate meaningful organismal or ecosystemic change.

From a naturalized perspective, composition is best taught through engagement with and reflection on live situations. Recent composition pedagogies have suggested activities involving wikis, social media, and open pedagogy to provide students with writing practice in a live situation.[68] Shipka's multimodal task-based framework also complicates and situates an audience to a specific context.[69] These material approaches to composition can provide a basis for assignments that strive to emphasize real-world contexts and decenter the professor as the primary audience.

Returning to our athletics metaphor, these assignments work like scrimmages that allow students to develop situated judgment, test compositional strategies, and experience real-time feedback without the full stakes of competition. Just as scrimmages help athletes develop game sense and tactical awareness while remaining in a controlled environment, these writing situations help students develop their capacity for meaningful action while maintaining pedagogical support. However, these techniques should be understood for what they are: a process of rehearsal, rather than direct environmental reconstruction.

A key distinction lies in the nature of the feedback loop. In traditional writing assignments, including many "public-facing" exercises, feedback primarily comes from the instructor and occasionally peers evaluating the text against predetermined criteria. Even when writing for public audiences, the assessment often remains focused on how well the text meets academic or genre expectations. In contrast, truly live writing situations create immediate, tangible feedback based on the text's ability to catalyze real environmental change. When students write to solve actual problems in their communities, organizations, or digital spaces, they experience firsthand how their compositional choices either succeed or fail in creating desired effects. This direct experience of writing's transformative potential—or limitations—provides a fundamentally different kind of learning than simulated writing situations can offer.

To make compositional pedagogy viable, writing classes should shift their fundamental question from "What arguments do you want to make?" to "What problems do you want to solve?" This reframing explicitly connects composition to Dewey's theory of inquiry, where all genuine thinking begins with a troubled situation that demands resolution. As Dewey famously argued, "if I were asked to name the most needed of all reforms in the spirit of education, I should say 'cease conceiving of education as mere preparation for later life, and make it the full meaning of the present life.'"[70] Dewey suggests here that schools can only achieve democratic ends when they are organized to foster habits of inquiry via direct engagement in

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deliberative, democratic processes aimed at solving real problems.[71] He is arguing, in other words, to make social and ecological viability both the process and outcome of school learning.

This inquiry- and problem-driven approach to composition instruction offers three key benefits. First, it helps students understand the critical connections between writing activity and environmental change by positioning composition as a tactical tool within the larger process of inquiry rather than an abstract exercise. Second, it teaches students to navigate an iterative writing process guided by environmental feedback, embodying Dewey's experimental method where ideas are tested through their consequences. A student's written artifact becomes measured by a text's ability to create visible change rather than its adherence to academic conventions. Finally, as Eisner has argued, "the function of schools is surely not primarily to enable students to do well on tests, or even to do well in school itself."[72] Instead, schooling should "enable students to become the architects of their own education so that they can invent themselves during the course of their lives."[73] A naturalized theory of composition embodies this purpose. Using a problem-driven approach to compositional pedagogy helps students directly and explicitly develop a sense of their ability to use composition as a biosemiotic tool to foster transformational change.

CONCLUSION

In this essay, we made the case that the philosophical foundations of composition should be reconstructed from the standpoint of Deweyan pragmatic naturalism. Specifically, we suggested that Dewey's transactional metaphysics remedies the Cartesian nature/culture dualism that remains unwittingly embedded in contemporary composition theory and practice. We further argued that Dewey's metaphysics offers a framework for reconceptualizing the writer as an embodied, environmentally integrated agent. This eco-ontological account of the writer dissolves the crisis of agency that has plagued composition studies, showing how writerly agency emerges through the dynamic interactivity of mind, body, and material environment. Lastly, we argued that by imagining the aim of composition through the lens of ecological viability, a Deweyan approach provides a new way of understanding the purpose and value of writing. Composition, from this perspective, is not merely a matter of adhering to academic conventions or expressing individual thoughts, but a powerful biosemiotic tool for effecting change in the world.

Ultimately, Dewey's pragmatic naturalism offers a way to develop a more robust compositional theory that moves beyond a view of writing as an exchange between human actors and instead understands writing as a process of organismal

inhabitation nested within dynamic ecological change. For Dewey, the ultimate aim of education was not the mere acquisition of knowledge or skills, but the continuous transformation of the individual and society through the intelligent reconstruction of experience. Composition, understood as a means of grappling with and reshaping our lived experiences, is therefore central to the Deweyan project of education for democratic living.

NOTES

1. Coe, "Defining Rhetoric"; White, "Kenneth Burke in/and/around Composition."
2. Burke, *Language as Symbolic Action*.
3. Melia, "Scientism and Dramatism."
4. Busekrus, "Kairotic Situations"; Enoch, "The Writing Center"; Fleming, "Burkean Parlor"; Walsh et al., "The Burkean Parlor."
5. Emig, *Composing Processes,* 12.
6. Perricone, "Influence of Darwinism."
7. Popp, *Evolution's First Philosopher.*
8. Crick, "Composition as Experience"; Crick, "Composing the Will to Power."
9. Stroud, "John Dewey and the Question of Artful Communication."
10. Fishman, "Explicating Our Tacit Tradition."
11. Dyehouse, "Theory in the Archives."
12. Dewey, *LW* 1:133. All references are to the electronic edition of *The Collected Works of John Dewey, 1882–1953*. *EW* refers to the *Early Works*, *MW* to the *Middle Works*, and *LW* to the *Later Works*.
13. Ewalt, "(Re)Arranging Regional Rhetorics."
14. Barad, *Meeting the Universe Halfway*, 33.
15. Whicker, "Object-Oriented Writing Theory."
16. Harman, *Object-Oriented Ontology.*
17. Dobrin, *Postcomposition*, 125.
18. Dewey, *LW* 16:242–44, 348
19. Dewey, *LW* 1:212.
20. Dobrin, *Postcomposition*; Syverson, *Wealth of Reality.*
21. Jones, "Beyond the Postmodern Impasse of Agency."
22. Alexander, *Human Eros,* 18.
23. Lotier, "Around 1986."
24. Lotier, "Around 1986," 362.
25. Lakoff and Johnson, *Philosophy in the Flesh.*
26. Johnson, *Meaning of the Body.*

27. Bineham, "Displacing Descartes."
28. Johnson, *Meaning of the Body.*
29. Edelman and Tononi, *Universe of Consciousness.*
30. Skorburg, "Beyond Embodiment."
31. Dewey, *LW* 4:321.
32. Menary, "Cognitive Integration and the Extended Mind."
33. Dewey, *LW* 4:238.
34. Dewey, *LW* 10:274–75.
35. Garrison, "Walt Whitman," 308.
36. Dewey, *LW* 1:221.
37. Mead, *Mind, Self, and Society*, 77.
38. Dewey, *LW* 1:139.
39. Mead, *Mind, Self, and Society,* 77–78.
40. Hoffmeyer, *Signs of Meaning.*
41. Ramos et al., "Collective Decision Making."
42. Riley et al., "Flight Paths."
43. Scheifele et al, "Indication of a Lombard Vocal Response."
44. Slobodchikoff, Paseka, and Verdolin, "Prairie Dog Alarm Calls."
45. Tomasello, *Origins.*
46. Brinkmann, "Dewey's Neglected Psychology," 307; Dewey, *MW* 9:34.
47. Dewey, *LW* 1:198.
48. Dewey, *LW* 10:276.
49. Lakoff and Johnson, *Philosophy in the Flesh*, 22–26.
50. Sánchez, "First, a Word."
51. Hawk, "Reconnecting Postprocess."
52. Dewey, *LW* 10:15.
53. Pae, *Script Effects.*
54. Hills and Adelman, "Recent Evolution."
55. Shuford, *Feminist Epistemology*, 91–92.
56. Hickman, *Philosophical Tools*, 21.
57. Kennedy, "Hoot in the Dark," 10.
58. Moekle, "Environmental Pragmatism"
59. Capps, "Dewey, Quine, and Pragmatic Naturalized Epistemology," 647.
60. Shusterman, *Body Consciousness*; Shusterman, *Thinking through the Body.*
61. Askenasy, "Biosemiotic Conflict."
62. Colombetti and Thompson, "The Feeling Body."
63. Andersson and Garrison, "Embodying Meaning."
64. Joas, *Creativity of Action*, 167–84.
65. Shilling, *Changing Bodies*, 53.

66. Stoller, "Dewey's Creative Ontology."
67. Johns and Swales, "Literacy and Disciplinary Practices"; Parkinson and Adendorff, "The Use of Popular Science Articles."
68. Bloom, "Open Pedagogy"; Kester and Vie, "Social Media in Practice."
69. Shipka, "Multimodal Task-Based Framework."
70. Dewey, *EW* 4:50.
71. Dewey, *LW* 6:421.
72. Eisner, "Questionable Assumptions," 651.
73. Eisner, "Questionable Assumptions," 652.

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CONTRIBUTORS

Aaron Stoller is Associate Vice President for Student Success and a faculty member in the Education Department at Colorado College. His research examines the intersection of student success, organizational change, and critical pedagogy in higher education, with particular emphasis on how institutions can better serve diverse student populations through structural transformation. He is the author of *Knowing and Learning as Creative Action* (Palgrave MacMillan) and coeditor of *Contemporary Philosophical Proposals for the University* (Palgrave MacMillan). His scholarship has

appeared in *The Journal of Curriculum Studies*, *Studies in Philosophy and Education*, *The Journal of Aesthetic Education*, and *Research in Education*, where he also serves on the editorial board. As an administrative leader, he has developed innovative approaches to academic support and retention that have been featured in *Inside Higher Ed*, *College Admissions Decoded*, and the *AAC&U Liberal Education Magazine*. His current research focuses on critical disciplinary literacy and the role of third space professionals in higher education transformation, bridging theoretical frameworks with practical solutions to create more equitable and effective models of higher education.

Chris Schacht is Director of the Ruth Barton Writing Center at Colorado College. He has been teaching academic writing, creative writing, and tutoring theory for over fifteen years, working at community colleges, regional universities, health science graduate schools, and now a private liberal arts college. His academic interests include disingenuous rhetorics, primarily involving conspiracy theories and science denial. His current research into the Cartesian assumptions underlying writing studies extends to how these assumptions manifest across narrative media, particularly in regard to literary fiction, science fiction, and anime. He earned an MFA in creative writing from New Mexico State University. His short fiction explores intersections of environment, technology, and gender/sexuality, and can be found in *Analog*, *West Trade Review*, *Cutleaf*, *The Hopper*, and others.