13 NONCONSCIOUS AFFECT

Cognitive, Embodied, or Nonbifurcated Experience?

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Some of the major scholarly preoccupations of the previous century, like those adhering to a Cartesian division between mind and body or the psychoanalytical conscious-unconscious duality, have been supplanted by a new kind of neurological relation—that is to say, the relation established between a diminished mental faculty and the imperceptible governing power of the *nonconscious*. It is not the case, of course, that every scholar with an interest in these debates has blindly followed this trend, but the inclination toward posthumanism, for example, has certainly been shored up by a prevailing notion of consciousness grasped as just the tip of an iceberg of underlying insensible neurological processes. The once radical idea that consciousness, formerly modeled via cognitive processes like attention, perception, and memory, was just a thin slice of the action has now become a mainstream idea in the brain sciences, one that infiltrates major debates beyond neuroscience. The nonconscious poses many questions for decades of scholarly work leaning heavily on a cognitive theoretical frame and dramatically shifts the research focus away from an anthropocentric weltanschauung toward nonhuman worlds. Indeed, the nonconscious now figures writ large in wide-ranging debates on, for example, visual communication (Williams and Newton

2009), digital technologies (Grusin 2010), and the Anthropocene (e.g., Hayles 2017, 34).

Significantly, the nonconscious also maps onto a more general and influential turn to affect that initially became prominent in the brain sciences in the early 1990s (e.g., Damasio 1995). This turn has challenged some scholars who are critical of the ways in which neuroscience has been seized on in affect studies, prompting them to reevaluate the role of the nonconscious in the study of, for example, discourse and ideology (Leys 2011; Wetherell 2012) where such concepts have traditionally had a distinctively cognitive slant. Others have sought to bring together some aspects of neurobiological materialism and critique (Pitts-Taylor 2016; Sampson 2016). Furthermore, the non-conscious has become a deep-seated component of technopolitics within the humanities amid wider concerns about the precariousness of human cognition in technical systems (Hansen 2015; Hayles 2017, 173–75). As others argue, technocapitalism itself cannot be considered today without a contemplation of the cognitive *and* affective politics it suggests (Karppi et al. 2016).

Due to the complexity of this disciplinary drama, the aims of this chapter remain modest. It begins with theoretically contested notions of the neurological nonconscious that have produced two differently oriented strands in the posthumanities. So before addressing this theoretical division, it is significant to note that there is more instability than consensus in the neurosciences. The popular error of labeling the multiplicity of brain sciences a singular "*neuroscience*" has been acknowledged, as such, in the plurality of *neuroculture* (Sampson 2016). Nonetheless, this discussion narrows its focus on attempts to assimilate a contested understanding of the nonconscious in a remodeled cognitive theoretical framework on the one hand and a new materialist rendering of affect theory on the other hand. In the case of the latter strand, it is perhaps sensible to concede that there is, from the outset, no stable definition of new materialism or its closely affiliated concept of affect. In the first rendering of *The Affect Theory Reader*, there is a purposefully incomplete list of eight different theoretical angles to affect theory (Seigworth and Gregg 2010, 6–8). In this chapter, I will refer to some of these approaches while also drawing attention to a mode of new materialism indebted to Alfred North Whitehead, which embraces the nonconscious and contests certain

assumptions in cognitive science (Sampson 2016, 2020). In the case of
the former strand, unsurprisingly, those working within the cognitive
theoretical frame have presented several challenges to the ontological
(and ideological) commitments of new materialism; most notably, in
this discussion, N. Katherine Hayles (2017, 65–85).

The chapter is structured around a series of brief observations in-
tended to probe these two strands and eventually sketch out a third
Whiteheadian nonconscious. The first observation notes the differing
ways in which the neuroscientific nonconscious has stirred up debate.
The aim is to expose some level of generality by placing a small range of
varied new materialist work alongside Hayles's recent concept of the cog-
nitive nonconscious expressed in her 2017 book, *Unthought: The Power
of the Cognitive Nonconscious*. More specifically, the second observation
asks if new materialism, as Hayles claims, conspicuously ignores con-
scious cognition. Or, as I will argue here, does it offer a more nuanced
concept justifying a move beyond the cognitive framework? The third
observation begins to outline a Whiteheadian nonconscious, intended
to upset the anthropocentricism that arguably persists in theories of
embodiment, evident in Hayles's cognitive frame and, to some extent,
in affect theory as well. As follows, the discussion concludes by point-
ing to ways in which a theory of the nonconscious can avoid the neu-
rocentric and phenomenological trap of the subject-predicate-object
by mapping out a nonbifurcated experience.

The Rise of the Neuroscientific Nonconscious in the Posthumanities

In order to trace the widespread influence of the neuroscientific
nonconscious, we need look no further than the impact of Antonio
Damasio's (1995) somatic marker thesis. Along with Benjamin Libet
(1985) and Joseph LeDoux (2003), Damasio's Spinoza-inspired no-
tion of the enhanced and enmeshed role somatically derived affects
play in the processes behind reasoning and decision making is writ
large in these two diverging strands of interpretation. To begin with,
Damasio's work is often cited as support for a principal idea in new
materialism—that is, despite the humanities' orthodox fixation with
an anthropocentric worldview, human cognition is actually a late ar-
river. In other words, the human brain is understood to take its time to

build consciousness as just one of many responses to the dynamics of external environmental stimuli. Drawing on Spinoza, the psychologist Wilhelm Wundt, as well as Libet, Damasio thus enables new material-ism to frame the immediate experience of consciousness as a radical "backdated illusion" (e.g., Thrift 2007, 131). Along these lines, *think-ing* is not at all limited to the *thought* inside the brain. On the con-trary, Damasio (1995, 187) provides an understanding of how somatic markers act as a kind of "corporeal thinking" in affect theory. Through Damasio's work, we further see how the *forces* of affect traverse and remap emotions (Bertelsen and Murphie 2010, 140). Emotion, in this context, is a kind of *capture of affect* in consciousness, but the focus is distinctly less on how these maps relate to conventional cognitive processes than it is on the significance of a feely, bodily *precognition*.

This temporally backdated "pre-" feeds forward a distinctive non-human concept applied to technology in the new materialist's ren-dering of the affective nonconscious. For example, similarly drawing on Damasio and LeDoux, Richard Grusin (2010) offers a theory of affect in relation to the premediated human encounters with digital media, following, in part, a neuropsychology approach that insists on "the inseparability of cognition from affect or emotion, often on the priority of affect and emotion to cognition and rational judgment" (78). Grusin borrows from Hayles's (2006) modification of Patricia Clough's (2000) original "technological unconscious" concept, trans-forming it into the neurologically fine-tuned "technological noncon-scious" (Grusin 2010, 72).

The nonconscious relation between human and nonhuman worlds of inorganic matter also becomes key to the Deleuze-Spinozan vi-talisms of new materialism, by way of "linking the movements of matter with a processual incorporeality" (Seigworth and Gregg 2010, 6). Affect thus becomes the "hinge where mutable matter and won-der . . . perpetually tumble into each other" (8). In other words, affect does not just pass from human body to human body but becomes a nonconscious *force of encounter* with a dynamic materiality that pos-sesses an autonomous nonhuman capacity to act and be acted on.

It is important to initially note that Hayles's (2017, 44) embodied concept of the "cognitive nonconscious" is also influenced by Libet's notion of a belated consciousness. However, it is Damasio's *protoself* that provides the core model of how nonconscious experience feeds

forward to consciousness—that is to say, how it "operates at a level
of neuronal processing inaccessible to the modes of awareness, but
nevertheless perform[s] functions essential to consciousness" (10).
Indeed, in this model, neuronal processes *level up* from Damasio's
primary protoself to higher levels of a core consciousness (9–10). At
the lower level, there is a "kind of sensory or nonverbal narrative,"
which integrates Damasio's somatic markers into coherent represen-
tations of the body, before becoming "melded with verbal content in
higher consciousness" endowed with "abundant memory, language,
and reasoning, narratives" (10). So, at the top of the stack of cognitive
levels is a distinctly human sense of higher consciousness "enriched"
by the production of a "well-defined protagonist, the autobiographi-
cal self" and "reinforced through the verbal monologue that plays in
our heads as we go about our daily business" (9–10). It is these verbal
narratives, *represented* in the mental faculty of the brain, that helps
humans make sense of who they are.

Significantly, though, Hayles (2017, 9) reminds the reader that this
leveling up process from proto- to autobiographical self is not re-
stricted to humans but can be shared by some nonhumans including
"many mammals, and some aquatic species such as octopi." Certainly,
the novelty of Hayles's concept is found in the expansion it offers of
this cognitive leveling-up process to other broadly defined *cogniz-
ers* who possess analogous interpretational and decision-making
capacities. Although the starting point is strictly a neurological model,
these capacities are not restricted to animals with brains but encom-
pass other biological cognizers, "including those lacking central
nervous systems, such as plants and microorganisms" (15). Moreover,
the nonconscious is further extended to the cognitive capabilities of
specific technical systems, some of which are inclusive of *cognitive as-
semblages* that bring together humans and technologies via interactions
with neuron networks in the brain. This use of the term "assemblage"
is important to Hayles given that it enables the humanities to break
out of the "anthropocentric view of cognition" enabling "bridges"
that span "across different phyla to construct a comparative view of
cognition" (15).

In spite of these efforts at bridge building, Hayles's assemblage theory
purposely opens up a stark categorical divide between cognitive and
noncognitive worlds (30–33). On the one hand, there are the *cognizers*:

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human and nonhuman *actors*, including some biological forms and computer algorithms, with the cognitive capacity to choose, decide, and interpret. On the other hand, there are *noncognizers*, including in-animate and inorganic materials, such as stones and hurricanes, which may well be agents "harnessed to perform cognitive tasks" (32) but are nonetheless noncognitive since they lack cognitive capacities. This cat-egorical divide has a distinct intention. Significantly, the point is not to "ignore the achievements of conscious thought, often seen as the defining characteristic of humans, [but to] overcome the (mis)percep-tion that humans are the only important or relevant cognizers on the planet" (10–11). As Hayles contends, once this "misperception" is over-come, then the humanities can turn to new important questions and ethical considerations (10–11). Indeed, whereas the technical cogni-tions found in artificial intelligence (AI) algorithms, for example, have been commonly, and perhaps misleadingly, compared with higher level human cognition, Hayles contends that their traits are more analogous to a cognitive nonconscious. As she puts it, "Like human nonconscious cognition, technical cognition processes information faster than con-sciousness, discerns patterns and draws inferences and, for state-aware systems, processes inputs from subsystems that give information on the system's condition and functioning. Moreover, technical cogni-tions are designed specifically to keep human consciousness from being overwhelmed by massive informational streams so large, com-plex, and multifaceted that they could never be processed by human brains" (11). A major concern of Hayles's work in the humanities is therefore centered on the increasing disappearance of human cogni-tive consciousness from technological systems.

This chapter will persist in probing these two alternative approaches to the nonconscious: new materialism and cognitive nonconscious. But for now, some cursory comparisons and contrasts need to be made. Notably, both approaches readily align themselves to neuro-scientific notions of the nonconscious and expand this notion to nonhuman worlds. However, whereas new materialism expands the capacity of affect to an inclusive human and nonhuman world of agential organic and inorganic matter, the cognitive nonconscious makes a categorical distinction between selected cognizant actors and noncognizant agents dependent on their capacity to choose, de-cide, interpret, and act on information.

Where Is Consciousness?

Hayles's (2017) formulation of the cognitive nonconscious is based, in part, on her critique of new materialism. It is worth noting that this critique begins with some affirmative observations. For example, the new materialist's effort to decenter the human subject is noted as a welcome move against "human exceptionalism" in the humanities, which, she contends, has overly focused on a "privileged special category" imbued with language, rationality, and higher consciousness, to the detriment of the human's "continuum with nonhuman life and material processes" (65). Furthermore, Hayles seems to particularly admire the strong ontological commitment that new materialism has to a conceptual foregrounding of a materiality that is vibrant rather than passive and exists in metastable dynamic processes and assemblages with transformative potentials. Hayles continues, "After the baroque intricacies of the linguistic turn, [new materialist] approaches arrive like bursts of oxygen to a fatigued brain. Focusing on the grittiness of actual material processes, they introduce materiality, along with its complex interactions, into humanities discourses that for too long and too often have been oblivious to the fact that all higher consciousness and linguistic acts, no matter how sophisticated and abstract, must in the first instance emerge from underlying material processes" (65). This initial enthusiasm, however, conceals a rather hefty ontological disagreement concerning the ways in which new materialism frames the nonconscious. The main thrust of Hayles's criticism is what she sees as the conspicuous absence of "consciousness and cognition" (65–66). Perhaps this is because of a reluctance, she suggests, on behalf of new materialists to "slip [back] into received ideas and lose the radical edge that the focus on materiality provides" (66). Nonetheless, Hayles contends that by separating materiality from cognition, new materialism weakens the case for a new materiality since it "erases the critical role played by materiality in creating the structures and organizations from which consciousness and cognition emerge" (66). This is indeed a gritty provocation and one that new materialism should respond to in full. However, for now, this discussion will simply ask if consciousness is erroneously or purposely missing from new materialism, or is there a more nuanced understanding of how nonconscious affect relates to consciousness?

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1   At the outset, if we again peruse Gregg and Seigworth's (2010) *Af-*
2   *fect Theory Reader*, we can see how Hayles's suspicions have probably
3   been fueled by what appears to be the celebratory zeal of some au-
4   thors who see the role of the nonconscious in one of affects theory's
5   main achievements—that is to say, "affect's displacement of the cen-
6   trality of cognition" (5). To be sure, affect theorists have enthusias-
7   tically drawn on various neurological conditions like synesthesia to
8   destabilize the study of discrete "cognitive modes" in preference for
9   "sensual interconnection" (Highmore 2010, 119–20). Moreover, Brian
10 Massumi's influential focus on affective intensities are posited in such
11 a way as to "transform," "translate," or even go "beyond" cognition
12 (Bertelsen and Murphie 2010, 147). Similarly, Anna Gibbs (2010, 200)
13 argues that affect "prompts a rethinking of just what is meant by cog-
14 nition at all." After affect theory, Gibbs argues, there can be no "pure
15 cognition . . . uncontaminated by the richness of sensate experience,
16 including affective experience" (200).

17   However, these attempts to weaken cognition do not entirely ig-
18 nore emergent consciousness. Hayles's observation of its conspicuous
19 absence from new materialism has been, it would appear, somewhat
20 selective. Indeed, through its embracing of the nonconscious, new
21 materialism has arguably developed a far more nuanced understand-
22 ing of cognition. As Megan Watkins (2010, 279) points out, although
23 nonconscious affects operate "independently, accumulating as bodily
24 memory" and "may evade consciousness altogether," they also *aid*
25 cognition and *induce* behavior. Indeed, this bodily memory—related
26 in so many ways to Damasio's somatic marker hypothesis—does not
27 become separated from cognition but purposefully weakens the grip
28 of the cognitive frame on what it means to think. As Seigworth and
29 Gregg (2010, 2–3) argue, "In practice, then, affect and cognition are
30 never fully separable—if for no other reason than that thought is it-
31 self a body, embodied."

32   Other affect theorists do not entirely disregard cognition either but
33 see it as the "end product; that is to say, the point at which the in-
34 tensity of nonconscious affect arrives as a conscious emotion in the
35 mind" (Probyn 2010, 77). Along similar lines, Massumi (cited in Thrift
36 2007, 180) grasps cognition in the sense that it completes the "capture
37 and closure of affect." The key difference here is that rather than see-
38 ing higher order cognitive processes, like perception, attention, and
    memory, as the end product of a leveling-up process, affect theory

favors a kind of emotional cognition as the most intensive expression
of this capture.

This repositioning of cognition also presents contrasting alter-
natives to the important ethical considerations Hayles draws atten-
tion to. For example, her concerns over the potential disappearance of
human consciousness from intelligent technical systems also indirectly
draws on Clough's (2000) technological unconscious as the basis for a
model of *automated cognition* which bends "bodies with environments
to a specific set of addresses without the benefit of any cognitive inputs"
(Thrift 2007, 177). Along these lines, Hayles (2017, 176) uses the tech-
nological unconscious to argue for an expanded cognitive framework
focused on "meaning and interpretations," which would operate like a
bridge between the "traditional humanities and the kinds of noncon-
scious cognitions" performed by AI algorithms. Such a bridge would
bring together the technical cognitive nonconscious of the algorithm
and "those humans who design and implement them" (176).

Clearly, there is much to commend in Hayles's desire to make the
humanities' position on technology more immediate and less aloof.
But arguably, the technological nonconscious presents an even more
complex account of the role consciousness plays in technological
systems than Hayles allows. It is not simply the case that human cog-
nition has been cut out of the operations of these technical cognizers.
On the contrary, it is more the case that a wider *capture of think-
ing* and the extension of cognitive awareness feeds on the precarious
weaknesses of a human consciousness subjected to technocapitalism
(Thrift 2007, 6–7). It is, indeed, this easy *capture of thinking* that leads
some to argue that more attention needs to be paid to the relation
between weak human cognition and the precognitive (7). This is not,
then, a technological nonconscious that merely usurps the human
cognizer but one that is deeply interwoven with automated algo-
rithms (e.g., Borch and Lange 2017). In short, human cognition and
the technological nonconscious do not bifurcate from each other;
they are intensely entangled.

On Assemblages, Information, Embodiment, and Experience

Hayles (2017, 12) begins her thesis by relocating cognition outside
of the cybernetic model of consciousness and rejecting the legacy of
cybernetics in "the computation of the cognitivists." Here again, we

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can grasp the influence of the neurosciences on the cognitive frame as it too moves away from the exhausted computer-brain metaphor toward a new paradigm that encompasses the nonconscious. Following this logic, Hayles remarks that there is a growing recognition in the neurosciences that neuronal processes are not "fundamentally computational" (13). There is, as such, increasing support for an embodied and biologically constituted kind of cognition that is not simply restricted to an image of cognizant human thought (i.e., aware, attentive, etc.). This leads to an acknowledgment of the differing contexts in which cognitive processes are assumed to emerge. The cognitive frame therefore expands to include distributed nonconscious neuronal communications between humans, like those established via circuits of so-called mirror neurons (48). More profoundly perhaps, Hayles notes how these embodied contexts can be extended to include some nonhumans: plants, for example (16–20). It is certainly this concept of cognition as "a broad compass" that leads her to further incorporate technical contexts into the category of cognizers (20–25).

Hayles's neurologically inspired appeal to broader contexts of cognition points to some fundamental collisions with new materialism. Particular attention is drawn here, as such, to Hayles's provocative use of the term "assemblage" to explain how these broader contexts of the cognitive nonconscious are distributed exclusively through networks of cognizers. To begin with, although Hayles claims to maneuver away from computational metaphors toward an embodied model of cognition, her concept of cognitive assemblages retains many of the conventional metaphorical references to engineering terms to support the categorical division between cognizers and noncognizers. Most notably, this categorization is dependent on the role of *flows of information* and *information processing* (115–16). As follows, the cognizer is made distinct from the material agency of the noncognizer since the former can *act on* information received while the latter can only be *harnessed* as an agent of information flow (28–29).

Moreover, albeit recognizing that information is context dependent (22), Hayles's remodeled cognitive framework is, on the one hand, determined by fairly conventional computational operations, such as the leveling up from "layers of interactions from low-level choices, and consequently very simple cognitions, to higher cognitions and interpretations" (13) and on the other hand, a noncognitive material world

defined by a lack of such operations—that is to say, the noncognizer is
an agent that cannot process information in order to, for example, de-
cide. A "tsunami," Hayles notes, "cannot choose to crash against a cliff
rather than a crowded beach" (3). In other words, although human
decisions, climate change, the self-organizing forces of matter that
constitute a storm and human death are interconnected, the middle
two are only regarded as a passive part of an informational loop, de-
fined, in effect, by a lack of information processing power.

Ultimately, Hayles presents a differently orientated materialism,
claiming that the cognitive nonconscious is all about "matter, energy,
and *information*, [and] not only matter in the narrow sense" (218; italics
added). Therefore, the categorical borderline between cognizers and
noncognizers only includes plants and technical systems since they
"share certain structural and functional similarities" with a model of
human cognition defined by a capacity to act on the "flow[s] of in-
formation through a system and the choices and decisions that cre-
ate, modify, and interpret the flow" (116). This ensures that material
agents and forces outside of these structures must take a back seat to
the "cognizers within the assemblage that enlist these affordances and
direct their powers to act in complex situations" (116).

There are a few frothy comparisons that can be made between
certain aspects of Hayles's cognitive assemblages and new materialist
affect theory. For example, the focus on mirror neurons in Hayles's
account is reminiscent of Gibbs's (2010, 193–94) work on processes
of affective mimicry in which she argues that the "sharing of form
comprises information in the pre-cybernetic sense." Affective mim-
icry becomes an "action on bodies" that not only affects body chem-
istry but also affects attitudes and ideas (194). As theories of affective
contagion suggest, there is a considerable blur established between
the concept of a self-contained individual and its imitation of others
(Sampson 2012). Nonetheless, the information flows that pass through
Hayles's (2017) imitative cognitive assemblages are in sharp contrast
to the contagions we find in affect theory. On the one hand, cognitive
assemblages are connected by a series of metaphorical "channels"
through which information is interpreted. These channels begin with
a lower level "signal-response" system like those assumed to func-
tion in mirror neurons, for example, but have since evolved into a
higher-level linguistic channel (128). In other words, these channels

form information loops in "network hardware" through which mimicry must travel on its way from lower level social signals to higher level verbal codes (128). As follows, we find a "trajectory analogous to nonconscious cognition developing first, with consciousness emerging later and being built on top" (128).

On the other hand, affective contagion forms assemblages of occurrences produced in encounters between bodies and events. These encounters are broadly understood as being like "receivers and transmitters" but not restricted to information flows since they also encompass sensations, feelings, and affects. A child who mimics an airplane, for example, does more than simply make a cognitive *choice* to imitate. The child is exposed to an affective *force* of encounter, which not only affects the child's desire to imitate but also *passes on* a transformative feeling to other parts of the assemblage. Unlike the context-dependent nature of cognitive assemblages, then, connected by embedded informational channels, affect is independent of context. The force of affective encounter is transposed, as such, *across* contexts.

Probably the most marked differences between cognitive and new materialist assemblages is, in effect, noted by Hayles (2017). Whereas she sees Deleuze and Guattari's influential assemblage theory leaning on "connotations of connection, event, transformation, and becoming" and favoring "desire, affect, and transversal energies over cognition," the cognitive assemblage aims to offer a broader definition that includes a "provisional collection of parts" that are in a "constant flux as some are added and others lost. The parts are not so tightly bound that transformations are inhibited and not so loosely connected that information cannot flow between parts" (117–18). As Hayles continues, the most "important connotation" of cognitive assemblages is the "implication that arrangements can scale up, progressing from very low-level choices into higher levels of cognition and consequently decisions affecting larger areas of concern" (118).

There is, then, a further distinction that needs to be made between *leveling up* and *forces* of encounter referred to, respectively, in cognitive and affective assemblages. In the case of the latter, Hayles points to examples of what she regards as careless new materialist accounts of forces that are supposed to work *transversally* across micro and macro levels. The issue is, she argues, that forces operate differently at certain levels and therefore need to be approached with more care-

ful consideration of mechanism specifics. The micro levels of bacte-
rial life or quantum physics, for example, have very different kinds
of forces in operation, Hayles claims, to those that might occur on
a macrosociopolitical or cultural level. This criticism of the forces of
new materialism hinges on what she calls the restrictive ideological
leanings toward "Deleuzian deterritorializations" (73). However, this
line of argument, focused as it is entirely on deterritorializations, per-
haps misses the complex relations expressed in affective assemblages.
With every potential deterritorializing line of flight, there is the simul-
taneous possibility of a territorial refrain or new territorialization or
reterritorialization (Deleuze and Guattari 1987, 310–50). This should
not be misunderstood as a material relation in the narrow sense: the
force of one object exerting a force on another object. Neither is it
complete chaos.

Further limitations become apparent in cognitive assemblage theo-
ry's initial commitment to Damasio's leveling-up process from proto-
to core self. This is because the theory presents a neurocentric model
of emergence that ultimately informs the subsequent ways in which
cognition is distributed to a select group of biological and nonbio-
logical contexts (the nonhuman cognizers). To be sure, what is lost in
Damasio's model is an understanding of how these exterior distributed
relationalities operate beyond the closed interiority of neuronal inter-
actions. As follows, Damasio (2000), like LeDoux (2003), contends
that the coherent sense of self that individual humans experience at
the higher level of cognition is an emergent outcome of nonconscious
interactions located *inside* the micro level of synaptic functionality.
But this is not to say that the emergence of the self that says "I" is
produced by a brain that is entirely immune to implicit affective
somatic experiences. Nor is it a self wholly composed of purely explicit
cognitive functions (perceptions, attention, memory, etc.). On the
contrary, the core self emerges from nonconscious experiences of the
material world in the wider sense.

Unlike new materialism, which focuses on nonrepresentational
and precognitive tendencies of affect, the guiding principal of the
protoself takes the form of a series of hardwired representations
of the organism itself located *inside* the brain at various levels. It is
these bodily representations that are supposed to maintain the co-
herence of self. This is what Damasio (2000, 21) considers to be the

most likely "biological forerunner" of the sense of a "preconscious biological precedent." It is the various neuronal interactions between the levels of protoself and autobiographical self that produce more elaborate representations experienced at a higher level of consciousness as identity and personhood. The sense of self therefore emerges matryoshka-like through a leveling up of representations that are interpreted at the higher level of consciousness.

Similar to Hayles, then, Damasio's model seemingly breaks away from the old cybernetic models of consciousness, only to return to a familiar and problematic retention of the metaphorical concepts of information processing and representational storage inherited from cybernetics (Sampson 2016, 126–29). Nonetheless, Hayles (2017) argues that the process of leveling up is crucial to the framework of nonconscious cognition. She concludes, "The specific dynamics operating at different levels provide a way to distinguish between material processes and nonconscious cognition as an emergent result, as well as elucidating the modes of organization characteristic of consciousness/unconsciousness" (69). Ultimately, I contend that Hayles's critique of the imprecise forces of new materialism is swapped out for an equally loose application of information levels. To conclude this part of the discussion, then, on the one hand, according to Hayles, the journey from a nonconscious, formed in the materiality of embodied experience, only becomes high-level thought because of a leveling up from micro to macro representations. However, by taking noncognizers out of the assemblage and essentializing information processing as the mechanism of embodied interaction, Hayles in effect divides cognitive minds from material vitality. This separation makes cognizers a primary *relation of interiority* that bifurcates from exterior relations to matter. Matter thus becomes inert and deadened. On the other hand, the new materialists' turn to forces of affective embodied experience decenters the human and moves the analytical lens away from mindful interiorities toward a bodily *relation of exteriority* to the material world. Yet, from the neuroscience perspective adopted by both Hayles and affect theory, although nonconscious exterior forces precede the cognitive mind, they eventually go on to shape it. The precognitive nonconscious is effectively a precursor of cognition. Indeed, how thought emerges from (or alongside) the unthought in both accounts (cognitive and affect) undergoes a com-

parable measure of inexactness, arguably rooted in varied interpretations of embodied experience.

<div align="center">A Whiteheadian Technological Nonconscious</div>

From a Whiteheadian perspective, a concept of nonconsciousness couched in cognizers, noncognizers, bodily forces or the modification of embodied experience does not go far enough to explain experience outside of thought. To begin to understand why this is, we need to start with Whitehead's resolute refusal to allow a bifurcation between mindful experience and matter. There are several cursory philosophical points to note. First, and similar, to some extent, to the aims of phenomenology, nonbifurcation challenges idealism. Reality is not simply grasped through the mediation of human thought. Second, however, nonbifurcation takes on established materialisms that resort to a version of reality located in discrete objects (things, atoms, neurons etc.). The idealist's bifurcation of mind and matter is not therefore replaced with a mind made simply of matter, like material neuroscience, or indeed, the material environments that embodied cognitive subjects encounter. On the contrary, what becomes crucial to the study of nonconsciousness is that mind and the liveliness of matter only become analyzable when they are taken together in the temporal thickness of events. Third, then, the focus shifts away from a nonconscious predicated by cognitive or embodied experiences to a radical theory of experience outside of thought, *in the event*.

Fourth, it is important to note that Whitehead grasps subjective phenomenal experience *in the event* as decidedly unreliable. In *Process and Reality*, he vividly captures this fallacious subjective perception as a "half-awake . . . awareness . . . absorbed within a small region of abstract thought while oblivious to the world" (Whitehead 1985, 161). Human perception becomes a kind of sleepwalk (Sampson 2020, 69) caught between an embodied "torrent of passion" and a "morbidly discursive" and narrow bandwidth of attention. Along these lines, Isabelle Stengers (2014) notes that at its most exceptional, at its most plastic, the human mind only has a mere foothold in the experience of reality. It is certainly not a phenomenal cognitive command post! Relatedly, then, Whitehead sets out to escape a trap set by

a kind of phenomenological embodiment: an embodiment Husserl initially intended to refute idealism and later elaborated by Heidegger and Merleau-Ponty to be comprised of worldly interactions (Sampson 2020, 161). The point is that phenomenological embodiment captures experience in a subject-predicate-object relation. In effect, even when bodies become ecologically linked to their environment (through information levels or affective forces), a preoccupation with human embodiment will always ensure that it is the subject who experiences the world.

Once out of this particular trap, Whiteheadian experience becomes untethered from human cognition and embodiment. This is because Whiteheadian experience begins with an ostensibly uncanny, yet profound, proposition. Worldly experience heralds the arrival of human subjective experience. It is not human consciousness that draws attention to experience. It is, on the contrary, experience that draws attention to an anomalous human perception of worldly experience. As follows, Whitehead offers a radical philosophical point of departure since it is not phenomenal human consciousness that sheds light on experience. Quite the reverse, it is experience in the actual world that draws attention to the aberration that is human consciousness. Whiteheadian event theory therefore confronts the limitations of an abstract thought that can never absorb the entire temporal thickness of the event.

The fallacious preeminence of human minds and bodies makes it very difficult to understand the growing complexity of nonconscious assemblages, especially in technocultures. If we are to disentangle experience from a problematic human-centered perception, as both Hayles and affect theory suggest is necessary, then thinking with Whitehead becomes increasingly important. This is because in the study of embodied interaction (Dourish 2004), the phenomenological subject-predicate-object trap is (always) already set. Like Heidegger's interest in tools, it is always the situated user who experiences the device, *ready to hand* or *present at hand* (Sampson 2020, 156). As an alternative, a Whiteheadian new materialism posits a seemingly strange notion: *objects can experience subjects*. The idea that a device can experience a user is not, however, an entirely alien concept in the design of smart tangible computing. Like stones that sense the warmth of the sun, so-called smart sensor technological objects might arguably *feel* in a Whiteheadian sense. Correspondingly, in the Internet of

Things context, users appear to become the object of sense-making technologies. It might be the case that in twenty-first-century media, as Hayles argues, human subject agency has ceded control to these transcendent technological objects. The binary divide between active communicative subjects and passive silent, fixed objects no longer works. Technological objects are becoming cognitive, sociable, side-stepping human awareness or taking the place of humans altogether (Mitew 2014). Decisively, though, a Whiteheadian approach recon-siders experience in terms of immanence or nonbifurcation. Subjec-tive forces are not predetermined as the knowers (or unknowing) of objects.

Nonbifurcated experience is "the self-enjoyment of being one among many, and of being one arising out of the composition of the many" (Whitehead 1985,145). This is not a self-satisfying moment in time that *essentially* begins in a human head, brain, mind, body, or AI algorithm. Human experience can be "an act of self-origination," but it is constrained to a "perspective of a focal region, located within the body . . . but not necessarily persisting in any fixed coordination with a definite part of the brain" (Whitehead, cited in Dewey 1951, 644). In short, experience cannot be decoupled from its entanglement with the "whole of nature." Experience is continuous to material assem-blages (technological and otherwise) and their encounter with the entire temporal thickness of events. As Whitehead describes what we might call an *assemblage brain*, "We cannot determine with what molecules the brain begins and the rest of the body ends. Further, we cannot tell with what molecules the body ends and the exter-nal world begins. The truth is that the brain is continuous with the body, and the body is continuous with the rest of the natural world" (644). This assemblage does not limit experience to any privileged sense organ (the cognitive nonconscious, the sensation of a body) or a higher level of consciousness (the all-perceiving mind with the capacity for language). Although Whitehead (1967, 78) concedes that human consciousness may well be an exhibit of the "most intense form of the plasticity of nature," there is no dichotomy between the human and what is experienced. In this nonbifurcated sense-making assemblage, the nonconscious or unthought can only be defined as an experience of events closed to mind. Which is to say, the cognitive mind does not provide direct access to matter since it is entangled in

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a continuous matter flow. At best, the mind provides a mere foothold in the event.

To conclude, there are two key takeaways arising from this approach. First, a Whiteheadian nonconscious puts the event in affect theory. By doing so, it presents a version of matter that is lively. Indeed, mind and matter are entangled in the dynamic temporal thickness of the event. Mindful access to an event is not therefore experienced from a commanding cognitive position, as an idea in form or inert substance, but instead arises out of a continuous duration of momentary rhythms of experience. Second, events are experienced as affects *outside of thought*. This is a relation of exteriority that clearly differs from Hayles's reference to an interiorized unthought constrained by cognition and thus a notion of affect rendered in the cognitive theoretical frame, whether that be a human or nonhuman cognizer (see Hayles and Sampson 2018). More radical than this, a Whiteheadian nonconscious does not limit the experience of events to the affects of either a lower level protoself or an embodied precognition. By removing the subject-predicate-object, affect theory gains access to a *more-than-human* experience of events.

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