

Composing Agency: Theorizing the Readiness Potentials of Literacy Practices

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ABSTRACT

This essay argues that literacy actors compose agency through the embodied practice of literacies in combination with self-aware feedback loops. The argument brings together recent conversations on agency, embodiment, and cognition in composition studies, neuroscience, and the humanities to develop the concept of discursive readiness potential. Discursive readiness potential refers to one's embodied agency and accounts for the range of possible actions available to an actor on the basis of her or his past experiences. Furthermore, discursive readiness potential points to one's capacity to navigate a field of potential literate practices into one actualized action. As such, the essay supports a renewed call for research on agency and embodied cognition in composition studies by outlining discursive readiness potential as a flexible process model for understanding how agents act in emergent discursive situations.

KEYWORDS

agency; embodiment; embodied cognition; potentiality; literacy

The ideological model, as part of the social turn in composition, consists of ethnographic research analyzing literacies in the context of broader social, cultural, and political currents of power and aims to understand how those practices were constructed through ideology. As Brian Street summarizes the approach, literacy is “a social practice” that is “always embedded in socially constructed epistemological principles. It is about knowledge: The ways in which people address reading and writing are themselves rooted in conceptions of knowledge, identity, being. Literacy, in this sense, is always contested, both its meanings and its practices, hence particular versions of it are always ‘ideological’” (418). Since the 1980s, the ideological model has been the dominant paradigm through which researchers have investigated literate practices, resulting in countless ethnographies detailing socially situated literacies.

Recent critiques of the ideological model note that mainstream literacy studies has done little to respond to the mounting evidence that our cognition and corporeality are profoundly intertwined and shaped by our material environments. As Marolina Salvatori argues, we should do more to critique the ideological model, including our notions of “literacy,” and account for the material *acts* of reading and writing (67). Moreover, in her recent critique of the social turn, Laura Micciche argues that social constructivism—as one of our “central explanatory systems of writing communication”—is insufficiently tooled to “match the creative complexities of our time” (“Writing Material” 497), and its primary analytical tools (e.g., textual analysis and ideological analysis) “are limited” in their ability to deal with the ecological relations between texts, bodies, and worlds (488). Likewise, Kristie Fleckenstein argues it is time that we return to cognitivist views of composition, informed now by our understanding of the dynamic and formative roles played by bodies and ecologies of writing.² These arguments dovetail with other critiques of literacy studies, such as those by James Collins and Richard Blot, who argue for more attention to micro-power in literacies, and by Deborah Brandt and Katie Clinton, who argue we should attend to nonhuman actors in literacy scenes. This scholarship suggests that we need new approaches to grapple with how, as Raúl Sánchez puts it, the (f)act of literacy is inexorably embroiled in ecologies of mind, body, and world.

The problem facing our field isn’t about how socio-cultural power or ideology shapes human literate activity, but about how we conceptualize human (corporeal) bodies doing literacy as an ideologically and socio-culturally hued *and* materially embodied and embedded cognitive practice. Critiques of the ideological model emphasize that writing is deeply tied to (with) our bodies, tools, and technologies as we navigate ideologically charged socio-cultural situations, for as Micciche writes, “Writing involves everything you do, everything you encounter, everything you are when making sense of the world through language. Writing is contaminated, made possible by a mingling of forces and energies in diverse, often distributed environments. Writing is defined, ultimately, by its radical withness” (“Writing Material” 502). Writing is with (inseparable from) not only ideologically hued cultural practices, but also nonrepresentational aspects of embodiment and the various tools, technologies, and other nonhuman actors that extend our embodied acts of writing into contested social spaces.

This essay examines embodiment as an aspect of literacy practice. Following Lisa Blackman, I understand embodiment as a nonrepresentational process, as something that we *do* and *become* rather than something that we *have* or *are*. By focusing on embodiment as a process through which we compose a certain kind of body connected to and extended by other bodies, tools, technologies, etc., we can better see how cognition and cognitive actions are deeply intertwined with our bodies and our worlds (Blackman). Examining embodied practices in this way affords a focus on agency via the concept of discursive readiness potential, which accounts for how one’s previous literate experiences emerge as potentials for action in a situation, and how cultivating and changing our sets of emergent potentials involves revising our connections among mind, body, and world.³

We can conceptualize discursive readiness potential as a discursive muscle memory. Our manifold capacities to act emerge from prior practice as possible ways of *doing* in a literacy scene, but are subsequently winnowed down by conscious and nonconscious processes into a single action.

The concept responds to Kate Vieira's argument for the field to ask "what are the consequences of literacy" (26), for "literacy is a tool (though not a neutral one) that has particular potentials to be put to certain uses" (27). Discursive readiness potential offers a theoretical approach for outlining such potentialities *as* potentialities in realtime. Discursive readiness potential encapsulates what Steve Parks terms the range of resting points (conceived here as the recurring vantage points for action) that continually emerge as our literate practices unfurl in space and time. Readiness potential is bound to socialized discourse processes yet underscores the importance of the cognitive, embodied, and material practices and forces that shape our actions in the present.

To illustrate discursive readiness potential, I offer a brief anecdote from my own writing practices as a burgeoning academic. While I was in the midst of completing my PhD coursework, I had proposed an ambitious conference paper that would require substantial work to complete. However, when the conference neared, I found myself struggling to balance teaching several sections of composition at multiple institutions; and in the week leading up to the conference, I found myself caring for my two young children alone. These circumstances, and the responsibilities they entailed, blocked my own perception as I struggled with my talk. I had only given a couple other conference papers at this stage, so the scene was still mystified for me. I felt unaware of the unwritten rules that govern academic conferences, unsure of my status as a graduate student (feeling like much of an outsider), and uncertain about what kinds of discursive moves were allowed or available to me. The conference paper seemed so very different from the kinds of writing I had done as an undergraduate (and as a graduate student) at the time.

To understate my felt experience, I was overwhelmed, and I felt hemmed in by the limits of my experience, the conference paper rhetorical situation, and the specific genre conventions of the conference paper.⁴ As the conference drew near, I could not move past my felt sense of the argument I wanted to make. As Sondra Perl writes, felt sense emerges as "images, words, ideas, and vague fuzzy feelings that are anchored in the writer's body. What is elicited, then, is not solely the product of a mind but of a mind alive in a living, sensing body," and when writers return to felt sense, they are "looking to their felt experience, and waiting for an image, a word, or a phrase to emerge that captures the sense they embody" (365).⁵ I didn't know how to materialize those hazy ideas into a coherent paper, and I could only imagine *not* giving the talk, sitting on the bench until I had acquired whatever skills I would need for the next round, for the task of writing the paper seemed too cognitively taxing to manage. While I was attempting to reproduce a conventionalized genre, it was one of the first times I had attempted to iterate the gestures that comprise a conference paper, and I could see no inroads for articulating my ideas in a way that could count as a conference paper.

The problem I faced was one of genre uptake, which as Anis Bawarshi and Mary Jo Reiff explain is a kind of conditional knowledge about how and when to use a genre that is "often tacitly acquired, ideologically consequential, deeply remembered and affective, and quite durable, connected not only to memories of prior, habitual responses to a genre, but also memories of prior engagements with other, related genres" (86). We can also see this as an issue of agency, understood as our capacity to act or to affect others and be affected, for as Bawarshi argues, genres invite certain meaning potentials, including opportunities to (re)produce the norms and subjectivities of a genre's

discourse community.⁶ This essay develops discursive readiness potential as an embodied aspect of the agent that emerges from one's experience and situatedness. Discursive readiness potential situates agency as an everyday function of embodied actors that emerges from our prior experience as much as our unfolding situation (viewed from the tripartite dynamic relationships between mind, body, and world), and it marks agency as the process of navigating potential actions in discursive situations through feedback loops that tie together our minds, bodies, and material ecologies.

In the following sections, I bring together current views on agency and embodiment from interdisciplinary scholarship on affect, embodiment, and neuroscience with the goal of outlining a more robust theory of agency for literacy studies. As recent composition scholars have argued (Cooper, "Being Linked" and

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"Rhetorical Agency"; Fleckenstein; Gorzelsky; Micciche), writing and literacy are simultaneously cultural and biological undertakings that are underwritten by feedback and feedforward loops between our bodies and the material worlds we write in. As such, we may best theorize aspects of literacy if we develop frameworks that account for the interrelationships between material, embodied, and neurobiological aspects of literacies. My approach follows Edward Slingerland's argument that the humanities should integrate what we know about embodied cognition from the biological societies with our well-established capacities to analyze cultural nuance in the humanities, else we risk developing misguided theories of literacy, cognition, and action grounded in factual error (27).⁷

ACTION POTENTIALS AND EMBODIED EXPERIENCE

This section frames the essay's argument by examining a constellation of concerns regarding action potentials and embodied experience in discursive situations. First, I discuss materialist and embodied approaches to potentials for action, a frame that underlies the rest of the article, then I tie these concepts to literacy studies by way of Kevin Leander and Gail Boldt's ethnography of embodied action.

Recent interdisciplinary scholarship has framed embodiment as one's capacity to do something, recursively wrapped up in the interconnections between our minds and bodies, as well as other bodies, tools, and technologies that fill the worlds we inhabit (Blackman; Brennan; Clark; Clough; Damasio). Embodiment and embodied cognition are things that we do, not things that happen to us (Blackman; Clark; Latour; Maturana and Varela; Noë; Slingerland). Accordingly, our bodies are not stable (or passive) entities through which we act, but are always in the process of becoming, mediated by internal processes (i.e., affects, feelings, emotions, goals, memories) and

external forces that affect us (Blackman; Cooper, “Rhetorical”; Thompson). For example, social scientist Nigel Thrift ascribes for the body a potential for becoming, for entering new socio-political territories, for becoming certain *whos* doing certain *whats* as events unfold, and he situates this potentiality as an emergent process of action.⁸ Thrift develops the term “bare life,” which he describes as “that little space of time that is much of what we are, a space not so much at the edge of action as lighting the world” (60), and as “that blink between action and performance in which the world is pre-set by biological and cultural instincts which bear both extraordinary genealogical freight—and a potential for potentiality” (61). Bare life, in other words, describes the liminal space between cognition and doing where potentiality resides; potentiality describes the range of possible actions available to an individual hemmed in by biological capacities, prior cultural practices and experiences, and other nonrepresentational forces, such as emotions, affects, etc.

This essay explores potentiality in order to understand how experience feeds into agency. How does a body’s capacities to act (to affect and be affected) emerge from a field of potentials (possible actions not yet actualized) conditioned by the body’s ideologically hued socialized history and by its relations with human and nonhuman actors? Each action emerges in dynamic response to our ongoing and emergent interactions between other human and nonhuman actors in a situation, including our own textuality. Each literacy event is a resting point, one stance in the world among a dynamic field of literate practices and possibilities that “rises out of the layerings and interleavings of body practices and things” (Thrift 63). In order to conceptualize literacy as an emergent stance arising out of the interleavings of bodies, practices, and things, I turn to Leander and Boldt’s discussion of emergence and action, which like other recent work on emergence or becoming (Cooper, “Rhetorical”; Lu and Horner; Rickert; Syverson) emphasizes how our capacities to *do* are shaped by the “brain-body-thing-world circuits” that comprise our embodied and emplaced situatedness as literate agents (Rickert 92).

In “Rereading ‘A Pedagogy of Multiliteracies,’” Leander and Boldt move away from the text-centrism of the New London Group (NLG) by drawing a nonrepresentational framework from Giles Deleuze and Massumi to argue that literate practices are tied to embodiment. The NLG situates texts at the center of literate practice while also viewing texts as the outcome of practice (28). In contrast, Leander and Boldt focus on the concept of emergence (i.e., activity unfolding out of the dynamic and cyclical relationship between an individual and her surround) to highlight texts as things that are produced in process that feedback into new assemblages, thus becoming actants in practice.

Each literacy practice, as it unfolds, emerges out of internal states like goals, intents, feelings, etc., but also by the various human-nonhuman assemblages circulating in the literacy event.⁹ Leander and Boldt illustrate this principle of emergence through an evocative retelling of a scene in which one boy, Lee, engaged in a range of literate activities related to a Manga comic character. By shifting literacy analyses away from text-centrism and toward embodiment, where the body is conceptualized not as a solitary thing (what cognitive scientist Andy Clark calls the skin-bag) but as an assemblage of the mind, body, and various objects, tools, and technologies (i.e., mind-body-world assemblages), then we can begin to conceptualize how embodied literate activities unfold in unpredictable ways (i.e., untethered from deterministic text-centric outcomes). The material objects that extend Lee’s body include books, headbands, and toy daggers, as well as chairs, porches, and kitchen tables. Each item

affords the unfolding of certain practices; each practice becomes part of the literacy event, opening up new possibilities for action while foreclosing others. For example, reading the Manga outside with the toy daggers and other accessories scattered about quickly shifted to play fighting echoing the characters and scenes from the text. The reading practice, as much as the toys and other environmental features, co-constituted the potential for enacting play fighting resonant with the text's narrative events.

Leander and Boldt highlight the nexus between *embodied* human and nonhuman actors through the concepts of emergence and nonrepresentational thinking, which allow us to see Lee as an ever-changing assemblage of mind, body, and material things. A nonrepresentational approach does not view activity as the determinate outcome of prior practice, but as an unpredictable outcome contingent on the multiple and co-existing relationships and assemblages between human and nonhuman actors (36). Further, Leander and Boldt argue, the repetition of practice is deeply tied to the different ways a body is emplaced in an environment, for each reiteration emerges in its own unique context across a non-sequential timeframe (37). This opens a space for indeterminacy, for “[i]t is the body’s registration of the difference between what is and what could be, the potential for emergence, connecting moment to moment, movement to movement” (40). Each iteration is its own emergence, its own potential for action, and each stance in the world consists of its own conditions of emergence and potentials for action. Our conceptual tools for addressing the networks of human and nonhuman actors must address how the kinds of agency that emerge in a situation are shaped by an actively thinking and sensing body in dynamic interrelationships with its surrounding materiality.

NAVIGATING POTENTIALS FOR ACTION

Composition studies has problematically neglected the issue of agency since the rise of poststructuralist theory (Cooper, "Rhetorical Agency"). With the rise of poststructuralist critiques of subjectivity, our theories of language and action placed broad social constructs like discourse and ideology in the author's chair as we turned away from process views of cognition and agency (Flower). Scholarship in literacy and composition studies has focused on socially constructed discourses as the engine of individual action (our ways with words) in rhetorical situations, while agency has been reserved as a marker for either acts of resistance against dominant forms of power or as a lack of discourse mastery (Lu and Horner). Recent conversations on agency (e.g., Cooper "Rhetorical Agency"; Lu and Horner), however, emphasize embodiment as a key framework for understanding agency as we move forward. The following section discusses this scholarship to define agency as an embodied capacity for navigating possible actions that emerge from the reiterative practice of literacies.

Critiques of the poststructuralist erasure of the agent (i.e., the death of the author) have argued that conceptions of rhetoric as an individual undertaking do not work without some functional theory of agency (Cooper "Rhetorical Agency"). For example, in her recent review of literacy studies scholarship on affect and agency, Beth Daniell points out that James Gee's Discourse theory, which conceptualizes social languages as Discourses that are comprised of our ways of saying-being-doing-feeling and allow us to be recognized as certain *whos* doing certain *whats*, cannot account for

individual agency. As Daniell explains, while Gee makes distinctions between the primary Discourses we acquire at home and the secondary Discourses we learn in public spaces and institutions, he does not fully explain how individuals navigate multiple Discourses in realtime, sometimes forging hybrid Discourses to deal with complex rhetorical situations. As Daniell points out, since Gee argues one cannot fully engage with a Discourse until one has acquired fluidity and control (mastery), he leaves little room for personal agency outside of Discourse.

In “Agency and the Death of the Author,” John Trimbur articulates a notion of agency that contrasts with agency as mastery and control, for as Trimbur writes, “agency is not about explaining but about maneuvering, [...] not the theory but the *practice* of practice” (287). Agency is not a matter of theories, explanations, interpretations, discourses, but is instead about action, movements, flows, strategies, tactics, maneuverings, the *practice* of practice. The repeated, culturally situated, embodied practices that get enacted time and again must be navigated by the individual, and this capacity to maneuver between various possible consequential actions is a kind of agency rooted in the everyday moments of being literate. Trimbur’s concept of agency buttresses my concept of discursive readiness potential, as it brings together conversations on agency and embodiment.¹⁰

Trimbur marks agency not as the result of a deliberate interpretation, but as a structure of feeling, or the affective presentation of embodied experience to the mind in a holistic yet nondiscursive process that we register as intensities or feelings that seem private, but are social phenomena experienced within the theater of the body and registered by the mind, just at the edge of semantic representation.¹¹ These structures of feeling are important because they shape the performance of an action, giving it contours and intensities that later get interpreted and linguistically represented by the mind. At the cusp of action, however, we only have these structures of feeling that are at once both intensely personal and thoroughly social. Agency is about excess and potentiality—capacities to act—rather than intentionality or determination (288). Trimbur writes that agency results from “our feelings about the possibilities of consequential action and how we recognize and justify what we do” (288). Understanding those feelings as well as the embodied cultural and material factors that (re)shape them is crucial to a project aiming to holistically understand agency and to view writing as an embodied act, which of course, it is.

Recent composition scholarship has taken up the cognitive sciences in order to discuss how human cognition *emerges* from the complex interrelationships between brain, body, and world (Cooper; Fleckenstein; Lu and Horner). As Marilyn Cooper explains in “Being Linked to the Matrix,” writing is an embodied activity driven by ecological principles that tie writers and writing to tools, technology, and the world, with implications for how we think about agency. Cooper writes, writing is not an autonomous intentional action, but is “more like monitoring, nudging, adapting, adjusting—in short, responding to the world” (16), for although writing is a system that we’ve created through our social and embodied living, it also re-creates us through the various feedback loops that tie us to ourselves and the world around us (25). Cooper points to our emergent process of becoming through feedback loops between ourselves and our surround (“Rhetorical”). Likewise, Min-Zhan Lu and Bruce Horner take up the concept of emergence, which they tie to agency in “Translingual Literacy, Language Difference, and Matters of Agency.” Finding that the field has limited its notions

of literacy to spatial concepts by construing literacies “in terms of insides and outsides, borders and margins” (587), Lu and Horner argue that this spatial view limits our understanding of “mainstream writer agency” to the transgression of cultural norms (584). In response, Lu and Horner argue that emergence emphasizes temporality, and all literate activities entail the (re)production of difference—even the literate activities that seem to reiterate cultural norms.

Lu and Horner argue that discursive agency emerges through continual acts of iteration and reiteration, decontextualization and recontextualization, modification and reproduction. Every discourse act is a moment of agency wherein one must navigate potentialities, for if every instance of language use modifies the language at the same time that it reproduces the language, “then every instance of the use of language, including what is recognized as repetition, represents an exercise of agency, a choice, whatever the level of consciousness in the making of it, and a contribution of sedimentation” (589). Every time we take discursive action, we practice agency as we actively (re)construct language and contribute to our own sedimentation. Every action is a (re)construction of the language forms available to the individual according to the situation, and each discourse act (re)contextualizes language from one spatio-temporal context to another through a cyclical emergent process that works as a feedback loop between individual embodied agents and their surround. Thus, writing is “emergent and relational, in a state of becoming, not only informing but also informed by how we negotiate—reconstruct, re-member, and reconfigure—identifications or ‘knowledge’ of the context’ of our life and work and our practical senses of the relations and conditions most urgently requiring meaningful responses” (591). By emphasizing the “mutual interdependence of structure and language practices,” Lu and Horner direct our attention to discursive agency, or the ways individuals “fashion and refashion standardized conventions, subjectivity, the world, and their relations to others and the world” time and again, without a presumption that the discourse agent is squarely located within a stable discourse world (591). Discourse conventions, subjectivities, and situations are not spatially out there, but are flung from the ever ongoing processes of doing literacy that emerge in unpredictable ways, shaped by one’s embodied emplacement in situations carved out by one’s (and others’) actions.

To illustrate their argument, Lu and Horner discuss David Bartholomae’s “White Shoes” example from “Inventing the University,” which (for Bartholomae) demonstrates “the normative stability of discourse at the expense of both the writer’s situation and the eventfulness of language itself” (Bartholomae, qtd. in Lu and Horner 593-94). However, Lu and Horner note that the essay “appears to iterate norms with a vengeance—to wallow in conventionality” (594), and in doing so, falls outside conventional notions of agency. In terms of (re)iterating dominant discourses, or (re)inventing the university, the essay appears to be unremarkable, but from a perspective of discursive agency as an emergent process through which writers always navigate difference-making, the essay raises questions about the agent’s (re)iterations in relationship to a wider field of potential discourse actions. The essay demonstrates that the (re)iteration of conventional discourse moves emerges from a field of alternate possibilities. Of all the discursive moves available to the agent, why choose this one; or conversely, why not the others?

By acknowledging all discourse moves as agentic, Lu and Horner’s translingual approach conceptualizes any (re)iteration of a discourse as a generative move that has meaning in contrast to

a field of other potential discourse actions. The practice of literate practices—each (re)iteration of a literate practice—affords consequences for the ways in which those literate practices, in dynamic interrelationships with other actors (human and nonhuman), compose our socio-cultural positions

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as subjects. As Cooper explains, writing is an embodied activity situated in environments replete with tools, technologies, and other bodies, and “the practices that are writing emerge as people respond to others and to their world; they are not the product of minds somehow separated from bodies nor of innate technical or linguistic abilities” (18). To understand writing from this biological and cultural perspective requires us to account for the ways writing activities are inexorably tied to complex networks of our bodies, and other bodies, tools, and nonhuman actors. Words and tools are ready-at-hand parts of our brain/body/world networks, and writing is always in emergent inter-action with our surrounds (19-20).

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COMPOSING AGENCY

The previous section conceptualized agency as a capacity to navigate a field of potential actions shaped by the practice of literacy practices. This section explores how practices are sedimented through action and how we can compose new kinds of agencies by changing the range of potential actions that emerge in embodied situations. I build on agency as the practice of practice and the navigation of a field of possible emergent actions by turning to neuroscience (Schwartz and Begley) and the humanities (Noland). First, I take up cognitive psychologist Jeffrey Schwartz’s work with patients who have obsessive compulsive disorder (OCD), which shows how we may change our well-established patterns of behavior and, in doing so, make changes to our brain, mind, and body. Second, I draw on French scholar Carrie Noland’s work on gestures and cognitive science, which

argues we compose agency by doing. Together, this scholarship emphasizes the importance of one's self-aware feedback in cultivating potentials for action.

Schwartz develops the notion of mental force to explain how the full effort of physiological and psychological attention that humans are capable of producing in any given situation may intervene in our emergent potentials for action. For instance, imagine the experience of driving on the freeway during a storm when visibility is reduced and the road has become slick and dangerous. When driving under dangerous conditions, the mind and body synergetically turn themselves to the task at hand (driving the car), producing the so-called white-knuckle effect. It is a moment of agency that is felt as much as thought-through; as we feel tension or anxiety, our eyes widen, and our conscious and nonconscious cognitive resources narrowly focus on the task at hand. Schwartz and Begley argue that all our actions share a certain capacity for deploying mental force and that this effort is key to changing the likelihood that any potential action will be actualized.

Schwartz and Begley turn to Benjamin Libet's study of action and awareness to develop this argument. In Libet's first set of experiments, he asked individuals to decide to flick or flex their wrist at a time of their choosing while wearing devices on their scalps that measure brain activity. Libet found in this first set of experiments that brain activity dramatically increased about one half-second prior to the movement of the wrist. The brain activity that fills this half-second, known as the readiness potential, was long thought to have been "related to the process of preparing to make a movement" (304), but Libet's research found that not all brain activity was followed by a motion. As Schwartz and Begley explain, "the readiness potential [that Libet] was detecting appeared too long before muscle activation to correspond directly with a motor command to the muscle" (304). The traditional view in neuroscience and psychology maintains that will or agency initiates action, and "this sense of volition would have to appear before the onset of readiness potential, or at worst coincidentally with it" (305). However, Libet's research found that individuals' sense of agency emerged *after* the onset of readiness potential.

In Libet's second set of experiments, individuals were asked to flick their wrist at a time of their choosing, and to report the time at which they became aware of this decision. Following forty trials of five individuals in each trial, Libet found that the half-second readiness potential (which amounts to 550 milliseconds) preceded movement, yet "[a]wareness of the decision to act occurred about 100 to 200 milliseconds before the muscle moved," leaving 350 milliseconds of readiness potential prior to awareness of a decision to move. More recently, Soon, Brass, Heinze, and Haynes have found that readiness potential may emerge several seconds prior to awareness of action.

To understand agency, we must understand readiness potential, for agency exists not to initiate or invent an action but to narrow the field of potential actions by allowing and suppressing possible alternative actions. Schwartz and Begley explain, "[T]he prefrontal cortex [the brain region most directly tied to conscious cognitive thought] plays a central role in the seemingly free selection of behaviors, choosing from a number of possible actions by inhibiting all but one and focusing attention on the chosen one" (312). The power of agency lies in narrowing the field of potentiality, and if we want to effect change on an individual's capacity to act, we must work to strengthen the likelihood that a possible action will happen. Agency is thus the refusal to complete an action initiated

by one's nonconscious brain activity, a process that Schwartz and Begley call "free won't," or the "mind's veto power over brain-generated urges" (296). Longstanding habitual actions enjoy strong neural networks that reinforce the likelihood that we will continue to do those actions. Schwartz and Begley's concept of mental force allows us to articulate how writers can initiate a free won't agency through the practice of practice, thereby composing new potentials for action in future situations.

Because agency is a simultaneously nonconscious and conscious process, Schwartz and Begley counter the likely criticism that "[t]his may seem an enfeebled sort of free will, if [free will] does not initiate actions but only censors them. And yet the common notion of free will assumes the possibility of acting otherwise in the same circumstances, of choosing not to perform actions that tempt us each and every day" (308). Schwartz and Begley show that in order for a possible alternative action to enter into the process of choosing an action, it must be one that is felt to be available rather than experienced as just theoretical.

In Schwartz's research and therapy with OCD patients who, for example, repeatedly wash their hands, he found through brain scans that the OCD neural circuit that represents "go wash your hands" was tied to nonconscious and conscious areas of the brain and would fire repeatedly. The strength of the brain circuits corresponded with the intensity of the felt experience to do something. In therapy, patients were introduced to the idea that they could do something else at that moment: besides washing their hands, Schwartz suggested to his patients that they might go to the garden instead of the sink. However, the brain circuitry that represents "go to the garden" would enter into decision making processes in the prefrontal cortex as a much weaker signal early in therapy, thus having a lower probability of occurring. Schwartz demonstrates this claim through empirical evidence (pre- and post-treatment PET scans) that shows how the relative strength of key synaptic circuits changes as a result of patients' use of mental force to tend the garden instead of hand washing.

By exerting mental effort over time, the patient may change the balance of probabilities so that the potential action strengthens its associated neural signals and its likelihood for occurring. As Schwartz explains, in the circuit that represents "wash your hands" (as in any other circuit that represents a behavior such as "go to the garden"), the potentiality to both wash and don't wash co-exist. Early in the therapy, however, the brain "wave representing 'release neurotransmitter' in the OCD circuit [i.e., go wash hands] has a higher probability than the wave representing 'release neurotransmitter' in the garden circuit" resulting in the patient being "much more likely to go to the sink" (362-63). Notably, the brain activity corresponds to affectively charged experience registered as a felt imperative to wash hands despite conscious (theoretical) intent to do something other than the OCD behavior, such as go to the garden. However, as the "go to the garden" circuit gathers strength over time and through practice (i.e., the practice of practice), it becomes a felt possibility, and patients increasingly feel they have a choice. Once the alternative action becomes a felt possibility, "[t]he OCD patient can now act on this thought and go to the garden. This increases the chance that, in the future, the 'garden' circuit will prevail over the 'wash' circuit," for "If the patient regularly goes to the garden instead of the sink, neuroplasticity [the brain's ability to physically alter its structure] kicks in: brain metabolism changes in a way that strengthens the therapeutic circuit. As a result, future OCD urges are easier to overcome" and the OCD patient begins to gain control over his or her actions (363). Individuals

may change the likelihood that one action will take precedence over another through mental force and the practice of practice, sedimenting practiced actions as potentials in neural activation patterns.

Agency is a simultaneously physiological and psychological process that narrows a field of potential actions into a singular act and affords the capacity to intervene in the potentials that emerge. The field of potential actions emerges as non-conscious brain activity termed readiness potential. Potentiality refers to a set of actions available to us because of a specific history of practice, which may be altered through mental force. As Gorzelsky argues in “Literacy in a Biocultural World,” literacy is an “inherently biocultural phenomena” (122). Schwartz and Begley’s work provides a way to articulate both how literacy practices entail both biological and cultural practices that shape the literate actions available to us in a situation, and how we may change our emergent field of potentials for action.

Noland extends this argument in *Agency and Embodiment* by exploring how we “convey spontaneous, unscripted meanings through sedimented forms” or practices, such as gestures (56). Noland develops an embodied concept of agency in which embodiment is “the process whereby collective behaviors and beliefs, acquired through acculturation, are rendered individual and ‘lived’ at the level of the body. *Agency*, it follows, is the power to alter those acquired behaviors and beliefs” for multiple purposes (9). At the heart of Noland’s project is the argument that kinesthetic sense, or the capacity to recognize one’s own body as different than others, is key to understanding agency.

Noland focuses on gestures because they highlight the nexus of embodiment and signification. Gestures, Noland explains, are “techniques of the body” that are learned through socialization, including ways of “sleeping, standing, running, dancing” or inscribing, and consist of “small or large muscle movements, consciously or unconsciously executed” (15-16). Noland’s concept of gestures is akin to the kinds of saying-being-doing formations that underwrite Gee’s notion of Discourse, for gestures are wrapped up in culturally formed routines that carry social signification and are performed at varying levels of conscious and nonconscious attention. As Noland explains, “Gesturing is the visible performance of a sensorimotor body that renders that body at once culturally legible (socially useful) and *interoceptively available to itself*” (21). Gestures render the body as socially useful (certain *whos* doing certain *whats*) while making the experience of that culturally inscribed movement available to the self as the structuring principle of the body. This process is an embodied agency, “a kinesis that parses anatomical possibilities into distinct gestures available for *but not equivalent to* social meanings” (Noland 54). One’s sense of self enables one to cultivate embodied potentials for action into distinct socially useful or meaningful gestures that are not equivalent to social meanings because their significance is shaped by the situations in which they emerge. Gestures thus describe the sets of saying-being-doing-feeling practices that comprise Discourses, and through their practice or (re)iteration, feed their actualization or performance in the world back to the individual as a kind of self-awareness akin to Schwartz and Begley’s mental force. Furthermore, the significance of these gestures is not fleshed out until they emerge in situations. This suggests we conceptualize practices as potentials for action that do not fall into Discourses (i.e., categories of signification) until they emerge in realtime; this process of emergence constitutes for Noland the moment in which we compose culture through doing.

The material body consists of emergent potentials for action that may be enacted to create culture;

and by activating or performing various gestures as culturally meaningful assemblages, we are writing the body as the body writes (213). Noland explains: “Like any element of a conventionalized language or procedure, gestures are iterable, but when performed *by me* they are not necessarily iterations. There is a first time for *my* body to perform what other bodies already have learned to do. And there is a first time for *my* body to perform the gesture in an idiosyncratic and potentially subversive way” (214). This principle of iteration resonates with Lu and Horner’s emphasis on the (re)production of sameness as a moment of agency. While these kinds of actions may not be revolutionary, they are the crucial moments wherein one writes one’s own body as one writes; inscribing culture into distinct bodily formations and assemblages that may re-emerge later as potentials for action in future literacy scenes.

Like Schwartz and Begley, Noland sees agency as a capacity to navigate actions and, in doing so, to (re)iterate actions in order to cultivate sedimented socio-cultural practices that can later emerge as potentials for action. The neural circuits underwriting habitual actions are composed by the reiteration of behaviors over time and may be revised or changed through future actions (74). When our sedimented routines of action do not fit an emergent situation, we undergo a “neural reorganization,” in which “the system hesitates, searches among a ‘myriad of possibilities,’ multiple ways of creating new aggregates, connections, circuits, and eventually, behaviors” (Noland 74). To get through this conflict, Noland argues, we must draw on creativity that is “constrained by the kinetic dispositions and realized gestural routines (the ‘embodied history’) of the organism itself” —our library of I-cans (74-75). Because we have these neurally inscribed I-cans, we may respond to novel situations with flexibility and unpredictability while relying on socio-culturally sedimented behaviors or gestures. Noland writes,

[O]ur body’s incorporation of the social in the form of a body *hexis* (neural pathways inscribed through imitation and training) provides a sort of “library,” a choice of responses, that we can draw from to “deviate” the given and “elude” the automatic. That which would, from another perspective, hem us in and potentially crush us (our social construction) instead contributes to forming an “embodied history” of gestural possibilities that ensure our (albeit limited) freedom from unreflected action. And these possibilities, although sometimes available to consciousness, are not the mind’s but the body’s: they belong to a motor *intelligence* that has learned to recognize social cues. (86-87)

Noland views agency as a capacity that is strongly socially structured and open enough to allow an individual creativity that hinges on one’s self-aware feedback of the body doing. We quite literally compose agency as potentials for action in the (re)organization of neural pathways that get materialized as discrete embodied assemblages of doing, gestures of meaning that exceed subjective meaning.

DISCURSIVE READINESS POTENTIAL

To return to the anecdote of writing a conference paper outlined above, the problem I faced in taking up the conference genre was a matter of agency. Certainly, giving the talk itself would

be a moment of discursive agency, but actually giving the talk depended on the *felt sense* that the discursive act was *available* to me, that I had already acquired the abilities (I-cans) as potentials for future enactment. In order to compose the paper, I had to compose certain kinds of agency comprised of action potentials relevant to the genre. Initially, the paper felt viscerally unavailable to me; I felt paralyzed. I could only imagine *not doing the paper*, and I looked for ways to bow out of my obligations. My perception was blocked by my inexperience with the rhetorical situation and the genre conventions, in addition to the other life pressures I struggled with at that time. The genre underwriting my talk affected me as an external material force that carried with it textual features and discourse moves that seemed to fall just out of reach for me. At the same time, I struggled to negotiate the intense internal forces related to my family and teaching situations that materialized as stress. I did not feel that the discursive act of the conference paper was within my grasp, there did not seem to be a potential for *doing* as the situation unfolded; I had no discursive agency.

As a graduate student, I was clearly adept at writing persuasive arguments, having written hundreds of pages of essays throughout my career, yet those practices did not emerge as readiness potentials. I had no experience in writing conference papers, and I had little understanding about the expectations I might face in the rhetorical situation of the conference. Given the constraints of experience that I perceived, I seemed not to have the capacity to transfer the rich body of experience in essay writing into the moment of drafting the conference paper. I couldn't actualize similar discursive moves I had made in related situations, such as undergraduate essays or graduate seminar papers.

The only potential action that seemed to emerge was not writing, yet through a series of focused meetings with my advisor, we talked explicitly about the genre conventions of the conference paper and worked collaboratively to imagine the range of possibilities for developing my ideas into a paper that would meet audience expectations. My advisor helped open pathways for connecting my prior discursive experience with the emergent situation through a collaboratively recursive and reflective process. With this revised meta-awareness of the discursive situation, I was able to open the field of possible actions available to me, to intervene in my practice of conference papers, resulting in a successful talk, composing agency through my (re)iterations of academic discourse in a new context. This experience continually feeds forward into new discursive situations, providing me with the embodied potential for navigating the conference paper scene, even when it feels out of reach. Thus, the practice of conference paper practice has enabled me to compose a readiness to act in similar situations with greater expertise and flexibility.

The notion of discursive readiness potential describes such a range of possible actions available to an agent in a discursive situation, as well as the range of possible actions that may not be felt as immediately available to one due to the contours of the situation. Furthermore, as this anecdote suggests, external resources (both human and nonhuman) can play important roles in bringing potentials for action to the actor's awareness, or helping the actor feel that those possibilities are available to be enacted. These interventions might happen through conversations, revised interpretations of sensory stimuli, focused reflection, mindful repetitions of scaffolding practices, etc. Discursive readiness potential describes how we compose agency, but it also points to how we

may revise the potentials for action that emerge to the agent.

This argument has a number of implications for literacy studies scholarship and composition pedagogy. First, the concept highlights the fact that we cannot conceptualize literacy practices primarily as social systems, or at least only as social systems. We must recognize that one of the consequences of literacy practices is that literate experiences can have measurable effects on our neural system and embodiment through the practice of practice. Acquiring literacies entails not only taking on new ideologies, but developing new bodies and extensions to other bodies, tools, technologies, and other material objects in our socio-cultural scenes of writing. As Gorzelsky argues, literacy scholars may consider exploring new research cooperations with colleagues in other disciplines, such as neuroscience, cognitive psychology, cognitive linguistics, etc.¹²

Additionally, we may turn to existing research in neuroscience, for example, in order to revise our theories of composing practices and processes of learning and doing literacies. In this way, my argument aligns with Fleckenstein's call for a return to cognitive studies by highlighting

“Discursive readiness potential lends itself to conversations about the transfer of learning in the composition classroom by highlighting how the focused and repeated practice of discrete literate practices and self-aware feedback loops between writer, the writer's writing body, and the world may cultivate greater likelihoods for doing similar actions in emergent context-rich social situations. Accordingly, this view of agency invites a consideration of metacognitive activities, such as reflection and reflective writing, that might generate opportunities for writers to compose new agencies or reinforce existing literacy action potentials.”

how we may investigate cognition and individual writing processes from an ecological perspective that ties together mind-body-world. Discursive readiness potential identifies and explains the response patterns that we automatically generate as potentials for action, and it articulates how those automatic response patterns may be revised through the practice of practice in combination with mental force, which allows the individual to compose new potentials for action. In doing so, the individual not only cultivates socio-culturally significant skills and abilities but changes the internal dynamics of the neural pathways that make one literate practice more or less likely to happen in a given situation than a range of other potential actions. Thus, discursive readiness potential offers a process theory of *how* we change what is internal to us as embodied agents within rich material socio-cultural contexts.

Discursive readiness potential lends itself to conversations about the transfer of learning in the composition classroom by highlighting how the focused and repeated practice of discrete literate practices and self-aware feedback loops between writer, the writer's writing body, and the world may cultivate greater likelihoods for doing similar actions in emergent context-rich social situations. Accordingly, this view of agency invites a consideration of metacognitive activities, such as reflection and reflective writing, that might generate opportunities for writers to compose new agencies or reinforce existing literacy action potentials. For example, reflective writings that ask students to use mental force to identify and work through emergent problems in the writing process may cultivate learning transfer to new situations.

Finally, discursive readiness potential suggests we emphasize *practicing* writing practices in our composition pedagogies. For instance, we might revisit the role of sentence-based pedagogies (and other pedagogies that emphasize the practice of practices).¹³ Indeed, developing reiterative embodied writing activities may strengthen students' capacities to act within genres, discourse communities, etc. Further, the argument suggests that focusing on developing a capacity to compose in certain genres might strengthen the potential for that writing practice to emerge in later contexts. Thus, we may consider how genre uptake is regulated by our sedimented experiences and literate practices as much as it is shaped by unfolding social activity in a live rhetorical situation.

The function of agency, according to discursive readiness potential, is to winnow the range of possible actions into one actuality, one action. The practice of practice sediments literacy actions as potentialities, which we may revise through mental force, thereby composing agency. The agent does not invent actions from an empty field but can only act based on a field of possible actions that emerge in a situation. These potentials for action get folded into the body through repeated practice over time, sedimented as potential bodily assemblages eligible for signification in layered neural pathways. Literacy as process entails the composing of agency through discrete practices accumulated over time and enshrined in sedimented forms, potentials for action. Discursive readiness potential describes the range of potentialities available to an agent through practice and awareness within the space-time of a discursive situation. Discursive readiness potential provides the agent with flexibility; agency is the capacity to navigate that flexibility.

NOTES

¹ My sincere thanks to Gwen Gorzelsky for her countless contributions toward this project. Thanks also to Ade Jenkins, Jason Slone, Jeff Pruchnic, Kim Lacey, Ted Slingerland, and the reviewers and editors at *LiCS*.

² Throughout, I discuss agency in an ecological framework that resonates across several intellectual schools of thought, including actor network theory (ANT). My approach is informed by research in embodied cognition, which posits that our capacities to think about or conceptualize the world are fundamentally shaped by the complex feedback and feedforward loops between our minds, bodies, and socio-cultural material situations. However, while embodied studies (including embodied cognition) and ANT overlap in some important respects (especially concerning the emergence of activity out of networks of human), this essay hews to embodied cognition and neuroscience because of my primary interest in understanding agency as a function of embodiment and human cognition. The argument thus follows similar work in composition and rhetoric (Cooper, "Being Linked and "Rhetorical Agency"; Lu and Horner; Rickert; Syverson), which draws on the related fields of embodied cognition and neurophenomenology (e.g., Clark; Damasio; Maturana and Varela; Varela, Thompson, and Rosch; Noë; Shapiro; and Thompson). See Brandt and Clinton for an introduction of ANT to literacy studies and Tara Fenwick and Richard Edwards for a helpful introduction to ANT. See Blackman for a discussion of how ANT is relevant to embodied analyses (120-21).

³ Recent work in composition suggests that our field has insufficiently theorized agency and takes up interdisciplinary work on embodied cognition for revised conceptualizations of agency (Cooper; Lu and Horner; Rickert). See also William Reddy's argument that the postmodern death of the subject has limited our capacity to understand agency as an embodied issue.

⁴ These constraints are akin to Lloyd Bitzer's conception of constraints in a rhetorical situation. The essay as a whole, however, somewhat complicates (in a complementary way) Bitzer's notion of rhetorical situation by positing that experience materialized in neural activation patterns and represented by one's discursive readiness potential may contribute to the constraints in a situation.

⁵ Brian Massumi also describes a returning back on the body to recursively signify embodied intensities.

⁶ Bawarshi adopts the notion of meaning potential from linguist M. A. K. Halliday's work on social semiotics to describe how a genre affords social actions. My use of potentiality and action potentials differs significantly from Bawarshi, for while Bawarshi brackets off individual experience prior to genre uptake (10) and situates potentiality as a property or aspect of genre (88-89), I emphasize the importance of understanding the cumulative effect of experience in shaping potentials for action and offer in the following a model for understanding how experience shapes action potentials. Thus, I situate potentiality within the individual as bio-cultural actor.

⁷ Some readers may object to the turn to the biological sciences in my interdisciplinary approach, suggesting a turn to psychoanalysis or poststructuralism may be more appropriate. Sorting out the philosophical arguments that underlie tensions between research in the biological sciences and poststructuralism or psychoanalysis far exceeds the scope of this essay. I turn to neurosciences and embodied cognition because their findings are grounded in evidenced-based research, an approach that comports with the empirical orientations of much literacy studies scholarship. See Gwen Gorelsky's argument that literacy is biocultural; Adrian Johnston and Catherine Malabou's argument that the neglect of neurobiology in analytical approaches that stem from continental philosophy is no longer justifiable or defensible (81); and Edward Slingerland and Mark Collard's edited collection *Creating Consilience: Integrating the Sciences and the Humanities*, which explores what it would mean

for humanists and scientists to work together on scholarly research programs.

⁸“Barelife” resounds with Massumi’s readiness potential, which describes the stop beat of action as overfull with intensity—a field of potential actions narrowed down to one actual action, which becomes phenomenological experience.

⁹I use assemblage in line with Andy Clark’s argument that our body-world loops extend the mind into the world. According to Clark’s principle of ecological assembly, the cognizer recruits whatever neural, bodily, or environmental resources are at hand that will achieve an acceptable result with minimal effort. The mind can recruit and extend the body through any material objects in the environment, and with enough time and practice, these objects become transparent to the mind. For example, Clark writes, “When you sign your name, the pen is not normally your focus (unless it is out of ink, etc.). The pen in use is no more the focus of your attention than is the hand that grips it. Both are transparent equipment” (10). ANT offers similar approaches toward theorizing the assemblages between human and nonhuman actors. From the perspective of ANT, we are invited to see how nonhuman actors influence social activity on a level playing field as human actors. That is, without privileging the agency of human actors, we can better understand how a network of actors shape activity. As Fenwick and Edwards put it, “ANT analyses focus on the minute negotiations that go on at the points of connection. Things persuade, coerce, seduce, resist, and compromise each other as they come together. They may connect with other things in ways that gather them into a particular collective, or they may pretend to connect, partially connect, or feel disconnected and excluded even when they are connected” (x-xi). The two approaches are complementary, yet I ground my argument in embodied cognition because it dovetails with recent research in composition on agency (e.g., Cooper, “Rhetorical Agency” and Lu and Horner), and it offers a perspective on action in the context of individual cognitive processes situated in broader brain-body-world networks. Such a focus on how our assemblages with other nonhuman actors affects cognition differs from ANT’s approach, which, as Bruno Latour notes, would de-center the human.

¹⁰See also Debra Hawhee’s analysis of ancient Greek embodied rhetorics in *Bodily Arts*. Hawhee describes an ancient practice of “embodied training that relies on the repeated production of encounters” (84) that transform the “body-mind complex” (87), or capacities and tendencies of the trained body (88). Hawhee’s work thus reveals an ancient network of practices that yield a readiness to act akin to Trimbur’s emphasis on a practice of practice as a mechanism for cultivating agency.

¹¹See neuroscientist Antonio Damasio’s somatic-marker hypothesis, which argues that the body marks experiences with positive or negative affects, thus shaping the likelihood that a potential action will be realized by encouraging us to drop or take up an action (173-74).

¹²See also Slingerland and Collard.

¹³Robert Connors persuasively argues for a return to sentence-level pedagogies by reviewing flaws in the field’s hasty and ungrounded refutation of the approach. See also Micciche’s model in “Making a Case for Rhetorical Grammar,” which features imitation exercises that practice the (re)iteration of discourse followed by a reflective analysis of the style.

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