

## **Andrew Goodman**

*Department of Creative Arts and English, La Trobe University, Melbourne, Australia*

# **Wilding Consciousness: Towards a speculatively Tentacular Thinking-With**

**Abstract:** For Donna Haraway, a tentacular life is relational and sticky, a moving-creating-living-with that is at heart sympoietic and entangled. Wilding, as a speculative pragmatic and tentacular practice, involves thinking about the world in ecological terms – that is, neither a world of objects or one of fixed and separated subjects with a distanced perspective of the world. Instead, wilding involves a tactic of embracing an entangled and multi-storied approach to thinking. In this article the question of the possibility of ecological rather than individualized consciousness is speculated upon through the tentacular. Drawing on William James’ impersonal conception of consciousness and contemporary biology’s insights into the relationality of life and thinking, this paper asks: what would a sympoietic concept of consciousness mean? How would this shift the valuing of intelligences towards activism and allow us to learn from those, human and nonhuman, traditionally denied intellectual value?

**Keywords:** Consciousness, tentacularity, ecology, speculative pragmatism, self-organization, sympoiesis.

*“It would be as absurd to refuse consciousness to an animal because it has no brain as to declare it incapable of nourishing itself because it has no stomach.”<sup>1</sup>*

## **Tentacular Corridors**

How might one live-move-breath-read-write-think in a tentacular style? How do we hold ourselves in tending to the richness and stickiness of thought coming-in-to-being, moments when ideas still clump together in awkward, indistinct and frustrating ways? This is the speculative pragmatic question that Haraway poses: can we imagine both difference and potential, while staying in the moment as things begin to emerge, not rushing to pre-thought-out conclusions? William James asserts that

---

<sup>1</sup> Henri Bergson, *Creative Evolution*, trans. Arthur Mitchell (New York: Dover Publications, 1998), 110.

pragmatism requires thought that is “like a corridor in a hotel. Innumerable chambers open out of it”.<sup>2</sup> How can we read-write in this transitory passage, that neither shuts us into or out of a particular discipline or mode of inquiry? Perhaps such pragmatism feels-with or tends-with or excites-with the potential of rooms yet to be invented, thinking with the corridor as a gap or interstice, as the speculative tentacle independently twirling rather than the grasping intentionality of the arm? Pragmatism in this sense is not reductively rational, instead it works to turn concepts into instruments: tools or methods for doing, “not answers to enigmas”.<sup>3</sup> Concepts are, as Bergson says of consciousness and the universe, not “already-made”, but “being-made,” a continuous act of evolution without rest, an act of “unceasing creation”.<sup>4</sup>

James outlines Peirce’s test of pragmatism by asking: “What difference would it practically make to anyone if this notion rather than that notion were true? If no practical difference whatever can be traced, then ... all dispute is idle”.<sup>5</sup> In such “speculative pragmatism” we find an activist philosophy that turns “towards concreteness and adequacy, towards facts, towards action, and towards power”<sup>6</sup> but without losing potentiality: a philosophy focused primarily on how things co-compose (their “relational-qualitative goings on”).<sup>7</sup> This is to acknowledge and move-with an event’s self-organizational tides and resolutely ecological *dynamics* or fieldings. Haraway’s tentacularity is such an act, proposing a “life lived along lines”,<sup>8</sup> that are, as Goodwin says, the “directional structures of powers or potentials, not already beaten paths.”<sup>9</sup> Such life-movement is relational and sticky, a moving-creating-living-with that is at heart sympoietic,<sup>10</sup> that has to be moved-with or lived. The tentacular might imply, to follow Haraway’s propositional form, a mode or style of living-moving-thinking-with: perhaps to have eight or more intelligences that think-with each other, differentiating, orientating: tending. Tentacularity is therefore a modality of conceiving – an emergent practice that is necessarily speculative in being invented “on-the-fly.”

Tentacularity is all movement. It is all style, no substance, and it wears that badge proudly. It lures one in with rhythm, not content, a dynamism that is seductive, an expression of potential, an ecological *activism*.<sup>11</sup> It does not substitute or stand in for but multiplies logarithmically, to the power of eight or ten. It is, above all, adjectival, not qualifying as much as tending-with, a strange attractor adding vitality more

<sup>2</sup> William James, *Pragmatism: A New Name for some Old Ways of Thinking* (Project Gutenberg, 2013), 24.

<sup>3</sup> *Ibid.*, 23–4.

<sup>4</sup> Bergson, *Creative Evolution*, 23, 237.

<sup>5</sup> James, *Pragmatism*, Lecture, 21.

<sup>6</sup> *Ibid.*, 23.

<sup>7</sup> Brian Massumi, *Semblance and Event* (Cambridge: MIT Press, 2011), 12–13, 28.

<sup>8</sup> Donna Haraway, *Staying with the Trouble: Making Kin in the Chthulucene* (Durham and London: Duke University Press, 2016), 32.

<sup>9</sup> Brian Goodwin, *How the Leopard Changed Its Spots: The Evolution of Complexity* (London: Weidenfield and Nicolson, 1994), 107.

<sup>10</sup> Brian Goodwin, *Nature’s Due: Healing Our Fragmented Culture* (Edinburgh: Floris Books, 2016), 32–3.

<sup>11</sup> Massumi, *Semblance*, 28.

than direction:<sup>12</sup> adhesive in its and-and, as “hyphens are in order” in the speculative-pragmatic real,<sup>13</sup> and at the same time slippery in its not-quite-finishedness.

In this sense thinking is always *thinking-with*: an ecological act. It is a “thinking-with” that is the doubly enfolded and tendential subject of this paper: to think-with the concept consciousness in, as James puts it “the open air and [the] possibilities of nature... [and] against dogma, artificiality and the pretense of finality”.<sup>14</sup> If wilding, as a speculative-pragmatic tactic, involves thinking the world in emergent ecological terms, then perhaps, it can be thought through the tentacular. In applying tentacularity to the problem of thinking we ask: what could a sympoietic concept of consciousness mean? How would this shift the valuing of intelligences towards activism and allow us to learn from those human and nonhuman activities traditionally denied intellectual value?

In what follows the problem of consciousness is approached in fabulatory and tentative lines that embrace the strangeness of consciousness as a series of stories that collect in a convergent heap. It might be read in any and all directions: as an octuple of fabulations, tentacular shaggy dogs wandering corridors (mixed and conjoined metaphors), each with their own mind but also as whole as a king rat, sticky and tangled with connections. All of this is best thought simultaneously.

## Resonantly

If normative consciousness is “an ordering of consciousness within us”<sup>15</sup> that precludes the consideration of most creatures – most creatureness – how can we open a path to think thinking ecologically-emergently? The true story of consciousness is that of the never-yet-heard, the never listened to, the never seen for itself. It is unthought but moved-with, resonated with as the universe resonates in its own making, sings itself awake in a vibrational dance oscillating simultaneously out and in phase, orientating in the infinitesimal, humming a deep bass in the cosmic, syncopating and polyphonising at the planetary: a Gaian chorus of complexity and entanglement.

Can we imagine consciousness on a cosmic scale, and yet at the same time its folding in and out on a quantum scale inside a neuron?<sup>16</sup> If consciousness is a basic fact and “the very substance of the universe,” according to Varela’s reading of James<sup>17</sup>,

<sup>12</sup> Goodwin, *Nature’s Due*, 34.

<sup>13</sup> Massumi, *Semblance*, 12.

<sup>14</sup> James, *Pragmatism*, 24

<sup>15</sup> Sylvia Winter, “Proud Flesh Inter/Views: Sylvia Winter,” *Proud Flesh: A New Afrikan Journal of Culture, Politics & Consciousness*: 4 (2006): unpaginated.

<sup>16</sup> Raymond Ruyer proposes that “to understand how an animal could drink when it feels thirst, we have to climb up to the fundamental nature of molecules, atoms, atomic components, space and time, quantum of action, coupling of electronic spins, and so forth.” Raymond Ruyer, *Neofinalism*. Translated by Alyosha Edlebi (Minneapolis: University of Minnesota Press, 2016), 234.

<sup>17</sup> Francisco Varela, “We’re Naïve About Consciousness,” in *Conversations on Consciousness*, ed. Susan Blackmore (Oxford: Oxford University Press, 2005), 223.

where to begin? James himself puts it best: for him consciousness is not in the brain, and cannot even be thought as truly bodily. It is in the world, not as the prized object that cognitive and neuroscientists continue to look for,<sup>18</sup> but as a “function,” activity or event.<sup>19</sup> It “connotes a kind of external relation, and does not denote a special stuff or way of being.”<sup>20</sup> Here consciousness is something that gets done<sup>21</sup>, it is *lived*, it is swum, swirled in currents, danced, sung into being,<sup>22</sup> humming along as things-in-process. What might a pragmatic approach to consciousness entail? For James it must be an enquiry that has no “prejudices whatever, no obstructive dogmas, no rigid cannons of what might count as proof,” and it must be prepared “to entertain any hypothesis [and to] consider any evidence.”<sup>23</sup> What might get added to consciousness if we take this approach, what diversity of evidence that cognitivist theories routinely background might now become relevant?

Even in the resonance or spin between quanta flung to opposite ends of the universe speaks of a primary consciousness, simultaneously tiny and all encompassing, a basic state-event-movement of cohering, of nature alive and self-organizing.<sup>24</sup> For Nuñez this quantum consciousness exists (perhaps), as a dynamic patterning or *quantum ecology*.<sup>25</sup> Is this a vision of Gaia as simultaneously cosmic and elemental? Certainly, in the contemporary science that backs up James’ hunches, it is ecological in being multiscalar, and therefore – at the very least due to quantum connectivity – can never be truly contained within a brain but resonates with worlds and cosmic potentials, as a pre-personal flow.<sup>26</sup>

Even in the sparsely numbered limbs of the human, there is, in some manner, a consciousness in the muscles (think then of its multiplication in the cephalopod!). The muscles think, cooperate molecularly, communicate through resonant coherence, *organize* at 100 times the speed of nerve signals,<sup>27</sup> ignoring traffic-cop Einstein’s uni-

---

<sup>18</sup> Alva Noë, *Out of Our Heads: Why You Are Not Your Brain and Other Lessons from the Biology of Consciousness* (New York: Hill and Wang, 2009), xii, 4.

<sup>19</sup> William James, *Essays in Radical Empiricism*, Memphis: Longmans, Green and Co., 2010, 6.

<sup>20</sup> *Ibid.*, 13.

<sup>21</sup> Noë, *Out of Our Heads*, 24.

<sup>22</sup> Ruyer, 201.

<sup>23</sup> James, *Pragmatism*, 33

<sup>24</sup> Goodwin, *How the Leopard Changed Its Spots*, 81–2; Paul L. Nuñez, *Brain, Mind, and the Structure of Reality* (New York: Oxford University Press, 2010), 250–2; Paul L. Nuñez, *The New Science of Consciousness: Exploring the Complexity of Brain, Mind and Self* (New York: Prometheus Books, 2016); Herms Romijn, “Are Virtual Photons the Elementary Carriers of Consciousness?” *Journal of Consciousness Studies* 9, 1 (2002): 70, 76, Ruyer, 141, 231.

<sup>25</sup> Nuñez, *The New Science of Consciousness*, 319–25. See also Ruyer on the importance of “the world of complications” implied by the quantum and molecular becomings in any understanding of consciousness. *Neofinalism*, 235.

<sup>26</sup> Gilles Deleuze, *Pure Immanence: Essays on a Life* (New York: Urzone Inc, 2001), 25.

<sup>27</sup> Mae-Wan Ho, *The Rainbow and the Worm: The Physics of Organisms* (Singapore: World Scientific Publishing Co., 1993), 100, 126–7.

versal light-speed restrictions in an instantaneous connectivity at a quantum level<sup>28</sup>. These muscles have no time to consult the brain in all its slowness; they act then send a memorandum, a diary entry to the sleepy head. Such coherence is consciousness for Ho, as for Bergson: it is that which carries “matter along to organization”.<sup>29</sup>

Even inside the neuron, that favorite cognitive hero of thinking, that “wrong unit of analysis”,<sup>30</sup> a whole world of unseen activity lurks – organizational dynamics both temporal and spatial but hidden from the bluntness of the scanner. Romijn asserts that fields of electric and magnetic charge – as virtual photons – self-organize and potentialize as the “ultimate material substrate underlying subjective (conscious) experience”.<sup>31</sup> But look again at his research from a process-perspective: it is not a *material* substrate (“thought is not rooted or ramified in matter”,<sup>32</sup> but a “microstate” of electric and magnetic fields: meta-stable patterns, not objects.<sup>33</sup> In other words, it is an immanent system of activities,<sup>34</sup> organizing and fluctuating (which resonates with all the quanta of the universe) – surely this is the very definition of *ecology*? Thinking, in this sense, which we cannot accept as a purely internal activity as it is an “additive” part of experience in addition to content,<sup>35</sup> is, by being in the world, irreducibly multiple: everywhere as much as anywhere, never belonging to an “I”, though it potentially intersects with and remakes many such “I”s.

## Swimmingly

You don’t have to be in water to tentacularize your body, though it helps. Conjure, if you will, a body of water filled with the joyous and experimental movements of children. Joy, the capacity to affect and be affected, is here made tangible. What is it that makes such joy erupt? To breathe in water, Coccia says, is to “give oneself a tentacular body [...] to multiply one’s arms and appendages so as to embrace as much of the earth as possible”.<sup>36</sup> Here an organism “is nothing but the invention of a new way

---

<sup>28</sup> Nuñez, *The New Science of Consciousness* 312.

<sup>29</sup> Bergson, *Creative Evolution*, 181; Ho, *The Rainbow and the Worm*, 100, 180.

<sup>30</sup> Noë, *Out of Our Heads*, 48.

<sup>31</sup> Romijn, “Virtual Photons,” 69.

<sup>32</sup> Gilles Deleuze and Félix Guattari, *A Thousand Plateaus: Capitalism and Schizophrenia* (Minneapolis: University of Minnesota Press, 1987), 15.

<sup>33</sup> *Ibid.*, 70, 74, 15; Goodwin, *How the Leopard Changed Its Spots*, 76–81. There is evidence of coherent magnetic fields between plants allowing communication even when chemical signaling is blocked. Monica Gagliano et al, “Acoustic and Magnetic Communication in Plants,” *Plant Signaling and Behavior* 7, 10 (2012): 1347.

<sup>34</sup> Eric Jantsch, *The Self-Organizing Universe: Scientific and Human Implications of the Emerging Paradigm* (Oxford: Pergamon Press, 1980), 163.

<sup>35</sup> James, *Pragmatism*, 8.

<sup>36</sup> Emanuele Coccia, *The Life of Plants: A Metaphysics of Mixture*, trans. Dylan J Montanari (Cambridge: Polity Press, 2019), 86–7.

of mixing with the world and of allowing the world to mix with what is inside it”<sup>37</sup> In water we feel, palpably, that mixing, that letting go of boundaries and limitations – not a simple trade of the verticality of the human for the horizontality of the land-animal but a multidimensional connectivity that can be speculated with, that answers Peirce’s test: this remakes my body, this is now a different world!

The joy is not simply in an expanded body-capacity or in its softness, though both feed enthusiasms, but in bodies escaping themselves for a few moments, becoming sea/nature/alive, becoming stylishly *wild*. If you have lost the wildness in your mind – its ability to make new connections, to saturation in its fielding – water gives, for a moment, a chance to field your skin – feel it bind with, grow with, dissolve with, flows and currents.

Whose is the real activity: the swimmer’s or the water’s? It is a matter of perspective – of the partial and subjective viewpoints that exist without contradiction<sup>38</sup>: perspectives on events that exceed a single viewpoint in their primary *eventness*. We cannot reasonably locate consciousness in one place, James argues (in the cells of the brain, in a transcendent consciousness, in the idea itself “struggling” to be heard<sup>39</sup>), with other entities as those who access these thoughts merely in a secondary fashion. And then it follows that we cannot locate movement in one body, to which another body merely reacts. Rather, as a “real activity” that “makes things be” in the world, movement must be “immediately lived”<sup>40</sup> If the air seemingly gives way to us, bowing obsequiously to our import and scuttles silently aside, then water resists as it insists, like the weather, on its and our own collectivity. Water makes the effort of creation palpable:<sup>41</sup> not simply a tendency, though this is a motivation, but the development of this inclination as the felt experience of the “obstacle, the will, the strain, the triumph or the passive giving up”<sup>42</sup> In its overt resistance that requires us to cooperate, water arrests and moves us with the thickness of felt emergence – self-organising pulls and flows that we find ourselves in the middle of, imbricated in, that fling us away from home.<sup>43</sup> The body-water is a collective tendency, not cut from movement, but in lived flow, a “continual elaboration of the absolutely new”<sup>44</sup> Tendency is also Bergson’s preferred term for intelligence, evolving out of the movement of living, not existing as a separate object.<sup>45</sup>

---

<sup>37</sup> Ibid., 86.

<sup>38</sup> James, *Radical Empiricism*, 67–8.

<sup>39</sup> Ibid., 66.

<sup>40</sup> Ibid., 68–9.

<sup>41</sup> Ibid., 69.

<sup>42</sup> Ibid., 64.

<sup>43</sup> Gilles Deleuze and Félix Guattari. *What Is Philosophy?* (New York: Columbia University Press, 1994), 184.

<sup>44</sup> Bergson, *Creative Evolution*, 10, 13.

<sup>45</sup> Ibid., 136.

## Octuply

The cephalopod improvises infidelity to its skin, reinvents itself in kinship (which is not merely a “plasticity” that continues to speak to the idea of a norm around which experience can be molded). It speaks in multiples with the productive and-and of a creole skin (this-plus-this-plus ... ), eight shades of this, then eight of that, it spreads a web into the field, thinks with its skin of many layers, each independent and collaborative, organizing without a structure (a dispersed and dermal consciousness perhaps, but never a mere aggregate, never reduced to a series of objects<sup>46</sup>). It swims in James’ fathomless abyss of consciousness, unaware it is the hard problem,<sup>47</sup> approaching it only in softness, gifting its skin to its ecologies, a “glandular” consciousness.<sup>48</sup>

The cephalopod parses out its environment on its own skin, maps and rationalizes it before it perceives it (or at least perceives at the edge of itself, skin which it can never be said to truly own),<sup>49</sup> as the spider too spins octuple dreams, constructs its house from its own body, fabulating a meal yet to come in a house built of tensions, tightrope walks into its future on its sensate-house. Each leg fabulates with its own thread, its own path, uncoils in its own speculative direction. How do you separate this activity from consciousness? Only by asking the wrong questions, as James says the cognitivists do. That is, by separating, definitively and ontologically, subjectivity and objectivity and then artificially creating a bridge between the two (that in itself will then require that we build another bridge, ad infinitum.<sup>50</sup> We cannot pass over the damage such approaches have caused, but perhaps our octuple friends can suggest another, more radical path in which experience in its multiversal forms (thought and action in both conjunctive and disjunctive forms) are accounted for as activities that are experienced.<sup>51</sup>

The octopus *studies* with its skin that is always already in the middle of becoming other, becoming with its queer kin. It practices this middling and is never quite itself (with thinking a resolutely octuplicitous act, each tentacle with its own personality<sup>52</sup>). Its thoughts thrum each and everyway, at the surface, its chromatophores a consciousness made liminal, thought between environs and skin, *ecologically* sympathetic.

---

<sup>46</sup> Massumi, *Semblance and Event*, 6

<sup>47</sup> The “hard” problem refers to attempts to define the relationship between brain activity and consciousness. Nuñez, *The New Science of Consciousness*, 23–6.

<sup>48</sup> Vilém Flusser and Louis Bec, *Vampyroteuthis Infernalis*, trans. Valentine A. Pakis (Minneapolis: University of Minnesota Press, 2012), 52–3.

<sup>49</sup> *Ibid.*, 47.

<sup>50</sup> James, *Radical Empiricism*, 23, 22; Massumi, *Semblance and Event*, 7–8.

<sup>51</sup> James, *Radical Empiricism*, 22.

<sup>52</sup> Si Montgomery, *The Soul of an Octopus: A Surprising Exploration into the Wonder of Consciousness* (New York: Atria Paperback, 2015), 160–1.

## Middling

The cephalopod is always in the middle of something, as is the forest, as is the swarm, as is/are the fungi (multiple or singular? It is impossible to categorize them). To be in the middle is to be in activity, to be a part of the ceaseless novelty that is “bare activity”. This “change taking place” is, James says, what needs to be valued: “it is a unique content of experience ... the sense of activity is thus in the broadest and vaguest way synonymous with the sense of ‘life’”.<sup>53</sup> To acknowledge this liveliness that is “always going on”<sup>54</sup> we must have acknowledgment of the middle: of living as a state of middling, of thinking life as that which dives into (and swims) in the field.<sup>55</sup>

That the mycelium is in the middle does not devalue them – to be in life is always to be in the middle of things. But the normative creeps back in and tries to separate things out again: the forest-wide intelligence is narrated as trees communicating via the mycelium “telephone line” or “internet,” trees become mothers caring only for their offspring, not the ecology. Mycelia “trade” soil nutrients for carbon with trees, good little capitalists all.<sup>56</sup> The multi-dimensionality of the mycelia is reduced to capitalism, heteronormativity and information theory – the mycoverse flattened, reindividualized, relation seconded, again.

Mycelia are undervalued, undetermined, underfoot. They are the forest’s collectivized stomach, its multispecies heroes, a forest biome as wild as a healthy gut, digesting from the inside as they will one day digest you, the underside and the dark side. They are the undertow, the rip, pulling the individual away from itself, whose insides are no longer its own, but a thriving forest or grassland of flourishing interspecies neither flora nor fauna, but its own strange fungal family embracing and tasting all.<sup>57</sup> Mycelia are both the understory and the whole story – dragging us out of the oceans, breaking the world into digestible bits, eating the rocks and feeding them to us, their babies. Without them there is nothing, no return from death, no holding together, no relationships, just hollow trees. Mycelia are not the servants of the heroic trees, if anything the tree is the lapdog of the mushroom, its familiar as are we, a temporary amusement to an eternal fungi. They can dissolve selves; dissolve minds, into a forest consciousness that, more than being in the middle, is a middling, a conjunctive relationship of change-in-motion.<sup>58</sup>

James’ consciousness challenges a fundamental dualism – between thing and thought, between thinking and thought<sup>59</sup> – that which is at the heart of cognitive con-

<sup>53</sup> James, *Radical Empiricism*, 63.

<sup>54</sup> *Ibid.*

<sup>55</sup> Massumi, *Semblance and Event*, 1.

<sup>56</sup> Suzanne Simard, “The Mother Tree,” in *The Word for World is Still Forest*, ed. Anna-Sophie Springer and Etienne Turpin (Berlin: K Verlag, 2017), 2017.

<sup>57</sup> Anna Tsing, “Strathern Beyond the Human: Testimony of a Spore,” *Theory, Culture and Society* 31, 2/3 (2013): 222.

<sup>58</sup> James, *Radical Empiricism*, 63.

<sup>59</sup> *Ibid.*, 8.



structions of the ‘hard’ problem. That is, the construction of the impermeable barrier between the two is exactly that which constructs the problem as hard. This ‘problem’ demands that we stick to either the purely internal or external, and that the two are antithetical. It denies, in other words, the potential of the middle: the creativity of the relational (a duplicity” that replaces dichotomy<sup>60</sup>). In such false and dichotomous thinking, forest intelligence is in the trees as the sylvan movers and shakers, or in the mycelium – it must be in a cell somewhere, captured and contained in a biology, it cannot be itself an emergent relation that touches on things and moves with them but is not owned by them. We cannot think beyond the hard problem, it supplies its own immovable termini; we must start again from another, liminal position, or rather, not a position, but a tendency: that of middling.

### Softly

For Man, there is an immovable concept of intelligence that is granted, taken away, unattainable, yet measured and qualified, that which must be earned and worked for and then framed on a wall as a terminus to thinking. It is a thing to be constructed in schools, laboratories and factories from facts and parts and transistors, a practical fact not a practice.

But there are other, softer and more permeable intelligences. They are fluid, which is to say ecological (as ecologies are not states but organization of flows), constitutive styles of living.<sup>61</sup> They are not hardwired but emergent,<sup>62</sup> they organize themselves plastically and build their own homes out of whatever is at hand. They are nomadic, they doss down in events and do not expect to live in palatial homes, far above bodies with only eye-holes for surveying the world where they could declare themselves rulers of fiefdoms, but dive into and are lost amongst the messiness of the squat. They study, lurking around corners, hiding down hollows, spinning with universal familiars. They do not announce themselves with force (they are first subaltern tendencies hidden in the shadows before strains or efforts rise to the surface<sup>63</sup>), and they collectivize and conspire and pollinate, growing into gaps and around other things, resonating with each other, whispering slowly into mycelium ears. They quietly build their own truths without regard for the abstracted “human serpent” of “petrified” ideals.<sup>64</sup> They resist being measured, shy away from the light, are too busy thinking obtusely to care what you think. They are non-anatomical – simply and complexly movement, tendentiality itself.<sup>65</sup>

---

<sup>60</sup> Massumi, *Semblance and Event*, 5.

<sup>61</sup> Coccia, *The Life of Plants*, 30–31.

<sup>62</sup> Nigel R. Franks, “Army Ants: A Collective Intelligence,” *American Scientist* 77, 2 (1989): 139.

<sup>63</sup> James, *Radical Empiricism*, 64

<sup>64</sup> James, *Pragmatism*, 28

<sup>65</sup> Coccia, *The Life of Plants*, 106.

They are rough assemblages, arcane, baroque, expansive, open sets and logarithmic, slow moving, embryonic like a brain or an egg.<sup>66</sup> They speculate constantly, probing and testing (is this a different world we are making?), never resting and with no end in sight. They are alien intelligences, parasites within our surety of self, palace revolutions that threaten autonomy, gateways all to a larger ecology.

## Haptically

Bodies and brains, and their substitutes are strange things: conglomerates that make do, pragmatically, with what they have at hand. Montgomery narrates the case of a sea star that ‘has no eyes, no face, no brain’. It is a curious and jealous creature, seeking out its fellow captive octopus’s toys and guarding those it has acquired.<sup>67</sup> Gagliano finds memory in a plant – mimosas that remember trauma and hold on to techniques for dealing with it.<sup>68</sup> Can we deny consciousness to creatures with alien morphologies that organise themselves so effectively?

Consider the eye, what is it exactly? It emerges, evolutionarily speaking, so many times but so often the same.<sup>69</sup> It seems to have its own intelligence, finds its own ecological and morphological path into being.<sup>70</sup> The eye is a terminus of a proto-thought that the photosensitive skin cell invests in, an adventure in exploring the feeling-out of the world whose end-point cannot be known in advance. Each creature arrives at its eye and recognises it as a nexus between its own urges and the same desire in another: a collective thought-path or conterminous activity as much as solution.<sup>71</sup>

But though these eyes share some “unity of purpose,” pragmatically realised, they are without absolute teleological unity or “absolute oneness”;<sup>72</sup> for there are other stories, other fantastic and alien eyes: the reverse eyes of bioluminescent squid that emit rather than receive light,<sup>73</sup> the octopus that can see with its skin,<sup>74</sup> the teeth-eyes of the naked mole-rat,<sup>75</sup> the nose-eyes of the star-nosed mole,<sup>76</sup> giant ant-colony

---

<sup>66</sup> Ruyer, 69.

<sup>67</sup> Montgomery, *The Soul of an Octopus*, 20.

<sup>68</sup> Monica Gagliano, *Thus Spoke the Plant: A Remarkable Journey of Groundbreaking Scientific Discoveries and Personal Encounters with Plants* (Berkeley: North Atlantic Books, 2018), 64.

<sup>69</sup> Goodwin, *How the Leopard Changed Its Spots*, 148.

<sup>70</sup> *Ibid.* 153–4.

<sup>71</sup> James, *Radical Empiricism*, 30.

<sup>72</sup> James, *Pragmatism*, 51–2, 54.

<sup>73</sup> Simon Conway Morris, *Life’s Solution: Inevitable Humans in a Lonely Universe* (Cambridge: Cambridge University Press, 2003), 167.

<sup>74</sup> Montgomery, *The Soul of an Octopus*, 50.

<sup>75</sup> Goodwin, *How the Leopard Changed Its Spots*, 177.

<sup>76</sup> *Ibid.*, 175.

compound-eyes, each ant a facet<sup>77</sup> (as they have also a “tessellated brain”<sup>78</sup>). These pragmatic solutions are different termini drawn from the same initial urge, but mixed with other perspectives, other organs, with other sensuous experiences to make a difference in worlds.

Cephalopod tentacular-eyes see around corners, down holes – they have sent their sense organs to their extremes, at the tips where they are shared with the world. Is the spider’s web an eye – an ecological orb stretching into the world from the tips of each leg? Is the water you swim in an eye, each riplet and current expanding and contracting the surface of your sensor-skin?

## Oddkin

To invent new modes of symbiosis is to think sideways. It is an embryogenesis of ecological intelligence,<sup>79</sup> and of new alliances that are gestated environmentally, wrapped and nested in each other’s futures more than pasts.<sup>80</sup> Oddkin are collections of styles, grab bags of tendencies, generated out of what is already at hand – grounded in the particular and the concrete, their associations are practical, not noble, adequate and concrete: pragmatic in other words.<sup>81</sup> They are multispecies socialities with little interest in the individualised voice or thought, preferring the dark and fuzzy murmurings of understories. They are “unfamiliar [...] uncanny, haunting, active”<sup>82</sup>

Oddkin affirm the primacy of relation (in both its inclusive and exclusive actions and potentialities), as “the world represents as a collection, some parts of which are conjunctively and others disjunctively related”<sup>83</sup>

Fungal growths are not choosey; they connect not only famously with trees and grasses, but also across genet with supposedly rival mycelia,<sup>84</sup> as they themselves change form, become one (mycelium), some (fruit) and many (spores). They are inside and outside of everything from rocks to mammals, having polymorphous and perverse appetites for living, for eating and being eaten.<sup>85</sup> Like the octopus they have baroque appetites for movement, immersion, excesses of style over manners.

The cephalopodic carry their oddkin with them, eight-limbed voices, eight heads (are better than one with its illusions of grandeur). But more than eight – eight cubed (octic powers even), as each limb borrows from its surrounds, becoming rock,

<sup>77</sup> Franks, “Army Ants,” 144.

<sup>78</sup> Flusser, and Bec. *Vampyroteuthis Infernalis*, 56.

<sup>79</sup> Lewis Thomas, *The Medusa and the Snail: More Notes of a Biology Watcher* (New York: Viking Press, 1979), 15.

<sup>80</sup> Donna Haraway, *Staying with the Trouble*, 102–3.

<sup>81</sup> James, *Pragmatism*, 23

<sup>82</sup> *Ibid.*, 103.

<sup>83</sup> James, *Radical Empiricism*, 41.

<sup>84</sup> Kevin J. Beiler, Suzanne W. Simard, and Daniel M. Durall, “Topology of Tree-Mycorrhizal Fungal Interaction Networks in Xeric and Mesic Douglas-Fir Forests,” *Journal of Ecology* 103 (2015): 616–28.

<sup>85</sup> Tsing, “Strathern Beyond the Human,” 226, 229.

sand and weed, painting the world with its luminescent skin and making themselves imperceptible, asignifying.<sup>86</sup> Listen to the alien cephalopod in *From The Wreck*, as it loses itself in its oddkin:

I put one small part of me out of my cave and make it the shape of sand. I watch it and squint my eyes and I think, yes, sand. So I put another small part of me out there to join the first. Still sandy [...] I move, slow-shifting sand-like, across the land until I meet a rock and then I am shifting even slower, rock-shaped and rock-like [...] I sit, rock-like and watch first this one then another cruise by [...] I try that one, slow floater with grey-green strands and I am it, letting go of the rock I slow-float strands [...].<sup>87</sup>

Mimesis is here employed “less as a solution [...] than as a program for more work, and more particularly as an indication of the ways in which existing realities may be changed.”<sup>88</sup> The skin of the octopus does not merely mirror its world, its goal is not reproduction or the assumption of archetypes but movement (of being): this-plus-this-plus-. Its shape-shifting allows it to move through and with the world, thinking and tending with its endlessly kin-making skin, as theories too become, under pragmatism, instruments that allow us to move forward, paths rather than end-points to thoughts.<sup>89</sup>

## Spiralize

There is another story, hidden below teleological narratives of climbing the evolutionary tree to the top. It is collectivising, emerging, horizontalizing, coiling with a wildly self-organising appetite. It is busily organizing: hiving and nesting. The hive-mind is the thing of nightmares, a story of identity lost in the swarming, as is the tentacular: too soft, too malleable, too indeterminate to stand still and steady as a hero would. But, in collectivizing, it takes on a power of thinking-moving. By itself or in small numbers the army ant wanders – a *flaneur*. But collected *en masse* organization and new consciousness *emerges* – “by storm.”<sup>90</sup> Like the hive mentality of the bees that produces hexagonal beauty from architecture, physics and chemistry, the army ant turns its collective body into a nest (architect-architecture). Its collective body-neurons communicate electrically and chemically like ours do, but body-to-body. The nest-ant uncoils itself and spirals out into the landscape like cephalopods,

<sup>86</sup> Deleuze and Guattari, *A Thousand Plateaus*, 11.

<sup>87</sup> Jane Rawson, *From the Wreck* (Melbourne: Transit Lounge Publishing, 2017), 21.

<sup>88</sup> James, *Pragmatism*, 24.

<sup>89</sup> *Ibid.*, 24.

<sup>90</sup> Franks, “Army Ants,” 140; Bergson, *Creative Evolution*, 193.

those “screw-like animals that wind [and unwind] themselves around a spiral axis”<sup>91</sup> like the mushroom uncoiling itself into the light.<sup>92</sup> Like the spider-web-refrain it makes its territories out of the dance of its legs, singing a temporal melody of activity not matter.<sup>93</sup>

To spiralize is not to realise a perfect form, though it is grasped as a whole and not built merely from parts (not a mere aggregate, but another dimension, additive and transindividual). It is to play out a tendency, a collective desire that sings itself into existence: a spiralling melody grasped as a whole, not merely a collection of foot-steps patrolling boundaries of a property.<sup>94</sup> The ants spiralize not to build a “static relation of correspondence” between their minds and the terrain (not to trace a mental map, in other words), but as a “rich and active commerce” between the individual movement, the collective experience and the terrain.<sup>95</sup>

Army ants organize flows to bring forth a new global scale of thinking that is resolutely relational, external, spatial and temporal, a massed and eventful worlding.<sup>96</sup> The ant’s nest-wide intelligence teaches us not only about the practical nature of intelligence in the world that is based on problematization and relationality and never constructed from ideals, but also about the importance of acknowledging the different scales that the self-organization approaching consciousness can operate at. Look at the forest not the trees, the quantum not the neuron. Consciousness as multiscalar eventness – like the science of Gaia that reaches across geology, atmosphere, nutrient cycles and weather patterns<sup>97</sup> – is insistently ecological, inhuman and impersonal.

And why is it that this collective consciousness so hard to accept? If, as James proposes, we can accept that both thought and object are two perspectives on the same pure experience (the point at which lines or perspectives of knowing and objecthood intersect), then why do we so resist a point of knowing at which multiple consciousnesses cross? If the army ants can collectively think their physical terrain through flows of movement; through organizations of these flows that intersect and outstrip any individual (as its hexapodic dance outstrips bi- or quadrapedal motion), “might not two or more streams of consciousness include one and the same unit of experience so that it would simultaneously be a part of the experience of all the different minds?”<sup>98</sup> Experience here does not simply leak from one mind to another but extends itself into the world, built on variety as much as unity:<sup>99</sup> another spiral, another “and-and” that moves and curls and folds in resonance.

---

<sup>91</sup> Franks, “Army Ants,” 143; Flusser and Bec, *Vampyroteuthis Infernalis*, 21.

<sup>92</sup> Tsing, “Strathern Beyond the Human,” 221.

<sup>93</sup> Ruyer, 149.

<sup>94</sup> Ruyer, 201.

<sup>95</sup> James, *Pragmatism*, 29

<sup>96</sup> Morris, *Life’s Solution*, 203–4; Franks, “Army Ants,” 140.

<sup>97</sup> Nuñez, *The New Science of Consciousness*, 71.

<sup>98</sup> James, *Radical Empiricism*, 50.

<sup>99</sup> James, *Pragmatism*, 48.

## Coda (the ninth tentacle)

If to have a mind like a sieve is meant as an insult, perhaps in the ecological sense it is a compliment – a sign of preeminent ecological tendencies? That is, it moves us away from the individual and to the impersonal, in that it is not a matter of forms but the movement of continued and collective individuations. Here consciousness is never that which is known or owned, but that which is being invented, as a tendency or a *sociality*, as that which escapes us and goes forth into the world. It is not the thinker who creates occasional thoughts, but an ecological consciousness that creates the occasion of the thinker<sup>100</sup> as a network of tentacular movements or potential connections. This does not, in James, require an absolute integrity of a body and a mind. If it does require complexity, there is nothing to say this complexity must be proprietorial, internal or exclusive, and although “everything gets known by some knower ... the knowers may in the end be irreducibly many”.<sup>101</sup> Rather than collapse the many into a transcendent one, into a “skinny outline” of an idea, we might find this inclusive consciousness that is “strung along and overlapped”<sup>102</sup> in forgotten and ignored places, in the “rich thicket”<sup>103</sup> of experience with all its abundant variety that is its wildness. This rewilded consciousness – the creation of ecological potential that is yet to be captured by the processes of individualism<sup>104</sup> – might then also become inclusive of those wild neurodiverse landscapes on which the normative builds its monuments. It is in the tenuous and speculative connectivity that worms its way under forests, that spins at opposite ends of the universe: that which gifts and resonates and shimmers together. If this is ultimately unknowable in all its forms this is no reason to exclude its existence.

To fabulate tentacularly you must throw things in the roiling ocean and see what swims, what collects with the tides, what sticks, what *matters*. There is no point in insisting on a single line of inquiry, on a corridor with only one door, or on a preconceived ideal of intelligence that does not add up with our lived experience of the world and its bluntly apparent and multi-varied explorations of consciousness.<sup>105</sup> James provides us with both an example and a pragmatic technique for rethinking consciousness, and, as I have suggested (or multiplied here in its tentacularity), such thinking is always an experiment in style, in organizational and combinatory power and expression of a politics of the quieted, the forgotten and the fugitive. That is, to think consciousness from a speculative-pragmatic ethos is not to approach it as an image of the world, nor as an object of conquest, but as an aesthetic undertaking in

<sup>100</sup> Goodwin, “Organisms and Minds,” 107.

<sup>101</sup> James, *Pragmatism*, 53.

<sup>102</sup> *Ibid.*, 53.

<sup>103</sup> *Ibid.*, 29.

<sup>104</sup> Brian Massumi, *99 Theses on the Revaluation of Value* (Minneapolis: University of Minnesota Press, 2018), 65–6.

<sup>105</sup> James, *Pragmatism*, 26. James states that “ideas become true just in so far as they help us to get into satisfactory relationship with other parts of our experience”. *Ibid.*

itself: a world-and-kin-making activity. For James consciousness is in the doing: in that which is felt, including the feeling of that which is being felt as a doubling of consciousness, an awareness of it *doing its work in the world*.<sup>106</sup> It is in the becoming, the patterning and un patterning, the conjoining and separating of paths, not the person or the world but the *worlding*.

Pragmatism requires an immanent questioning: as a dynamism with which one must flow, as a methodology that “unstiffen[s] all our theories,”<sup>107</sup> allowing us to grow new concepts based on what comes forth and what is known through experience, not on a preconceived truth about intelligence.<sup>108</sup> It involves the “strain” of such movement as our concept of consciousness is challenged by what we find, in others and in ourselves: a diverse ecology of intelligences that abrade and infect as they undermine and rebuild anthropocentric perspectives, seeding both doubt and delight. Such “chaosmic see-sawing”, is where “something is absorbed – incorporated, digested – [and] from which new lines of meaning take shape and are drawn out” as we continue to reimagine and to fabulate potentials, to open up new relation and potential relation to worlds and minds-in-the-making.<sup>109</sup>

## References

- Arnold, James. “Quantum Spontaneity and the Development of Consciousness.” *Journal of Consciousness Studies* 26, 1–2 (2019): 216–34.
- Beiler, Kevin J., Daniel M. Durall, Suzanne W. Simard, Sheri A. Maxwell, and Annette M. Kretzer. “Architecture of the Wood-Wide Web: Rhizopogon Spp. Genets Link Multiple Douglas-Fir Cohorts.” *New Phytologist* 185 (2010): 543–53.
- Beiler, Kevin J., Suzanne W. Simard, and Daniel M. Durall. “Topology of Tree-Mycorrhizal Fungus Interaction Networks in Xeric and Mesic Douglas-Fir Forests.” *Journal of Ecology* 103 (2015): 616–28.
- Bergson, Henri. *Creative Evolution*. Translated by Arthur Mitchell. New York: Dover Publications, 1998.
- Bunyard, Peter, ed. *Gaia in Action: Science of the Living Earth*. Wiltshire: Floris Books, 1996.
- Coccia, Emanuele. *The Life of Plants: A Metaphysics of Mixture*. Translated by Dylan J Montanari. Cambridge: Polity Press, 2019.
- Deleuze, Gilles. *Pure Immanence: Essays on a Life*. New York: Urzone Inc, 2001.
- Deleuze, Gilles and Félix Guattari. Translated by Brian Massumi. *A Thousand Plateaus: Capitalism and Schizophrenia*. Minneapolis: University of Minnesota Press, 1987.

<sup>106</sup> James, *Radical Empiricism*, 49–51.

<sup>107</sup> *Ibid.*, 58.

<sup>108</sup> James, *Pragmatism*, 27

<sup>109</sup> Félix Guattari, *Chaosmosis: An Ethico-Aesthetic Paradigm*, trans. Paul Bains and Julian Pefanis (Bloomington: Indiana University Press, 1995), 96.

- Deleuze, Gilles and Félix Guattari. *What Is Philosophy?* Translated by Hugh Tomlinson and Graham Burchell. New York: Columbia University Press, 1994.
- Flusser, Vilém and Louis Bec. *Vampyroteuthis Infernalis*. Translated by Valentine A. Pakis. Posthumanities Minneapolis: University of Minnesota Press, 2012.
- Franks, Nigel R. “Army Ants: A Collective Intelligence.” *American Scientist* 77, 2 (1989): 138–45.
- Gagliano, Monica, Michael Rento, Nili Duvdevani, Matthew Timmins, and Stefano Mancuso. “Acoustic and Magnetic Communication in Plants.” *Plant Signaling and Behavior* 7, 10 (2012): 1346–48.
- Gagliano, Monica. *Thus Spoke the Plant: A Remarkable Journey of Groundbreaking Scientific Discoveries and Personal Encounters with Plants*. Berkeley: North Atlantic Books, 2018.
- Godfrey-Smith, Peter. *Other Minds: The Octopus, the Sea, and the Deep Origins of Consciousness*. USA: Farrar, Strauss and Giroux, 2016.
- Goodwin, Brian. *How the Leopard Changed Its Spots: The Evolution of Complexity*. London: Weidenfield and Nicolson, 1994.
- Goodwin, Brian. “Organisms and Minds: The Dialectics of the Animal-Human Interface in Biology.” In *What Is an Animal*, edited by Tim Ingold, 100–9. London and New York: Routledge, 1994.
- Goodwin, Brian. *Nature’s Due: Healing Our Fragmented Culture*. Edinburgh: Floris Books, 2016.
- Guattari, Félix. *Chaosmosis: An Ethico-Aesthetic Paradigm*. Translated by Paul Bains and Julian Pefanis. Bloomington: Indiana University Press, 1995.
- Haraway, Donna. *Staying with the Trouble: Making Kin in the Chthulucene*. Durham and London: Duke University Press, 2016.
- Ho, Mae-Wan. *The Rainbow and the Worm: The Physics of Organisms*. Singapore: World Scientific Publishing Co., 1993.
- James, William. *Essays in Radical Empiricism*. Memphis: Longmans, Green and Co., 2010.
- James, William. *Pragmatism: A New Name for some Old Ways of Thinking*. Project Gutenberg, 2013.
- James, William. *The Varieties of Religious Experience*. Project Gutenberg, 2014.
- Jantsch, Eric. *The Self-Organizing Universe: Scientific and Human Implications of the Emerging Paradigm*. Oxford: Pergamon Press, 1980.
- Lowenhaupt Tsing, Anna. “Strathern Beyond the Human: Testimony of a Spore.” *Theory, Culture and Society* 31, 2/3 (2013): 221–41.
- Massumi, Brian, and Erin Manning. *Thought in the Act: Passages in the Ecology of Experience*. Minneapolis: University of Minnesota Press, 2014.
- Massumi, Brian. *Semblance and Event: Activist Philosophy and Occurrent Arts*. Cambridge & London: MIT press, 2011.
- Massumi, Brian. *What Animals Teach Us About Politics*. Durham and London: Duke University Press, 2014.



- Massumi, Brian. *99 Theses on the Revaluation of Value*. Minneapolis: University of Minnesota Press, 2018.
- Montgomery, Si. *The Soul of an Octopus: A Surprising Exploration into the Wonder of Consciousness*. New York: Atria Paperback, 2015.
- Morris, Simon Conway. *Life's Solution: Inevitable Humans in a Lonely Universe*. Cambridge: Cambridge University Press, 2003.
- Noe, Alva. *Out of Our Heads: Why You Are Not Your Brain and Other Lessons from the Biology of Consciousness*. New York: Hill and Wang, 2009.
- Nunez, Paul L. *Brain, Mind, and the Structure of Reality*. New York: Oxford University Press, 2010.
- Nunez, Paul L. *The New Science of Consciousness: Exploring the Complexity of Brain, Mind and Self*. New York: Prometheus Books, 2016.
- Rawson, Jane. *From the Wreck*. Melbourne: Transit Lounge Publishing, 2017.
- Romijn, Herms. "Are Virtual Photons the Elementary Carriers of Consciousness?" *Journal of Consciousness Studies* 9, 1 (2002): 61–81.
- Ruyer, Raymond. *Neofinalism*. Translated by Alyosha Edlebi. Minneapolis: University of Minnesota Press, 2016.
- Sagan, Dorian & Lynn Margulis. *What Is Sex?* London: Simon and Schuster, 1998.
- Shaviro, Steven. *Discognition*. London: Repeater Books, 2016.
- Simard, Suzanne. "The Mother Tree." In *The Word for World is Still Forest*, edited by Anna-Sophie Springer and Etienne Turpin, 66–72. Berlin: K Verlag, 2017.
- Thomas, Lewis. *The Medusa and the Snail: More Notes of a Biology Watcher*. New York: Viking Press, 1979.
- Varela, Francisco. "We're Naïve About Consciousness, Like People before Galileo Looking in the Sky." In *Conversations on Consciousness*, edited by Susan Blackmore, 222–32. Oxford: Oxford University Press, 2005.
- Wicken, Jeffrey S. *Evolution, Thermodynamics, and Information: Extending the Darwinian Program*. New York: Oxford University Press, 1987.
- Winter, Sylvia. "Proud Flesh Inter/Views: Sylvia Winter." *Proud Flesh: A New Afrikan Journal of Culture, Politics & Consciousness*, 4 (2006).

Article received: April 28, 2020  
Article accepted: May 30, 2020  
Original scholarly paper