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## A speculative lexicon of entanglement

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# A Speculative Lexicon of Entanglement

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## Abstract

This intervention offers a speculative lexicon to help students and scholars of global politics think critically and creatively about entanglement. It is neither definitive nor complete, but instead offers some possible points of entry into a contested field. It mobilises two particular claims: (1) that entanglement always involves both human and non-human entities; and (2) that entanglement is always emergent and in process. As a whole, this speculative lexicon is intended to help us sense the moment when entanglements intensify in ways that render them stable; attune to these durabilities in order to analyse their constitutive logics of inclusion/exclusion; acknowledge our own irrevocable entanglement in these logics; care for those bodies, lifeworlds, species and habitats that are targeted or abandoned by such logics; and craft mutual projects to disrupt, disaggregate and re-route these logics. Because entanglements are always emerging, dissipating and reconvening, the practice of navigating this open terrain is disorienting and often frustrating. We may desire a final destination where entanglements solidify and horizons magically appear, but giving in to that desire reproduces the violence of enclosure. This lexicon is offered as a way to keep the political terrain of entanglement open so we can collectively ensure that contestation remains a possibility.

## Keywords

entanglement, more-than-human, process

## Résumé

Cette intervention présente un lexique spéculatif destiné à aider les étudiants et les chercheurs en politique internationale à penser l'intrication de façon critique et créative. Ni définitif ni complet, il propose plutôt plusieurs points d'entrée dans un domaine contesté. Ce lexique repose sur deux affirmations spécifiques : (1) l'intrication implique toujours des entités humaines et non-humaines ; et (2) l'intrication est toujours émergente et en train de se faire. Pris dans son ensemble, ce lexique spéculatif vise à nous aider à détecter le moment où les intrications s'intensifient jusqu'à devenir stables ; à s'adapter à ces durabilités

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pour en analyser les logiques constitutives d'inclusion/exclusion ; à reconnaître notre propre intrication irrémédiable dans ces logiques ; à prendre soin des corps, mondes de la vie, espèces et habitats visés ou délaissés par ces logiques ; et à façonner des projets mutuels pour bouleverser, désagréger et re-diriger ces logiques. Les intrications étant perpétuellement en train d'émerger, de se dissiper et de se reformer, il peut être déconcertant, et souvent frustrant, d'évoluer au sein de cet espace ouvert. On peut désirer une destination finale où les intrications se solidifient et les horizons apparaissent comme par magie, mais céder à ce désir reproduit la violence de l'enfermement. Ce lexique est proposé comme un moyen de maintenir ouvert le terrain politique de l'intrication afin de pouvoir garantir de manière collective que la contestation reste possible.

### **Mots-clés**

Intrication, surhumain, processus

### **Resumen**

Esta intervención ofrece un léxico especulativo para ayudar a los estudiantes y académicos de la política global a pensar crítica y creativamente sobre la interconexión. No es ni definitivo ni completo, pero ofrece en cambio algunos posibles puntos de acceso a campos controvertidos. Moviliza dos reivindicaciones en particular: (1) que la interconexión implica siempre tanto entidades humanas como no humanas; y (2) que la interconexión siempre es emergente y en proceso. Como conjunto, este léxico especulativo pretende ayudarnos a percibir el momento en el que estas interconexiones se intensifican de tal manera que se vuelven estables; a armonizar con esta estabilización para analizar sus lógicas constitutivas de inclusión/exclusión; a reconocer nuestra propia interconexión irrevocable en estas lógicas; a cuidar los cuerpos, mundos vitales, especies y hábitats a los que apuntan estas lógicas o que son abandonados por ellas; y a confeccionar proyectos mutuos para alterar, desagregar y reconducir estas lógicas. Dado que las interconexiones siempre están emergiendo, disipándose y reconfigurándose, navegar este campo abierto es desorientador y a menudo frustrante. Podemos desear un destino final en el que las interconexiones se solidifiquen y los horizontes aparezcan mágicamente, pero ceder a este deseo reproduce la violencia de lo cerrado. Este léxico es ofrecido como un camino para mantener el campo político de la interconexión abierto de manera que podamos asegurar colectivamente que la crítica sigue siendo una posibilidad.

### **Palabras clave**

interconexión, más-que-humanos, procesos

We don't just start in the middle, when things are already underway. We remain in the middle: unmoored, unbounded, unanchored. There is no origin point where our pre-entangled life rests smugly in its autonomy, like a phantasmic engine of melancholic nostalgia. Nor is there an end point where we finally arrive at solitude, divested of all our pesky attachments and obligations. Entanglement – as an ethos, an orientation, a

methodological tool and a description of life – is always emerging, always on the move. A great deal of critical language gets us into these muddy waters, but too much of it wants to get us out again, onto the safer shores of stability, foundation and stasis. To resist the ever-present lure of a safe harbour, and to help us remain *in media res*, we need to reanimate our understandings of entanglement with a much more dynamic vocabulary. Starting in the middle means we cannot place this ‘object of knowledge’ in front of us and issue the rather petulant demand: ‘what *is* entanglement?’ Such an act of distancing already assumes that it is a quantifiable state of being with static properties and clear parameters. Starting in the middle means a more careful, speculative and provisional mode of questioning that *inhabits* entanglement, knowing full well that our sticky attachments are always open to mutation. It allows us to ask, rather more patiently; ‘*how* have these subjects, objects, ideas and relations become entangled with each other?’ As thinkers attuned to the work of power, we must be bold enough to push that query further; ‘*how* does an emergent entanglement cement itself into a durable reality that occludes, displaces and does violence? Who/what is doing the labour required to sustain that durable reality, and who/what is contesting it, at what cost’?

What follows is an unapologetic tribute to Foster’s legendary ‘ABCs of Contemporary Design’ which re-calibrated the landscape of design practice as a set of political interventions.<sup>1</sup> With Foster in mind, I do not advance a systematic argument with a singular narrative arc, but instead offer some possible entrance points into re-imagining entanglement as a more dynamic coming together and falling apart. But there is something else at stake here: the entities that come together – that entangle – are never just humans agreeing or disagreeing over how to live a good life. What comes together is always more-than-human. This means that the lexicon of entanglement offered here must not just foreground dynamism, it must also contest the anthropocentric frame that sees cognition, language and meaning-making as ‘human-only’ practices. It must put process-oriented thinking to work in a landscape where non-human actors – things, objects, viruses, animals, data, ideas, habitats, ecosystems – are understood as having the capacity to act and affect change. To put it another way, the more-than-human must be central to any effort to re-craft vocabulary, make meaning and communicate. These two ideas of

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1. Hal Foster, ‘The ABCs of Contemporary Design’, *October* 100, Spring (2002): 191–9. Lexicons with a similar critical orientation include J.M. Bernstein, Adi Ophir and Ann Laura Stoler, eds. *Political Concepts: A Critical Lexicon* (New York: Fordham University Press, 2018); Cymene Howe and Anand Pandian, ‘Lexicon for an Anthropocene Yet Unseen’, *Society For Cultural Anthropology*, 21 January 2016. Available at: <https://culanth.org/fieldsights/series/lexicon-for-an-anthropocene-yet-unseen>. Last accessed February 18 2021; and the ‘Living Lexicon for the Environmental Humanities’, *Environmental Humanities* (online). Available at: <https://read.dukeupress.edu/environmental-humanities/pages/lexicon>. Last accessed February 18 2021.
  2. While there are many shared texts that animate this transdisciplinary project, I would say three of the most widely influential are Karen Barad’s *Meeting the Universe Halfway: Quantum Physics and the Entanglement of Matter and Meaning* (Durham: Duke University Press, 2007); Donna Haraway, *Staying With the Trouble: Making Kin in the Chthulucene* (Durham:

entanglement – that it is always dynamic and more-than-human – attach this lexicon to generative work across many different disciplines committed to a relational ontology.<sup>2</sup> What all of us share is a sense that what really matters is not the immutable essence of a thing (e.g. a tree, a state, a weather system, an ideology), but rather its constitutive relations with other things. The secret is out. Nothing can be isolated from its plural, messy and mutable relations: we are always in the middle of multiple contaminations. I do not underestimate how tricky it is to pursue entanglement in a way that foregrounds its dynamic and more-than-human character. This requires a commitment to all of the following at the same time: (a) maintaining an account of entanglement as always-in-process; (b) inhabiting that turbulence in order to open the space for thinking otherwise, and (c) mapping the destruction caused by entanglements that become fixed into dominant structures. For those of us lurking in the more materially-oriented subcultures of critical International Relations (IR), we must also pursue an additional commitment: (d) interrogating the uneven distribution of both generative and violent modes of entanglement as they make themselves felt across the global register.

In an effort to think seriously about the dynamic formations of thing-power, I have resisted the tempting energy of active verbs and focused instead on the durable but often stubborn capacities of nouns, things and adjectives. Stabilising concepts in this way can only ever be a temporary measure, and I fully recognise the arbitrary and perhaps utterly futile nature of this entire exercise. What is the point of shoving our messy and lively entanglements into a hegemonic linguistic structure like the Latin alphabet? The point is a very modest one: to offer these 26 short interventions as tiny lifebuoys to grab onto for a moment as we tread water in the middle, whether that treading looks like the graceful propulsion of a jellyfish or the bloated flop of a water buffalo.<sup>3</sup> They are not fixed anchors or permanent solutions; indeed, these conceptual floats are risky propositions that may capsize at any moment. However, with no hope of ever getting to shore, they provide brief moments of respite during which we can nestle into some material/political figurations and think alongside them for a while. Some of these configurations might work, others will not, but my hope is that at least a few of them might help us cultivate the agile disposition needed to interrogate how more-than-human worlds stick together and come apart, and demonstrate why that sticking and unsticking matters differently for different lifeworlds.




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Duke university Press, 2016) and Bruno Latour, *Reassembling the Social: An Introduction to Actor-Network-Theory* (Oxford: Oxford University Press, 2007).

3. Treading water seems like the most apt metaphor for those of us struggling to survive during a pandemic, let alone write and think coherently. The effects of Covid-19 on all aspects of academic labour have been profound and deeply uneven, and will be felt for at least a generation. In a pragmatic sense, these conceptual bullets are also written for those of us who are struggling to balance the new demands of a pandemic (e.g. caring for loved ones, Homeschooling, supporting a community) with the routine demands of academic labour (e.g. teaching, supervision, pastoral care) when the default position of universities is 'business as usual'. At the moment, many of us only have about 35 seconds to engage with a concept before our time, attention and labour are demanded elsewhere.

**Assemblage** is a more familiar concept than entanglement, and is a powerful way to understand relational ontology. An assemblage is a coming together – an assembling – of different entities that stick together – or ‘entangle’ – in a more or less durable formation for a period of time. These entities are not all human or even man-made; indeed, assemblages are also constituted by non-human entities like objects and technologies, as well as intangible substances like ideas and atmospheres. Such a diversity of actors means that assemblages necessarily come together across multiple scales from the nanoparticle to the planetary. Assemblage thinking is important because it foregrounds the *relations between* the entities that entangle together. It helps us examine durability (i.e. how disparate actors co-ordinate, hold together and fall apart) and transformation (i.e. how relationships change the entities themselves, and how entanglements mutate over time). Centrally, then, assemblages do three important things: (1) they break with anthropocentric formulations by affording agency to actors beyond the human; (2) they shift the focus to relations *between* the heterogeneous entities who entangle together, rather than the substance or character of the entity itself; and (3) they foreground movement by attending to how these relations come together, endure and fall apart. Although assemblage thinking has a plural heritage, many thinkers draw from the original (if vague) formulation by Deleuze and Guattari and follow it through its reanimation in DeLanda’s work.<sup>4</sup> For students and scholars of IR, it has especially energised our studies of security, war, migration and citizenship.<sup>5</sup> While we often use assemblage and entanglement interchangeably, there seems to be a growing tendency to place them in a hierarchical relation

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4. The initial formulation of assemblage theory is most often attributed to Gilles Deleuze and Felix Guattari, *A Thousand Plateaus: Capitalism and Schizophrenia*, trans. Brian Massumi (London: The Athlone Press Ltd., 1988); for helpful assessments of this origin point, see Ian Buchanan, ‘Assemblage Theory and its Discontents’, *Deleuze Studies* 9, no. 3 (2015): 382–92 and Thomas Nail, ‘What is an Assemblage?’ *SubStance* 46, no. 1 (2017): 21–37. Manuel DeLanda develops assemblage thinking most significantly in *A New Philosophy of Society: Assemblage Theory and Social Complexity* (London: Continuum Press, 2006) and *Assemblage Theory* (Edinburgh: Edinburgh University Press, 2016).
  5. Important accounts of assemblage thinking and relational ontology in IR include Michele Acuto and Simon Curtis, eds., *Reassembling International Theory: Assemblage Thinking and International Relations* (London: Palgrave, 2014); Mark Salter, ed., *Making Things International I: Circuits and Motion* (Minneapolis: University of Minnesota Press, 2015) and *Making Things International II: Catalysts and Reactions* (Minneapolis: University of Minnesota Press, 2016); and Tamara Trowsell et al., ‘Recrafting International Relations through Relationality’, *E-International Relations*, 8 January 2019. Available at: <https://www.e-ir.info/2019/01/08/recrafting-international-relations-through-relationality/>. Last accessed February 22 2021. For more issue-specific mobilisations of assemblage thinking, see for example, Rita Abrahamsen and Michael C. Williams, ‘Security Beyond the State: Global Security Assemblages in International Politics’, *International Political Sociology*, 3, no. 1 (2009): 1–17; Jan Bachman, Colleen Bell and Caroline Holmqvist, eds., *War, Police and Assemblages of Intervention* (London: Routledge, 2015); Jason Dittmer, ‘Geopolitical Assemblages and Complexity’, *Progress in Human Geography* 38, no. 3 (2013): 385–401 and *Diplomatic Material: Affect, Assemblage and Foreign Policy* (Durham: Duke University Press, 2017).

so that an assemblage is the overarching ‘thing’ that is made up of a multitude of different entanglements between actors. Here, entanglement describes how entities relate to each other, and assemblage is the name of the congregation that is made up of these multiple entanglements and that endures over time. This may be conceptually useful, but it risks both flattening the dynamic and often turbulent actions that constitute the process of entanglement, and effacing the instability and contingency of any assemblage as it emerges and dissipates. Methodologically, there is also a tendency to use assemblage when conceptualising the co-emergence of social and political formations, but entanglement when conceptualising the ‘hard’ sciences (e.g. quantum physics; chemical reactions). This distinction may be efficient, but it often limits assemblage thinking to pre-given scales and prevents the emergence of transdisciplinary insights into how deep our attachments to the world penetrate, and how far they extend.

**Bumpiness** acknowledges that the coming together of humans, creatures, objects and ideas is rarely a smooth affair. It encourages us to pay attention to the *topography* of entanglement; that is, the bumpy and uneven landscape generated by the process of coming together. In that sense, our job is to interrogate the differential capacities that are produced by such an uneven topography. Which attachments, constituencies and life-worlds are given the opportunity to thrive (often for long periods of time) on the fertile mountains, and which are abandoned to the toxic wastelands below? Thinking about the bumpy topography of entanglement is a useful starting point because spatial difference, asymmetry and hierarchy are material expressions of underlying logics of power. For example, critical geographers have exposed powerful colonial histories underscoring the production, arrangement and utilisation of strategic space, from the aerial vantage point of the drone to the subterranean tunnels used by insurgents.<sup>6</sup> However, what is often forgotten in these topographical accounts is the emergent and dynamic character of bumpiness. Indeed, the process of coming together is an irregular affair, sometimes stuttering, sometimes seamless, sometimes glacial, sometimes explosive. For William Connolly, spatial frames often negate the ‘bumpy temporalities’ of distributed agency – the uneven pace of different actors as they co-emerge together.<sup>7</sup> His account of ‘entangled humanism’ requires human-centred rhythms to be humbled as they entwine themselves within a much more plural congregation of non-human temporalities. The central point here is that the bumpy process of emergence never stops: entanglements are constantly mutating, crumpling, warping, stretching, metastasising, re-formatting and folding in on themselves. It is for this reason that often static topographical analysis must

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6. Key texts in this argument are Peter Adey, *Aerial Life: Spaces, Mobilities, Affects* (London: Wiley, 2010); Stuart Elden, ‘Secure the Volume: Vertical Geopolitics and the Depth of Power’, *Political Geography* 34 (2013): 35–51; and Stephen Graham, *Vertical: the City from Satellites to Bunkers* (London: Verso, 2016). For more recent interventions, see Franck Billé ed., *Voluminous States: Sovereignty, Materiality, and the Territorial Imagination* (Durham: Duke University Press, 2020); and the special issue on ‘Subterranean Geopolitics’, *Geopolitics* 25, no. 1 (2020): 4–239.

7. William E. Connolly, *Facing the Planetary: Entangled Humanism and the Politics of Swarming* (Durham: Duke University Press, 2017): 89–120.

8. See for example, Mikko Joronen, ‘Politics of Being-Related: On Onto-Topologies and “Coming Events”’, *Geografiska Annaler, Series B, Human Geography* 98, no. 2 (2016):

be accompanied by *topological* analysis that puts bumpiness in motion by foregrounding distortion, instability and fluctuation.<sup>8</sup> For example, recent work in critical border studies argues that it is not enough to show how sovereign ‘lines in the sand’ now operate internally and externally to the state; rather, topological analysis shows how borders mutate, modify and re-format in each encounter between human bodies, security technologies and border infrastructures.<sup>9</sup>

**Controversy** is a really useful way to think about the points of tension that arise within and between various human/non-human entanglements. Although Bruno Latour’s early work examines the often insular controversies that arise between scientists in their daily practices of experimentation and publishing, it is his wider account of ‘Science in Action’ that has political resonance.<sup>10</sup> Here, he brings into view the technoscientific disputes ‘where the stakes are never about knowledge alone, where values and cultural practices matter, and where power reigns through far ruder means than the accumulation of textual allies and citations’.<sup>11</sup> Crucially, controversies over techno-social issues (e.g. where to put a nuclear power station; how to manage toxic waste; whether to grow genetically modified crops) always involve ‘the public’ – however that category is constituted – and therefore tell us a great deal about our institutions and practices of governance. Indeed, much of the work in Science, Technology and Society (STS) critically interrogates how the closed world of science intersects with democracy’s demands for transparency and accountability, and seeks to expand the role of ordinary citizens and non-experts in ‘hybrid forums’ that address particular controversies.<sup>12</sup> Within Actor-Network-Theory (ANT) more specifically, scholars have developed a ‘cartography of controversy’ as a methodology that uses digital technologies to map the multiple human and non-human

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97–107; Iulian Barba Lata and Claudio Minca, ‘The Surface and the Abyss/Rethinking Topology’, *Environment and Planning D: Society and Space* 34, no. 3 (2016): 438–55; and Lauren Martin and Anna J. Secor, ‘Towards a Post-mathematical Topology’, *Progress in Human Geography* 38, no. 3 (2013): 420–38.

9. See for example, the forum on border topologies in *GeoHumanities* 2, no. 2 (2016): 279–394, especially Nishat Awan, ‘Introduction to Border Topologies’, 279–83; John Allen and Linn Axelsson, ‘Border Topologies: The time-spaces of Labour Migrant Regulation’, *Political Geography* 72 (2019): 116–23; Franck Billé, ‘Skinworlds: Borders, Haptics, Topologies’, *Environment and Planning D: Society and Space* 36, no. 1 (2018): 60–77; and Sandro Mezzadra and Brett Neilson, ‘Between Inclusion and Exclusion: On the Topology of Global Space and Borders’, *Theory, Culture & Society* 29, no. 4–5 (2012): 58–75.
10. Bruno Latour, *Science in Action: Following Scientists and Engineers through Society* (Cambridge: Harvard University Press, 1987).
11. Sheila Janasoff, ‘Genealogies of STS’, *Social Studies of Science* 42, no. 3 (2012): 439.
12. Within the wider field of STS, helpful accounts of how publics are constituted through controversies include Michael Callon, Pierre Lascoumes and Yannick Barthe, *Acting in an Uncertain World: An Essay on Technical Democracy*, trans. Graham Burchell (Cambridge: MIT Press, 2009) and Noortje Marres, ‘The Issues Deserve More Credit: Pragmatist Contributions to the Study of Public Involvement in Controversy’, *Social Studies of Science* 37, no. 5 (2007): 759–80.
13. Tommaso Venturini, ‘Diving in Magma: How to Explore Controversies with Actor-Network Theory’, *Public Understanding of Science* 19, no. 3 (2010): 258–73.



actants that entangle together as they negotiate a ‘matter of concern’.<sup>13</sup> Thinking through controversy is particularly useful because it is able to keep multiple actors in play. In that sense, we need to caution against accounts of controversy that propose a static narrative arc – a dispute that emerges, reaches crisis point and is then resolved. Such a temporally bounded narrative reinforces the idea that messy and irreducible political problems can somehow be solved by technoscientific means. Rather, we need to think about controversies as intensifications of struggle where publics – both expert and non-expert – routinely assemble to negotiate matters of techno-scientific concern.<sup>14</sup> For example, as Claudia Aradau and Tobias Blanke show in their examination of the Big Data-Security assemblage, it is precisely the contestations that arise over data-driven security and digital surveillance that allow us to open the ‘black box’ of technoscience and expose it to wider questions of accountability, responsibility and justice.<sup>15</sup>

**Durability** describes the stability of entanglements and their capacity to endure over time. If we understand entanglements as always in process, always coming together and falling apart, then we need to explain why some arrangements appear to solidify into a stable and seemingly immutable structure. This requires a more temporally-attuned analysis beyond our more familiar spatial accounts about where entanglements emerge and how they intersect with existing geopolitical cleavages. Interrogating entanglements as constantly in-process demands that we pay much more attention to differential speeds – to the plurality of rhythms of coming together and falling apart. This is a refusal of problematic accounts of transcendent structures and agents, and a call to re-think what we used to call ‘hegemonic formations’. Durable arrangements of subjects, objects, infrastructures, discourses and imaginaries are never given for all time, but instead come together (i.e. they entangle and assemble), they endure over a period of time, and then they dissipate. Certainly, particular arrangements can stick tightly together and maintain themselves over long periods of time such that they can appear to be natural, given and timeless. But thinking through durability prevents these emergent entanglements from solidifying into a static hegemonic formation that sits in opposition to counter-hegemonic forces. Indeed, durability keeps the contingency, instability and open-endedness of these arrangements in play, which means that even the most intractable formations are always available for transformation, mutation and adaptation. These shifts may happen at different speeds, and endure for shorter or longer periods of time, but they never quite solidify into static, binary logics of antagonism. Foregrounding the constitutive instability of durable arrangements helps us remember that things were once *not* entangled in this particular way, which means that this particular arrangement – however exclusionary, oppressive or violent – is never as monolithic or overdetermined as it appears. It helps us remember that things can disentangle and re-entangle differently – that things can be otherwise. In this sense, thinking about durability rather than structure, and understanding durability as unstable and contingent, is a political intervention aimed at reconfiguring possibilities. By keeping entanglement always in process, ideas of durability

14. Isabelle Stengers, *Cosmopolitics II*, trans. Robert Bononno (Minneapolis: University of Minnesota Press, 2011).

15. Claudia Aradau and Tobias Blanke, ‘The (Big) Data-Security Assemblage: Knowledge and Critique’, *Big Data & Society* 2, no. 2 (2015): 1–12.

refuse the submission to static logics of antagonism, and the fantasy that such logics will be resolved by new – and better – normative arrangements.

**Ecology**, as an ethical orientation and a critical methodology, is currently energizing our explorations of the relational ontology of entanglement in the global register. Conventional understandings position ecology as an object of knowledge: it refers to the interactions between all living organisms and their physical (non-living) environments. While this constitutive relation between nature and culture seems perfect for studies of entanglement, ecology's multiple lineages in Romanticism, Evolution and the early environmental movement reproduce problematic claims about race and colonial histories.<sup>16</sup> Here, 'culture' occupies the valued position of reason, civility, science and power over a passive natural world in which flora, fauna and 'natives' are always available for, at best, objectification and extraction, and at worst, total extinction. Rather than dismiss such violent mobilisations of nature/culture by retaining ecology as an object of knowledge, current re-imaginings formulate it as both an ethical orientation and a critical methodology that keeps such logics of power at the forefront of wider concerns about anthropogenic climate change. This understanding of ecology is particularly attuned to exposing the multiple entanglements that enable humans to dominate the non-human world through practices such as deforestation, pollution, and fossil fuel extraction, and calling attention to the bodies and lifeworlds that are harmed and even exterminated by such forces. This is not an effort to restore balance to a nature/culture divide that never existed in the first place, but rather a comprehensive critique of the anthropocentrism that has destroyed the natural world in the service of human greed and desire. This understanding of ecology signals a profound epistemological shift: if our previous anthropocentrism has gotten us into this mess, what kind of thinking can help us – and by 'us' we mean non-human as well as human – navigate the coming apocalypse? In short, the severity of the threat of planetary destruction has enlivened ecology as a new critical modality that (a) *already understands* the deep connections between humans and non-humans and the multiple scales through which these entanglements are forged (i.e. from the nano to the planetary), and (b) *exposes and contests* the entrenched logics of power and violence that such entanglements generate. This approach has a much different conceptual lineage with important antecedents in the Process Philosophy of A.N. Whitehead, the ecosophy

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16. For helpful accounts of the scientific racism shaping conventional understandings of Ecology, see Alexander D. Barder, 'Scientific Racism, Race War and the Global Racial Imaginary', *Third World Quarterly* 40, no. 2 (2019): 207–23; Michael L. Blakey, 'Understanding Racism in Physical (Biological) Anthropology', *American Journal of Physical Anthropology* 175, no. 2 (2021): 311–325. *Physical Anthropology*, December 2020. Available at: <https://doi.org/10.1002/ajpa.24208>; and Malcolm Ferdinand, *Une écologie décoloniale* (Paris: Le Seuil, 2019). For a more specific account of the racism of Ernst Haeckel, thought to be the originator of ecology as an object of knowledge, see Georgy S. Levit and Uwe Hossfeld, 'Ernst Haeckel, Nikolai Miklucho-Maclay and the Racial Controversy Over the Papuans', *Frontiers in Zoology* 17, no. 16 (2020): 1–20.

17. For an account of the ecological aspects of Whitehead's process philosophy, see John B. Bennett 'Ecology & Philosophy: Whitehead's Contribution', *Journal of Thought* 10, no. 1 (1975): 24–30; see also Felix Guattari, *The Three Ecologies*, trans. Ian Pindar and Paul Sutton (London: The Athlone Press, 2000); Jane Bennett, *Vibrant Matter: A Political Ecology of*

of Felix Guattari, the reanimated vitalism of Jane Bennett and the Cosmopolitical ethos of Isabelle Stengers.<sup>17</sup> Within IR, ecological approaches are helping us reimagine conventional objects of inquiry (e.g. war, geopolitics, diplomacy, genocide, migration) outside of their static, anthropocentric heritage. Jairus Grove, for example, explains the methodological implications of ecology for his study of geopolitics: ‘By ecological, I mean a form of analysis characterized by inhuman encounters and deep relational processes across geographical scales rather than a form of thinking that relies on discreteness, causality, and an exceptional notion of human agency’.<sup>18</sup> In this sense, ecological approaches are not reduced to a pre-determined space of the international, but instead follow how an abundance of things *make a difference* as they loop between multiple scales, terrains and registers.

**Friction** is a productive way to understand the uneven character of global entanglements, from smooth interlockings to explosive aversions. From his work conceptualising the ‘mobilities turn’, Tim Cresswell explains friction as ‘the way in which people, things, and ideas are slowed down or stopped’.<sup>19</sup> However, to understand how friction manifests in the global register, a more precise formulation is offered in Anna Tsing’s ethnography of global connections – those unstable and often awkward meetings that only emerge through specifically located practices.<sup>20</sup> Tsing’s work is crucial for those of us attending to the bumpiness of global connections because it destroys the methodological conceit of IR’s conventional ‘Levels of analysis’ approach. Studying friction does not allow you to remain in pre-given and hermetically sealed levels of ‘the individual’, ‘the state’, or ‘the international’ (or even, more recently, sexy recalibrations of ‘the global’ and ‘the local’). Rather, attending to friction immediately foregrounds the dynamism, contingency and emergent nature of the entanglements that coordinate in specific localised scenes. Within Tsing’s formulation, differently rough-edged entities emerge at different speeds, and their entwinings are necessarily marked by more or less friction, more or less stickiness. Some entities stubbornly hold their form no matter what relations are on offer, others are marked by porosity and a willingness to entangle, enmesh and mutate into something new. Tsing’s analysis is not a reductive critique that valorises smoothness and castigates friction as the negative result of global capitalism; as she argues, ‘Friction refuses the lie that global power operates as a well-oiled machine’.<sup>21</sup> Instead, she offers a more generative, attentive and patient approach that foregrounds the productive nature of friction – how it acts, performs, and *does* things in the world.

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*Things* (Durham: Duke University Press, 2010); Stengers, *Cosmopolitics II*, as well as in the *Journal of Political Ecology* (online). Available at: <https://journals.librarypublishing.arizona.edu/jpe/>. Last accessed February 2021.

18. Jairus V. Grove, *Savage Ecology: War and Geopolitics at the End of the World* (Durham: Duke University Press, 2019), 10.
19. Tim Cresswell, ‘Friction’ in *The Routledge Handbook of Mobilities*, eds. Pete Adey et al., (London: Routledge, 2014), 108.
20. Anna L. Tsing, *Friction: An Ethnography of Global Connection* (Princeton: Princeton University Press, 2005).
21. *Ibid.*, 6.

**Glitch** unashamedly assumes that the co-emergence of actors is marked by hiccups, fractures, false starts and missed attachments. In computing, a glitch is understood as ‘a problematic, annoying or unintended error’ that can be ‘quickly absorbed by the larger, still-functioning system’.<sup>22</sup> This has become the dominant understanding within socio-technical-political systems as well: instead of trying to avoid glitches, errors, accidents and failures, we build them – as well as their intrinsic forms of repair – into the system itself. If we already know that socio-technical-political systems constantly make mistakes (e.g. surveillance systems fail to identify dangerous threats; facial recognition produces false positives), the goal is to assimilate these failures to such an extent that they become part of the process itself. As Louise Amoore’s account of errant algorithms demonstrates, the folding in of error is the essence of Machine Learning: anything outside the pre-determined target is fed back into the model such that the target parameters (the weights and measures) are constantly adapting to new information.<sup>23</sup> Instead of accepting this claim that failure is no longer dangerous because it can be incorporated into the system and learned from, critical scholars and digital artists are slowing down the moment of the glitch to see what effects these errors unleash. For Lauren Berlant, the glitch exposes the limits of understanding structure as ‘an intractable principle of continuity across time and space’ that can somehow be repaired and restored.<sup>24</sup> Instead, she refigures the glitch as an opportunity to think about infrastructure as ‘that which binds us to the world in movement and keeps the world practically bound to itself’.<sup>25</sup> For Berlant, infrastructures are malleable and contingent rather than static and timeless – they are socialities that are constantly in transition. When the glitch appears, as it always does, we cannot think about fixing it in order to restore a pre-glitch status quo. Instead, we must think, feel, act and relate in a condition of *permanent transition* so that we can better ‘alter the harder and softer, tighter and looser infrastructures of sociality itself’.<sup>26</sup> That sense of interrupting the norm is what animates ‘glitch-artists’ working in the digital realm who see these errors as important ruptures in ‘the continuum of an idealized artifact’.<sup>27</sup> Like Berlant, these artists are not interested in any form of restoration, but instead use the glitch to explore the uncertainty of computerised binary code, subvert the idea of technical perfection, and flirt with ‘breakdown, chaos and total immersion’.<sup>28</sup>

**Haptic** encounters take place between the skin of human bodies and the multiple surfaces that this skin touches. In that sense, they are a manifestation of the deeper relational ontology that underscores entanglement. What makes haptic encounters important is that they open up the affective register to scrutiny and allow us to zoom in on the

22. Carolyn L. Kane, *High-Tech Trash: Glitch, Noise, and Aesthetic Failure* (Oakland: University of California Press, 2019), 15; see also Louise Amoore, *Cloud Ethics: Algorithms and the Attributes of Ourselves and Others* (Durham: Duke University Press, 2020), 47–48.

23. Amoore, *Cloud Ethics*, 108–12.

24. Lauren Berlant, ‘The Commons: Infrastructures for Troubling Times’, *Environment and Planning D: Society and Space* 34, no. 3 (2016): 394.

25. *Ibid.*, 394.

26. *Ibid.*, 394.

27. Electronic musician Kim Cascone, quoted in Kane, *High-Tech Trash*, 15.

28. Kane, *High-Tech Trash*, 16.

micro-transfers between human and non-human surfaces. Haptic encounters are like nodes in a wider affective economy where sensations, energies and forces transfer across the material surfaces of different bodies. These are important primarily because they reveal the constitutive *porosity* of the bodies involved. For example, we conventionally think about the human body as encased by an epidermal layer, but once the affective register is in play the contingency of that ‘outer casing’ is exposed. Our bodies are not physically bound in the way we think they are: they are excessive, leaky and distributed. We leave traces and deposits everywhere (e.g. shit, skin cells, snot); we host an array of other, smaller bodies (e.g. bacteria, viruses, nits); and we participate in collective sensations that by-pass our cognitive reasoning (e.g. fear, excitement, anticipation). This porosity challenges the usual way we think about entanglement as an encounter between two hermetically sealed bodies that come together but retain bodily integrity. Instead, it encourages us to think about entanglement as a much more open-ended affair in which transfers of sensation take place through multiple openings and closings – all of which are subject to mutation. With that in mind, it makes little sense to talk of haptic encounters (which keep bodies in-tact), but rather to talk of haptic entanglements (which expose the circulatory pathways of sensation). When porous bodies come into contact, transfers of sensation can be smooth and quick, but they often hit pinch points, reversals, surprises and overloads as entries and exits are rearranged. Critically analysing haptic entanglements requires three important shifts. First, because transfers of sensation occur in registers other than the cognitive, they require a profound rethinking of multi-sensorial perception that is not beholden to the dominant ocularcentric mode. Bodies are always ‘enmeshed’ in circulations beyond the visible, which means that multiple sensations – touch, smell, sound, taste – must take their place *alongside* vision when we analyse modes of perception. Here, arguments about the ‘skin’ of cinematic and digital interaction, and Erin Manning’s theories of touch, help us to re-imagine the haptic as a collection of unstable entanglements – or ‘relationscapes’ – that do not reproduce bodily integrity.<sup>29</sup> Second, because the multisensorium is not a neutral terrain, we must demonstrate how transfers of sensation get caught up in durable infrastructures such as gender and race. For example, trans-corporeal feminists unravel the integrity of gendered bodies by exposing their haptic entanglements with the unruly materialities of nature, and critical race scholars show how the bodily integrity of the human has always been produced by the ‘bestialization and thingification of blackness’.<sup>30</sup> Finally, the real challenge is analysing how these powerful deconstructions of bodily integrity, and the animated multi-sensoria that they expose, operate across global registers. Here, the most

29. On hapticity, cinema and digital spheres, see Laura U. Marks, *The Skin of the Film: Intercultural Cinema, Embodiment and the Senses* (Durham: Duke University Press, 2000) and the special issue on ‘Haptic Media Studies’, *New Media & Society* 19, no. 10 (2017): 1513–1667. Erin Manning writes about touch in *The Politics of Touch: Sense, Movement, Sovereignty* (Minneapolis: University of Minnesota Press, 2006) and *Relationscapes: Movement, Art, Philosophy* (Cambridge: MIT Press, 2012).

30. See *Material Feminisms*, ed., Stacy Alaimo and Susan Hekman (Bloomington: Indiana University Press, 2008) especially Alaimo’s essay ‘Trans-Corporeal Feminisms and the Ethical Space of Nature’, 237–64; and Zakiyyah Iman Jackson, *Becoming Human: Matter and Meaning in an Anti-Black World* (New York: New York University Press, 2020).

31. Good starting places for formulating affect across the global register include Ben Anderson, ‘Affective Atmospheres’, *Emotion, Space and Society* 2, no. 2 (2009): 77–81; Angharad

compelling arguments show how affect circulates beyond the scale and lifespan of the human – in national atmospheres, in public feelings, in communities of sense.<sup>31</sup>

**Intensity** is a much better way to think about entanglement than the more familiar frame of ‘crisis’. When multiple forces co-emerge quickly together in a short space of time, we can say there is a process of *intensification* in which multiple bodies, objects, systems, attentions, imaginaries and resources are drawn further into relation. When this concentrated experience of entanglement is framed as a ‘crisis’, these emergent relations are lifted out of their regularised patterns of attachment and made exceptional. This hierarchy creates the conditions in which those in power across multiple sectors – governments, experts, academics, intellectuals, journalists and professionals – can use the crisis to suspend the normal rules allowing us to foster and maintain attachments to each other and the world around us. Crisis narratives feed the demand for exceptional measures in excess of the norm; that is, the more severe the crisis, the more draconian the exceptional measures will be. But as we have seen over and over again, exceptional circumstances quickly become normalised, and powers that were granted under the terms of a crisis become sedimented into the everyday routines of governing. Even as the urgency of the crisis recedes, these modes of governing continue to concentrate resources, constrain public debate and neutralise dissent across multiple domains. Thinking of entanglement as a process of intensification challenges this dominant crisis narrative because it attaches all concentrations of force to much longer histories of emergence. In this sense, crises are always expected: they are simply intensifications of entanglements, patterns and arrangements that have been emerging for a long time. Inhabiting a relational ontology means we are never surprised when, for example, long-standing racialised debt arrangements produce an economic ‘crisis’, militarised occupations arising from violent interventions produce a migration ‘crisis’, and increasingly powerful Feminist mobilisations produce a ‘crisis’ in heteronormative masculinity. None of these are crises: they are powerful intensifications of forces, energies and tensions that are *already in play* across the globe, and have been for a very long time. They may enrol more and different actors together in a concentrated dispute, but these never emerge ‘out of the blue’. By shifting our analytical focus from crisis to intensification we are able to historicise the entanglements in play, draw out their antecedent mobilisations, and prevent the closures that are enacted when those in power use a ‘crisis’ to justify new interventions.

**Juxtaposition** is a figuration of relationality that does not automatically foreground antagonism. It opens up a range of non-oppositional, diagonal and weird geometries that keep difference in play without necessarily collapsing into enmity. The value of juxtapositional thinking is that it can break apart familiar or sedimented structures and bring new (and often unexpected) relations into being. Crucially, it does not reproduce the

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Closs Stephens, ‘The affective atmospheres of nationalism’, *Cultural Geographies* 23, no. 2 (2016): 181–98; and Angharad Closs Stephens et al., ‘Affect and the Response to Terror: Commemoration and Communities of Sense’, *International Political Sociology* 15, no. 1 (2021): 22–40. Relatedly, seminal work on Public Feelings includes Anne Cvetkovich, *Depression: a Public Feeling* (Durham: Duke University Press, 2012) and the Public Feelings Project, outlined in Lauren Berlant, ‘Feel Tank’, in *Sexualities in Education: A Reader* 367 (New York: Peter Lang, 2012): 340–43.

methodological parameters of comparative politics which require an explicit condition of similarity in order to proceed. Instead, juxtapositional thinking allows us to telescope ‘out’ from our research focus in order to see which possible actors, objects, scenes or figures might be brought together to help dislodge conventional formations. In this sense, juxtaposition is useful in the initial stages of critical projects aimed at prizing apart entanglements that have become sedimented into a hyper-durable arrangement. For example, Juliet Hooker uses juxtaposition as a method for analysing racial tensions across the Americas which allows her to think ‘hemispherically’ about African American and Latin American experiences, rather than through rigid comparative categories.<sup>32</sup> While her critique of comparative methodologies is both astute and necessary, her analysis also highlights the limitations of juxtaposition when it comes to theorising entanglement. Within juxtaposition, relationality is figured as an encounter between ‘two disparate objects side-by-side’ rather than a messy co-emergence in which disparate bodies entangle with each other to such an extent that they lose their bodily integrity. In this sense, juxtaposition offers a minimalist account of entanglement-*as-encounter* (i.e. ‘two disparate objects side-by-side’) rather than a more radical account of entanglement-*as-meshing* (i.e. porous objects that inter-penetrate to craft a new assemblage). Hooker is right that juxtapositional thinking has the capacity to produce new shapes, contours and lines of sight, and in the initial stages of critical analyses, this kind of re-framing helps us think otherwise. But to get beyond a minimalist understanding of encounter, I would argue that juxtaposition must be pushed into more dynamic and sticky modes of relation that do not preserve bodily integrity. In that sense, we might want to ask how juxtaposition transforms into stickier modalities such as nestling and burrowing, and further still into inter-penetration and contamination.

**Kinetic** has become a buzzword for any kind of active, embodied mobility as distinguished from either a sedentary position (passive immobility) or an online manifestation (disembodied mobility). Along with ideas about flow, liquidity and nomads, kinetic emerged as part of the ‘mobilities turn’ that theorised the multiple forms of movement intensified by post-Cold War globalisation.<sup>33</sup> As our thinking about mobility has developed, however, we have been forced to re-think the kind of entanglements that kinesis offers. Part of the problem with the mobilities turn was its central logic of mobility/immobility: useful to track power asymmetries between the ‘kinetic’ elite with the freedom to travel and disempowered populations who were ‘stuck’ in local spaces, but not helpful when trying to think about ambiguous states in between. Indeed, mobility and immobility are always entangled in uncertain states of suspension that are neither moving nor still – states like waiting, anticipating, lingering, hesitating and preparing. For those of us working through ideas of entanglement, the challenge is how we theorise these ambiguous states while also calling attention to the increasingly violent forces

32. Juliet Hooker, *Theorizing Race in the Americas: Douglass, Sarmiento, Du Bois, and Vanconcelos* (Oxford: Oxford University Press, 2017), 11–17; see also Neil Roberts et al., ‘Juxtaposition, Hemispheric Thought, and the Bounds of Political Theory’, *Contemporary Political Theory* 18, no. 4 (2019): 634.

33. Mimi Sheller, ‘From Spatial Turn to Mobilities Turn’, *Current Sociology* 65, no. 4 (2017): 623–39.

facilitating a kinetic elite whilst imposing immobility on ‘suspect’ populations. Here, critical migration scholars have led the way by showing how mobility *itself* has become the primary target of security, and how incarcerated migrants ‘stuck’ in detention centres are never passive, but instead exert active agency through political mobilisation and acts of resistance.<sup>34</sup> Moving beyond this reformulation of mobility/immobility, Sloterdijk offers a more damning account of the ‘kinetic model of success’ that modernity has built for itself: the belief that we make the world move forward through our grandiose plans, ideas and implementations.<sup>35</sup> For Sloterdijk, we have plunged ourselves into a state of ‘pure mobility’ that we cannot escape: we are constantly in pursuit of a ‘kinetic utopia’ that is always out of reach.<sup>36</sup>

**Lines** are central to Tim Ingold’s wider account of correspondence which develops a particular theorisation of entanglement.<sup>37</sup> Ingold uses lines to think about how bodies entwine with each other but never quite lose their integrity. He is particularly interested in how lines become tangled up with each other to form knots and sees the act of ‘knotting’ as a fundamental characteristic of collective life. Ingold is not interested in entanglements that mesh together into a new substance or a ‘blob’ that obliterates the distinct integrity of the original entrants. As he argues, ‘in a world of blobs there could be no life of any kind’ because there would be no mode of sociality between bodies.<sup>38</sup> Instead, he is interested in how distinct lines intersect, ‘go along together’ and operate in harmony and dissonance whilst – importantly – always maintaining their form. In this account of entanglement, the separation of lines is necessary to maintain the relations endemic to social life; indeed, maintaining some kind of bodily integrity and distinction is precisely what allows us to ‘correspond’ with each other, with other non-human actors, and with the world around us. Like ideas of juxtaposition, Ingold’s ideas of correspondence reflect entanglement-*as-encounter*: lines can intersect, cross and stick together for a while, but never enough so that the intersecting lines lose their autonomy or integrity. In crafting this ‘meshwork’ of lines, Ingold recalls musical polyphony where each musical part (e.g. soprano, bass) is a separate line that must respond to – and therefore ‘go along with’

34. Critical Migration Scholars theorizing mobility as a target of security include Jef Huysmans, *The Politics of Insecurity: Fear, Migration and Asylum in the EU* (London: Routledge, 2006); Matthias Leese and Stef Wittendorp eds., *Security/Mobility: Politics of Movement* (Manchester: Manchester University Press, 2017); and Samid Suliman, ‘Mobilizing a Theory of Kinetic Politics’, *Mobilities*, 13, no. 2 (2018): 276–90. Those theorizing the resistance and autonomous agency of irregular migrants include Peter Nyers and Kim Rygiel, eds. *Citizenship, Migrant Activism and the Politics of Movement* (London: Routledge, 2012); Maurice Stierl, *Migrant Resistance in Contemporary Europe* (London: Routledge, 2018); and the authors contributing to a special issue ‘Rethinking Migration and Autonomy from Within the ‘Crises’’, *South Atlantic Quarterly* 117, no. 2 (2018).

35. Peter Sloterdijk, *Infinite Mobilization: Towards a Critique of Political Kinetics*, trans. Sandra Berjan (London: Polity Press, 2020).

36. *Ibid.*, 18.

37. Tim Ingold, *The Life of Lines* (London: Routledge, 2015) and *Lines: A Brief History* (London: Routledge Classics, 2016).

38. Ingold, *The Life of Lines*, 4.

39. Ingold, *Lines*, 6–39.



– another line in order to generate collective music.<sup>39</sup> He argues that correspondence requires more care and attention than other concepts like network or assemblage because as we pursue our own lines, we must attend, follow, abide with and respond to the other lines we correspond with.<sup>40</sup> Unlike networks with separated nodes of connection, or assemblages as ‘blobs’ of indistinguishable components, Ingold argues that the correspondence of lines offers a more meaningful understanding of attachment: ‘because they go along together and because their continual regeneration is nourished and impelled by the memory of their affection, they cannot be parted without a sense of loss, if not grief’.<sup>41</sup>

**Mêlée** has been used by Geographers and IR theorists to formulate understandings of community that do not lapse into spatial fixity and exclusive accounts of identity.<sup>42</sup> This work engages with Jean-Luc Nancy’s ruminations over the fate of Sarajevo during the Bosnian war in which the city was targeted precisely because it hosted an uncontainable and unfathomable congregation of diverse actors, both human and non-human. For Nancy, the urban fraternisation of ‘lineages, paths, and skins’ went far beyond polite mixing: Sarajevo was constituted by tempestuous scrimmages, polyphonous gatherings and wild ‘displacements, hazards, migrations, clinamens, encounters, chances, and risks’.<sup>43</sup> Mêlée is especially helpful when theorising entanglement because it foregrounds the bumpy and often treacherous process of co-emergence – more cacophony, agitation and riot than smooth intermingling. It challenges the idea of entanglement-*as-encounter* where distinct bodies slide by one another or attach for a period of time without losing their bodily integrity. For Nancy, the frame of encounter is problematic because it reproduces the fantasy that it is possible to simply add more variables – more bodies – to get a complete picture, which results in a Politics reduceable to the simple practices of counting up and evaluating through pre-given metrics. But a mêlée is never that orderly. A mêlée reminds us that assembling together is always excessive: crowds always produce elements that don’t fit, that overload, that come up short, or that disrupt harmonious ideas of peaceful co-existence. For Nancy, the mêlée demands a different political imagination that disorders the ‘crude’ and ‘rubbish’ theorisations of purity that insist on either banishing these excessive co-minglings, or assimilating them into exclusive formulations of identity, community and belonging. I would argue that the threat, and also the enticement, of the mêlée lies not just in its excess, but also in its ability to *move*. As we know from Elias Canetti’s famous work on crowds, a riot is never still.<sup>44</sup> As Nancy argues, ‘in

40. Tim Ingold, ‘On Human Correspondence’, *Journal of the Royal Anthropological Institute* 23, no. 1 (2017): 19–20.

41. *Ibid.*, 13.

42. Angharad Closs-Stephens, ‘Citizenship Without Community: Time, Design and the City’, *Citizenship Studies* 14, no. 1 (2010): 31–46 and Martin Coward, ‘Between Us in the City: Materiality, Subjectivity, and Community in the Era of Global Urbanization’, *Environment and Planning D: Society and Space* 30, no. 3 (2012): 468–81.

43. Jean-Luc Nancy, ‘In Praise of the Mêlée’ in *A Finite Thinking*, trans. Steven Miller, ed. Simon Sparks (Stanford: Stanford University Press, 2003), 282.

44. Elias Canetti, *Crowds and Power* (New York: Farrar, Straus & Giroux, 1984).

45. Nancy, ‘In Praise of the Mêlée’, 282.

a mêlée, there is countervalance and encounter, there's resemblance and distancing, contact and contraction, concentration and dissemination, identification and alteration'.<sup>45</sup>

**Neuroplasticity** develops a dynamic and more-than-human account of entanglement by deconstructing the biological anchor of modern, liberal humans: the brain. Neuroscientists celebrate the brain's essential 'plasticity' by exploring its ability to adapt to environmental forces like injury or trauma. While this story allows more room for environmental factors to shape brain structure and chemistry, it re-instates the superior human at the centre of the story – only now it is an *even better* human whose brain is more adaptive and resilient than we initially thought. Working against the celebratory anthropocentrism of neuroscience, Catherine Malabou offers a much more destructive account of neuroplasticity; that is, brain injuries, tumours and diseases like Alzheimer's indicate the brain's capacity to annihilate, rather than enhance, our identities and self-understandings.<sup>46</sup> By figuring the brain as always entangled in, and therefore affected by, a fleshly body and a heterogeneous, intrusive environment, Malabou refuses the usual language of a brain *in command* – a brain that gives humans intention, determination and will. Working against the reigning Cartesian fantasy, Malabou helps us understand that the brain is never fully in command of its fleshy encasement or its surroundings. Rather, the human must be reconfigured as a brain-body-environment assemblage that fully deconstructs our cherished ideas of bodily integrity, autonomous human agency and superior cognitive ability. Malabou's critique dislocates the 'I' at the heart of the integrated, fully conscious and cherished modern subject, and offers instead an incoherent 'I' that is not controlled by a masterful brain and can therefore never know itself. It turns out the very thing that we think makes us superior to 'lesser' creatures – our cognitive ability – is highly mutable, profoundly contingent, and often destructive. Moreover, the brain's susceptibility to external pressure – its entanglement with otherness – has profound implications for how we think politically.<sup>47</sup> If the brain is not a closed system in command of itself, and if that brain is constantly mutating (sometimes in destructive ways), then the human capacity to instrumentally control nature and bend planetary systems to its collective will is not as secure as we think it is. Here, Malabou extends William Connolly's efforts to 'humble the human' by sticking her hands in our craniums and pulling us apart from the inside out.<sup>48</sup> This work is crucial because it shows us that what we think we control (e.g. our bodies, our futures, other species, the planet) and all the man-made systems we have built to facilitate this control will always be open to questioning, contestation and disruption.

**Ongoingness** articulates a way to think without horizons, or specifically, to think without the conventional narrative of crisis → resolution that positions entanglements in a progressive trajectory towards a specific outcome. For Lauren Berlant, this means thinking about 'crisis ordinariness' rather than intense formations of trauma and recovery. Indeed, she offers a powerful case for starting in the middle: 'In the impasse induced by crisis, being treads water; mainly, it does not drown. Even those whom you would

46. Catherine Malabou, *What Should We Do with Our Brain?* trans. Sebastian Rand (New York: Fordham University Press, 2008).

47. *Ibid.*, 78–82; see also Grove, *Savage Ecology*, 170–2.

48. Connolly, *Facing the Planetary*.

49. Lauren Berlant, *Cruel Optimism* (Durham: Duke University Press, 2011), 10.

think of as defeated are living beings figuring out how to stay attached to life from within it, and to protect what optimism they have for that, at least'.<sup>49</sup> This, I think, offers a radically different attunement to subjectivity, relationality and futurity, and therefore demands a rethink of entanglement. Because our conventional epistemologies position crisis as an exception to be overcome, we are only ever attuned to heroic stories of conquering adversity – all of which promise a return to equilibrium and a restoration of familiar normative structures. The problem is that these stories have no traction in scenes of ordinary life where subjects are simply *getting on with things* amidst the slow accretion of multiple catastrophes (e.g. welfare state destruction, indebtedness, structural racism and sexism, chronic ill-health, climate change, arrested social mobility, ongoing wars and interventions). What we need are better attunements to the creative 'logics of adjustment' undertaken by subjects simply getting on with the art of living through permanent collapse.<sup>50</sup> Human subjects, of course, never make these adjustments in isolation, which means we also need to pay more attention to the non-human entities that are enrolled in these ongoing practices of modification, repair and maintenance. This means following entanglements *all the way* into the ordinary scenes of everyday life: the non-spectacular, the routine, the banal. Much as we might appreciate the enlivening theories of entanglement, assemblage and relationality, too often they remain beholden to major events – or controversies – in which intensifications are at their most stark (e.g. major scientific discoveries, infrastructural collapse, pandemics, stock market crashes, protests and riots). What this spectacular frame misses are the 'non-eventful geographies of slow violence and everyday endurance': those scenes of living on in the midst of permanent, intersecting crises 'where violence is experienced as a continuation rather than an eruption'.<sup>51</sup> Ongoingness gives us a helpful way to politicise processual thinking: it brings us into the forgotten and abandoned scenes of ordinary life and helps us inhabit the slow and accretive rhythms of durational violence. This is what Elizabeth Povinelli means by quasi-events: those 'forms of suffering and dying, endurance and expiring, that are ordinary, chronic, and cruddy rather than catastrophic, crisis-laden, and sublime'.<sup>52</sup> The challenge for those of us working through entanglement across the global register is to foreground the role of non-humans in this landscape of quasi-events – to show how humans, objects, creatures, species, habitats, ideas and affects come together and fall apart on the long, slow and unspectacular passage towards extinction.

**Process** gets at the heart of understanding entanglement as a dynamic co-emergence that is continually transforming. To be sure, entanglements can stabilise and endure over long periods of time such that their transformations appear to have stopped; indeed, this apparent solidity is what allows us to more easily identify constitutive asymmetries. But if we know that entanglement is never static, even if it might be very slow, the challenge is to think about it in *processual* terms. Indeed, Process Philosophy has produced some

50. *Ibid.*, 10.

51. Eleanor Wilkinson and Iliana Ortega-Alcázar, 'The Right to Be Weary? Endurance and Exhaustion in Austere Times', *Transactions of the Institute of British Geographers* 44, no. 1 (2019): 156.

52. Elizabeth Povinelli, *Economies of Abandonment: Social Belonging and Endurance in Late Liberalism* (Durham: Duke University Press, 2011), 13.

of the most creative accounts of entanglement coming out of ANT, Feminist STS, New Materialism and Post-Humanism. In refusing the foundations of Western metaphysics, early 20th century thinkers like Alfred N. Whitehead, Henri Bergson and John Dewey offer a profoundly relational and dynamic ontology that works against the static concepts populating so much of canonical Philosophy (e.g. Being, Substance, Essence, the Subject/Object divide). It is no surprise that this tradition has animated, and in some ways re-imagined, Poststructural approaches working through Deleuzian concepts of flows, folds, rhizomes and deterritorialisation.<sup>53</sup> Thinking in processual terms is crucial because it gives us the analytical tools to put entanglement in motion and *keep it moving*. Conceptually, it allows us to think about pasts and futures as multiple, lively and contingent landscapes that always exceed metaphysical efforts to make them singular, linear, and unidirectional. Methodologically, processual thinking helps us start – and stay – in the middle. Even as we are carried along by multiple trajectories as they entangle together, we are compelled to examine this emergent process in detail, as it is happening. The challenge, of course, is to draw out the asymmetries that any entanglement might reproduce, and follow the global pathways through which these are maintained, protected and amplified.

**Quantum** entanglement is an enlivening way to think about the possible attachments between different entities, from sub-atomic particles to solar systems. What Einstein famously (and dismissively) called ‘spooky action at a distance’ explains how discrete entities in different locations may actually be connected. This goes against the laws governing Newtonian science that separate entities in space and time so they can enter into various conditions of cause and effect. In the quantum universe, sub-atomic particles are not governed by Newtonian laws, and can therefore exist in an infinite number of conditions, positions and trajectories. Karen Barad’s notion of intra-action is crucial for understanding the political effects of quantum theory because it explains the reconfiguration of both agency (i.e. what constitutes entities) and entanglement (i.e. how entities intermingle with each other).<sup>54</sup> Materials, matter, objects and entities only come into being *through* their intra-actions with other materials, matter, objects and entities. In other words, agency does not precede intra-action, but instead materialises *through* it. This is what Barad means by agentic realism which ‘does not start with a set of given or fixed differences, but rather makes inquiries into how differences are made and remade, stabilized and destabilized, as well as their materializing effects and constitutive exclusions’.<sup>55</sup>

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53. Tim Clark, ‘A Whiteheadian Chaosmos: Process Philosophy from a Deleuzian Perspective’, *Process Studies* 24, no. 3–4 (1999): 179–94; Roland Faber and Andrea M. Stephenson, eds., *Secrets of Becoming: Negotiating Whitehead, Deleuze and Butler* (New York: Fordham University Press, 2011); and Isabelle Stengers, ‘Thinking with Deleuze and Whitehead: a Double Test’ in *Deleuze, Whitehead, Bergson: Rhizomatic Connections*, ed. Keith Robinson (London: Palgrave Macmillan, 2009), 28–44.

54. Barad, *Meeting the Universe Halfway*.

55. Karen Barad, ‘Intra-Actions: An Interview with Karen Barad by Adam Kleinemann’, *Mousse* 34 (2012): 77; see also Karen Barad, ‘Quantum Entanglements and Hauntological Relations of Inheritance: Dis/Continuities, SpaceTime Enfoldings, and Justice-to-Come’, *Derrida Today* 3, no. 2 (2010): 240–68.

Intra-action occurs between two entities (e.g. particles) but also between these entities and the instruments, tools and practices used to study them (e.g. particle accelerators, electromagnets, qubits). Scientists are also a constitutive part of the research they conduct because they intra-act with their objects of study; that is, they cannot be dis-entangled from their tools or experiments. Barad's more speculative re-working of quantum entanglement through agentic realism has been hugely generative for IR scholars exploring contemporary formations of science, technology and security.<sup>56</sup> Within the discipline more widely, James Der Derian and Alexander Wendt show how quantum theory has profound implications for computing, technology and intelligence, which means that IR theorists 'had better be fluent in the ways of quantum theory' if we are going to interpret its impact on security and geopolitics.<sup>57</sup> For example, how will cybersecurity operate if quantum computing makes current practices of encryption obsolete? How will intelligence agents collect, analyse, share and store data on, for example, suspect individuals sending private text messages or conducting online banking?

**Restlessness** describes the disposition that results from acknowledging a world composed by dynamic entanglements. This is not a reassuring condition: it does not offer certainty, foundational grounds or a progressive narrative of emancipation. It is neither nostalgic for the normative infrastructures we have lost, nor hopeful for a restored future when we are 'back on track'. Rather, the restlessness I refer to here is the result of unlearning conventional modes of analysis and practicing what John Law describes as 'thinking that is not strategically ordered, tellable in a simple way, thinking that is lumpy or heterogeneous – difficult or impossible'.<sup>58</sup> For Povinelli, restlessness is insurrectional in that it indicates 'a kind of wilfulness in the face of dominant formations of knowledge – the will to know what exceeds, lies alongside, or refuses the functional coherences and formal systematizations that subjugate knowledge'.<sup>59</sup> There is no stillness when you start in the middle – no assurances, no fixed coordinates, no safety nets. This generates a strange kind of vigilance that is permanently alive to trajectories emerging from multiple

56. See for example, Claudia Aradau, 'Security that Matters: Critical Infrastructure and Objects that Matter', *Security Dialogue* 41, no. 5 (2010): 491–514; and Stefan Elbe and Gemma Buckland-Merrett, 'Entangled Security: Science, Co-Production and Intra-Active Insecurity', *European Journal of International Security* 4, no. 2 (2019): 123–41.

57. James Der Derian and Alexander Wendt, 'Quantizing International Relations: The Case for Quantum Approaches to International Theory and Security Practice', *Security Dialogue* 51, no. 5 (2020): 400; see also James Der Derian, 'A Quantum of Insecurity', *New Perspectives: An Interdisciplinary Journal of Central & East European Politics and International Relations* 29, no. 9 (2019): 13–27; Chenxin Pan, 'Enfolding Wholes in Parts: Quantum Holography and International Relations', *European Journal of International Relations* 26, no. 1 (2020): 14–38; Alexander Wendt, *Quantum Mind and Social Science* (Cambridge: Cambridge University Press, 2015); Laura Zanotti, *Ontological Entanglements, Agency and Ethics in International Relations* (London: Routledge, 2019) as well as the Book Forum on Zanotti's *Ontological Entanglements*, *Millennium: Journal of International Studies* 49, no. 1 (2021): 117–93.

58. John Law, 'After ANT: Complexity, Naming and Topology', *Sociological Theory* 47, no. S1 (1999): 9.

59. Elizabeth Povinelli, 'The Will to Be Otherwise/The Effort of Endurance', *South Atlantic Quarterly* 111, no. 3 (2012): 456.

directions. But this rather disoriented restlessness is also an ambivalent condition. On the one hand, restlessness generates the energy required to discover, follow and analyse new entanglements as they emerge and solidify. On the other hand, these pursuits are exhausting – especially when they multiply – and that exhaustion is not evenly distributed. Indeed, like any disposition, restlessness never manifests outside of prevailing power relations. What needs more critical attention are the asymmetries that mark our conceptual and methodological efforts to start in the middle. These have a bearing on who is able to carry out critical interrogations in the first place because some bodies are able to inhabit restlessness and bear exhaustion more than others. For example, it is one thing for a tenured professor at a wealthy university to pursue wilful, insurrectional and restless research: it is quite another for an adjunct or precariously employed early-career researcher to do so. To properly foreground these asymmetries, especially their amplifications of racialised and gendered cleavages, any critical interrogation of entanglement must also stubbornly insist that the conditions of knowledge production be included in the study. In this sense, we would do well to craft our restless dispositions in what Fred Moten and Stefano Harney call *The Undercommons* – the radical space in which study always exceeds the institutional norms, professional practices and disciplinary modalities of the university.<sup>60</sup>

**Speculation** is the mode of theorising that emerges from radical open-ness, from the claim that all lifeworlds (both human and non-human) interpenetrate each other, and from acknowledging that our co-emergences are always in process. Speculation encourages us to ask: ‘What does the future look like if we *start* from the assumption that human and non-human worlds are entangled with each other?’ The future, of course, has always been a matter of concern for those who want to control it, singularise it, make it actionable in the present. But that is not the future at the heart of speculative theory. Rather, all future possibilities must be kept radically open with no guarantees that an intervention in the present will make the difference we think it will. For Isabelle Stengers, the key to maintaining this radical openness is to make sure that all relevant actors in the immediate milieu – humans (expert and not) as well as non-humans (animal and material) – are involved in composing the future together.<sup>61</sup> These collective compositions are always uncertain because the outcomes can never be fully controlled: they are tentative and experimental, but they are also courageous in their insistence on keeping possibilities open. This is precisely what distinguishes speculative thinking from more familiar normative strivings for revolution and utopia. There is nothing ‘programmatic’ about speculation, no blueprint to follow, nothing pre-given in the act of composing together.<sup>62</sup> As Jirus Grove argues, ‘what we have is everything around us, and it is sufficiently creative and weird all by itself’.<sup>63</sup> How, then, might we conduct research in such a radically open landscape? Or, to put it another way, how might we start in the middle? For

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60. Fred Moten and Stefano Harney, *The Undercommons: Fugitive Planning & Black Study* (Brooklyn: Minor Compositions/Autonomedia, 2013).

61. Isabelle Stengers, *Another Science is Possible: A Manifesto for Slow Science* (London: Polity Press, 2018).

62. *Ibid.*, 151.

63. Grove, *Savage Ecology*, 17.

speculative thinkers, certain aspects of Pragmatism offer a mode of empiricism explicitly committed to taking in ‘everything around us’. Unlike Western Philosophy’s abstraction from everyday life and its reproduction of subject/object hierarchies, thinkers like John Dewey and William James encourage us to reveal the connections between various subjects, objects, bodies, artefacts, scenes, systems and atmospheres across multiple scales.<sup>64</sup> This is a much slower kind of empiricism that carefully draws out heterogeneous entanglements but does not place them on a singular pathway to a solution, hypothesis or formula. Rather, speculative thinking allows us to dwell inside these entanglements as we compose with them and each other, always uncertain of what will emerge.

**Turbulence** is an old term in IR, popularised by James Rosenau’s 1990 account of the momentous structural changes transforming the Westphalian system as Cold War geopolitics came to an end.<sup>65</sup> Indeed, much conventional IR tries to explain turbulence in the global system – usually figured as war and conflict – by discovering what causes it and offering ways to overcome it. IR theory in this conventional mode is underscored by a fantasy that the ‘natural’ state of the international system is equilibrium, and an IR theorist’s job is to put forward the best hypothesis for how to resolve the turbulence that upsets this balance. Thinking through entanglement does more than simply turn that equation on its head by positing turbulence as the norm (indeed, the Realists are quite comfortable with conflict as the normal state of affairs in the international system). The difference is that entanglement thinking does not seek to *resolve* turbulence, but instead reconfigures the international as a scene of emerging intensities that express weird mixtures of *both* turbulence and equilibrium. These intensities are not bound by distinct registers of action: that is, they do not obey the fictitious distinctions between Man, the State and War, domestic/international, or even local/global. Rather, they mobilise and circulate on an open terrain, enrolling heterogeneous bodies, objects and relations across multiple scales. Sometimes these intensities are turbulent and marked by excessive friction, and other times they appear smooth and undramatic. The job of the critical IR theorist is to figure out how these intensities endure over time such that we come to think of them as natural features of a timeless international system. This means engaging in genealogical analysis to demonstrate how durable intensities like ‘the State’ have been actively produced, how that reproduction amplifies existing asymmetries and generates new ones, and how these asymmetries are sustained across multiple scales and over long periods of time. Because this genealogical ethos does not position equilibrium as the ‘natural’ resting state of the international system, durable formations like ‘the State’ – no matter how overwhelming or overdetermined – are always constituted by some form of turbulence, and therefore always open to mutation, fracture and overturning. We cannot know what these mutations will bring forth; we can only know that they are always possible. Attuning to turbulence in this way shows us the openings that we must pursue if we

64. Levi Bryant, Nick Srnicek and Graham Harman, eds. *The Speculative Turn: Continental Materialism and Realism* (Melbourne: Re-Press, 2011). Available at: [https://www.re-press.org/book-files/OA\\_Version\\_Speculative\\_Turn\\_9780980668346.pdf](https://www.re-press.org/book-files/OA_Version_Speculative_Turn_9780980668346.pdf). Last accessed February 21 2021.

65. James Rosenau, *Turbulence in World Politics: A Theory of Change and Continuity* (Princeton: Princeton University Press, 1990).

are going to break down the façade of an international system that is supposedly capable of ‘balancing itself’ to avoid collapse.

**Uselessness** is the ultimate ‘fuck you’ to the gatekeepers of knowledge production trying to discipline which entanglements are legitimate objects of study. They are all for ‘interdisciplinary’ research that reveals new connections, but not the kind that locates the university itself within wider assemblages of power, knowledge, exploitation and violence. Gatekeeping operates through multiple metrics of value, but one of the most pernicious is that which determines what ‘useful’ research is (i.e. research that has a measurable impact on society). Understanding that knowledge is never divorced from power, we must ask over and over again (even as university managers block up their ears): ‘useful for whom?’ These questions of power and knowledge are central to the critical intellectual landscape through which entanglement has emerged as a generative concept. Speculative work cannot predetermine what actors or relations will matter until we follow, carefully and slowly, emergent entanglements in specific scenes. What we discover in that following may very well serve the interests of those in power – especially when those entanglements solidify into stable structures protecting elite interests – but then again, they may not. The open-ended, turbulent and bumpy nature of all entanglements means that they cannot be pre-emptively yoked to *a priori* categories of ‘usefulness’. In this tempestuous intellectual landscape, we will find what we will find, regardless of what the university managers, funders and governments desire. We would do well, then, to develop Erin Manning’s ‘Pragmatics of Uselessness’ which refuses all our usual normative attachments to value precisely because of the way dominant practices of valuing do violence to bodies and lifeworlds that do not conform.<sup>66</sup> Without the overdetermined goals of ‘usefulness’ or ‘value’ driving intellectual curiosity, some wiggle room is created within which it becomes possible to follow the process of entanglement for more than a brief moment. Of course, as Jessica Dempsey and Geraldine Pratt remind us, not all bodies experience the same capacity to wiggle around in speculation, and there are real costs to actively pursuing intellectual uselessness in the face of the ‘patterned arrangements of accumulation’ that dispossess specific bodies, objects, ideas, relations, projects and futures.<sup>67</sup> In this sense, uselessness is both an political strategy of refusal against dominant forms of value, as well as a generative strategy of care in solidarity with non-conforming lifeworlds.

**Vulnerability** is crucial in any entanglement, especially those that penetrate further than an encounter between two separate bodies. A generative reading of vulnerability positions it against conventional ideas of essence and substance that figure bodies, objects, entities and phenomena as hermetically sealed and spatiotemporally contained. Vulnerability connotes porosity rather than smooth edges, openness rather than closure, permeable thresholds rather than hard borders. If we understand vulnerability as constitutive of all entanglements, zero-sum formulations make no analytical sense. The

66. Erin Manning, ‘For a Pragmatics of the Useless, or the Value of the Infrathin’, *Political Theory* 45, no. 1 (2017): 97–115; and Erin Manning, *For a Pragmatics of the Useless* (Durham: Duke University Press, 2020).

67. Jessica Dempsey and Geraldine Pratt, ‘Wiggle Room’ in *Keywords in Radical Geography: Antipode at 50*, eds. The Antipode Editorial Collective (London: Wiley & Sons, 2019).



multiple bodies that make up entanglements enmesh with each other, endure over time and dissipate at different speeds; it is precisely their vulnerabilities that enable them to co-emerge and co-ordinate together. These bodies cannot be understood as discrete, fully autonomous, hermetically sealed units (e.g. billiard balls crashing into each other) because they exhibit different manifestations of vulnerability and porosity. The process of entanglement, then, is characterised by different experiences of friction as bodies feel their way around, in and through each other. Vulnerability's constitutive role in entanglement cannot be separated from its uneven distribution; indeed, vulnerability always emerges in relationship to power, and therefore to risk. Some of the most durable entanglements of late capitalism persist precisely because they privilege certain bodies and lifeworlds by displacing their vulnerability onto 'lesser' bodies. As protected bodies are resourced, protected encouraged to thrive, lesser bodies are excluded, abandoned and left even more exposed. As I have argued elsewhere, these asymmetries endure because those most able to displace their vulnerability onto others craft a powerful narrative about its threat, and direct resources toward its eradication.<sup>68</sup> Here, vulnerability is something that must be overcome through, for example, 'resilience training' or 'emergency preparedness'. The problem, of course, is that these interventions do nothing to address the logics of global asymmetry that have produced vulnerability in the first place. Indeed, reducing vulnerability to a technical problem that can be solved by intervention perpetuates the lie that everyone is capable of getting rid of their vulnerabilities if they simply work hard enough, make good decisions and listen to the experts who are already 'future-proofed'. To refuse that dominant narrative, we need a much more radical formulation of vulnerability that understands it to be constitutive of all relations and entanglements. Here, vulnerability becomes a resource for generating solidarity and practices of care rather than a character flaw to be divested, displaced and eradicated.

**Waywardness** radically reorients our desire to craft a teleology for entanglement – that figures co-emergence as something purposefully aiming for a pre-arranged destination. It punctures the smug stories we tell about ourselves as rational, goal-oriented humans who, through hard-work, ingenuity and instrumental application, move forward in life by ordering and disciplining our bodies, our relations, our desires. Waywardness does not buy into that hubris. Instead, it foregrounds the vibrant entanglements enjoyed by bodies that refuse to be gathered into, and governed by, dominant trajectories of improvement, direction and emancipation. Saidiya Hartman's *Wayward Lives, Beautiful Experiments* exemplifies the political power of waywardness as a disposition of refusal.<sup>69</sup> In re-telling the stories of young black women who were objectified by social reformers in the early 20th century, Hartman re-figures their waywardness as both a powerful evasion of capture and a determined practice of freedom. The everyday intimacies she uncovers remind us that generative, creative and resistive entanglements are not just the purview of those in power – those bodies fully committed to established trajectories of

68. Debbie Lisle, 'Waiting for International Political Sociology: A Field Guide to Living In-Between', *International Political Sociology* 10, no. 4 (2016): 427–29.

69. Saidiya Hartman, *Wayward Lives, Beautiful Experiments* (New York: W.W. Norton & Company, 2019).

70. *Ibid.*, 4.

success – but also persist in spaces of so-called degradation (e.g. ‘The ward, the Bottom, the ghetto’).<sup>70</sup> As Hartman goes on to explain, these spaces constitute ‘an urban commons where the poor assemble, improvise the forms of life, experiment with freedom, and refuse the menial existence scripted for them. . . The terrible beauty is more than one could ever hope to assimilate, order, and explain’.<sup>71</sup>

**Xenogenesis** is the original title of the 3-volume collection by Octavia Butler (now referred to as *Lilith’s Brood*) which explores the entanglement and interbreeding between humans and the alien species of Oankali.<sup>72</sup> Speculative science fiction, especially that which starts with the end of the earth, is one of the most vibrant spaces allowing us to both imagine a world not ordered by the spectacular hubris of human superiority, and consider how we might build relations and communities with radically different bodies such as alien life forms or AI robots. *Xenogenesis* is the story of how humans and aliens eventually learn to co-habit, but it is not a hopeful narrative of smooth attachments, harmonious relations or cathartic reconciliation. Entanglement, for Butler, is always marked by the violence that humans perpetrate against each other, especially on the basis of race, gender and sexuality, and how that violence affects any new relations we might pursue out of necessity (e.g. the end of the world) or choice (e.g. desire). Her work is an unflinching examination of the persistence of violence, even in the utopian futures we like to imagine for ourselves.

**Yearning** is usually understood as a purely human activity – an articulation of longing that exceeds the biological requirements of food, rest, shelter and procreation. To yearn is to desire, and to put desire into action you must have agency – not to mention will, intention, capacity, and hopefully the resources needed to fulfil your desire. Certainly, desire’s entanglement with power has been at the heart of much critique, including Deleuze and Guattari’s reformulation of bodies as ‘desiring-machines’ and Foucault’s acknowledgement that while desire is productive (i.e. it helps us to *do* things), it also calls forth multiple forms of subjectification, discipline and governmentality. All of that is fair enough, but what happens to all of these human-centred yearnings when we figure ourselves on more-than-human terms? How are our desires entangled with the desires of other non-human forces, creatures and constructs? This reconfiguration is central to critiques anthropocentrism because it deconstructs the masterful, fit and fully-conscious human in control of both his mind and body. Our desires and drives are never fully conscious to us, and therefore not always available for rational modes of intervention, management and control. Desire is an unruly beast that circulates through affective and libidinal economies: it exceeds rational logics, disrupts patterns of cognition and escapes routine choreographies. In this sense, yearning is an ungovernable state of becoming that, despite our best conscious efforts, keeps re-attaching us to a multiplicity of both human and non-human entities. And yet, one of the limitations of this rather psychoanalytically inspired deconstruction of desire is that it remains anthropocentric – wedded to

71. *Ibid.*, 4.

72. The three separate stories of Octavia E. Butler’s *Xenogenesis* series, *Dawn* (1987), *Adulthood Rites* (1988), and *Imago* (1989), were originally published in 1989 as a combined edition (New York: GuildAmerica Books, 1989), and republished under the new title of *Lilith’s Brood* in 2000 (New York: Grand Central Publishing, 2000).

human bodies, brains and sensations. As political economists have long explained, unruly human desire is precisely the condition that our late modern capitalist system wants to harness. The whole system is premised on privileging these human desires, and cultivating the promise that such desires can be fulfilled by entanglements to specific objects, services and commodified experiences. In other words, whatever we yearn for is available for purchase, and that purchase will make us whole, happy and content. It is not hard to see how the privileging of human desire has led to a rampant instrumentalisation and commodification of the world such that all of its resources, materialities and capacities are valued only to the extent that they service our wants. Within such conditions, we should not be surprised at the violent entanglements that ensue, for example, the trafficking of human bodies, the selling of human organs, indentured labour, the destruction of ecosystems to fuel human meat consumption, and the mortgaging of the future through disembodied financial techniques. Be careful what you yearn for: the entanglements produced by late capitalism are both hollow and violent.

**Zoe** refers to the facts of biological life, or the biological processes of living, and exists in contrast to *Bios* which refers to the quality of life, or the way life is lived in the public sphere. This distinction, drawn out in Aristotle's work, has shaped many debates about nature/culture, but is central to Giorgio Agamben's argument about bare life in *Homo Sacer*.<sup>73</sup> Bare life is an instructive case of the politics of entanglement: it shows us what happens when trajectories are not held in tension but instead collapse into a radical asymmetry. For Agamben, modern Western life has been consumed by biopolitics because *Bios* has been reduced to *Zoe*: we care less about the quality of life lived (*Bios*) than we do about the administration of populations through the management of biological life and death (*Zoe*). This amplification of *Zoe* at the expense of *Bios* leads to the condition of bare life as embodied in the *homo sacer* – the figure exemplified by the Musselman in the extermination camps of World War II. Bare life – the apotheosis of *Zoe* – is what emerges in the state of exception when the sovereign has suspended the normal rule of law. To be sure, Agamben poses crucial questions about sovereignty, law and biopolitics, but his account of bare life as the triumph of *Zoe* over *Bios* is hugely problematic. By stripping bare life of all agency and reducing it to biological fact, all acts of resistance, expressions of protest and political mobilisations that refuse conditions of abjection are ignored. Indeed, as critical scholars have demonstrated, there is nothing 'bare' about the migrants currently incarcerated in detention centres and refugee camps: they are active in negotiating, resisting and pushing back against the sovereign decisions trying to make them illegal.<sup>74</sup> More to the point, bare life effectively ends the relationality between *Zoe* and *Bios* by having one triumph over the other. In short, there is no lively entanglement between nature and culture anymore – just the static and terminal life of abandonment in the camp. For William Connolly, this inability to understand the 'messy, layered and

73. Giorgio Agamben, *Homo Sacer: Sovereign Power and Bare Life*, trans. Daniel Heller Roazen (Stanford: Stanford University Press, 1998).

74. Patricia Owens, 'Reclaiming "Bare Life"? Against Agamben on Refugees', *International Relations* 23, no. 4 (2010): 567–82; Nyers and Rygiel, *Citizenship, Migrant-Activism and the Politics of Movement*, 2012; and Kim Rygiel, 'Bordering Solidarities: Migrant Activism and the Politics of Movement and Camps at Calais', *Citizenship Studies* 15, no. 1 (2011): 1–19.

complex' intertwining of Zoe and Bios – even in the most brutal conditions – is the biggest flaw in Agamben's argument which 'reflects a classical liberal and Arendtian assumption that there was once a time when politics was restricted to public life and biocultural life was kept in the private realm. What a joke. Every way of life involves the infusion of norms, judgements, and standards into the affective life of participants at both private and public levels. Every way of life is biocultural and biopolitical'.<sup>75</sup>



This is not an ending. When you start in the middle and your entanglements extend in all directions, it is hard to know what an ending would even look like, let alone how you might move towards it. In offering this lexicon as a selection of tiny lifebuoys designed to keep us afloat, I hope they can connect up, somehow, to form a weird kind of adaptive floating structure. That way, we can instigate multiple conversations as we take turns scanning for sharks, maintaining the raft and, very occasionally, resting in the sunshine.

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75. William E. Connolly, 'The Complexity of Sovereignty' in *On Agamben: Sovereignty and Life*, ed. Matthew Calarco and Stephen DeCaroli, (Stanford: Stanford University Press, 2007), 29.