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What's in a Metaphor?

In his bestselling book on narrative conventions, Into the Woods: A Five-Act Journey Into Story, veteran TV writer and producer John Yorke breaks down both the three and five-act narrative structure. explaining in detail why this form has been so effective and enduring. What perhaps distinguishes this book from other fairly standard guides on narrative is the author's fervent belief that this underlying structure does not simply represent an effective model for storytelling but has much further reaching implications. Where Joseph Campbell famously popularised the terms 'hero's journey' or 'monomyth' to outline a common underlying structure that can be derived from the mass of stories told throughout recorded history,¹ Yorke argues that instead, stories are the products rather than authors of narrative structure, and that narrative structure, in fact, reflects forces outside of the cultural framework of storytelling. As filmmakers and writers attuned to the complex ecology of relations through which narrative forms emerge. we were intrigued by this notion and scoured the book eager to find out what these forces might be.

Throughout the book. Yorke never tires from alluding to this point, but always does so in passing, often claiming that narrative structure is a product of physics. Again, this metaphor is potentially compelling as a way to link storytelling, the practice that perhaps most distinquishes humans from other life forms, to a material reality in excess of the boundaries of humanist culture. But as we continued reading, it became clear that Yorke does not base his appeal to science on a grounded inquiry but rather, as is so prevalent in a culture infused with the trappings of scientific determinism, uses 'science' in the broadest sense as an elusive appeal to the unquestioned authority. Moreover, the argument is used to discredit those forms of storytelling that attempt to depart from the three or five-act structure. According to Yorke, the hero's journey isn't simply an undeniably powerful operative tool - it is the only tool. He repeatedly provides examples of filmmakers who depart from this structure but forcefully frames their formal deviations as iconoclastic gestures that do little more than confirm the inescapability of the rule. Finally, in some of the last pages of the book, Yorke reveals to the reader which law of physics informs his claim:

Newton's third law of motion declaims: 'To every action there is always an equal and opposite reaction.' So it is in scene structure, which is why the strength of any antagonist is so important.²

1 2 Joseph Campbell, *The Hero with a Thousand Faces* (Princeton: Princeton University Press, 2004 [1949]). John Yorke, *Into the Woods: A Five-Act Journey Into Story* (New York: The Overlook Press, Peter Mayers Publishers, Inc., 2014), p. 326.

Much like Yorke, neither of us are physicists. However, Yorke's decision to ground his absolutist argument in Newtonian physics aroused our scepticism and opened a series of questions surrounding the perceptual and linguistic frameworks derived from the sciences. It doesn't require particularly extensive research into the history and philosophy of science to know that the models offered by Newtonian physics have long been replaced. Many of the scientific advances of the last century would have been inconceivable had they followed Newton's laws. Why then, in 2014, would Newtonian physics be instrumentalised as evidence for an ontology of narrative structure? Are the ways we tell stories so trivial as to be forced to rest on metaphors for largely inoperative scientific models? Would we try to cure cancer with medical procedures designed in the eighteenth century? Would we try to operate a nuclear power plant or program a self-driving car using 300-year-old science? This suggestion, of course, seems absurd, but perhaps sheds light on the gap between the ways in which our culture values progress in medicine, science, and engineering, while considering narrative and other cultural production frivolous enough to rest on unfounded, if not corrupt, claims. It's just a metaphor, and stories are just stories - this bad metaphor won't kill anyone the same way leeching might kill a cancer patient.

Insofar as narrative is 'the affirmation and reinforcement, even the creation, of the most basic assumptions of a culture about human existence',³ we, as filmmakers and writers, have been grappling with the inability of classic narrative models, pervasive in film and literature, to describe the complexities of our current realities. Not only does the form of the hero's journey fail to grasp contemporary experience but, and perhaps more importantly, it is also unable to write a future other than that of absolute and inescapable annihilation, a story we all already know so well. In our ongoing research and practice, we are committed to alternative models of narrative structure. Our underlying view is that operative narrative models are absolutely essential for life, for it is indeed not 'that the history itself determines [the] narratives, but that the narratives shape the history'.⁴

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A comparison of the ways astronomy and meteorology can make predictions offers a vivid illustration of the problems involved in some of the applications of Newtonian mechanics. While astronomy, the oldest of the sciences, dating as far back as the ancient Babylonians,

³ J. Hillis Miller, 'Narrative', in Frank Lentricchia, Thomas McLaughlin (eds.), Critical Terms for Literary Study (Chicago and London: University of Chicago Press, 1995), p. 71.

⁴ Donna J. Haraway, How Like a Leaf: An interview with Thyrza Nichols Goodeve (New York, London: Routledge, 1998), p. 129.

has been able to predict astronomical phenomena for many millennia, meteorology, one of the youngest sciences, can offer only comparatively crude predictions of the weather. The astronomy of Copernicus, Kepler, Galileo, and Newton, focused in large part on the Solar System, which it viewed as a closed system. As Norbert Wiener discusses in his 1948 book *Cybernetics*, in the Copernican theory of orbits, which was based on the pattern of the revolution of a wheel or a series of wheels, the future was predictable as it was seen essentially to repeat the past. As imagined by the Early Modern astronomers, 'the music of the spheres is a palindrome, and the book of astronomy reads the same backward as forward'.⁵ The formal set of postulates derived from this notion by Newton was a system of closed mechanics: a set of laws, such as the third law of motion that Yorke used as the foundation for his argument, that describe the return to states of equilibrium within closed systems.

Wiener offers a vivid visual illustration of these mechanics using the following example. Record the motion of the planets and speed up the resulting image so that the motion is directly perceptible. Now play this footage in reverse, and the planets seem to retrace their steps with apparent symmetry. But record the motion of clouds, play it in reverse, and any illusion of temporal symmetry dissolves. What Newtonian mechanics ignores is the reality of entropy - a law discovered in the late nineteenth century in thermodynamics - which accounts for the irreversibility of events. Today 'there is not a single science which conforms precisely to the strict Newtonian pattern'.6 Even in astronomy, Newton's mechanics no longer accurately apply since 'gravitational astronomy involves frictional processes that run down',7 and the heat death of the universe reveals its continuous transformation through entropy. Newtonian physics does not describe this forward and irreversible movement of time, relying instead on the theoretical abstraction of symmetry and equilibrium.

The fact that scientific progress has moved on from models of Newtonian physics does not mean that Newtonian physics, or more accurately, other processes grounded upon metaphors derived from Newtonian physics, do not inform our perceptual realities. We live through the perceptual prisms of many, often incommensurate histories, and our perception of the world is as fragmented as the perceptual models we find scattered throughout history. One of the most enduring and powerful uses of Newton's laws as a metaphor is famously found in Adam Smith's *The Wealth of Nations* (1776),⁸ considered to be the first modern work of economics and one of the foundations of capitalist

⁵ Norbert Wiener, *Cybernetics, or Control and Communication in the Animal and the Machine* (Cambridge: M.I.T. Press, 1985 [1948]), p. 31.

⁶ Ibid, p. 36. 7 Ibid.

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Adam Smith, *An Inquiry into the Nature and Causes of the Wealth of Nations* (Oxford: Oxford University Press, 1976 [1776]).

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production and the free market as we know it. Few would argue that it is possible to construct a world view that excludes the vast ramifications of capitalist production today. In fact, as many have rightfully bemoaned at great length, it is scarcely possible to imagine life without it. So here we are, trapped by the product of metaphors for laws that are no longer operative, which nonetheless form not only the foundations but also the limits of our perception. The fact that something might not be true does not exclude it from being real. The prevalence of metaphors adopted from Newtonian mechanics throughout The Wealth of Nations offers one of many ways to critique capitalism: a system based on metaphors adopted from a set of laws of closed mechanics finds itself in a state of constant collapse. The subsumption of all life into this ever-growing, closed system of capitalist production is unable to factor in such issues as waste - perhaps the most poignant testimony to the reality of entropy. And yet the narrative power of capitalist production, one reinforced relentlessly, will sooner welcome the death of the planet than the death of this system based on metaphors from an outdated conception of physics.

Even on the smallest scale of a single exchange of money for goods. capitalist trade follows closed system mechanics, which lock the future into a symmetrical relationship with the past or present. Jean-Francois Lyotard writes, 'exchange requires that what is future be as if it were present':9 the payment acts not as a response to the obtainment of goods, but as its precondition, and vice versa. At the level of high-frequency trading, which today comprises three-guarters of all market transactions, algorithms make decisions on the basis of statistics and precedent, as 'past performance becomes standing-reserve' and the future becomes 'present profits'.¹⁰ The future is already sold to the predictability of the past. Debt, one of the most fundamental instruments of global capitalism, incorporates and subsumes the future even more transparently. As Donna Haraway puts it, 'if you are subjected to a certain kind of debt-repayment schedule with a mortgage, or as a developing nation, the debt-schedule locks you into various kinds of food production systems, tourist industries, military repression, etc.'11 In this sense 'the future is literally locked into the debt repayment obligation',12 as one group's needs and the others' profits foreclose the future.

Futures markets take the capitalist tendency to make the future subservient to the present to its logical apotheosis. As Sean Cubitt writes, futures trading algorithmic transactions are 'the most powerful accounts we have of the immediate future of planetary geology'.¹³ The abstraction of

⁹ Jean-François Lyotard, The Inhuman: Reflections on Time, translated by Geoffrey Bennington and Rachel Bowlby (Stanford: Stanford University Press, 1991), p. 66.

¹⁰ Sean Cubitt, 'Three Geomedia', in *Ctrl-Z*, no. 7 (2017), www.ctrl-z.net.au/journal/?slug=issue-7.

¹¹ Haraway, How Like a Leaf, p. 99.

¹² Ibid.

¹³ Cubitt, 'Three Geomedia'.

today's cash values of the future values of natural resources, from oil to gold, has significant bearing on material realities, both present and future. Futures markets 'impact investment in mining and transport, change the valuations of stockpiled resources and raw minerals, change plans for constructing large communication, logistical and urban projects, and directly influence decisions on building energy infrastructure to power extraction and transport', going so far as to 'change government policy on housing mobile workforces and providing dams, roads and railways'.¹⁴ The decisions of today's futures markets, often made algorithmically, which is to say based on past precedent, shape the future in the past's image.

Yorke's theory of narrative structure then shares much more with the capitalist subsumption of the future than it does with any metaphorical similarity to 'physics'. Rather than uncover the underlying, absolute shape of narrative. Yorke has actually uncovered the single dominating shape of the power of capitalism to deny the possibility of any narrative outside its own closed system. While we doubt Yorke would agree with this interpretation of his intention, some of the claims in his last chapter are telling: 'stories that do last, then, are the ultimate result of the free market. If the content of a story has something to offer, it will endure'.¹⁵ History provides no shortage of examples of stories that last not through what they have to offer narratively but through their efficacy as vessels for power structures, which, in turn, uphold them. Stories and story structures do not exist on their own. Stories are not suspended in some notion of physics placed outside socio-historical processes. Importantly, the many dispersed practices that fall under the name physics also do not present a stable, independent ontology, but rather a system of ever-evolving experiments performed in the pursuit of situated pockets of objectivity. Stories, indeed perhaps like physics, exist through complex networks of relations that come together through systems of power and knowledge, material realities, spiritual belief systems, and technological means. In this context, Yorke's thought that 'a free market keeps both things we know to be true, and things we want to believe, alive' rings truer than his other assertions.¹⁶ It is this belief that shows the profound impact of narrative on the way our perceptual realities take shape in extremely real, material, and entropic forms.

In the 1990s, as neoliberalism was still gaining momentum, big budget, apocalyptic films often presented the threat to life on Earth as

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¹⁴ Ibid.

¹⁵ Yorke, Into the Woods, p. 336.

¹⁶ Ibid, p. 337.

coming from outer space. Unable to face the destructive force within the bounds of the closed system (economic, narrative, perceptual), these narratives relied on the monomyth's well-trodden trope of the unknown other. More recently, as the general awareness of dwindling natural resources grows, an increasing number of mainstream films describe that psychological shift by switching from the singular apocalyptic event to the subject of ecological collapse. Yet the narrative confinement required by the hero's journey cannot resolve that type of story from within, and resolution is frequently offered by means of escape from the planet. When Wiener wrote about the differences between astronomy and meteorology in 1948, climate change as we now know it was probably not on his mind. Nevertheless, the problems he illustrates between these scientific models describe a crucial aspect of our current reality: while we might imagine life on different planets that seem stable when observed across light years, we cannot escape the weather.

There is no shortage of scientific evidence that ecosystem collapse and climate change are incredibly real. As Amitav Ghosh puts it, 'clearly the problem does not arise out of a lack of information'.¹⁷ What we lack are mainstream narrative alternatives that might present us with tools through which to imagine the future, and this is critical for 'we cannot make the future [...] without also thinking it'.¹⁸ As it is, the ubiquity of narrative forms inherited from the hero's journey makes us crave an Anthropocene narrative with a definitive resolution, be it trust in an impending technological fix or even resignation to impending apocalypse. The narratives of, on the one hand, the good Anthropocene of geoengineering and, on the other, of apocalyptic destruction both preclude any attempts to exit the current narrative and political-economic closed-system dead end because they make the future seem predetermined.

In his critique of the inability of the bourgeois novel (a narrative form indebted to the three and five-act structures) to narrate the events of climate change, Ghosh recounts a personal encounter with an unpredictable and unprecedented weather phenomenon. In 1970s Delhi, returning home from the library, young Ghosh spontaneously takes a road he had rarely taken before. At that moment, a tornado hits Delhi – a heretofore-unprecedented event in recorded meteorological history. The tornado rips through the very street that Ghosh happens to be on, killing dozens of people, but Ghosh is miraculously spared as the tornado's eye passes directly over him. It is a *you can't make this sort of thing*

¹⁷ Amitav Ghosh, *The Great Derangement: Climate Change and the Unthinkable* (Chicago and London: University of Chicago Press, 2016), p. 8.

¹⁸ Tim Ingold, *Making: Anthropology, Archaeology, Art and Architecture* (London and New York: Routledge, 2013), p. 6.

up type of extreme coincidence, and by the same token, had it been encountered in a novel, it would seem extremely fanciful – plausibility is the novel's bread and butter. As Ghosh puts it, 'probability and the modern novel are in fact twins, born at about the same time, among the same people, under a shared star that destined them to work as vessels for the containment of the same kind of experience'.¹⁹ The novel was also born alongside industrialisation, as

the grid of literary forms and conventions that came to shape the narrative imagination in precisely that period when the accumulation of carbon in the atmosphere was rewriting the destiny of the earth.²⁰

As climate events of the current century become increasingly (and predictably) unpredictable, existent narrative forms that rely on the predictability of the future, such as the novel, are going to be increasingly ill-equipped to narrate the world in which we act and exist.

Ghosh argues that the ecological crisis is ultimately a crisis of the imagination. In no uncertain terms, he writes that when future generations look back upon the contemporary moment,

they will certainly blame the leaders and politicians of this time for their failure to address the climate crisis. But they may hold artists and writers to be equally culpable – for the imagining of possibilities is not, after all, the job of politicians and bureaucrats.²¹

He argues that these future observers would have to 'conclude that ours was a time when most forms of art and literature were drawn into the modes of concealment that prevented people from recognising the realities of their plight'.²² Today, we are in existential need of narrative structures that can respond to the complexities of material realities, which the sciences have charted for us and do not conform to closed-system dynamics.

The mainstream models we are given are the equivalent to a horse and carriage competing in a Formula One race. And yet these models are sold to us as inevitabilities. Metaphors, such as the metaphor of Newtonian physics as the foundation for capitalist production or narrative structure, determine to a great extent how we understand the horizon of possibility: the insistence on the closed system metaphor says a lot about the current mainstream horizon of possibility. As Yorke would

¹⁹ Ghosh, *The Great Derangement*, p. 16.

²⁰ Ibid, p. 7.

²¹ Ibid, p. 135. 22 Ibid, p. 11.

have it, we should give up all pretence of finding alternatives to the hero's journey because not only is it as old as humanity, but it is, as he never tires from repeating, like basic physics. This statement says that all other forms of narration or experience are impossible, that it is not just easier to imagine – as the old adage goes – but indeed more likely that we will experience the end of the world before we see the end of capitalism.

The search for alternative narrative models is not, however, as far fetched as those invested in preserving current systems might make it seem: these models are around us all the time, and our histories are full of them. The issue is more that they are continuously pushed to the peripheries, co-opted and subsumed into a linear capitalist model. What's important to clarify is that Yorke's model is not some kind of command from above, demanding subservience to the rule and censoring all opposition. It points rather to the reality that alternative models are most often deemed too risky to invest in. There's nothing stopping someone from writing a screenplay that breaks all the rules. but the financial modes by which it would be produced and distributed will casually refuse to support such projects most of the time. Those working in any section of the cultural industry, from academia to app design and everything in-between, will know too well the rejection of ideas that do not conform to pre-existing models on the grounds of marketability and the consensus towards predigested clarity of themes or intentions. For every project that does make it through the criteria of marketability, millions of others are silenced, not through direct opposition, but through fear expressed as lack of support. The persistence of mainstream models has much to do with this silent form of decentralised obstruction.

Any given fold of perceived time is composed of innumerable personal and cultural frameworks made up of interwoven, heterogeneous perceptual realities. Our view is that this infinitely fractured perceptual space in which we dwell, and the many perceptual realities competing for our attention, are as inescapable as the metaphors we use in order to understand the world. It is precisely this fracturing that should be accounted for in our narrative models. Rather than offer a false sense of cohesion, we might attempt to truthfully represent the fact that a given moment is as influenced by cybernetics as by capitalism, by superstition as by science, by Newton as by Bohr, by Aristotle as by Jesus, by Einstein as by Trump. The point is not to locate a single cohesive alternative model to replace the metaphor of the closed system but to allow for a multiplicity of the many different narrative models that inform our perception.

It might also be tempting to propose a solution to the problem of faulty metaphors by attempting to avoid metaphor altogether. However, what becomes abundantly clear in the study of metaphor, not only throughout the history of science dating back to ancient Babylon, but also throughout the entirety of human culture, is that metaphor is so thoroughly embedded in our perception and knowledge of the world that it does not present a problem to which a solution would lend itself. Operational metaphors are the tools available to us. Indeed, 'metaphor is probably the most fertile' of the resources available to us, as 'all other faculties keep us enclosed within the real, within what already is'.²³ Our project is invested in the ambiguity of metaphor; it is situated across thresholds, seeking to plot the many points of intersection where metaphor fertilises material to become narrative. It is through careful study of the use of metaphor throughout the history of science and culture that we attempt to touch the boundaries of our perceptual realities in such a way that we may imagine and narrate stories that simultaneously describe and challenge our perception of the world.

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Jose Ortega y Gasset, 'The Dehumanization of Art' in *The Dehumanization of Art and Other Essays on Art, Culture, and Literature* (Princeton: Princeton University Press, 1968 [1925]), p. 76.