

The Fibreculture Journal

DIGITAL MEDIA + NETWORKS + TRANSDISCIPLINARY CRITIQUE

// issue 17 2011 unnatural ecologies

issn 1443-1449



FCJ-118 Faulty Theory

Matthew Fuller
Goldsmith University

Theory suggests a certain means of cleaving closer to the world by arranging a trick of distance from it, to be able to stand back from the onrush of things by attending to a pattern and thus recognising them more deeply. It offers partaking in a dance of expansion and contraction of thought, one of immanence and transcendence twisting and running through each other in recursive yet unrepeatable movement. This range of dynamics is one that may often be frozen, codified, subject to measurements or called to order in numerous ways and which in turn may offer its own sets of tests and cruelties. Yet it has no inherent speed, or necessary scale of operation, but it is the activation of the movement in which it is found.

An examination of theory's trajectories through media ecologies could take a number of turns. One might: follow through the way in which it is articulated through filiations of ideas and genealogies and their relation to specific media; work through the histories of the book and of texts, in technologies, markets and other modes of circulation; trace how transformations are enacted on and through theory by means of politics, technology or wider cultural shifts; or explore how theory sets itself up as a residue catcher of other domains. One might track theory as a kind of peer-reviewed cultural industrial waste, but it may also suffice to pay attention to this movement of theory, and some of the different kinds of revealing faultiness it makes possible.

This essay suggests how media theory might think alongside what it gets rather wrong, the phenomena which fuel its capacities of misrecognition and with which it overlaps: to think theory as media in the way that it addresses, modulates, transmits, and provides interference. I propose to do this both through engagement with two writers, Charles Fort and Alfred Jarry, who exemplify certain excellences of error and through analysis of an interesting kind of object characteristic of Cybernetics: thought experiments carried out in hardware.

One of the things that the media ecologies approach works with is the perspectivalism of media systems, with their efficiencies, abstractions, reductivism, blockages, abundance and erratic plenitude, the way they couple with, entangle, and provoke the trickiness of the world. These elements provide crucial points of inflection and invention in

the movement of theorisation in relation to other currents of matter. Theory as a kind of media can be partially understood as a range of ways of thinking, writing, speaking, publishing, of using and working with a relatively closed and identifiable kind of thought, responding to it, inhabiting, testing and ignoring what it triggers. As such, theory has its own genres and histories of perspectivalism. The relationship of theory to the disciplines of judgement and assignation and in a certain disfigured but still highly operative way, with what educational jargon figures as 'practice', are all crucial to its status, limitations and capacity for acuity, perversion and delight.

Faulty theory works in relation to this domain of practice, but also inherently with its perspectivalism. Decision-making or thought triggering mechanisms, devices that work on their own sensorial capacity couple with modes of writing and thinking that deliberately work with theory's fault-lines. Such faultiness might include: those moments when a thought, in order to move beyond itself into the ideas of others and thus get reconfigured, turns itself into a printed word, changing its form of liveness and mutability; the way in which epistemological concerns shade into or fecundate hidden ontological masses and abruptions; the way in which a series of logically formulated statements, within a certain scale of logicity are converted, by means of a series of devices, into physical behaviours. Such faultiness arises due to the multiplicity of such movements and the trickiness of the way in which such processes are in turn gamed, misapprehended, and applied.

The assumption of perspectivalism is crucial to Nietzsche's understanding of the relation of thought to life and error or partiality is what can be relied on as a condition: 'In a world of becoming in which everything is conditional, the assumption of the unconditional, of substance, of being, of a thing, etc., can only be error. But how is error possible?' (Nietzsche, 2003: 35 [51]). [1] The question is left in the air, a slowly descending periwinkle amongst many in these notebooks. Later, other errors, the results of evolutionary or intellectual specialisation at the scale of the organism or species, or of the maintenance of a system of struggles that 'wants to preserve itself' (1[24]) at the level of social or ecological systematisation, are figured as those things that 'enable organisms to live' (1[28]). This is contrasted with the inorganic world whose stasis corresponds to a certain kind of perfection and 'no narrowness of perspective' (1[105]). The latter point is one that was challenged by Deleuze, for whom everything, even the inorganic mass of the great pyramids, is evaporating, decaying, undergoing morphosis and evading its precise description or measurement. For Nietzsche, however, error remains a condition of life. Not only this, it can be said that it is something that at other scales can be said to gain its own kind of motility, irritability and capacity of reproduction and variation.

How might one speak or think or love in a way that is beyond requiring an illusory, unconditional truth, since such an ideal is unavailable? How might this be possible while recognising that not all things that constitute the conditions of truth, indeed at times possibly very few of them, are available for recognition by thought, where thought as such is understood as a partial precondition for theory? The expansiveness of theory, its ability to move across scales or moments, is one means of surmounting such a state but also something that ensures its fallibility. Error, Nietzsche suggests, is inevitable, since the ability to fully comprehend a world in its becoming is something that would dissolve a single human sensorium, an entity which is itself constructed as a 'regulative fiction' (35[35]). The sensorium is an error with a certain kind of dependable faultiness, a patterning with a particular set of constancies. This difficulty in itself is a condition which both necessitates the capacity of theory to move ideas from one place or process to another, to recognise aspects of an occurrence which bear traces of another and which in turn renders theory ill-fitting. Error also arises under this condition of inadequacy, not quite able to capture what it once was or might be. The transitions between one kind of error, misrecognition, fault or insight and another, also thus induce error of a different kind and require some means of tricky recognition. The sensoria arising in order to experience, intensify and articulate such conditions are inherently mediatic, an example of which we can attempt to construct here to mark some of the transitions 'in kind' of faulty theory.

Cybernetic Thought Machines

Given the emphasis on the relation of error to life, it is fitting that error, rather than the primacy of its correction, came to be seen as the driving force, specifically one that enables learning, in the speculative pre-history of artificial life and artificial intelligence before these terms were locked down. Within the field of these thought experiments carried out in hardware, possibly the most indicative are Grey Walter's Tortoise, [2] a robot, or 'Machina Specularix' and precursor to biomimetic robotics which, when its batteries were low, 'fed' itself by recognising and going to a recharging point indicated by a light; the various conversational learning devices of Gordon Pask; [3] and the Homeostat, a device for self-perturbation and balancing, staged in electrical currents, designed by W. Ross Ashby. Machines as arguments, exemplars and behavioural experiments that recursively figure the nature of the machinic, couple with the need to produce tangible results that is crucial to engineering but also with a culture of a science parodying itself. An instance of such wry self-recognition, not itself ostensibly concerned with error, is Claude Shannon's 'Ultimate Machine', a number of versions of which were made, consisting of a box containing a motorised arm and some simple controls. When a switch outside the box was pressed, the lid would open and the arm emerged. Its purpose: to flick the switch and de-activate itself. [4]

W. Ross Ashby, a psychiatrist, neurologist and mathematician, was interested, amongst other things, in the brain's possible points of liaison with, not homology to, computers. As such, he was in correspondence with Alan Turing due to his interest in the ACE computer in Manchester (Hodges, 1985: 359-360), active in cybernetics and a member of a related group, the Ratio Club (an informal discussion group on cybernetics, information theory, and related areas meeting between 1949-58), contributing work crucial to the definition of self-organisation (Ashby, 1947: 125-128).

Ashby's was one of a range of machines made as intellectual arguments by people involved in the development of cybernetics and has attracted commentary by Jean-Pierre Dupuy, Katherine Hayles, Andrew Pickering and others for its processual reflexivity and the complexity of its behaviour. [5]What is interesting here is his idea for another machine, a Mechanical Chess Player presented at the ninth Macy Conference in 1952, the same one so energised by the Homeostat (Ashby, 1953: 151-154). This machine was not to be one of those that simply by the exertion of number-crunching brute force 'beat' its opponent, but would rather, by means of a certain style 'outplay' them.

Ashby's Mechanical Chess Player takes the example of a position in chess that is so random looking that it is uninterpretable even to experts and yet contains within it a subtle solution. In such a condition, only two classes of player can find the checkmate, one is that of beginners, due to their erratic decisions and the other is that of those who are utterly random in their selection of moves. This is the first principle of this machine. The second is that it has the power to learn, to go over moves and train itself via the accrual of a weighed memory of past sequences.

This specific machine was not constructed but its style is what I am after here, this ability to go for broke, to spring into something so luminously clanging that a noise producing mechanism, in Ashby's suggestion a geiger counter, might be enough to trip the possibility of unpredictable or turbulent insight into being. [6]In his late, unfinished, and sombrely brilliant work, *Aesthetic Theory*, Adorno introduces the figure of the child who plays the piano, understood as a particular systematisation of sound, convinced that by some form of luck or intuition they might be

able to press a sequence or combination of keys that had been hitherto unheard (Adorno, 2004, 41). [7] He suggests that the hope of realising this combination is equivalent to the search for the new, that is an instance of utopia. Adorno presents this as an endless but forlorn longing. There are too many forces of likelihood intersecting in the mechanism to achieve the unconditional. It is perhaps inevitable that he sets up this melancholy state since the new, in his hands, is an endlessly troubled category, allergic itself to its constitution as such. Perhaps the piano would induce such a noise if it were arrayed with other instruments, or better, if it were slightly broken. That is to say, if it were to find a means of thinking that is not primarily categorical. Indeed, since every machine, every mechanism, is tendentially broken in some way, every piano slightly out of tune, the simple repetition of pre-ordained sounds and structures is perhaps the least we have to worry about. While it would be rather flippant to rely on this for the production of utopia this is nevertheless one way in which error is possible.

Such insight is not solely of analogue circuits or keyboards, hammers and strings, but of words, visions, ideas, that engender realities by figuring them out. Ashby's chess player reveals something because it introduces an understanding of the game of chess that is not limited to its actuation as a domain of simply virtuoso intelligence. It becomes a space of learning, change. I want to look at two theorists who work by possibly related means, theorists who introduce the idea of the fault as an inevitability of the movement of thought. Their work introduces the ability to think with broken figurations of reality, the blunt inevitability of doing so, and sets out to work exactly at the point where insight crosses over into the cack-handedness of ideas. By means of such a relentlessly bent clear-sightedness we might recognise the cretinous allure of faulty theory.

Charles Fort

Charles Fort is a founder of research into anomalous phenomena: rains of frogs falling from clear skies; statues crying blood; aerial migrations of periwinkles; babies that are born reciting the scripture in a language their parents have never heard. What he asks again and again is, not whether these are special cases but why some things are attended to and others left to float free of observation. His is an account of the world that demands the idea of an 'underlying oneness' yet piles mound after mound of fragments in a giant flea-market of wonder and gob-smacked revelation.

Fort's writing is moody, rambling, delightful, in parts utterly disorganised, while at other times meticulous and dry. It is filled with the demented cataloguing of uneventful wonders, misfit cosmologies but also studded with shocks of insight like finding little bubbles of space dust or battery acid in your porridge. His work is not one of explanation but of the vast amassing of questions, compiling note after note on unsystematised strange events, and these are all events, things that occur: whether they are statements, descriptions, explanations, or the anomalies that give rise to them. Importantly, as his is a work that resists the temptation of explanation, he also evades the resort to conspiracy theories. Fort does however give us some figures for a life of thought. In his book *Lo!*, named after the word star-gazers are supposed to utter upon discovering a new planet, he says that 'a theory finds its way through surrounding ignorance - the tendrils of a vine feel their way along a trellis - a wagon train feels its way along a prairie' (Fort, 1941: 7).

He is rather immodest as his theory is both the wagon and the prairie in that he builds the voluminous files of the proofs of the multiplicity of the world and then sets out to travel amongst them. The basic components of the landscape arrive mixed in with what counts as news, learned discourse and other materials found in the New York Public Library or, during a stay away from the stacks of his native city, the British Library: papers, journals, books, articles and other indexing systems. It is an endless trawling for triggers towards the unexplained. It would be interesting to compare the indexing systems of Fort and that of Paul Otlet, the pre-First World War proponent of the first universal information, learning and network system (with institutional branches covering specific media) to be housed in a proposed Brussels-based institution called the Mundaneum (which perhaps lives on in the Universal Decimal Classification system) to see if there was one iota of correspondence between their respective systems in terms of what they studied or considered to be either real or registerable as a component of reality. Both produced massive archival systems, Otlet of everything that fits into the world, and Fort of everything that falls into it.

To have a feel for such monomanias is to have a sense for media. Whether we are attempting to skirt a motion detection sensor, to sniff out a sorting system as it operates on some resource allocation, or to sense the difference between a universalisation or the existence of a parallel universe, their mutual inherence and the affordances of thought and experience they set up remind us of the error of our ways, as Nietzsche notes: 'There is no event in itself. What happens is a group of phenomena selected and synthesized by an interpreting being' (Nietzsche 2003: 1 [115]). Things that happen ripple in and out and interfere with other ripples and scales of coherence and their capacities of sensing and ideation.

Comparing the groping of theory to the way that a vine feels its way along a trellis should not necessarily be understood as a metaphor. A vine moves according to the constraints its construction allows for. It 'selects' without consciousness on the basis of whether it is afforded the chance to put down suckers, gain succour from sunlight or draw support from an underlying strut or branch. This kind of movement, what Samuel Butler calls the 'certain low cunning' of the potato (Butler, 1931: 236), is echoed by Isabelle Stengers when she points to the empirical approach to the unknown in Deleuze and Guattari's articulation of the plane of immanence which calls for a permanent 'groping experimentation' (Stengers, n.d.). For reasons of some internal necessity, Fort later comes round to the proposition that the wagon train is headed westwards because some force or entity has seeded the ground in advance with slugs of gold. Rather than random process there is entelechy (Fort, 1941: 185). Any meditation on faulty theory will reveal the multiplicity of the kinds of fault achievable. Fort relies, for his moments of faulty perception, on the shift in and out of perspectival scales and the moments of fuzziness that lie in between moments of focus, rather than on moments of truth and the process of transport between them.

At the same time, he maintains a criticality towards approaches that attempt to develop aspects of such an experience. Fort (1941: 166) imagines Henri Bergson appearing on the floor of the New York Stock Exchange to preach intuition in October 1929, when Wall Street lost 90% of its capital. In the reverse of the way that much of the cream of academic work while highly trained and learned essentially consists of stating the obvious in grindingly extended detail, faulty theory is in advance of intuition because it allows you to be systematically wrong, to extend and provoke your capacities of perception with feeble or grotesquely overgrown antennae.

Fort's writing is chaotic and full of shocks, both elliptical and direct, working by means of chains of association and implication. Raw rant is butted up against gentle suasion. The giant index of anomalies that he builds up, which itself

ends up lost to a fire, attempts to erode consensus reality by the steady drip-drip of accrued information. We could say that in this respect he was the counter-media for voiceless worms, strange births, wolf-children, lights in the sky and luminous owls. There is in his work a persistence and a tenacious registration of difficulty.

Alongside this mode of erosion, Fort's writing offers something else: the immense accrual of data generates a new form of possibility for relations between things. There is something in this amassing of a dataset that at a certain point induces the generative force of that which it indexes. The anomalous entities gathered in his files of thousands of bits of paper generate, by simple massive accumulation, a gravitational force. Atoms of ideas start to swerve between them, as if the 'clinamentic' fall away from consensus might, after several hundreds of thousands of cases, start to mean that a few of these pieces of data start to cling together. In doing so, perhaps they seed another universe (Fort, 1947: 10).

If Charles Fort decried what he saw as the closed minds of science and modern understanding, whilst working with certain analogues of its methods inducing specimen cases of its faults and producing new kinds of attention to error, another writer, Alfred Jarry, deliberately chose to work the fault-line by means of insubordination (Fuller, 2008). Insubordination is the movement by which things refuse to remain in a stable position, a moment when subordinate or minor knowledges gain the means to 'explain' those above them and the domain of reference of those formally above is unable to register that transition. Insubordination produces, as in the case of Fort, an elaboration of a faulty form of knowing that is explicitly textured by power. Such an explanation is always knowingly ruptured but it is also reflexive, articulating in some way the collapse it is part of: 'Everyone who is attacking something is sailing on a windmill, while denouncing merry-go-rounds'(Fort, 1947: 165).

Alfred Jarry

A pupil of the over-intuitive schoolteacher Henri Bergson, whose work is enjoyed in the text, 'How to make a Time Machine', Alfred Jarry began a copious discharge of writing in his twenties, which took place in the 1890s. All of his texts imply an approach to ideas that is as lively as Fort's, but in a way in which everything is metatextual and parodic. For Jarry, a text is always speaking through other texts. Such infestation is not in the mode of an artful mumbling deferral but through the cretinous nature of half-remembered ideas, over-interpretation, taking things as read or a joyous grasping hold of the trajectory of the governing inanities. The means for ascertaining truth are grasped as a means of derangement, partly through the impossibility of stabilising a statement in a world constituted by becoming. One can only feasibly set sail in a sieve (Jarry, 1996: 15). We may say that we now live in a society in which moronisation is systematically encouraged or enforced, or at least assumed as a fundament but perhaps even stupidity is still under-mobilised as a resource. Jarry trumps such a position by mobilising expressive stupidity in all forms of thought and in their existence as ideolects. The particular kind of faultiness that in his hands yields its under-recognised expressivity most emphatically takes on this form of expressive stupidity.

Jarry incorporates Symbolist modes of writing, folkloric motifs and archaic linguistic forms such as the heroic accounts of great men but what he plunders most is the language of science. This is done at the very moment when it

really begins not only its formalisation but also the way in which it shapes reality by being applied. The Romantics' dolorous and recessive responses to science were incapable of beating it by out-complaint or by tumultuous vision: something more buggy had to be done. His joining of the latest in scientific jargon and ideas with deliberately *recherché* puns, obscure in-jokes, Medieval French familiar from Rabelais, and both the polysemic onslaught of Symbolism and the slew of aesthetic movements attending the change from the Nineteenth to the Twentieth Centuries, produces thrilling divagations from correctness somehow disgorged from within these discourses through a very proper rigour.

Jarry's use of scientific ideolects was not simply that of parody or appropriation. He attempted to write in a way which produced a doubling of science, a way of thinking that would remain scientific but not be restrained simply to positivism or, if it were, one that through the maniacal belief in a positivism taken to its ultimate state would render itself gloriously visionary in the way that a soldier who follows all orders to the absolute letter renders themselves free (Jarry, 2006). Science, as a word, is always capitalised. It becomes a thing. A noun that is not just something that occurs in time but possesses other dimensions and affordances: to crack skulls, to provide scaffolding for tottering towers of filth or usefulness in rinsing out a boat (Jarry, 2001: 43).

But Science is only one form of organised knowledge, and religion is another, and then there is Phynance -- a magical form of matter which can access and re-organise all the others. Science itself becomes neo-scientific, ahead of the ideational game, famously described by Jarry as 'Pataphysics, a form of knowledge which is as much beyond metaphysics and metaphysics is beyond your common or garden physics' (Jarry, 1996, 22-23). In its status as the science of the laws governing the exceptions to scientific laws, 'Pataphysics founds itself upon paradox, moments when the movement of logic coils in on itself, only to spring back open and engulf the world.

Part of what 'Pataphysics does is to take scientific or other ideas and ways of framing and figuring the world to their logical conclusions, in order to amplify their effects. In doing so, it reveals something about what it comes into combination with and the limits and productive powers of the disciplines, theoretical corsets and ideational affordances of science, or indeed of media theory itself. All the world's a diagram, a model that gives ornate handles to itself. Sylvère Lotringer notes how much this process of amplification fed into the work of Jean Baudrillard in his search for means of pushing systems to their limits (Lotringer, 2008: 13). Jarry delights a little more in his own wreckage and has less to mourn. Jarry's 'Pataphysical texts derange the way in which objects, beliefs, codes, norms and our ideas about them, all fit into some nicely ordered lattice. 'Pataphysics recognizes and works with the inter-relations between things and by its recognition re-orders them. This is to say, it recognises, in a diplomatic sense, the existence of the functional belief in things such as causation, deduction, hypotheses, explanation, thought and progress. What it re-orders is the too-ready congruence of the relations between such processes in a lasting grammar of implicate sense. Technologies, instruments, and machines; politics, hierarchies, societies; languages, ideas, titles; laws, manners, ritual; anything that can be ordered triadically, for example, and seem to make sense simply by being so ordered as a series, allow for an admirable efficiency in language and ideas as well as in work and reasoning. Relations can be made between things efficiently and there is a smoothness and consequentality to their observance that allows things to get done. But they are also rather nauseating and appalling in the very stability of their mutual comprehensibility, their respectful minuet of consistency and heterogeneity. There is inevitably a paranoia and over-anticipation at the heart of the dance.

Misrecognition, the way in which a word or a term is misheard, a thing is misused, an organ takes leave of its allot-

ted sensuality, yet can still be acted upon or with, suggests a para-grammar between objects and ideas that might as well exist alongside that which we are placid enough to expect. A metric or device is misapplied but still yields results or the same kind of failure. Like the discovery of the pulsar, which cohered as a super-dense star producing a pattern of releases of electromagnetic energy, previously interpreted by the few interested readers of radio-astronomical instruments as the noise of arc welders, electricity supply lines or other nearby interferences, things which momentarily cohere as having an identity disappear back into the condition of noise (Hewish, Bell et al., 1968: 709-713). The stupendous, mundane and irritating fading and waxing of beliefs and the universes which hold them together is the cosmology within which Jarry writes. A belief, technique or machine that promises us controllable high speed, the future, or endless primal sex, framed by a belief in valves, pistons, calculations, levers, cranks, laws, the joyful stupid readiness of a taboo, themselves provide an instrumentation with which the passage of such forces can be rendered capable of leaving a few lines of ink on the chart.

Cybernetic Doubt

Compared to Ashby's mechanical chess player, which despite the immense variety of possible combinations of moves and positions in a game of chess, is ultimately still, as per Adorno's pianist, playing with a finite set of possible states, an interpretation of the world which also shapes and takes part in the world has more to deal with. And it is here we can see a transition to the concerns of second-order cybernetics in its shift in emphasis from solipsistic feedback loops located in specific devices, to spirals, loops and labyrinths of causality.

This wave of cybernetics feeds the imperative of productive doubt learned from Physics in both its early stages into its other sources of conditioning and inspiration. This can be observed both in the invention of instruments or the difficulty of staging a witness to the manipulation of a singularised variable in the world (Shapin and Shaffer, 1989) and, in the phases immediately preceding the birth of cybernetics, in the reflections on the position of the observer and of uncertainty in the work of Bohr, Heisenberg and others. [8] Behaviourism, logical reduction, appetites for control and an empire-building holism are all mobilised, alongside an equally foundational sense of doubt.

Heinz von Foerster, whose constructivism replaces ontology entirely with epistemology, considers it an ethical imperative to avoid the use of the 'existential operator' in language, to not use statements such as 'it is', 'here is', 'it is like this' (von Foerster and Poerksen, 2002: 27). For von Foerster, whilst these statements might allow some perspectival purchase on aspects of reality, such terms tend towards giving the speaker or listener an illusory position. Such phrases are those of the sovereign making orders but as history progresses they are degraded into the lesser currency of the bourgeois, who senses in science 'the dominance of the cosmos and the universal exaltation of the experience of freedom' (Negri: 2006: 161). In such a cosmology, theory alone is refined and precise; practice, which it nevertheless explains, is messy and confused, full of awkward compromises or reference to too many scales of reality.

One way to make faulty theory is to speak in a language infested with existential operators but to elicit other kinds of existence from them. Such a condition is exemplified in the shuddering science of Dr. Faustroll the 'Pataphysician, or in Jarry's concerned journalism about the public menace of the killer pedestrian (Jarry, 2001: 232-235). Operating by related means is the emphasis on behaviours rather than representations in the machines made as thought experiments. Mathematical theorems work as little machines in text, axiom by axiom establishing their demonstrations. Philosophers trick out their geometry with words, with

what they trigger, grasp, miss and produce. Machines of circuits and dials make their arguments by carrying them out, their perspectival delimitation is palpable and is the condition of their power.

In such a tradition, Gordon Pask once described himself as ‘a philosophical mechanic’ (Bateson, 1972: 307), a role that comes along because he is a ‘bad mathematician’, an interesting echo of the tradition of Natural Philosophy and its later incarnation in the work of inventors such as Michael Faraday who found out about electricity by making gadgets with which to generate and handle it. From the 1950s onwards Pask made machines to find out about how they work and how they learn but layered this with some cunning (Pask, 1971: 76-99). Pask emphasised the design of ‘underspecified’ machines that would gain functions and involvements from use rather than assume them in advance. Walter’s tortoise too worked by means of underspecified and interlocking rule-sets. The tortoise is, the assumption goes, influenced by one key datum – the strength of light to which it is drawn. The navigation of the tortoise, steering between more than one light and processing the instruction to head towards the light in order to recharge its batteries, went through a ‘dazzle’ effect in which complex behaviours of multiple attraction and evaluation can be seen. As Fort says of knowledge, ‘Out of what was a clarification, new complications have arisen, and that again will come [and] flux towards simplification or clarification’ (Fort, 2008, 349).

All of these machines and theories share a common characteristic: like Ashby’s chess playing machine, there is a low level of internal representation. The machine doesn’t have to learn what the pieces are or what they mean but only what might be a good manoeuvre given the circumstances. The thinking here is not theory by hypothesis conditioned by trial and error, giving rise to a theory which is ultimately only ‘significant’ at that scale, but theory as a behaviour.

Such behaviours may indeed manifest themselves at multiple scales, indeed, cannot help but iterate in their dimensions of relationality. What is surprising and intriguing is the existence of entities, organic, instrumental, aesthetic or intellectual, that may seek to trap, trace, describe or imagine and test, to theorise and invent, these events and conditions. [9] At present, some of the most compelling work of this kind is carried out in software art or in music, in which algorithmic argument is made out in wry dysfunction or in sound and dances that jigger and propitiate both normality and devices of general equivalence. But in terms of theory itself, faulty theory suggests a strongly materialist relation to language that sees it not only as a mode of representation but also as something thicker and more powerful and awkward. Working with the behaviour of linguistic, ideational, or medial structures suggests an ethology of the synthetic rather than a necessarily interpretative work. As such, the faulty theory of media ecologies emphasises what can be done with media before the rather more limited question of what they mean. To approach this question of what can be done through theory is inherently faulty, an act of perspectival misrecognition, unless it is theory itself that ceases the illusion of cleansing itself of its bugs and instead offers them its bed.

Bitten by such bugs, theory that is faulty describes and takes part in the world without precluding change. As such, it is not an approach that can be assimilated to any form of relativism but rather, in its inherent difficulty, triggers a reflexive circulation of the transformation of ideas and the ways in which we might make them, hold them, or be used by them and exist through them. Faulty theory in media ecologies moves from working with the capacities and affordances of theory as words with a strong relation to the printed page, that is the work of the text and its imaginary and disjunctive relation to thought, to also entertain and recognise other forms of ideational devices, robots and blags, as well as the ruses of things, rules and jokes.

What is the burden to be shouldered amongst all this movement of inevitable perspectivalisms, this superabundance of mistakes, graspings and imagination, with all its deformations, dazzling and miscomprehension, amongst ever partial capacities to grasp and to invent? Fortunately or unfortunately, it is a propensity to laugh.

Acknowledgements

Thanks to Michael Goddard and Jussi Parikka for organising the Media Ecologies sessions at the MeCCSA conference in Bradford in 2009 and for developing this issue of the Fibreculture Journal. Thanks also to all at the Institute for Cultural Research at Lancaster University who hosted and responded to an early version of this paper, to Andy Goffey whose work on stupidity and the knowledge economy was also presented there, and to Olga Goriunova for much faultless advice. Two anonymous reviewers for Fibreculture gave it the benefit of disarmingly acute thought. Thanks also to Rolf Pixley, to whom this text is dedicated, for the timely copy of Lo! and for many discussions of cybernetics.

Biographical Note

Matthew Fuller's books include *Media Ecologies: Materialist Energies in Art and Technoculture*, *Behind the Blip: Essays on the Culture of Software* and the forthcoming *Elephant & Castle*. With Usman Haque, he is co-author of *Urban Versioning System v1.0* and with Andrew Goffey, of the forthcoming *Evil Media*. Editor of *Software Studies: A Lexicon* and co-editor of the new *Software Studies* series from MIT Press, he works at the Centre for Cultural Studies, Goldsmiths, University of London. <http://www.spc.org/fuller/>

Endnotes

[1] Friedrich Nietzsche, *Writings from the Late Notebooks*. The referencing convention followed here follows that used in the above volume. The notebook number appears first, with the fragment number following in square brackets.

[2] The Grey Walter Online Archive which documents the tortoises can be found at <http://www.ias.uwe.ac.uk/Robots/gwonline/gwonline.html/>, A short nicely contemporary video of Walter's tortoises can be seen at <http://www.youtube.com/watch?v=ILULRImXkKo/>. See also, W. Grey Walter, 'An Imitation of Life', *Scientific American*, 182(5) 150: 42.

[3] See, for an overview of several such devices: Usman Haque, 'The Architectural Relevance of Gordon Pask', in, *4dSocial: Interactive Design Environments*, (London: Architectural Design, 2007).

[4] See, for more on the Ultimate Machine, <http://lightbucket.wordpress.com/2008/02/13/claude-shannon-really-ought-to-be-more-famous/>.

[5] See respectively Jean-Pierre Dupuy, 'Aspects of a Failure', *The Mechanization of the Mind - On the Origins of Cognitive Science*, trans. M. B. DeBevoise (Princeton: Princeton University Press, 2000), N. Hayles, *How We Became Posthuman*, (Chicago: University of Chicago Press, 1999) and Andrew Pickering, 'Cybernetics and the Mangle: Ashby, Beer and Pask', *Social Studies of Science*, Vol. 32, No. 3, 2002: 413-437.

[6] The following session in the conference describes a possible relation between sensory stimulation through habituation to unpredictable water and the growth patterns of the planktonic crustacean, *Daphnia*. Such turbulence is linked back to the randomness at the core of the Mechanical Chess Player.

[7] The boy in the Naked Lunch who can play a flute with his ass and is thus 'really an individual in bed' able to produce 'notes in the unknown, tie-ups of seeming dischords' is perhaps a related idyllic figure. See William S. Burroughs, *The Naked Lunch*, (London: Paladin, 1986), 133.

[8] See Niels Bohr, *Causality and Complementarity: Epistemological Lessons of Studies in Atomic Physics*, (Woodbridge, CT: Ox Bow Press, 1999) and Werner Heisenberg, *Quantum Theory and Measurement*, trans., J. A. Wheeler and H. Zurek, (Princeton: Princeton University Press, 1983).

[9] See Vilém Flusser, 'Shamans and Dancers with Masks', in, *The Shape of Things, a philosophy of design*, trans., Anthony Matthews, (London, Reaktion Books, 1999) 104-107.

References

Adorno, Theodor. *Aesthetic Theory*, eds. Gretel Adorno and Rolf Tiedeman, trans., Robert Hullot-Kentor (London: Continuum, 2004).

Ashby, W. Ross. 'Principles of the Self-Organizing Dynamic System', *Journal of General Psychology*, 1947, Vol.37: 125-128.

Ashby, W. Ross. 'Mechanical Chess Player', in Heinz von Foerster, Margaret Mead, Hans Lukas Teuber, eds., *Cybernetics: Circular Causal and Feedback Mechanisms in Biological and Social Systems*, transactions of the ninth confer-

ence, March 20 and 21, 1952 (New York : Josiah Macey, Jnr. Foundation, 1953), 151-154.

Bateson, Mary Catherine. *Our Own Metaphor: A Personal Account of a Conference on the Effects of Conscious Purpose on Human Adaptation*, (Washington, Smithsonian Institute Press, 1972).

Bohr, Niels. *Causality and Complementarity: Epistemological Lessons of Studies in Atomic Physics*, (Woodbridge, CT: Ox Bow Press, 1999).

Burroughs, William S. *The Naked Lunch* (London: Paladin, 1986).

Butler, Samuel. *Erewhon or, Over the Range* (London: Jonathan Cape Traveller's Library, 1931).

Dupuy, Jean-Pierre. *The Mechanization of the Mind - On the Origins of Cognitive Science*, trans. M. B. De Bevoise (Princeton: Princeton University Press, 2000).

Vilém Flusser. *The Shape of Things: A Philosophy of Design*, trans. Anthony Matthews (London, Reaktion Books, 1999).

Fort, Charles. *Lo!* (New York, Ace Books, 1941).

Fort, Charles. *The Book of the Damned: The Collected Works of Charles Fort* (New York: Jeremy P. Tarcher, Penguin 2008.)

Fuller, Matthew. 'Aesthetics of Insubordination', in: Inke Arns, *Hardware Guide to Irrational.org* (Dortmund: Hardware Medienkunstverein, 2008).

Haque, Usman. 'The Architectural Relevance of Gordon Pask', in *4dSocial: Interactive Design Environments* (London: Architectural Design, 2007).

Hayles, N. Katherine. *How We Became Posthuman* (Chicago: University of Chicago Press, 1999).

Heisenberg, Werner. *Quantum Theory and Measurement*, trans. J. A. Wheeler and H. Zurek (Princeton: Princeton University Press, 1983).

Hewish, A., S. J. Bell, J. D. H. Pilkington, P. F. Scott and R. A. Collins, 'Observation of a Rapidly Pulsating Radio Source', *Nature*, No. 217, February 1968: 709-713.

Hodges, Andrew. *The Enigma of Intelligence* (London: Harper Collins, 1985).

Jarry, Alfred. 'Black Minutes of Memorial Sand', trans. Paul Edwards and Anthony Melville, in: *Adventures in 'Pataphysics, Collected Works of Alfred Jarry, Vol. 1*, Alastair Brotchie and Paul Edwards, eds., (London: Atlas Press, 2001), 43.

Jarry, Alfred. 'Days and Nights: Memoirs of a Deserter', in: *Three Early Novels, Collected Works, Vol. 2*, (London: Atlas Press, 2006).

Jarry, Alfred. *Exploits and Opinions of Dr. Faustroll, Pataphysician*, trans. Simon Watson Taylor (Boston: Exact Change, 1996).

Lotringer, Sylvère. 'Remember Foucault', *October* 126, Fall 2008: 3-22.

Negri, Antonio. *Political Descartes: Reason, Ideology and the Bourgeois Project*, trans. Matteo Mandarini and Alberto Toscano, (London: Verso, 2006).

Nietzsche, Friedrich. *Writings from the Late Notebooks*, Rüdiger Bittner, (ed.) (Cambridge: Cambridge University Press 2003).

Pask, Gordon. 'A Comment, a Case History and a Plan', in: Jasia Reichardt ed., *Cybernetics, Art and Ideas*, (London: Studio Vista, 1971), 76-99.

Pickering, Andrew. 'Cybernetics and the Mangle: Ashby, Beer and Pask', *Social Studies of Science*, Vol. 32, No. 3, 2002: 413-437.

Shapin, Steven and Simon Schaffer. *Leviathan and the Air-Pump: Hobbes, Boyle, and the Experimental Life* (Princeton: Princeton University Press, 1989).

Stengers, Isabelle. Gilles Deleuze's Last Message, Online at Recalcitrance: <http://www.recalcitrance.com/> (n.d.).

von Foerster, Heinz and Bernhard Poerksen. *Understanding Systems: Conversations on Epistemology and Ethics*, (Heidelberg: Carl Auer Systeme Verlag, 2002).

Walter, W. Grey. 'An Imitation of Life', *Scientific American*, 182(5) 150: 42.



The LOCKSS System has the permission to collect, preserve and serve this open access Archival Unit



The Fibreculture Journal is published under a Creative Commons, By Attribution-Non Commercial-No Derivative licence.



OPEN HUMANITIES PRESS

The Fibreculture Journal is an Open Humanities Press Journal.