

Social Metaphors and Meaning in Fourth Order Simulacra

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Introduction

The collection of essays *The Transparency of Evil* (1990) represents Baudrillard's first concerted attempt at introducing the fourth order simulacra of fractals into his body of work. The geo-political world at this point was at a singularity: the collapse of the dialecticism of the Warsaw Pact, the implosion of the binary balance of two hegemonic powers who existed in the ultimate contradiction: Mutually Assured Destruction. It had served the world well for the duration of the long war[1] and had overseen the development of a globe struggling with the impact of industrial revolution, to one on the cusp of the information revolution. Baudrillard had charted all of this and suggested that the 1990s were of little more than a postscript to the 20th century[2]. This is patently not the case, as nature detests vacuity, so broken theory attempts realignment. State propagated orthodox Marxism was for the far east, not Eurasia and the language of *The Transparency of Evil* metaphorically reflects the actors of the age and the theatres they played in: George Bush the victor, Margaret Thatcher the interlocutor, Mikhail Gorbachev the loser, Saddam Hussein the turncoat. All of these players in their own spheres are signs of strange attractors, metastasis, fractals, virulence. Seen in the immediacy of this change, the new world order was stable without the red spectre of socialism, however, viewed from the work of Baudrillard, there was only the paradox of victory: insecurity, flux and volatility. Chaos.

This paper looks at the implications that chaos has on our social environment and how the graphical productions of fractals can be metaphorically read in order to demonstrate the becoming of these events. In the era leading up to the 1990s the world waited for an occurrence with precedent which never

happened: the nuclear holocaust. The 1990s was a hangover from this extinction level event, 'we ought to dispense with our present *fin de siecle?* I would suggest that the 1990s be abolished in advance and that we go directly from 1990 to 2000'[3], whilst everyone waited for the meltdown of the microprocessors hastily prepared to galvanise information in the midst of the cold war. The 'Y2K' prophecy was millenarian wishful thinking, a potentially real event in the hell of the same. But, as this paper will show with reference to Frank Tipler's work on Omega Point Theory, these potentialities and their eventual manifestation as singularities, mean that they are an innate product of the system in which we dwell. These are not always global in scale - although in remittance to the butterfly effect they can be seen as so - and there are a variety of outcomes to a trigger event. The cold war may have ended up in the singularity of a nuclear winter, but it ended peacefully in November 1989. Therefore as I will demonstrate the image of the viral fractal can be used metaphorically to show breakdown or collapse in society and social order on a local as well as international level, bearing in mind that singularities do not always have to signify discord or destruction.

Fractals and Viruses

Upon first examination there appears to be a dichotomy between the biological, infectious virus and the geometric, rational sets of fractals. A virus is defined by the Oxford English Dictionary as

An infectious, often pathogenic agent or biological entity which is typically smaller than a bacterium, which is able to function only within the living cells of a host animal, plant, or microorganism, and which consists of a nucleic acid molecule (either DNA or RNA) surrounded by a protein coat, often with an outer lipid membrane[4].

One of the key elements of a virus is that it is not classified as a living thing and exists in a suspension between the two worlds of the living and the dead. In the same way that the fractal relies on a mathematical code for its production and a display unit for its representation, so a virus is not only coded in itself, but additionally requires a coded host cell for its continued existence. Without these pre-requisites the virus ceases to exist outside of an accommodating environ. Studies in social Darwinism and socio-biology show how animal relationships are reciprocal in nature, earlier still Roger Callios shows how animals can represent being reciprocal in nature, but in fact are performing an elaborate trick[5]. The notion of bootstrapping is not new to nature, but the nature of the virus means that it can remain covert, intangible, until its surroundings are conducive to its proliferation, Baudrillard shows how AIDS makes the connection between virulence and latency, living and non-living 'It is this diffraction of the sexual reality principle, at the fractal, micrological and non-human level, that the essential confusion of the epidemic takes hold.'[6] Drinking too much causes a hangover and driving too fast carries innate peril and yet sex should not be inherently dangerous as it is a fundamental human instinct. In the west, prophylactics were the prophylaxis against this benign virulence, where it has resulted in a negative

birth rate. In Africa, the continent of the greatest proliferation of human life there is also the proliferation of the greatest death: AIDS.

In this analysis there are elements of the chaotic, the spread of Christianity in Africa prohibits the use of contraception in many countries, the explosion of sophisticated broadcasting and informational delivery techniques results in the continent being prised open in a bifurcation; more aid from the west goes in and more oil and skilled personnel leave. As chaos theory attests, these are not absolutes, but possibilities of the system that they are intrinsically a part of[7]. Although these inputs and outputs could be seen as the decline of the symbolic order in many of the primitive cultures on the continent, the virus can be viewed as the definitive symbol, existing beyond the realms of the ultimate signs and signifiers of life and death

Further, instead of a break, a social relation between the partners is established, a circulation of gifts as intense as the circulation of precious goods and women: an incessant play of responses where death can no longer establish itself as end or agency[8].

Here Baudrillard is reading symbolic exchange in a savage tribe and yet this could just as well describe the action of a virus as it establishes a relationship with its host and trades cells *ad infinitum* until the virus attains metastasis resulting in the host being nothing more than an extension or prosthesis of the virus. In essence it is a biological life support machine for a mutated form, a hollowed shell sustained by its own mechanical life support machine where nature, machine and humanity rely on each other for their co-currency.

Nature relies on its human host in order for science to learn about viral reactions to different vaccines and antidotes. Humans are a closed circuit for experimentation, we are all Boys in the Bubble, 'it is man . . . his own technologies, who is in a position of ex-orbitation'[9] which results in us being back to the circularity of life in *Symbolic Exchange and Death*, although in the fourth order, there is fusion and fission in the system, a short circuit where 'infection is no longer confined within a given system but can leap from one system to another'[10].

If viruses are the natural manifestation of a code that self-replicates, then fractals are their scientific equivalent. Consisting of mathematical code and only reaching true representation through the medium of electrified silicon, they are the instinctive choice for a philosopher of pataphysics, the infinite, yet definitive image. Fractals are 'A mathematically conceived curve such that any small part of it, enlarged, has the same statistical character as the original'[11]. In the same way that all of nature carries a code in order to replicate itself (DNA and RNA) fractals can produce boundless images. As mathematical equations they are in orbit, constantly circulating and replicating. When they are provided with an escape route through a computer they produce a kaleidoscopic image that mirrors nature and therefore fuses the fractal and viral: the twig of the tree has the same representation as its branch and the tree itself; one part of the cloud possesses the same attributes as any other part, and, for all of their singularity, snowflakes are the peerless fractal process, each part mimicking itself the closer we are to it. However,

when the fractal cannot leave its Moebius strip there is no representation and no colours, clouds or snowflakes, only black. As Baudrillard observes in 1976

Everything that filters into the non-finality of space-time of the code, or that attempts to intervene in it is disintegrated and ignored . . . Perhaps simulacra of a higher logical (or illogical) order could be invented: beyond determinacy and indeterminacy[12].

In retrospect there is no need for an invention, for the fourth level came from within the hyperreal itself, from the drive towards rationality and the study of the mechanisms present in nature: everything has code, we just have to look hard enough. Therefore, it is reasonable to explain this fractal order as an extension of the simulation of the third order, merely a bootstrap or prosthetic device. But this would be to undervalue the importance of a system which is orbiting in its own stratosphere and has both the ability and inclination to reproduce itself *and* to contain copies of itself so it can continue its mission. Whilst the metastasis of cancer is a useful metaphor for fractal simulacra, with its capacity for transmutation, zooming in every direction like a television broadcast, yet still holding its host in thrall between the not living and not dead, (this is augmented by recent research which indicates that cancer itself is caused by viral methods[13]) suggesting that the common notion of cancer being a 20th century disease is not far off the mark. Viruses, as with fractals are never defeated or removed, instead they turn black, kept in cold storage by science as a contingency against biological attack from a singularity.

Omega Point

In graphical representations, it is possible to see how these singularities take place, even though it may not be feasible to predict the exact time and place of the event. The Omega Point Theory has its own strange fusion in its inception. It was originally coined by Pierre Teilhard, a Jesuit priest and palaeontologist who posited that the Earth was to awake and create a sentient being (Gaia) on a global scale akin to that of the development of the cerebral cortex on humans. In spite of erudite arguments in support of this theory by James Lovelock amongst others, this has yet to occur. Rather, Frank Tipler, a quantum physicist, contended that this would occur through the development of technology, that a group consciousness would form through the development of shared media or a point where technology extends beyond the human[14]. For Tipler this is becoming a reality, with what the mathematician and futurologist Vernor Vinge states is an occurrence which is comparable to the rise of human life - the creation of ultra-intelligent artificial life forms. He cites this event occurring before 2030 and can occur via three possibilities: a sapient awakening of computerised networks; the technological augmentation of humanity; and human/computer interfaces which are so closely allied they can be seen as ultra-intelligent. In the documentary *Game Over*, Garry Kasparov, the world champion chess player alleges that he was beaten by such an intelligence, although officially IBM claim that it was solely the chess computer *Deeper Blue* which defeated him. Vinge posits that this phenomenon is a singularity in its purest form, 'from the human point of view this will be the throwing away of all the previous rules, perhaps in the blink of

an eye, an exponential runaway beyond any hope of control'[15]. This is clearly at odds with both Baudrillard's definition of both the means

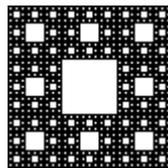
[M]an can always be more than he is, whereas machines can never be more than they are. Even the most intelligent among machines are just what they are . . . All machines are celibate[16]

and the ends 'quite literally, the state of things is definite - neither finite, nor infinite but de-finite, that is to say, deprived of an ending'[17].

Both writers are in disagreement on the decisive outcome of social systems. Where Tipler sees a conclusion to humanity at the Omega point and a subsequent transcendence beyond our current level of understanding to the constant progression through the curve of the c-point, where life and time are constantly pushing forward towards infinity[18], Baudrillard opts for the notion that humanity has already reached its termination and is a closed circuit of reproduction and consumption. Although both are united over the fractal disposition of modern technological society, as I will show there is divergence between how singularities arise. These can be viewed as the ultimate Omega Point, such as an awakening of computerised networks, a terrorist attack such as the autumn assault on America twelve years ago, or something more banal, but equally as consequential, such as a race riot, street protest or pub brawl.

Serpinsky and Fractal Metaphors

Society in a period of extended harmony can still be fractal. In the geopolitical world of the mid-1990s for example, or in a neighbourhood which experiences nothing more than the intertwined moments of everyday mediations, or the life of a sportsperson training seven days a week for a planned contest in the future, then Serpinsky's carpet will suffice:

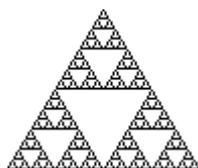


This is one of the most basic of fractal images, and it is immediately evocative of stable relationships. Imagine that the outer square is world society in its entirety. In the middle there is a large square and around it lie nine smaller squares, and nine smaller squares following that and so on. This can be read in any number of ways, the large square can be the global economy, with the most wealthy nations surrounding it and the multitude of smaller squares the economies which are dependent on them. On a more reductive level, Serpinsky's carpet shows a house which lies in a street of eight other houses and then other streets, neighbourhoods and developments surrounding it. For the boxer training for a world championship fight, the fighter is solipsistically surrounded by his trainer, family and friends, with all there to serve the pugilist

to their ultimate end. This fight is not a singularity within itself as the event is pre-planned and pre-meditated, however as sport itself regularly demonstrates there can be singularities involved in the playing out of the event. The stability is evidently both fractal and viral. Each square is not only an exact copy but carries an exact copy of itself and can be exchanged at any given point for any of the other squares. The sizes differ and therefore they may be seen to be a representation of themselves, and yet they represent each other perfectly, so that they can reproduce in any accommodating fractal environment. This type of approach is used to great effect by fast food franchises which offer the same experience in any restaurant. Climate control, Formica and a uniform taste mean that the ambience is both fractal and welcoming at the same time. For Baudrillard, this fractal is also evidence of the realisation of exchange for its own sake, speaking of money and in deference to McLuhan, says 'it becomes an autonomous simulacrum, relieved of every message . . . becoming a message itself and exchanging amongst itself'[19]. When he reflected on fractal equations, Mandelbrot wanted to understand what would happen when the fractal was charted thorough the hyperreality of the computer[20]. Therefore, in the fourth order the entire system becomes hyperreal, only able to be viewed via the mediation of technology and its visual representation diagrammatically, on screen or through a microscope. Similarly, it remains viral, able to permeate any space, even those which appear not to be conducive or accommodating to it such as the binary opposition of capitalism and consumption in Red China, bacteria in hospitals, and Islam in the west.

At this viral/fractal point, the content is no longer important, it is the medium which is the message.

Whilst Serpinsky's carpet incorporates the systemic, orbital fractals of Baudrillard, it doesn't legislate for Tipler and the movement towards an Omega point. This progression is similarly fractal in character. It relies on a fusion between technology and humanity and a subsequent exchange between these components. In addition, there is the concept of a chaotic element which is present in all fractals: in mathematics this is an imaginary number (square root of a negative number); in chaos theory this is termed the butterfly effect. The results of these are seen in Serpinsky's triangle where there is a coming together at a point in the future. This can be termed a singularity or specifically in Tipler's lexicon, an Omega point. But it need not be used for such an extraordinary event, it can also be used to demonstrate the machinations of stock markets, a street fight, or a terrorist attack without precedent such as 9/11. What is important to remember, is that whilst the singularity is inevitable, in the fractal environment there are different singularities which can be arrived at and it is only retrospectively that it can be determined which one occurred.



Once again imagine that the outer triangle is society *in toto*. At the broadest point of the triangle, there exists, as in Serpinsky's carpet, stability. Consider the Financial Times Stock Exchange (FTSE) to be the largest triangle in the centre and there is a broad consensus amongst the other, smaller stock markets (Dow Jones, Nikkei, Frankfurt etc) that whilst change exists it is fairly predictable from day to day, and therefore there are no exaggerated spikes or dips over an extended period of time. Other stock exchanges follow the lead of the FTSE and generally mirror them. Then, at a point in the triangle there occurs an event which has a domino effect, such as a change in government policy, the collapse of a blue-chip company, or even just a feeling that the market is turning amongst traders. This gradually leads to the singularity of a stock market crash at the point of the triangle, spectacularly demonstrated by 'Black Wednesday' of September 1992 when the pound was savaged by currency speculation. This led to the cessation of the boom period of the late 1980s and a revaluation of sterling, a singularity that was itself unthinkable with Margaret Thatcher's deregulation policies, and although the UK economy was the worst hit, the whole of the Exchange Rate Mechanism required re-evaluating subsequently to this. For one individual involved in the speculation, George Soros, the singularity did not have such a negative effect, he is alleged to have profited from the event by a staggering \$1bn.

In a variation on events at the agency/interaction level, such as a street brawl, the concept remains the same, albeit more compressed chronologically. The broad base of the largest triangle represents the beginning of the night out for one person, the other triangles represent other people in the same environ

and with similar means and ends - therefore fractal. As the night progresses there are various agitating factors introduced, alcohol, other people in the same state of inebriation. Then, an errant glance or misguided comment leads to the singularity of a street brawl. Others are involved in this and concurrently hurtle towards this point, partners, friends, even family can be involved in this event which is not pre-meditated, but a product of the fractal system nonetheless.

When we arrive at a global event such as 9/11, the notion of stability is evident once again with the outer triangle the global and the large triangle of America demonstrating growth and constancy over a decade. This is mirrored by the smaller triangles of the EU, the tiger economies of Asia and even the embryonic, energy-fuelled capitalism of Russia. Once again, however, there is a butterfly in the ointment which alters all ensuing events, a change in western-lead political support for a puppet government, which by rote topples and is replaced by a less politically and financially secure incumbent, providing a warm, humid environment for the breeding of viral terrorism. This takes time to realise itself, due to growth and multiplication, but when the point arrives, i.e. 9/11, it has a contemporaneous effect on all societies, not only those sharing the same value structure, but those who are dependent on the – economic – value which the rich nations create for the world. A downturn in air traffic, imports and most importantly for the global, a reeling in of the liberalism that is the cultural touchstone of capitalist democracies. This, as with all of the above examples show how the impact on

one aspect of the fractal is echoed by all others, caused by a minute change at an indeterminate point in time.

Virulent Fractals

The fractal is viral because it grows, not exponentially, but carefully, saturating all spaces, until there reaches a point of no return. Indeed, if Serpinsky's triangle is metaphorical of society, then it can also be seen that there is no way that the singularity can be avoided, that the viral fractal leads to the same point irrespective of antibodies or vaccines, science or sociology. This replicates the Omega point of Tipler's reckoning, which we are determined to reach via technology and natural law. We become posthuman and are resurrected from electronically coded storage in another part of the universe via intelligent von Neumann probes which can make perfect copies of themselves from themselves. Even at the Omega point the fractal is also viral[21]. The problem inherent in all fractal systems is that we only have a best guess of the formulation of the future. It is only in retrospect that the event can be viewed with clarity, which is why Baudrillard's uncharacteristically humanistic questioning of the uses of drugs, AIDS and cancer as a prophylaxis against another, greater threat[22] is so appealing to the reader in the 1990s. Yet viewed from the 21st century it can be seen that it is the paradox of permissiveness and control which infuses western societies and *creates* a catalyst for these singularities: A greater number of immigrants needed for essential services, but a political propensity to restrict

labour movement; an increase of fines for dropping litter, although litter bins are removed due to the bomb threat; even smoking is fractured from places that may cause a virus, yet the mortality rate from lung cancer has not markedly improved for decades[23]. These are paradoxes which are akin to the butterfly, unchecked comment, or policy change, they have the potentiality, along with innumerable other factors to send us into an irreversible tailspin towards the singularity.

In *The Spirit of Terrorism*, Baudrillard argues that singularities are outside of the system 'What can thwart the system is not positive alternatives, but singularities . . . they are not positive or negative, but of another order'[24]. This is the perfect fractal for Baudrillard, neatly congruent with his theory of symbolic exchange, where, in the symbolic order, gifts can be readily reciprocated. However, in the west gifts cannot be given back, there exists an arrangement of impossible exchange which he famously highlights in the giving of life on the road network in a futile attempt by the individual to the pay back the debt to the state[25]. After the terrorist attacks of 2001, Baudrillard sees the apotheosis of this in the way in which the west can only destroy its symbolic nemesis but not humiliate it, and, at the same time is unable to pay back the instant gratification it worships in the technological *chronos* 'today we no longer have anyone to whom we may give back, to whom we may repay the symbolic debt – and that is the curse of our culture'[26]. The enabling device for this lies with Enlightenment lucidity, that technology and rational thought 'corresponds to a defeat of Evil'[27]. It would appear that this is not the case and that both good and evil develop at the same rate[28]. As has

been demonstrated above, silicon technology is the only medium which allows us to view the viral fractal system with any clarity or coherence and if, as Baudrillard asserts that the single world order has almost been attained, then singularities must be a product of this system because it is insidiously virulent in its fractal code. As with the von Neumann probe, everything carries a copy of itself and can now reproduce not only in accommodating spaces, but in *any* space: Islamic fundamentalism, a copy of the Christian crusades, the philanthropic state which fills the role of the church, March 11 2004 in Madrid, a bootstrap of the September 11 attacks. The system reproduces the environment for chaotic potentialities and singularities, the only variation is that as the speed of information sharing increases so the distance between the copies decreases exponentially, Baudrillard's favoured trope of fractal viral *blitzkrieg* is fashion 'a crazy, viral mediationless form of communication'[29] but now it is the viral fractal itself, a *supergau* instantaneously procreating as quickly as it leeches the energy from the part organic, part natural, part human synergy.

Conclusion

It is for this reason that the determinacy of Tipler's theory has its own distinctive appeal. The theoretical underpinning is different from Baudrillard; we are inexorably moving towards a point where there is a becoming of ultra-intelligence. However, if the methodology is applied to the viral fractal world it does not deny the system an integral role in the means and the movement

towards the Omega point/singularity, in fact it is its very reason for being. From this perspective it offers little variation on the role of fate in the realms of the ancients, but as this paper has demonstrated in chaotic viral fractal systems, there is no alternative to the singularity: there is a trigger point which shapes all subsequent actions and in certain circumstances, such as the examples outlined as regards to Serpinsky's triangle, result in the occurrence of a singularity, although the form the singularity takes has different permutations, depending on the trigger. In spite of this quasi-determinacy, what really stands out is the gift exchange between humanity and technology and the methods by which they nurture each other to produce transcendence, Humanity emboldens technology with the ability to produce an ultra-intelligent machine and, as Vinge qualifies, 'the first ultra-intelligent machine is the last invention man need ever make'[30]. This is not a dystopia, but the realisation that ultra-intelligence can create yet more intelligent beings. Machines already protect ourselves from ourselves, airbags, crumple zones, vaccines, diffuse the shock of the real. Science fiction from Asimov to Banks shows how machines are inextricably geared towards aiding human ends. This is a waking nightmare for Baudrillard 'the vacuum sealed existence hitherto reserved for bacteria and particles in laboratories'[31]. who has always prefigured technology to be the devil's alternative to the natural existence of the symbolic order.

Yet Baudrillard does not deny that the viral fractal system is the simulacra we exist in and both its natural and mathematical manifestation means that it saturates the entire globe leaving nothing unaffected. The viral fractal is the

only means by which we can fully understand the interaction of a society that is moving towards light speed in its circularity of reproduction, or, diametrically, its Omega point. Viral fractal systems can only be understood from within and therefore searching for the 'other' symbolic order when the system itself is so virulent and pervasive is like looking for the end of a fractal, an enchanting, if ultimately phantasmagorical search for the identical snowflake.

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